The Metropolitan Water District of Southern California

Climate Action Plan and Program Environmental Impact Report

Discussion with Environmental Leaders/ December 17, 2021

Housekeeping Items

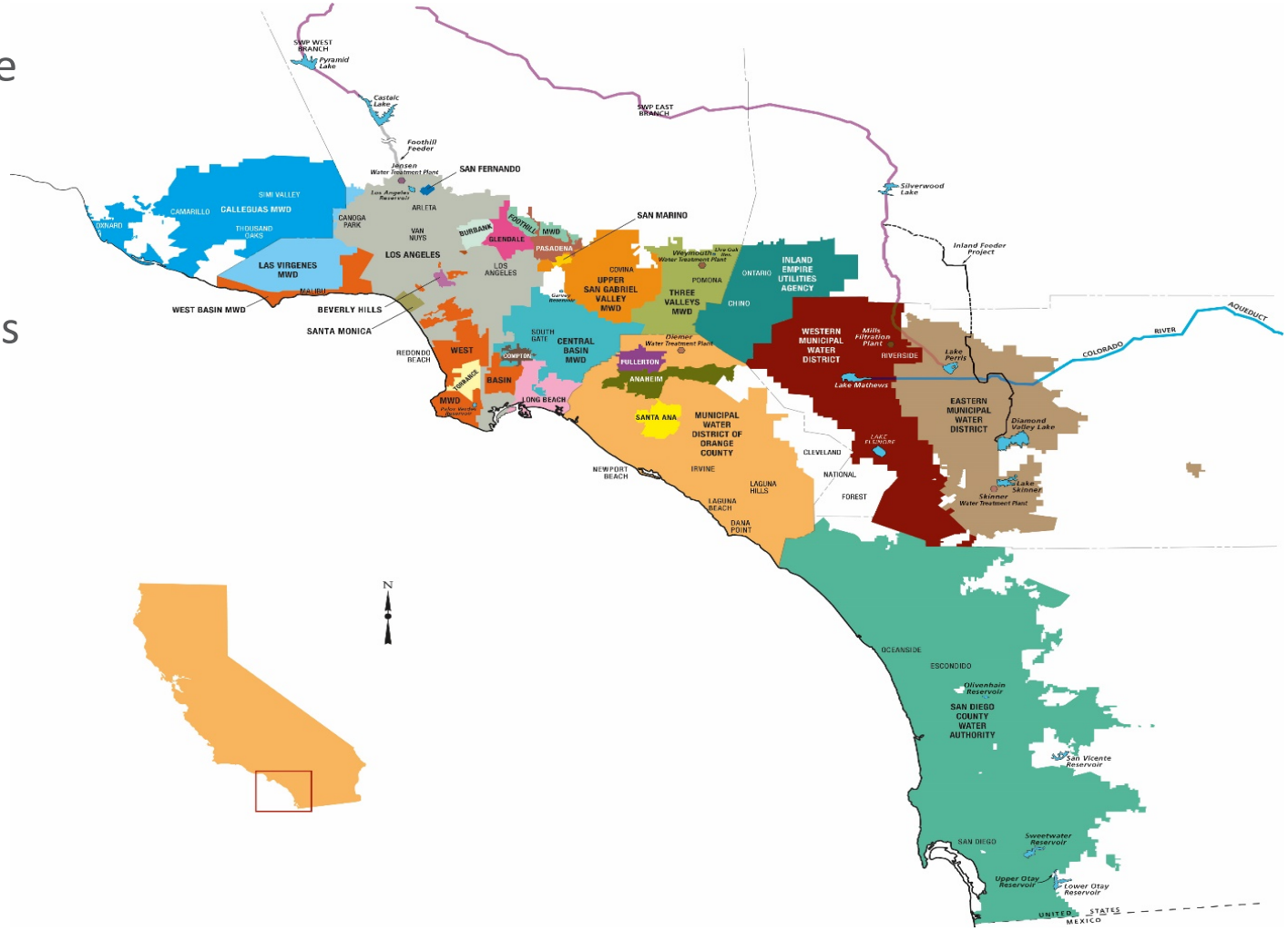
- This presentation is being recorded.
- To ask questions, please raise your hand or type your question in the Chat.
- The presentation materials will be posted on our website after the event.
- Please submit comments via the email or postal address provided at the end of the presentation.
- Technical issues? Use the Chat feature to communicate with us.

Presentation Overview

- **CAP Program Overview**
  - What is a Climate Action Plan (CAP)?
  - Purpose and content of the CAP
  - CAP Implementation
- **Program Environmental Impact Report (EIR) Scope and Schedule**
- **Schedule**
- **Questions**

Metropolitan Water District of Southern California

- Nation's largest wholesale water provider
- Service area: 19 million people/5,200 square miles/parts of six counties
- 26 member agencies
- Supports $1 trillion regional economy
- Imports water from Northern Sierra and the Colorado River, invests in local projects



CAP Overview

What is a Climate Action Plan

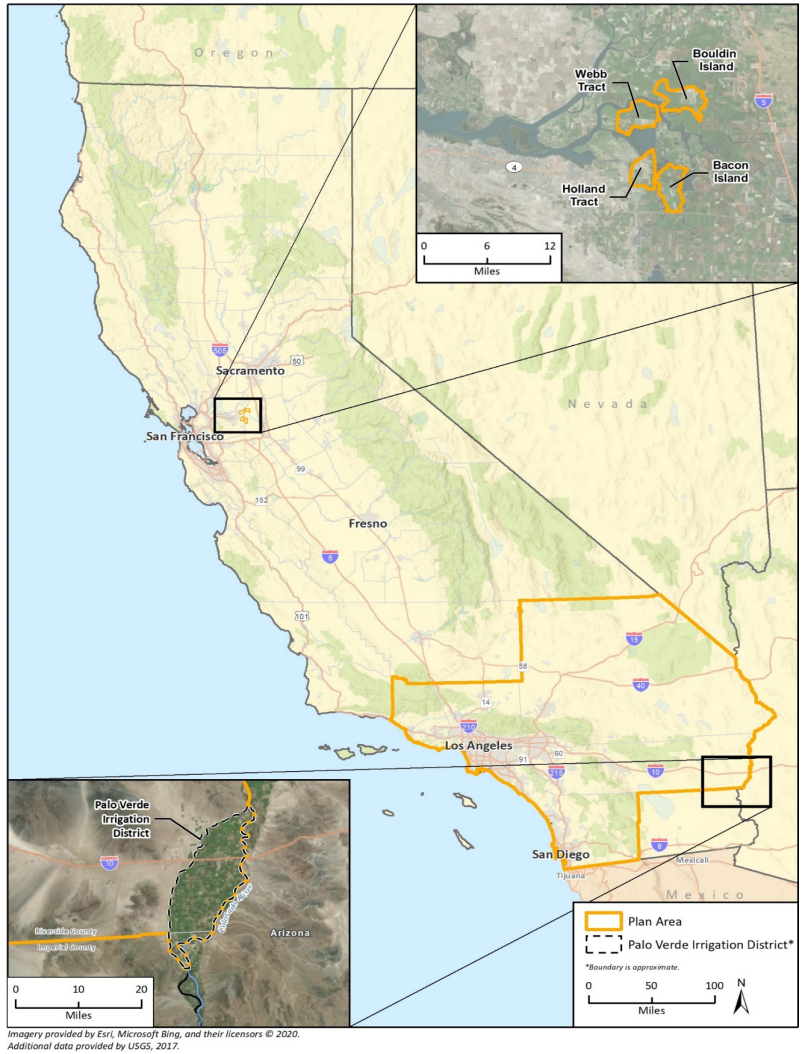
- **Purpose:** Outline a strategy to reduce GHG emissions from future operations, construction, and maintenance activities.

- **CAP Components:**
  - Emissions Inventory
  - GHG Reduction Target
  - Forecast of Future GHG Emissions
  - Tracking Methodology
  - Reduction Measures

Climate Action Plan Area

- **Plan Area.** Encompasses Metropolitan's operational areas and rights-of-way

- Los Angeles County
- Orange County
- Riverside County
- San Bernardino County
- San Diego County
- Ventura County
- Delta Islands
- Palo Verde Valley



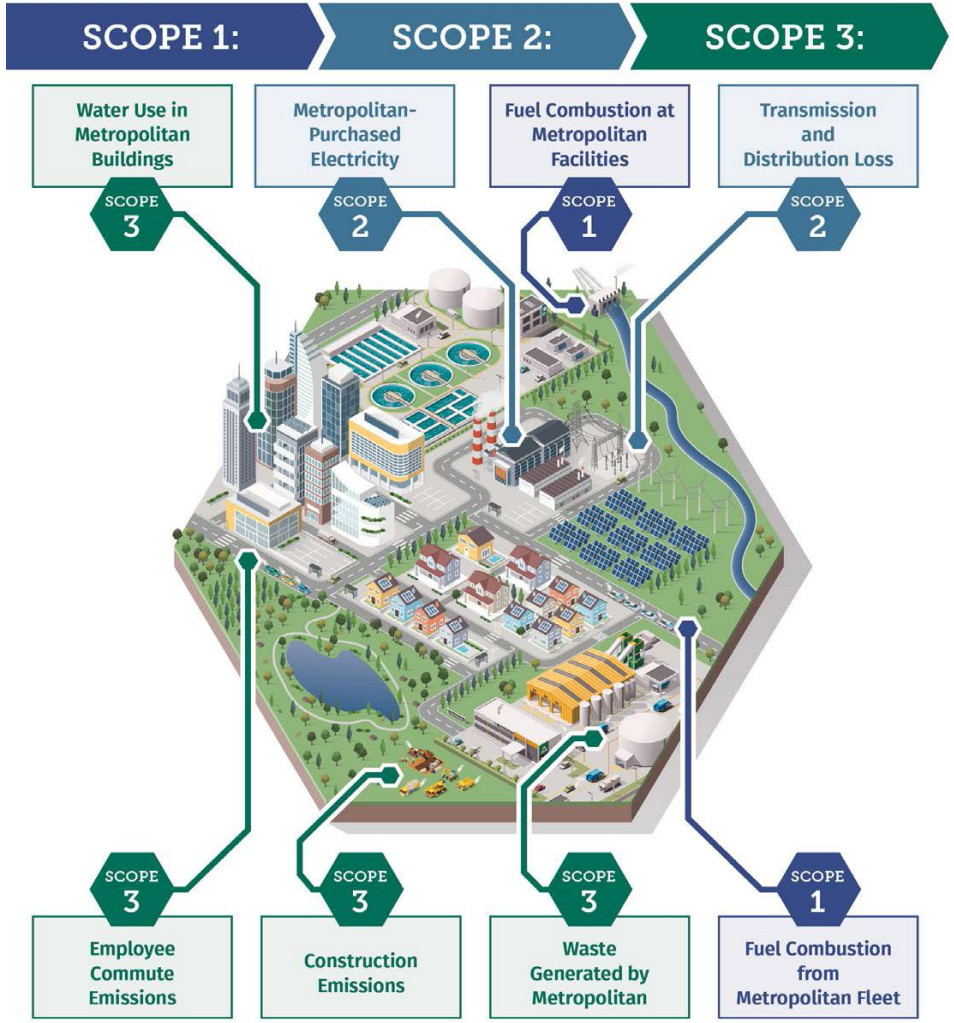
Metropolitan Emissions Inventory

Historical and current GHG emissions from Metropolitan's operations:

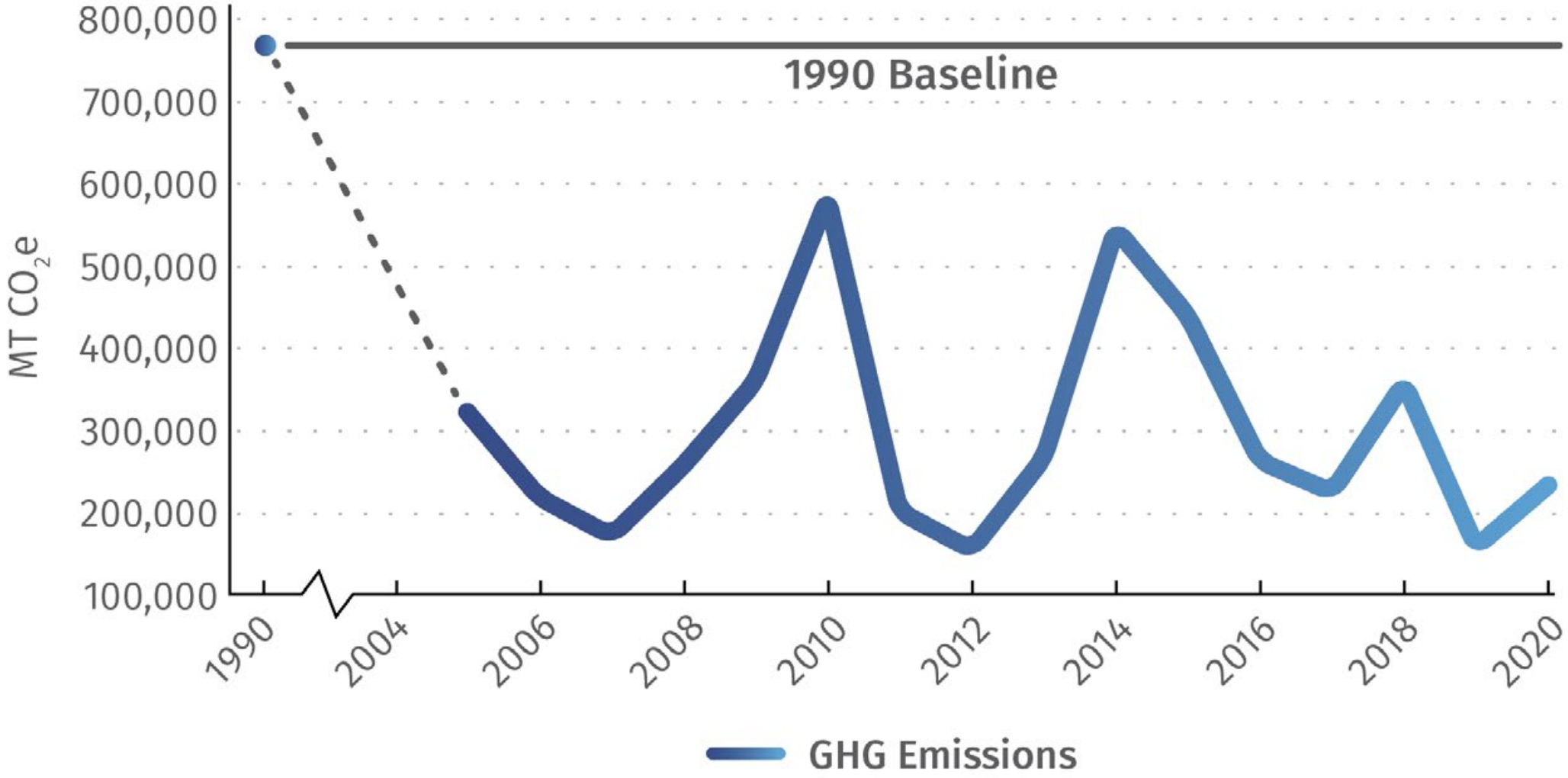
- Water Conveyance and Treatment
- Buildings and Infrastructure
- Transportation
- Waste Disposal
- Water Use
- Construction
- Other indirect emissions

Emissions by Scope

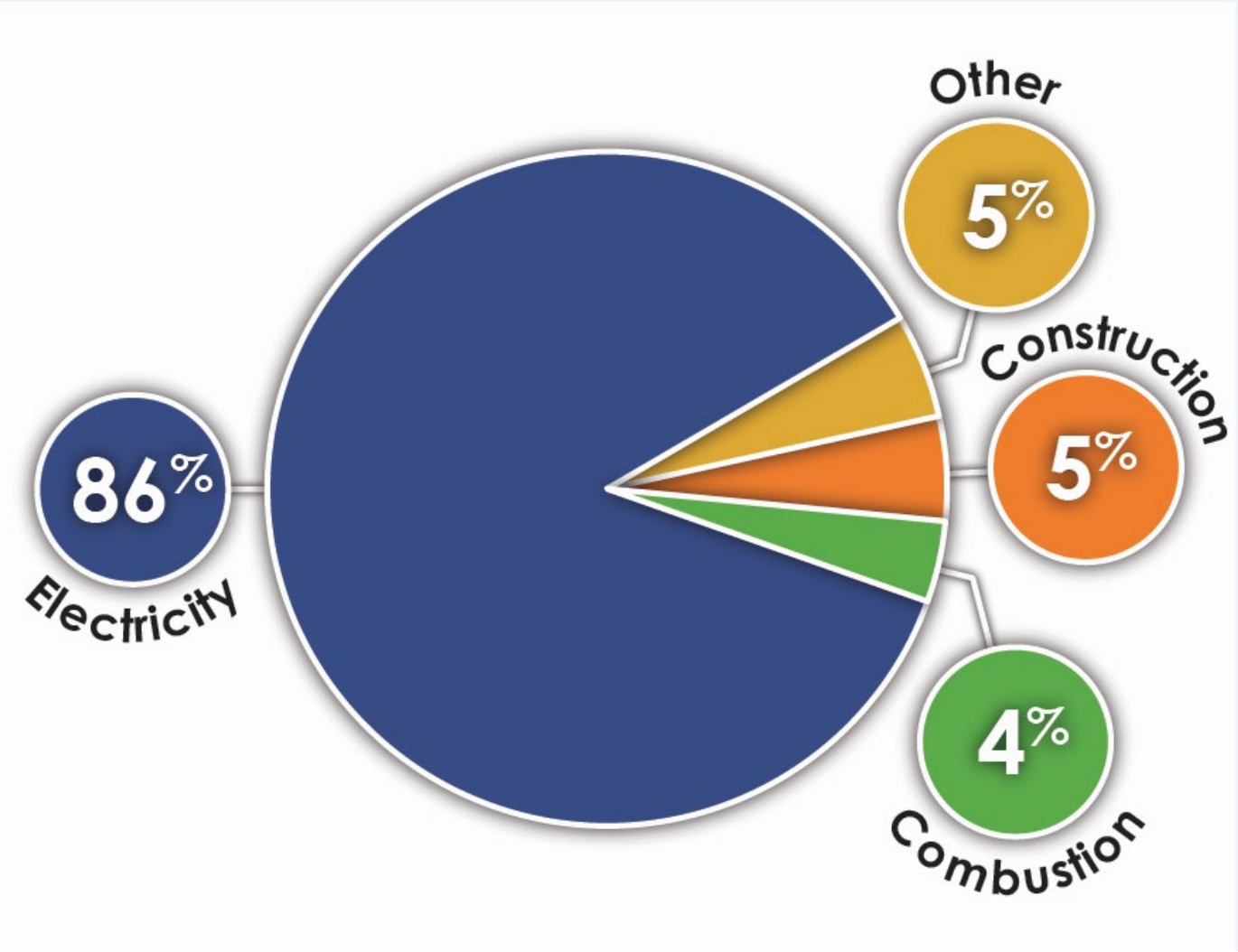
- **Scope 1 Emissions:** direct emissions from gasoline and diesel consumption by Metropolitan's vehicle fleet, propane and natural gas use at its facilities
- **Scope 2 Emissions:** indirect emissions from purchase and consumption of electricity used primarily for the transmission, treatment, and distribution of water
- **Scope 3 Emissions:** other indirect GHG emissions from employee commutes, waste generation, water consumption at Metropolitan facilities, and emissions associated with construction projects



Metropolitan's GHG Emissions Over Time



Emissions by Sector



Metropolitan's GHG Reduction Target

Establish an emissions target:

- Carbon neutrality by the year 2045

Interim target to ensure compliance:

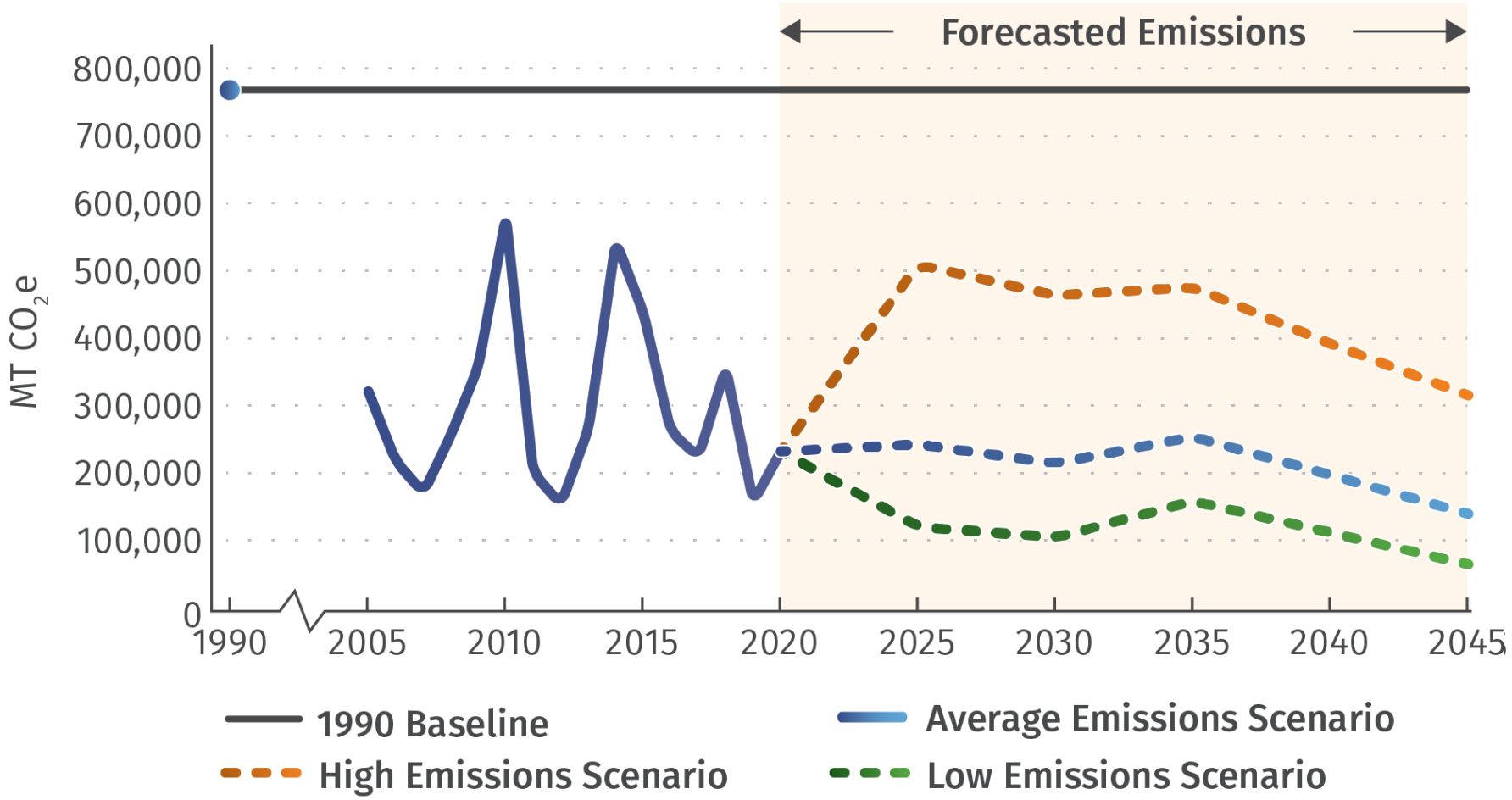
- 40% below 1990 levels by 2030

Forecast Future Emissions

Forecast of Future GHG Emissions:

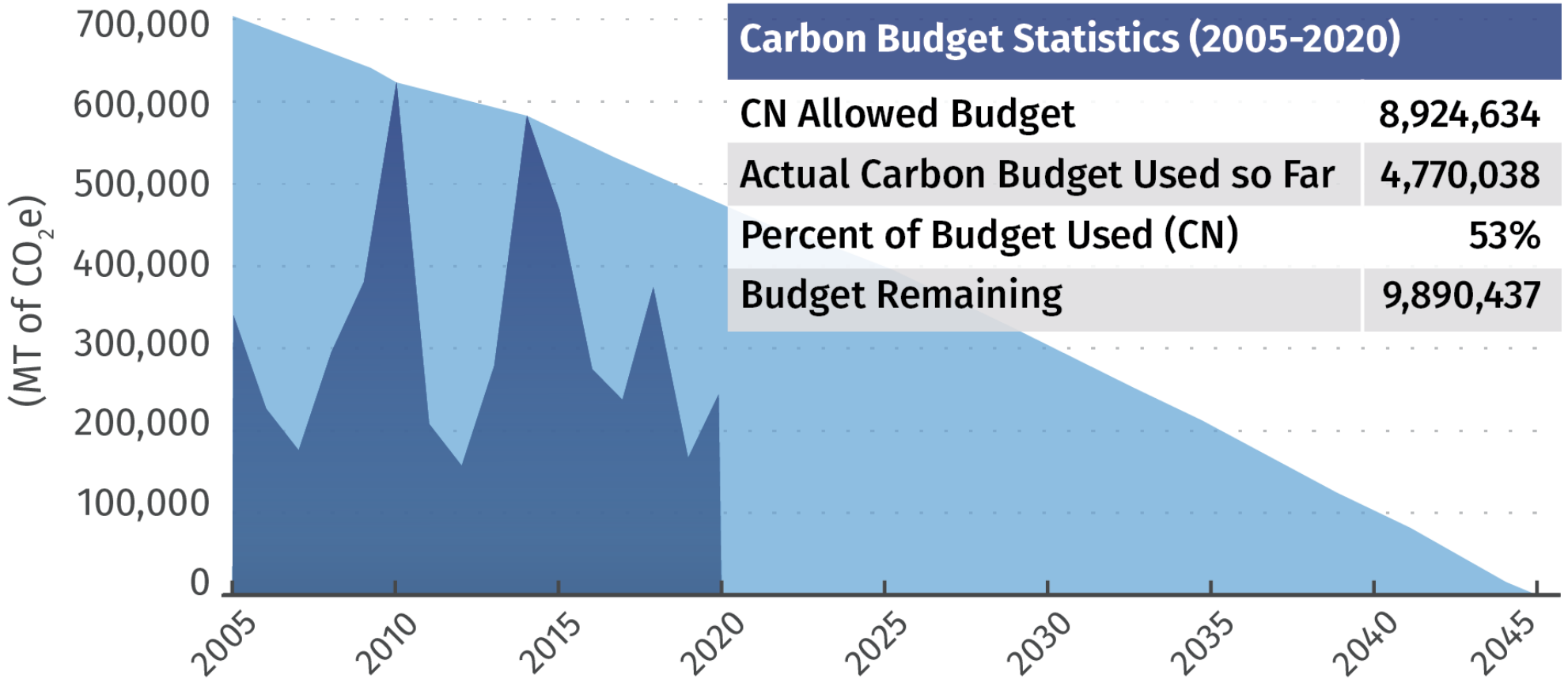
Estimate of projected operational and planned capital improvement projects emissions

Forecast of Future Emissions



Measuring compliance

Metropolitan Emissions 2005-2020 Compared to Carbon Budget (Net Zero by 2045)



Carbon Budget Statistics (2005-2020)	
CN Allowed Budget	8,924,634
Actual Carbon Budget Used so Far	4,770,038
Percent of Budget Used (CN)	53%
Budget Remaining	9,890,437

GHG Reduction Strategy

GHG Reduction Strategy by Scope

Scope 1: Direct Emissions: Combustion

1. Phase Out Natural Gas Combustion at Facilities
2. Zero Emission Vehicle Fleet
3. Use Alternative Fuels to Bridge the Gap to Zero Emission Vehicles

GHG Reduction Strategy by Scope

Scope 2: Indirect Emissions: Electricity Consumption

4. Utilize Low-Carbon and Carbon-Free Electricity
5. Improve Energy Efficiency

GHG Reduction Strategy by Scope

Scope 3: Indirect Emissions: Indirect Emissions and Sequestration

6. Incentivize More Sustainable Commutes
7. Increase Waste Diversion to Achieve Zero Waste
8. Increase Water Conservation and Local Water Supply
9. Investigate and Implement Carbon Capture and Sequestration Opportunities

Phase1 GHG Reduction Measures (2021 – 2030)

Strategy 1 – Phase Out Natural Gas Combustion

- Conduct survey of all gas consuming devices and establish schedule for replacement to electric
- Reduce natural gas emissions by 50% by 2030 and 100% by 2045
- Update Metropolitan building standards to require all-electric construction for new buildings and retrofits

Strategy 2: Zero Emission Vehicle Fleet

- Conduct ZEV/EV Feasibility Study
- Adopt a ZEV/EV First Purchase Policy
- Replace fossil fuel passenger vehicles
- Install ZEV charging or fueling infrastructure

Strategy 3: Use Alternative Fuels to Bridge the Gap

- Complete a renewable diesel pilot project for stationary equipment by 2025
- Install at least one renewable diesel tank and complete pilot project with on- and off-road vehicles by 2021
- Based on study, begin using renewable diesel in 100% of vehicles by 2025

Strategy 4: Utilize Low-Carbon & Carbon-Free Electricity

- Evaluate feasibility of shifting energy use to lower emission periods
- Connect Yorba Linda Hydroelectric Plant to directly utilize power for Diemer Plant by 2025
- Switch available retail accounts to green tariff options by 2025
- Install 3.5 MW battery energy storage systems at Jensen, Skinner, Weymouth Treatment Plants
- Manage energy purchases to ensure cost-effective energy supply

Strategy 5: Improve Energy Efficiency

- Convert 50% of interior and exterior lighting to LED by 2025 and 100% by 2045
- Analyze pump efficiency and replace or refurbish pumps when cost-effective

Strategy 6: Incentivize More Sustainable Commutes

- Expand subsidized transit & commute programs
- Provide educational programs to encourage commute, EV/ZEV use, and vanpool options
- Implement telecommute or flex schedules at headquarters for 50% of employees through 2030

Strategy 7: Increase Waste Diversion

- Develop net zero waste policies to reduce landfill waste 30% by 2030 and 100% by 2045
- Contract with local organizations to recycle organic waste
- Develop and implement a sustainable procurement policy

Strategy 8: Increase Water Conservation & Local Water Supply

- Expand water conservation educational workshops
- Continue to implement water use efficiency and turf removal programs
- Provide funding and monitoring for the development of local stormwater recharge and use projects
- Continue to promote and identify new water use efficiency practices

Strategy 9: Investigate & Implement Carbon Capture & Carbon Sequestration

- Study carbon capture protocols in the Sacramento-San Joaquin River Delta
- Conduct five-year regenerative agriculture and carbon sequestration opportunities in the Palo Verde Valley

Phase II GHG Reduction Measures (2030-2045)

Scope 2: Electricity

- Investigate the feasibility of large-scale battery energy storage systems for the CRA

Scope 2: Electricity

- Replace pump impellers and/or refurbish motors at Iron Mountain, Eagle Mountain and Hinds Pump Plants
- If the Regional Recycled Water Program is constructed, install pumping systems to reduce energy use on reverse osmosis brine stream

Scope 3: Indirect Emissions and Sequestration

- Replace vanpool vehicles with ZEVs
- Partner with municipal agencies to participate in waste diversion programs
- Implement advanced technology systems to increase recycled water & groundwater recharge and recovery systems
- Develop pilot projects and implements carbon sequestration and carbon capture projects, as feasible

Implementation Phase

Implementation Phase

- Climate Working Group ensures program implementation
- Annual GHG emissions inventory (Scope 1 and 2)
- Update CAP every five years
  - Includes Scope 3 emissions inventory
  - Capture new GHG reduction opportunities and technologies

CAP Program EIR Scope and Schedule

Projects with Potential for Environmental Impacts

- Install battery energy storage facilities (Jensen, Skinner, Weymouth)
- Convert lights to LED, natural gas to electric (all facilities)
- Install Zero-Energy Vehicle (ZEV) Infrastructure (most facilities)
- Provide connection for Yorba Linda Hydroelectric Power Plant (Diemer)
- Replace pump impellers and/or motors at desert pump plants (Hinds, Eagle, Iron)
- Regenerative agriculture and carbon sequestration research program (Palo Verde Valley)
- Develop pilot projects and implement larger scale carbon sequestration projects, as deemed feasible

Potentially Significant Environmental Effects

- Air Quality – construction emissions
- Biological Resources – ground disturbing activities
- Cultural Resources – ground disturbing activities
- Noise – construction and operational noise
- Tribal Cultural Resources – ground disturbing activities in undisturbed areas

Anticipated CEQA Process Schedule

- **November 18, 2021 – January 7, 2022.** Draft Program EIR and Draft CAP released for public comment
- **January/February 2022 –** Incorporate comments from public participation
- **Spring 2022.** Board reviews and considers certification of the Final Program EIR and makes a decision on adoption of the CAP

We welcome your comments!

Email your comments to **EP@mwdh2o.com** (reference “CAP PEIR” or “CAP” in the subject line)

Written comments can be sent to:

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Questions

Thank you for your time!