



Climate Action Plan Update

Engineering and Operations Committee

Item 6a

November 4, 2019

Outline

- Climate Action Legislation and Policy
- Climate Action Plan (CAP) Overview
- Emissions Inventory
- Greenhouse Gas (GHG) Emissions Forecast
- Next Steps

Climate Action Legislation & Policy

- Statewide GHG reduction goals
 - AB 32 - 1990 levels by 2020
 - SB 32 - 40% below 1990 levels by 2030
 - EO B-55-18 Carbon neutrality by 2045
- Provides guideline to help meet State goals
- Water sector not currently subject to existing legislation or policy

CEQA and Greenhouse Gas Impacts

- CEQA requires analysis of GHG impacts
- Mitigation required for GHG emissions in exceedance of established thresholds
 - Project-specific mitigation
 - CAP

What is a Climate Action Plan?

- Program to mitigate GHG impacts from future capital projects
 - Covers emissions from capital projects analyzed in forecast
 - Identifies a suite of GHG reduction options
 - Focus on meeting the GHG reduction goal, not specific mitigation for each project
 - Updated every five years to measure progress and capture new projects

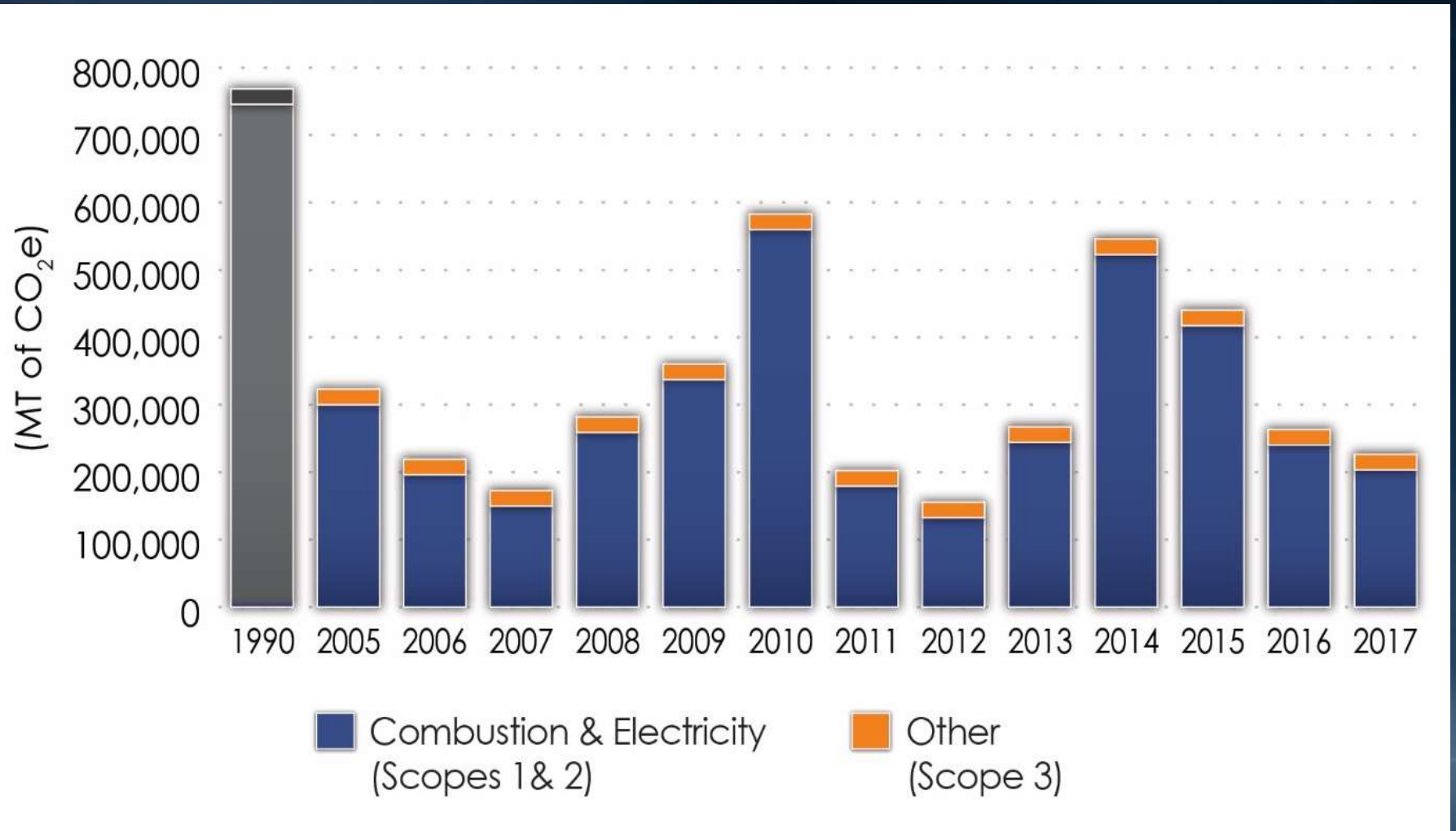
CAP Components

- GHG emission inventory
 - Existing emissions
 - Forecasted future emissions
- GHG reduction target or goal
- GHG reduction measures or groups of measures to reach that goal
- Monitoring plan
- Adopt CAP in a public process following environmental review

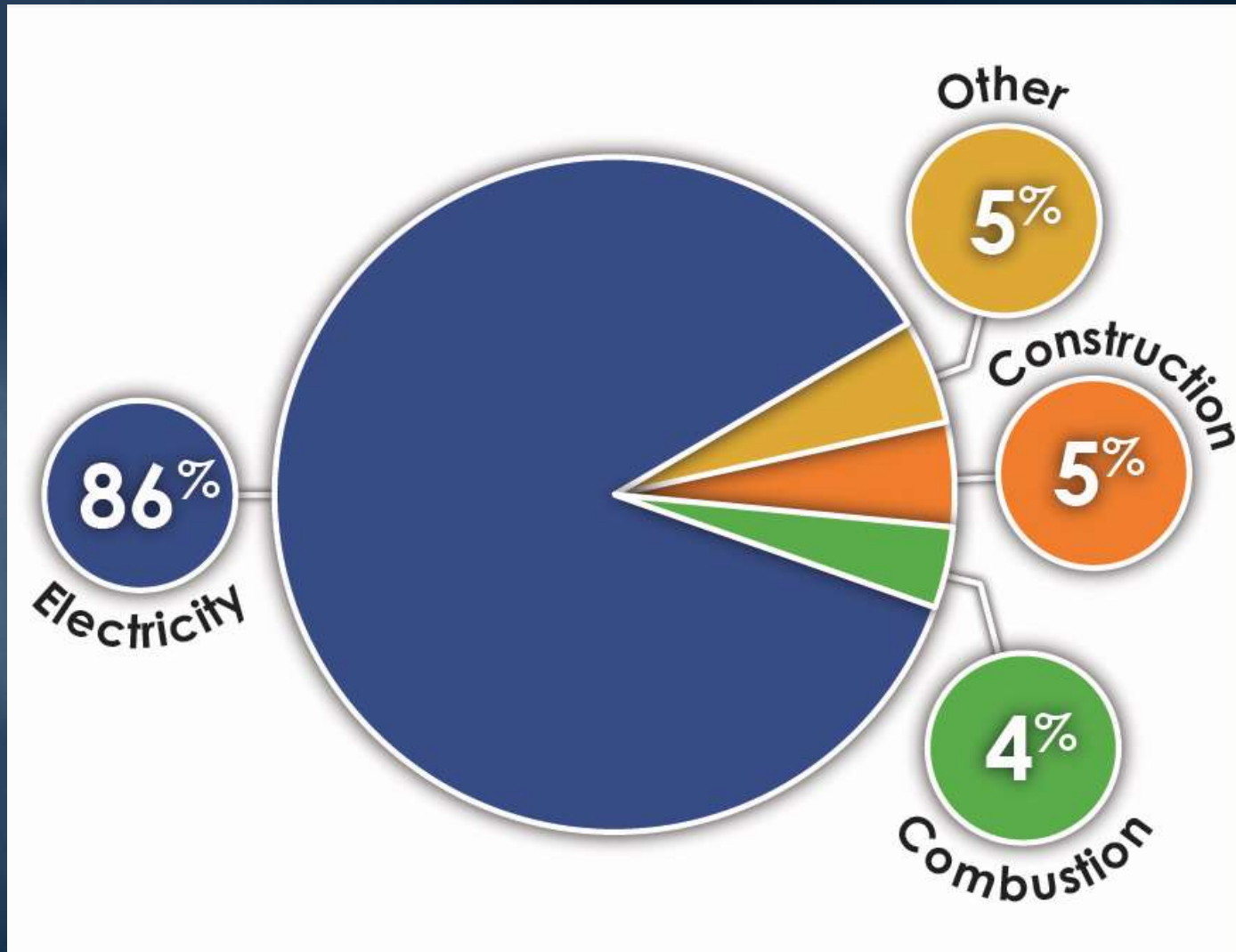
Emissions Inventory Components

- Scope 1: Direct fuel combustion – operations
 - Fleet vehicles, natural gas, welding gasses, etc.
- Scope 2: Indirect GHG emissions
 - Purchase and consumption of electricity, transmissions & distribution losses
- Scope 3: Other emissions
 - Employee commute, waste and water services, construction emissions

Metropolitan Annual GHG Emissions



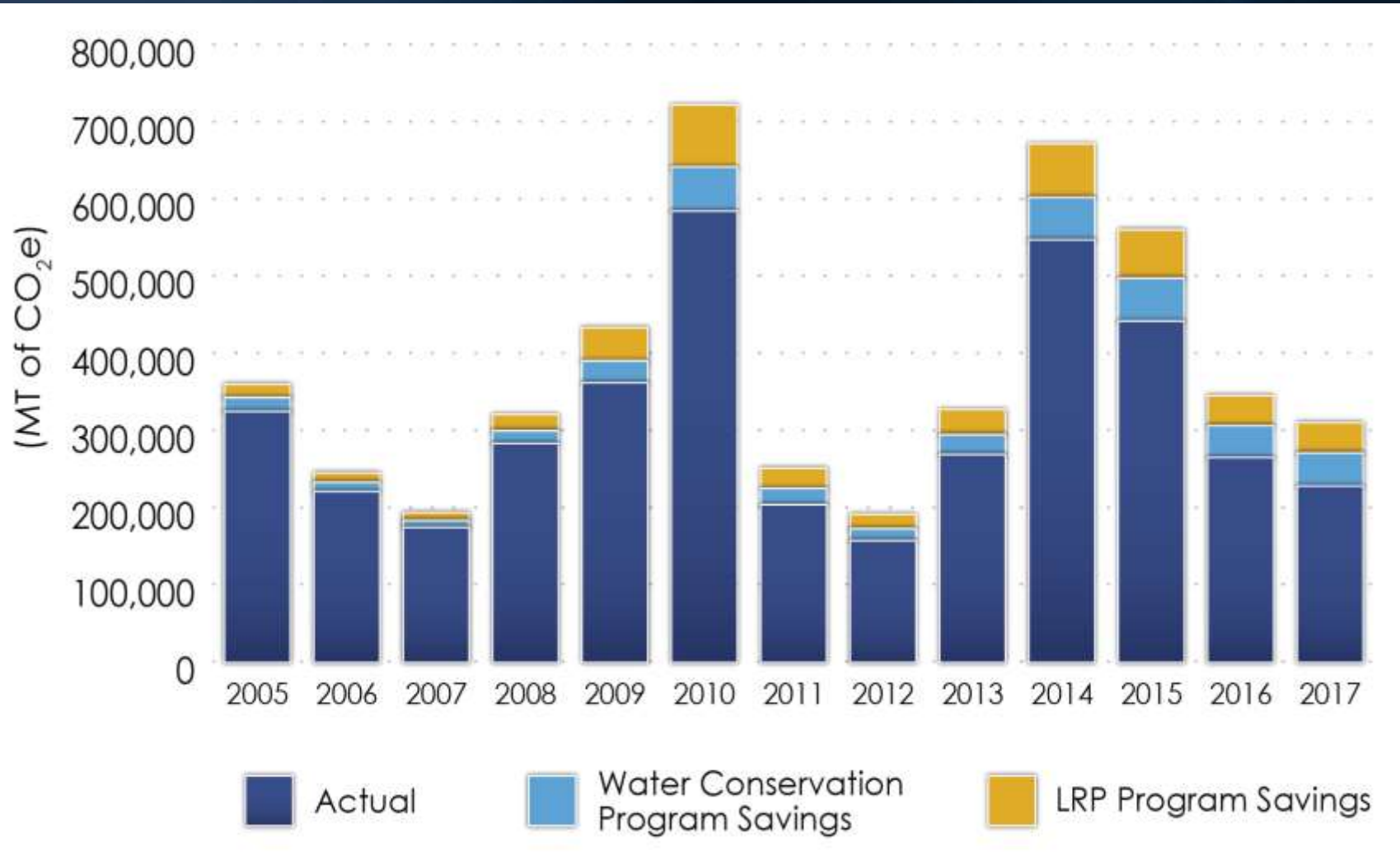
Metropolitan 2017 Emissions



GHG Forecast Inputs

- Water conservation and Local Resources Program (LRP) savings
- Regulatory projections
- Future construction estimates
- CRA pumping scenarios

Benefits of Water Conservation and LRP



Past Investments

EV
Charging
Stations



Solar Panels



Local Resource Programs



Turf Removal



Regulations Included in Forecast

- Vehicle Emissions Standards
 - Advanced Clean Cars Program (2012)
 - Federal Phase II GHG Standards (2016)
 - Transportation Act of 2017 (SB 1)
- Renewable Energy
 - Renewables Portfolio Standard SB X1-2 (2011)
 - 100% Clean Energy Act of 2018 (SB 100)
- Water Conservation
 - Water Conservation Act of 2009 (SB X7-7)

CIP Construction Estimates (2019-2024)

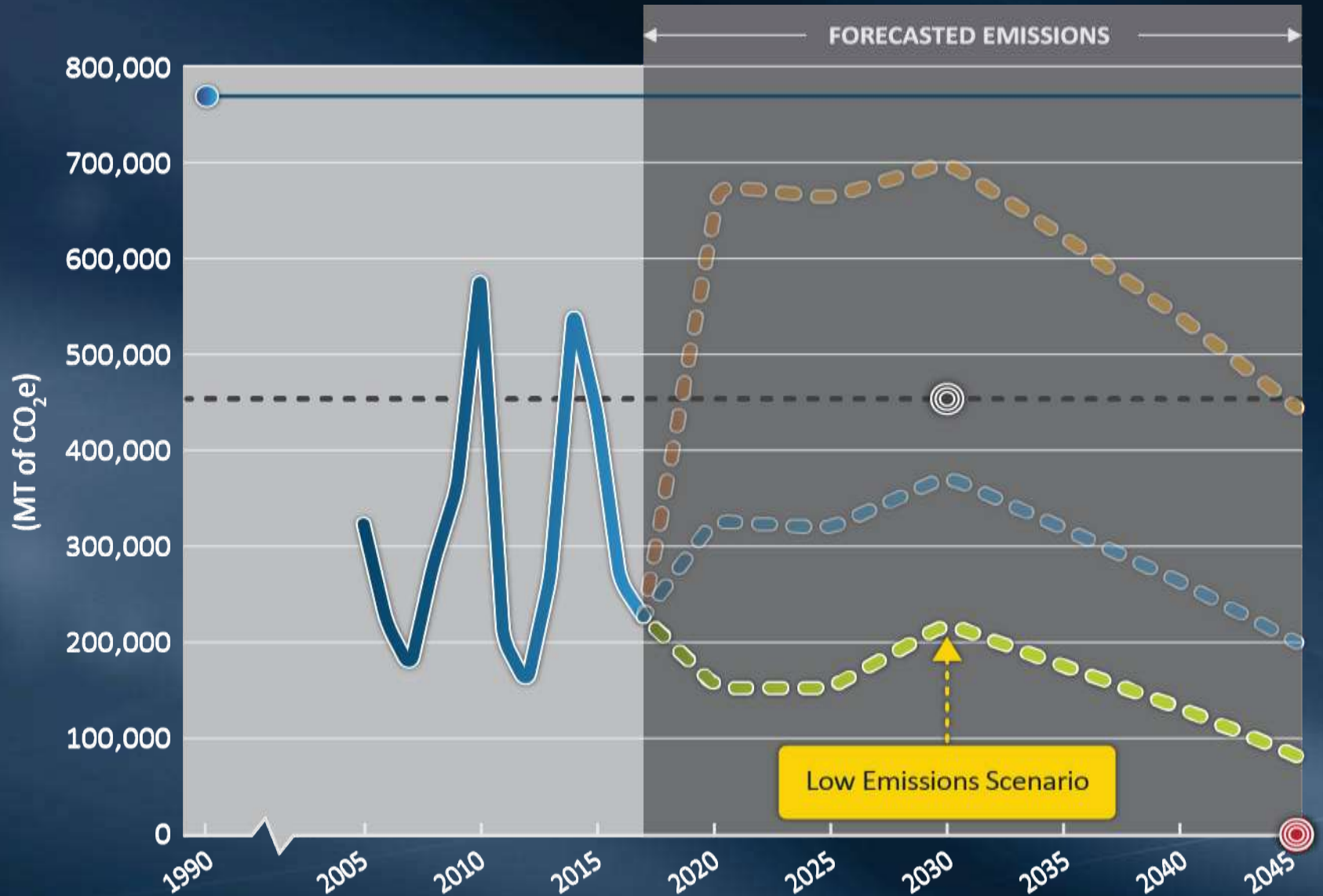
Construction Category	2019-2024 Total GHG Emissions (MT CO2e)
Pipelines Repairs / Refurbishment	4,600
Paving	1,300
Equipment Replacement	9,100
CRA Projects	1,700
Building Construction & Utility Upgrades	4,000
Reservoir Cover Replacement	5,000
Treatment Plant Reliability	4,600
PCCP Relining	42,800
Estimated Total Emissions	73,100
Estimated Annual Construction Emissions	12,000

Regional Recycled Water Program

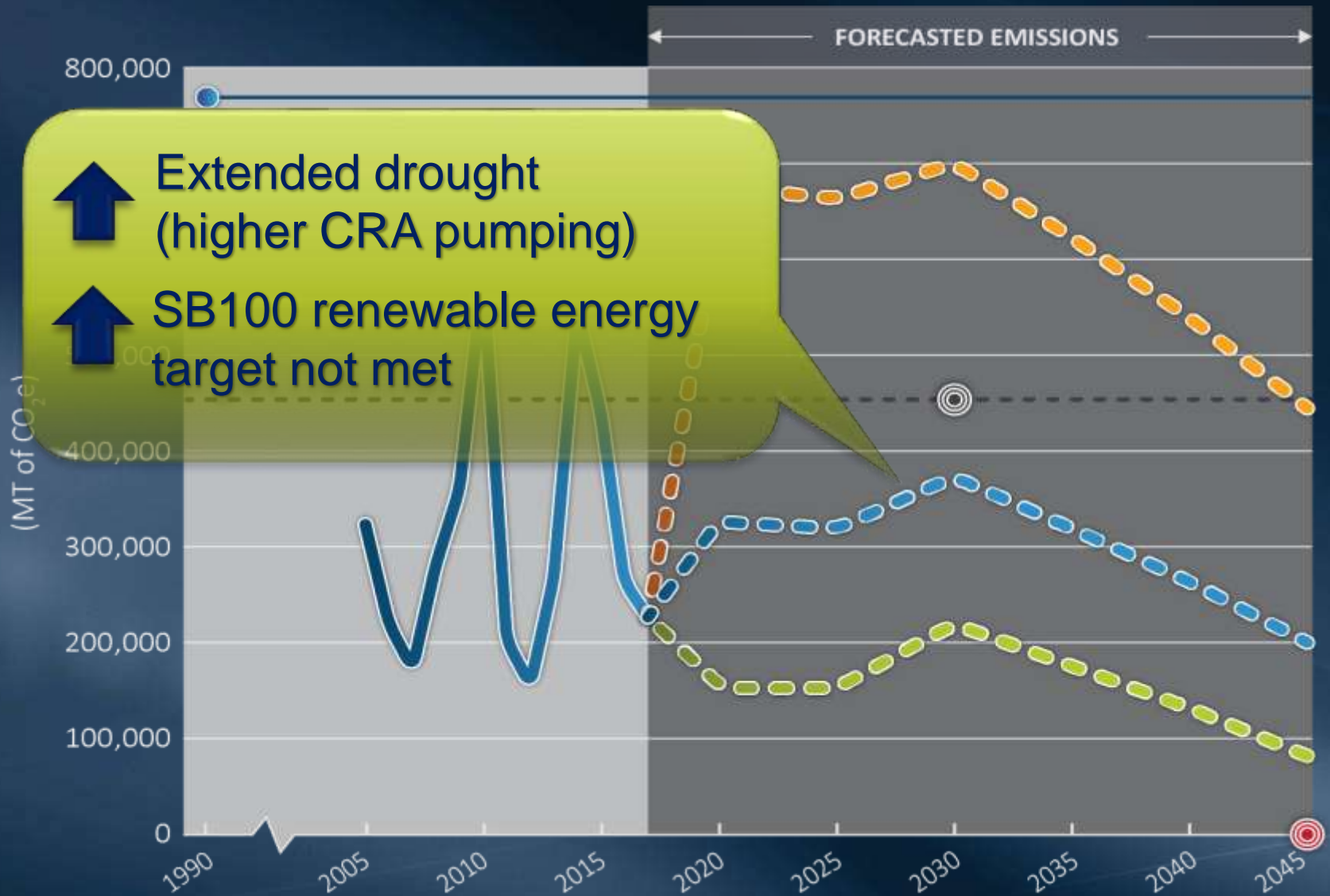
GHG Emission Estimates

Year	Estimated Annual GHG Emissions (MT CO ₂ e)
2025 (construction)	14,000
2030 (operational)	91,000
2035 (operational)	70,000
2040 (operational)	49,000
2045 (operational)	28,000

Metropolitan Emissions Forecast



GHG Reduction Target Risk Factors



GHG Reduction Options

- Energy conservation
- Transportation
- Waste stream
- Natural & working lands (carbon sequestration)
- Water conservation
- CRA pumping
- Treatment plants
- Engineering design

Next Steps

- Identify and evaluate potential GHG reduction measures and costs to achieve reduction goals
- Board discussion of GHG reduction measures and associated cost
- Board selection of GHG reduction target
- Complete CAP and CEQA document

CAP Schedule

