



Board of Water Commissioners

Climate Action & Adaptation Plan - Update

May 13, 2021

Climate Action & Adaptation Plan (CAAP) Status

- City Council confirmed the CAAP on January 5, 2021
 - Confirmed GHG reduction pathway for 2030
- Staff is preparing a Subsequent Environmental Impact Report (EIR) and anticipates bringing the CAAP forward for adoption in Fall 2021
- Early implementation actions underway

What is the CAAP?

A plan to:

- Reduce communitywide greenhouse gas emissions (GHG), while preparing for the impacts of climate change
- Improve public health, foster economic opportunity, & advance social equity
- Meet policy commitments & state GHG reduction mandates

How?

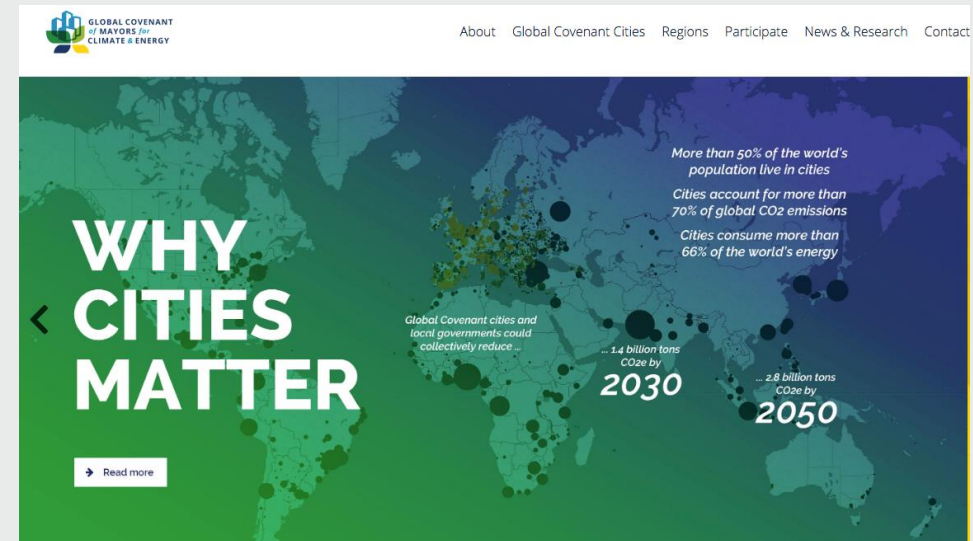
- Establish a framework for creating or updating policies, programs, practices, and incentives to reduce the City's GHG footprint
- Ensure the community and physical assets are better protected from the impacts of climate change
- Informed by technical studies of climate stressors and communitywide vulnerabilities

Why do we need a CAAP?

Target Year	State Target	Corresponding Legislation	City Status
2020	1990 GHG levels by 2020	AB 32, Global Warming Solutions Act (2006)	California met this target Statewide
2030	40% below 1990 levels by 2030	SB 32, Global Warming Solutions Act (2006)	The CAAP is a plan for Long Beach to meet this target by 2030
2045	Carbon neutrality by 2045	Executive Order B-55-18 of 2018	Aspirational for Long Beach
2050	80% below 1990 levels by 2050	Executive Order S-3-05 of 2005	CAAP's plan horizon is to 2030

Other Relevant Legislation

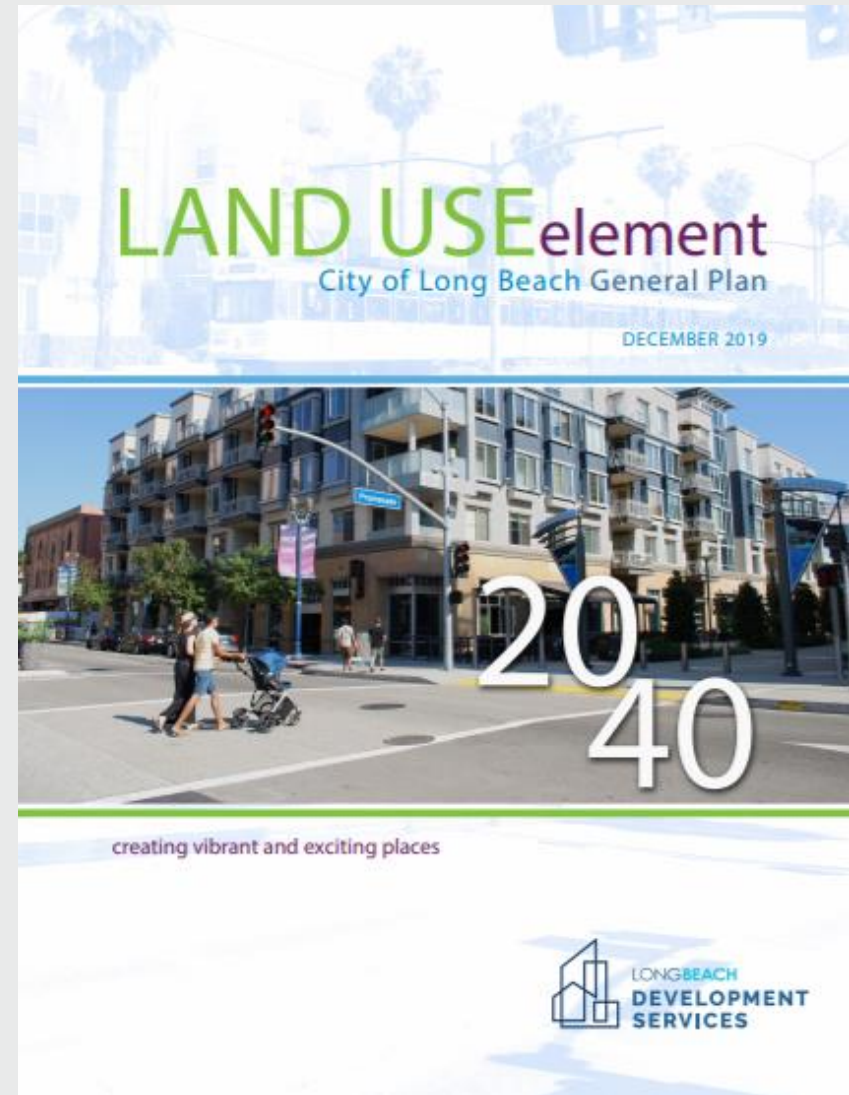
- SB 375 (Sustainable Communities)
- AB 691 (Sea Level Rise)
- SB 1000 (Environmental Justice in Local Land Use Planning)
- SB 379 (Climate Adaptation in Safety Elements)
- SB 100 (Carbon-free Electricity by 2045)
- AB 341 (Commercial Recycling), SB 1383 & AB 1826 (Organics Diversion)



Why do we need a CAAP?

CAAP is a mitigation measure of the General Plan Land Use Element (LUE)

- The General Plan Land Use Element (LUE) was adopted in December 2019
- GHG emissions associated with implementation of the LUE (e.g., citywide vehicle trips, electricity usage)
- **City shall adopt a CAAP within approximately 36 months of adoption of the LUE & implement CAAP reduction measures (MM GHG-1)**



Why do we need a CAAP?

City leadership needed for city-scale mitigation, climate adaptation, & equity beyond what could be achieved by State emissions reduction efforts alone



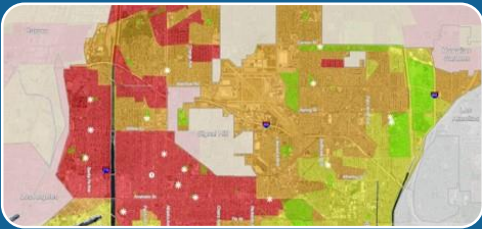
Mitigation

- Implementation occurs at both city and state level (siting EV charging stations and updating building codes & zoning to incentivize electrified buildings, for example, require local leadership)
- CAAP identifies local GHG reduction measures for implementation



Adaptation

- State emissions reduction target does not prepare Long Beach for the impacts of climate change that are happening today
- CAAP helps increase resilience for current and future threats (extreme heat, poor air quality, sea level rise, etc.)

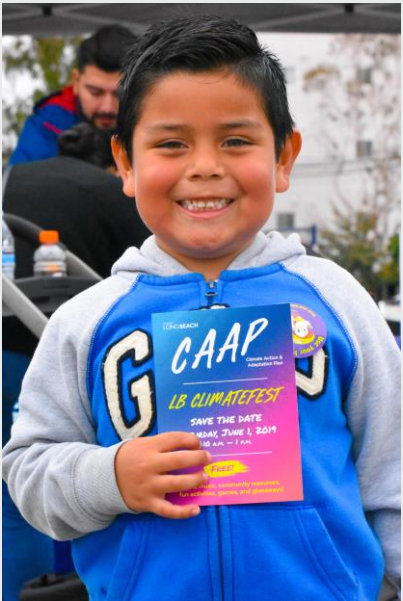
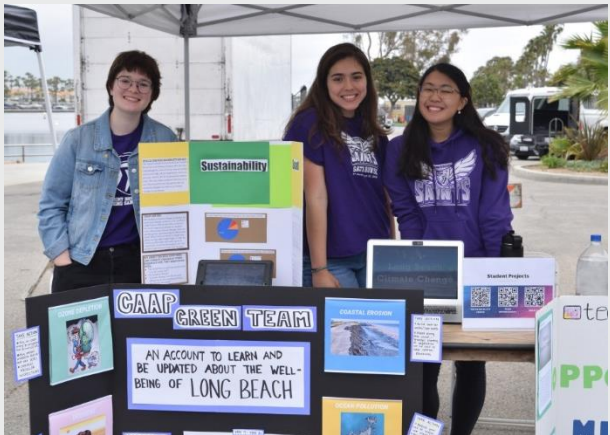


Equity

- State emissions reduction targets do not ensure that climate issues are equitably addressed
- CAAP helps address environmental justice & can help steer climate finance opportunities to communities most impacted by climate change

CAAP Community Outreach (June 2018 - present)

# of Estimated Attendees	10,260
# of Sign-ins	1,395
Events	67



Interdepartmental Engagement Informed Development of the CAAP

17 departments surveyed

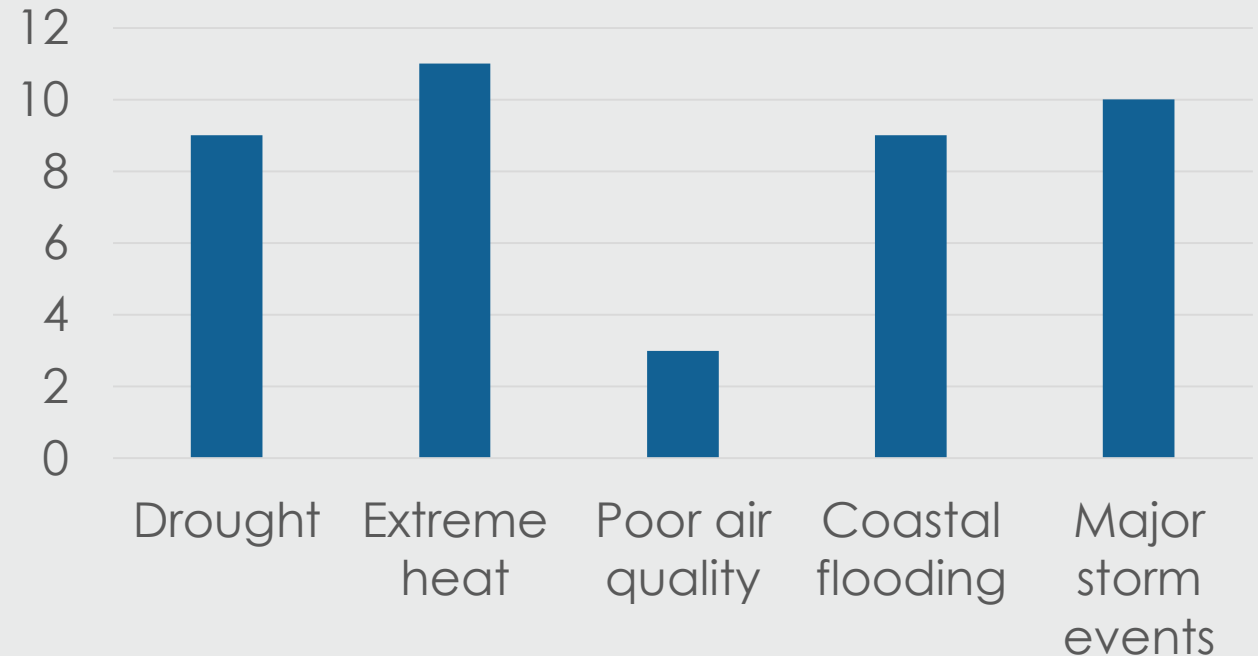
100% experienced climate impact to infrastructure assets or core services

88% are engaging in GHG emission reducing actions

53% are engaging in adaptive capacity actions

Top factors inhibiting departments from planning for climate change impacts are **data gaps** and **cross-departmental coordination**

Number of City Departments Affected by Exposure to Climate & Environmental Hazards



Long Beach Climate Impacts

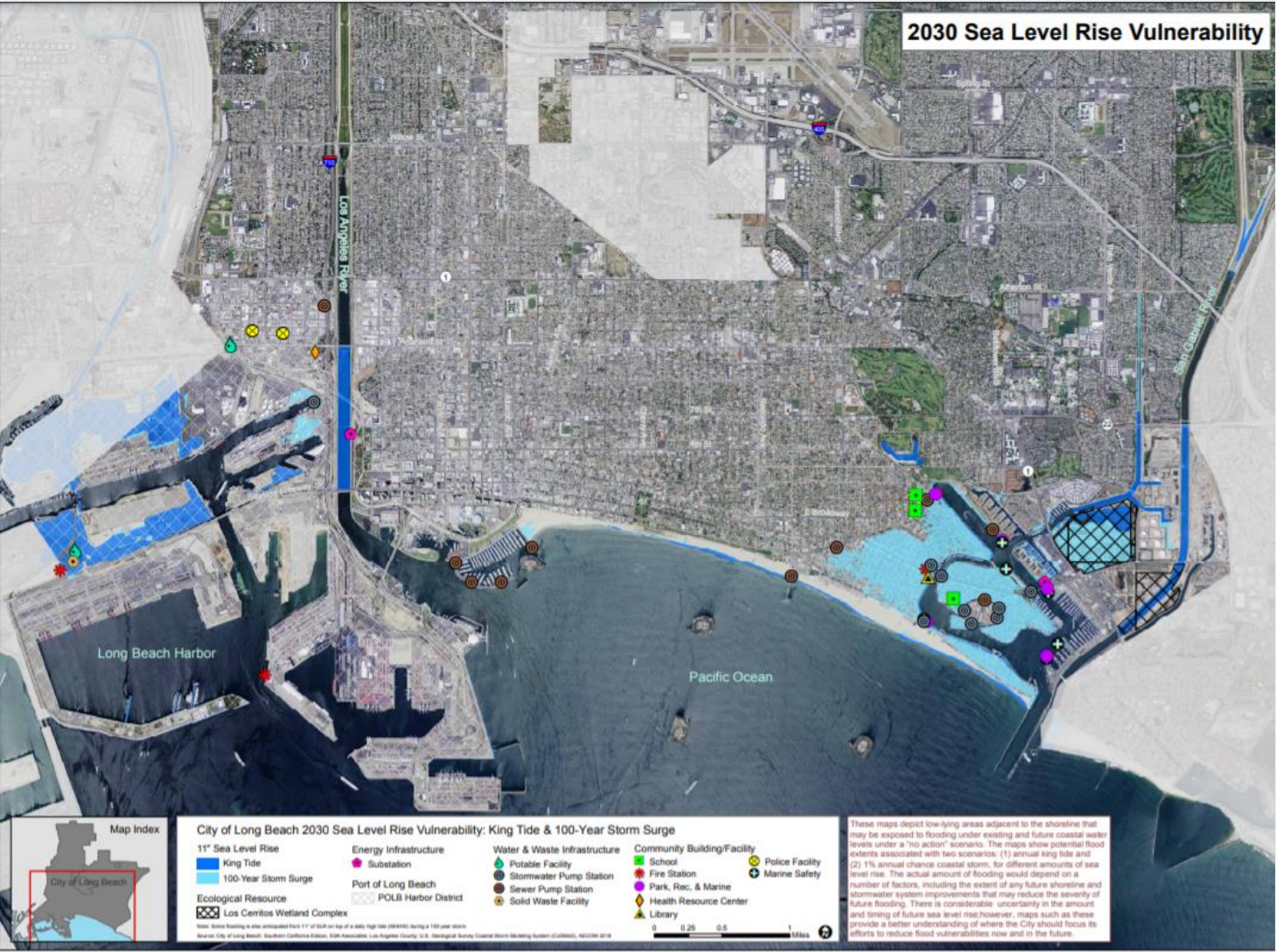


AECOM 2018. Long Beach Climate Change Vulnerability Assessment.
longbeach.gov/lbds/planning/caap/

Climate Vulnerability - Drought & Flooding/Sea Level Rise



Colorado River Aqueduct



Mitigation



Buildings

Transportation

Waste

Adaptation



Extreme Heat

Air Quality

Drought

Flooding

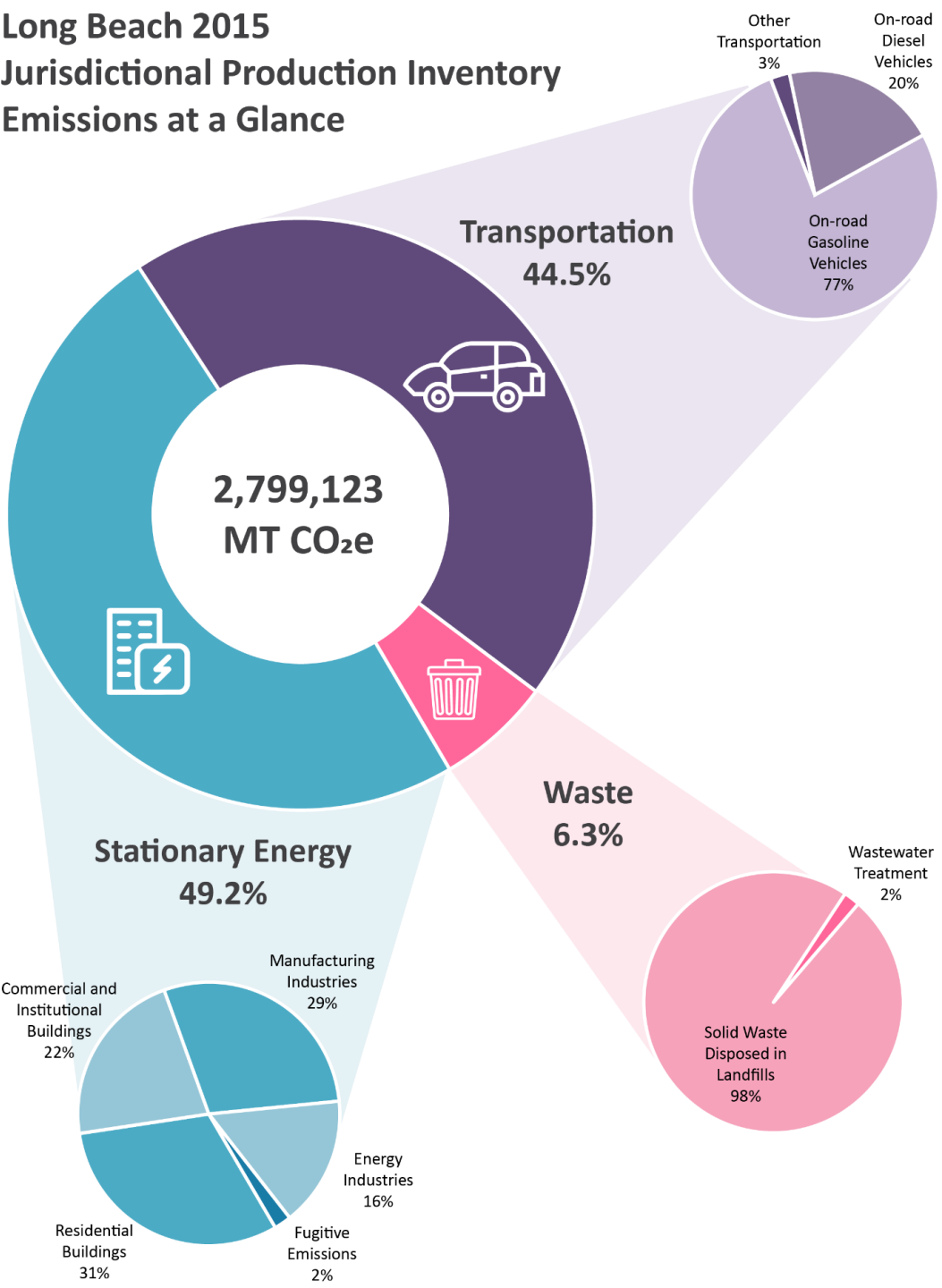
Sea Level Rise

EQUITY STRATEGY: Identify and implement ways to maximize cost savings and other water conservation benefits for low-income and drought-vulnerable communities.

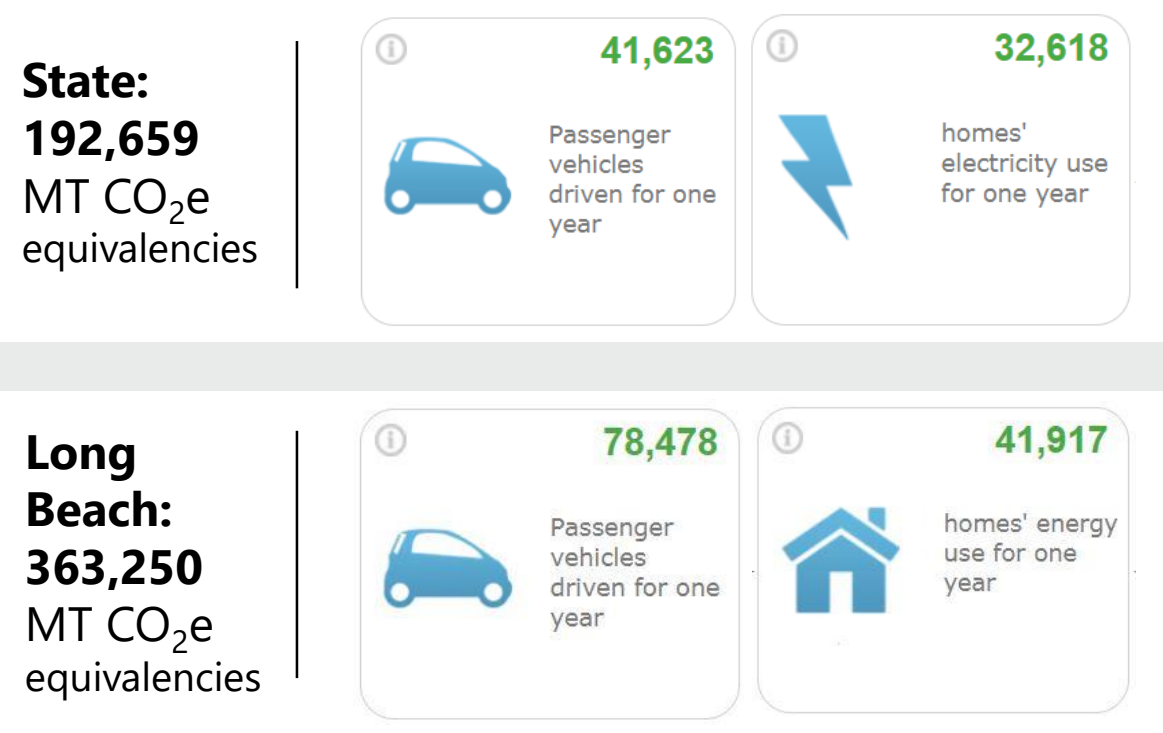
GHG Inventory

Sector	MT CO2e	% of Total
Stationary Energy	1,377,291	49.20%
Transportation	1,244,981	44.48%
Waste	176,850	6.32%
Total	2,799,123	100.00%
Per Capita	6.0	--

Long Beach 2015 Jurisdictional Production Inventory Emissions at a Glance



Long Beach GHG Emissions Reduction Pathway



Performance towards the City’s GHG reduction target will be monitored regularly. The CAAP will be adapted over time to incorporate new GHG reduction technologies and strategies.

GHG Reduction Targets	
2030 GHG Target	3.04 MT CO ₂ e/Service Population
Business as Usual Forecast	2,176,931 MT CO ₂ e
Target Level	1,984,272 MT CO ₂ e
GHG Reductions Needed	192,659 MT CO ₂ e
GHG Reductions Anticipated	363,250 MT CO ₂ e

2030 GHG Reduction Target by Service Population	
Business as Usual Target	3.34 MT CO ₂ e
Emissions Target Level (State)	3.04 MT CO ₂ e
Reduction Needed (State)	0.3 MT CO ₂ e (9% reduction/person)
Long Beach GHG Pathway	2.78 MT CO ₂ e
Reduction Proposed (Long Beach GHG Pathway)	0.56 MT CO ₂ e (17% reduction/person)

Climate Mitigation Process

- Community input through stakeholder engagement is reflected in the CAAP's vision and goals, policies and strategies, as well as in how the actions have been prioritized for implementation
- Climate mitigation planning is an iterative process
- The CAAP outlines strategies for ongoing public outreach and education throughout implementation of the plan



<div><div>DRT</div><div>Drought</div><div>Goal: Long Beach has a more sustainable and diverse water supply that reduces dependence on imported water and improves long-term water security</div></div>		
OBJECTIVES	NO.	ACTIONS
Maximize water efficiency and conservation.	DRT-1 DRT-2	Continue development and implementation of water use efficiency programs and implement additional water conservation programs Enhance outreach and education related to water conservation
Maximize water that is captured and reused locally.	DRT-3 DRT-4 DRT-5	Expand usage of green infrastructure and green streets Expand usage of recycled water and greywater for non-potable use Incorporate increased rainfall capture and other actions to maximize local water supplies and offset imported water

DRT-1

Continue Development And Implementation Of Water Use Efficiency Programs And Implement Additional Water Conservation Programs

Continue development and implementation of additional water use efficiency and conservation programs to help reduce water use.

Implementation Lead: Long Beach Water Department
Partners: City of Long Beach Office of Sustainability; Metropolitan Water District of Southern California (MWD)
Timeline: Short
Potential Cost Level: Low to Medium

Description

Building upon Long Beach's Water Resources Plan and Urban Water Management Plan, the City will identify and move forward with further water conservation programming and efficiency measures to help reduce overall usage. Water use efficiency programs provide cost savings to customers through water utilities and through electricity and gas utilities, due to the reduced need for these resources to transport and heat water. Mitigating utility cost burdens will play a role in controlling costs for residents and businesses.

Co-benefits:

✓ Reduced GHG emissions through conservation of gas and electricity needed to distribute and heat water

✓ Increased protection of upstream rivers and wildlife habitat

✓ Reduced urban runoff and thus reduced pollution of coastal waters (based on reduced landscape irrigation)

Implementing Actions

DRT-1.1:

Monitor Assembly Bill 1668 and Senate Bill 606 on water restriction and conservation.

DRT-1.2:

Identify partners and participants for water use efficiency outreach and education. Conduct outreach to residents to ensure they understand the programs that are available and the eligibility requirements.

DRT-1.3:

Establish water use efficiency programs tailored to commercial, industrial, and institutional water users.

DRT-1.4:

Identify potential incentives and requirements that can be included in City contracts to reduce the use of potable water and spur access to and use of recycled/reclaimed water for uses such as sidewalk pressure washing and landscape irrigation.

DRT-1.5:

Establish programs to invest in City infrastructure that can create water efficiency, such as irrigation systems and water-reuse systems in parks.

DRT-1.6:

Conduct an analysis of program and rebate participation by census tracts to spur greater participation in new and existing programs within the low-income communities most impacted by climate change.

Equity Strategy

Conduct targeted water efficiency program outreach to ensure that low-income communities benefit from cost savings.

Existing Program: Certified Blue Restaurant Program

The Certified Blue Restaurant program supports and recognizes Long Beach restaurants for achieved water efficiency. Restaurants can receive a no-cost, on-site efficiency survey, free water-efficient devices, and an assessment for other possible rebates.

CAAP Actions - LB Water (Lead)

Action No.	Action	Partners
Drought		
DRT-1	Continue Development and Implementation of Water Use Efficiency Programs and Implement Additional Water Conservation Programs	Office of Sustainability, LBUSD, Parking Lot Owners, LBCC, CSULB
DRT-2	Enhance Outreach and Education Related to Water Conservation	Office of Sustainability, Library, Conservation Corps of Long Beach, CBOs
Air Quality		
AQ-2	Encourage Urban Agriculture Practices that Reduce Air Quality Pollution	Office of Sustainability (co-lead), Library, SCE



CAAP Actions - LB Water (Partner)

Action No.	Action	Partners
Drought		
DRT-4	Expand Usage of Recycled Water and Greywater for Non-Potable Use	Office of Sustainability, Parks (co-lead), Public Works (co-lead), LBUSD, CBOs
DRT-5	Incorporate Increased Rainfall Capture and Other Actions to Maximize Local Water Supplies and Offset Imported Water	Office of Sustainability, Parks (co-lead), Public Works (co-lead), LBUSD
Extreme Heat		
EH-4	Install Additional Water Fountains and Take Other Actions to Increase Public Access to Water	Parks, Public Works (lead), SCE
Flooding		
FLD-9	Inventory and Flood-Proof Vulnerable Sewer Pump Stations	Parks. Public Works (lead), DPEC, Outdoor Advertising Companies

CAAP Implementation Chapter

Governance

- Set up a governance structure that integrates climate action into operations and internal culture, public engagement & financial decision-making processes
- Dedicate staff to advance CAAP policies and programs

City Leadership

- Commit to demonstrating leadership
- Ensure CAAP implementation benefits those most impacted by climate change such as through job creation
- Collaborate with public agencies and community organizations

Funding & Investment

- Integrate mitigation and adaptation considerations in the allocation of existing funds, specifically through the annual budget process and Capital Improvement Program
- Pursue new funding sources and identify other financing mechanisms

CAAP - Development Services Year 1 Look-Ahead

Interdepartmental
Coordination

CAAP
Dashboard

Outreach &
Engagement

Integrate
CAAP into
CIP Process

Explore
Funding
Opportunities

Key Focus Areas
(Jobs & Climate,
Extreme Heat, & Sea
Level Rise)

Next Steps

- Preparing Subsequent Environmental Impact Report (EIR)
- Staff anticipates bringing the CAAP forward for adoption in Fall 2021



Thank you

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