Climate Action and Adaptation Plan

City Council Hearing – August 16, 2022

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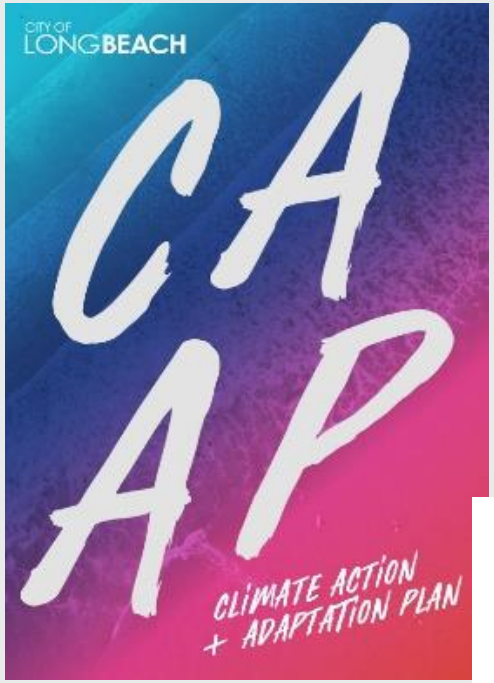
Climate Action and Adaptation Plan (CAAP) – Prior Council Actions

The City Council reviewed the CAAP on the following dates:

- **March 19, 2019:** Study Session was conducted by City staff to introduce the CAAP
- **January 5, 2021:** The City Council confirmed the CAAP and directed City staff to develop the environmental impact report (EIR) required per the California Environmental Quality Act



Reminder: What is CAAP?

A plan to:

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

CAAP Status

- Development of a CAAP is a mitigation measure of the Land Use Element (LUE) Program EIR
- City Council confirmed the CAAP on January 5, 2021
  - Confirmed GHG reduction pathway for 2030
  - Directed City staff to develop the EIR
- City staff has prepared a Subsequent Environmental Impact Report (SEIR) as required by the California Environmental Quality Act (CEQA)
- Public review period for the Draft SEIR: March 18 - May 2, 2022
- Planning Commission recommended adoption May 19, 2022

Why do we need a CAAP?

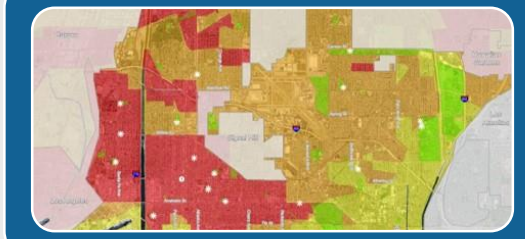
City leadership needed for city-scale mitigation, climate adaptation, and equity beyond what could be achieved by State emissions reduction efforts alone

Mitigation

- Implementation occurs at both city and state level (siting EV charging stations and updating building codes and 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

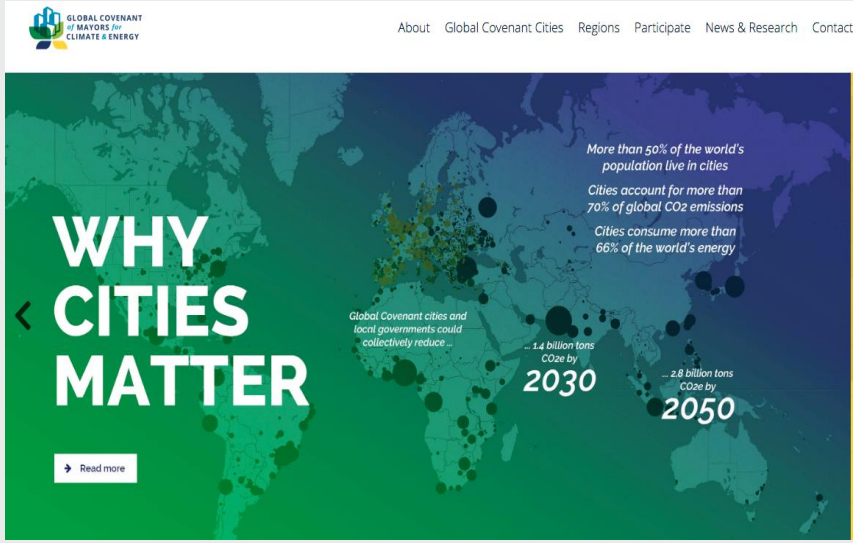
- State emissions reduction targets do not ensure that climate issues are equitably addressed
- CAAP helps address environmental justice and can help steer climate finance opportunities to communities most impacted by climate change

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:

- Senate Bill 375 - Sustainable Communities (SB 375)
- Assembly Bill 691 - Sea Level Rise (AB 691)
- Senate Bill 1000 - Environmental Justice in Local Land Use Planning (SB 1000)
- Senate Bill 379 - Climate Adaptation in Safety Elements (SB 379)
- Senate Bill 100 - Carbon-free Electricity by 2045 (SB 100)



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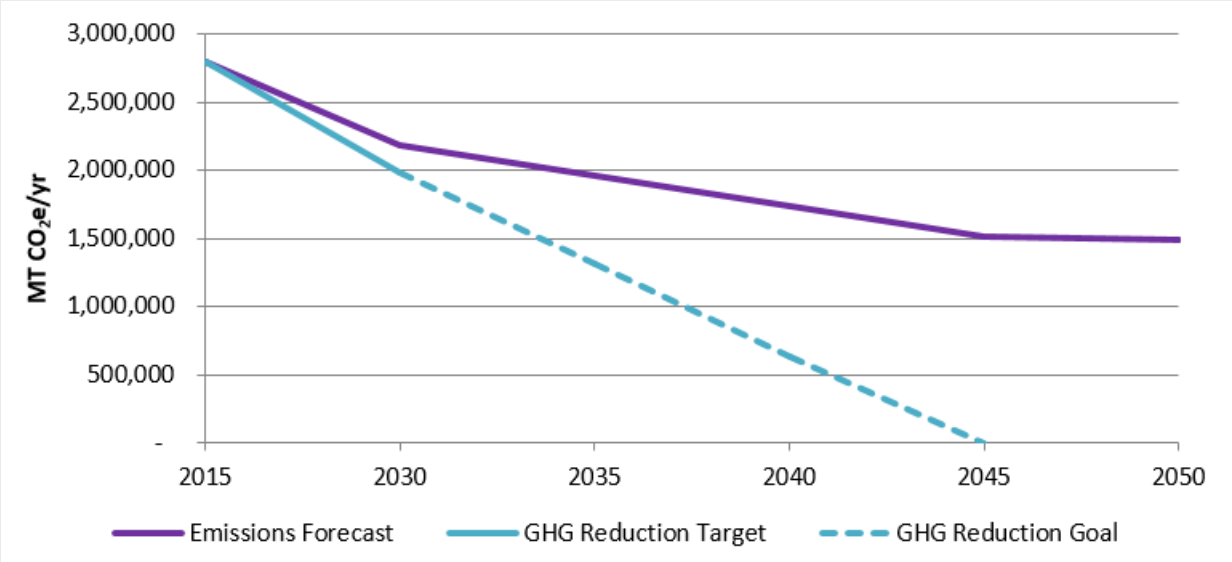
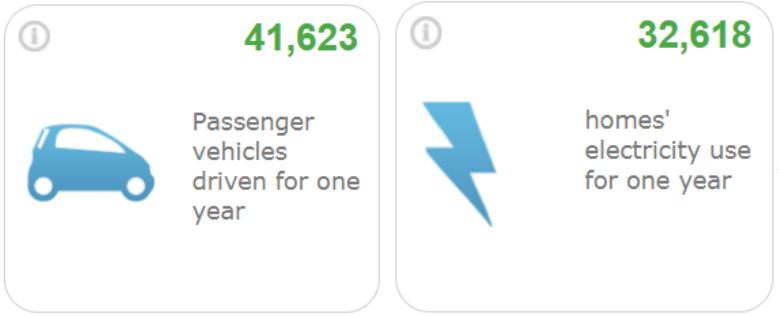
Long Beach GHG Emissions Reduction Pathway



State:
192,659
MT CO_2e
equivalencies



Performance towards the City's GHG reduction target will be monitored regularly, and strategies adjusted as needed

GHG Reduction Targets	
2030 GHG Target	**3.04 MT CO_2e/Service Population**
Business as Usual Forecast	2,176,931 MT CO_2e
Target Level	1,984,272 MT CO_2e
GHG Reductions Needed	**192,659 MT CO_2e**
GHG Reductions Anticipated	**363,250 MT CO_2e**

2030 GHG Reduction Target by Service Population	
Business as Usual Target	3.34 MT CO_2e
Emissions Target Level (State)	**3.04 MT CO_2e**
Reduction Needed (State)	**0.3 MT CO_2e (9% reduction/person)**
Long Beach GHG Pathway	**2.78 MT CO_2e**
Reduction Needed (Long Beach GHG Pathway)	**0.56 MT CO_2e (17% reduction/person)**

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What Comprises the CAAP?

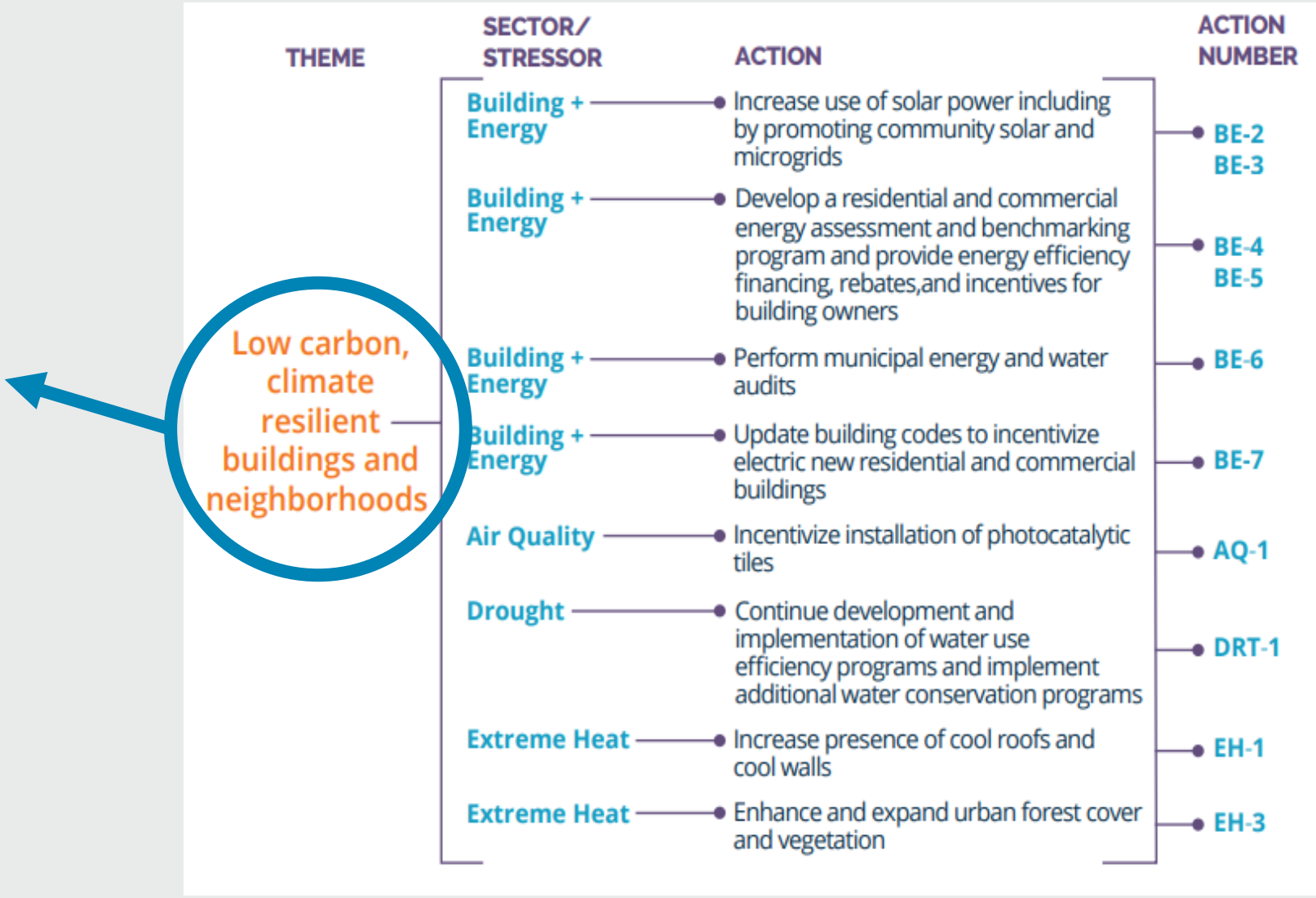
The implementation of the CAAP will help Long Beach realize:

1. **Low carbon, climate resilient buildings and neighborhoods**
2. **Safe and adaptable infrastructure**
3. **Protected and enhanced natural systems**
4. **A healthy, resilient and ready population**
5. **Residents and businesses with minimized carbon footprints**

Mitigations towards Low Carbon Buildings and Neighborhoods

CAAP provides a suite of mitigation actions that support lower carbon buildings and neighborhoods

- Updating building codes
- Facilitating energy audits
- Enhancing urban forest cover
- Encourage cool roofs and cool walls



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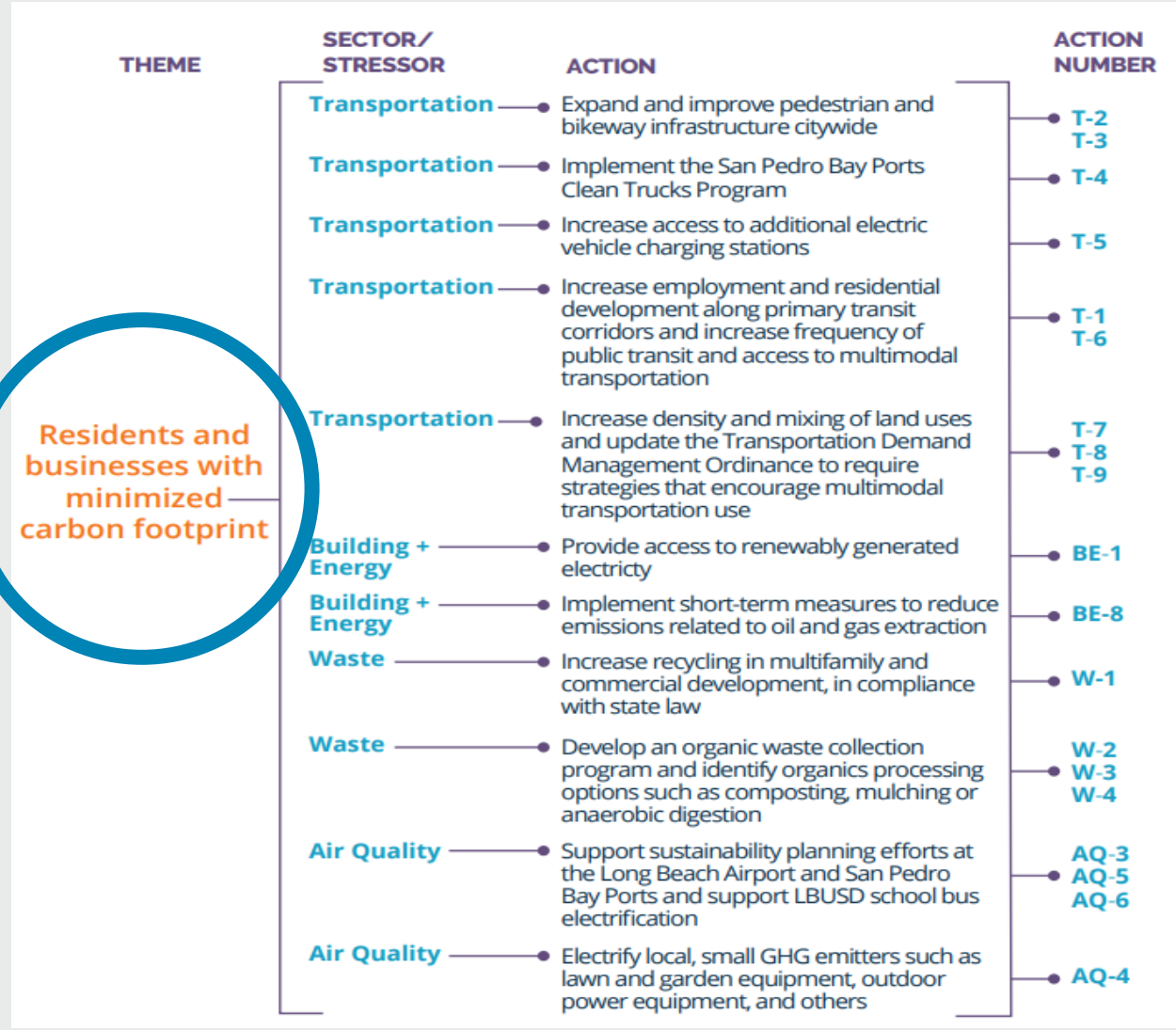
Minimizing the Carbon Footprint of Residents and Businesses

CAAP provides a suite of actions minimizing the carbon footprint of our residents and businesses by increasing access to services and infrastructure:

- Renewable electricity
- EV charging stations
- Pedestrian and bikeway infrastructure
- Recycling and organics
- Housing and jobs near public transit



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Adaptations Towards A Healthy, Resilient and Ready Population

Adaptation Actions help us respond and adapt to the impacts of climate change:

Extreme Heat

Air Quality

Drought

Sea Level Rise & Flooding

We can support a healthy, resilient, and ready population through a diverse range of adaptation actions

THEME	SECTOR/ STRESSOR	ACTION	ACTION NUMBER
A healthy, resilient and ready population	Extreme Heat	Install additional water fountains and undertake other actions to increase public access to water	EH-4
	Extreme Heat	Identify future vulnerability potential for power outages related to extreme heat and develop plans to prevent outages	EH-5
	Extreme Heat	Enhance and expand accessibility to cooling centers	EH-6
	Extreme Heat	Improve beach and coastal transit access during extreme heat events	EH-6
	Air Quality	Encourage urban agriculture practices that reduce air quality pollution	AQ-2
	Air Quality	Increase monitoring and regulation of the oil extraction and refining process	AQ-7
	Drought	Enhance outreach and education related to water conservation	DRT-2
	Drought	Expand use of recycling water and grey water for non-potable use	DRT-4
	Sea Level Rise + Flooding	Update the floodplain ordinance	FLD-1
	Sea Level Rise + Flooding	Establish a flood impacts monitoring program	FLD-3
	Sea Level Rise + Flooding	Investigate feasibility of managed retreat in the longer term	FLD-19

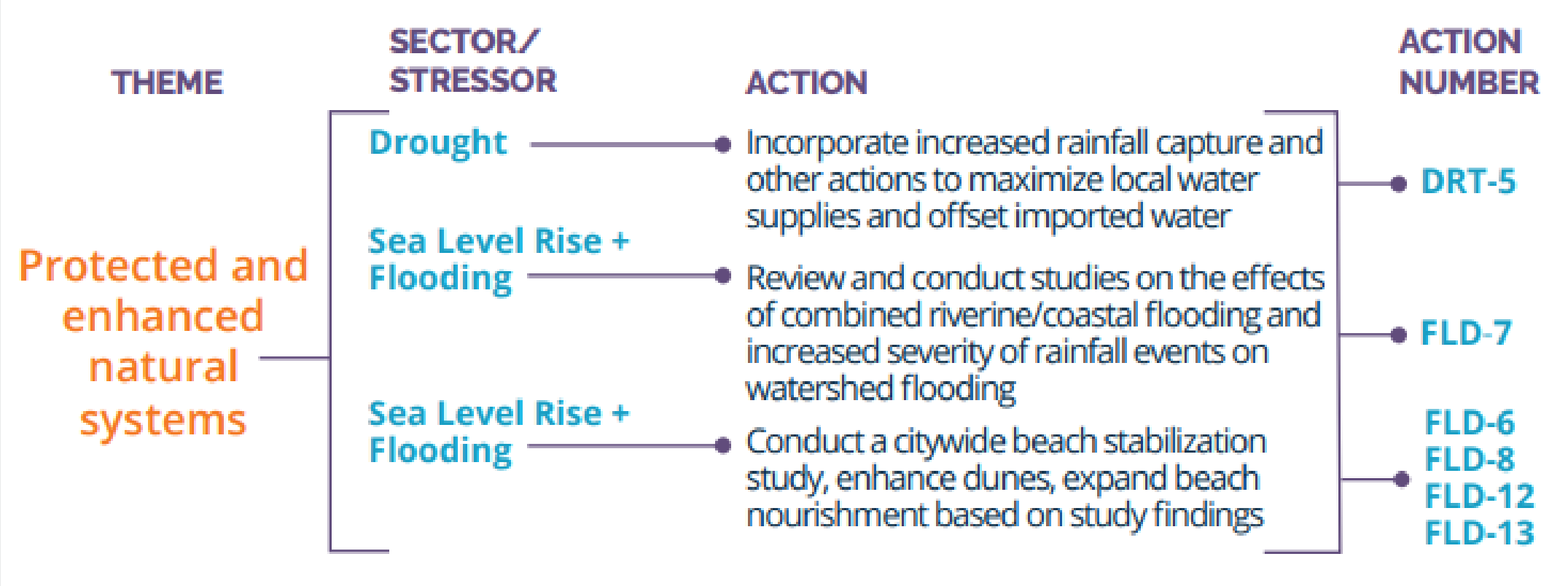
Safe and Adaptable Infrastructure

Ensuring safe and adaptable infrastructure includes expanding

- Green infrastructure
- Green streets
- Reflective streets and surfaces
- Shade canopies and bus shelter amenities

THEME	SECTOR/ STRESSOR	ACTION	ACTION NUMBER
Safe and adaptable infrastructure	Extreme Heat	Increase presence of reflective streets, surfaces, shade canopies, and bus shelter amenities	EH-2, EH-7
	Drought	Expand usage of green infrastructure and green streets	DRT-3
	Sea Level Rise + Flooding	Address sea level rise in citywide plans, policies, and regulations and incorporate adaptation strategies into City lease negotiations	FLD-2, FLD-4
	Sea Level Rise + Flooding	Update the City's existing Stormwater Management Plan	FLD-5
	Sea Level Rise + Flooding	Relocate/elevate critical infrastructure, including elevating riverine levees and flood proofing vulnerable sewer pump stations	FLD-9, FLD-10, FLD-11
	Sea Level Rise + Flooding	Elevate streets/pathways and retreat/ realign beach parking lots	FLD-14, FLD-15, FLD-17
	Sea Level Rise + Flooding	Retrofit/extend sea walls and storm surge barriers as appropriate	FLD-16, FLD-18, FLD-20

Adaptations that Protect and Enhance Natural Systems



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CAAP Implementation Monitoring and Reporting (Chapter 8)

- The CAAP is designed to be a living document/plan
- Multi-pronged approach for implementation monitoring and reporting:
    - GHG inventories:
        - Production-based community-wide GHG inventories every 2 years
            - Tracks total GHG emissions from all sources within the community
            - Using the International Council for Local Environmental Initiatives (ICLEI) protocol as recommended by California Air Resources Board (CARB) and used across the world
            - Informs whether we are on track and if plan updates are necessary
        - On the alternating years, a municipal GHG inventory
    - Performance metrics for individual CAAP actions to inform
    - Reporting tool: CAAP dashboard
    - Plan Updates as necessary

CEQA Review for the CAAP

- CAAP is a “project” under CEQA (policy plan but no physical project)
- Provides program level analysis to assess possible impacts of CAAP actions and adaptation framework
- Does not environmentally clear any physical projects or improvements
- EIR also covers General Plan Safety Element updates to incorporate climate adaptation and resiliency pursuant to state law
- Subsequent EIR to the LUE PEIR
- No new significant impacts found under CEQA

Compliance Checklist Table for
Greenhouse Gas Analysis:
Table 1. Private Development Projects

A. GENERAL PROJECT INFORMATION

Date:	Case No.:
Project Name:	
Project Address:	Block/Lot:
Standard to be met (Select one)¹:	Date of site permit submittal (if applicable):

CAAP Consistency Checklist

- CAAP is designed to be a qualified climate action plan pursuant to CEQA (*State CEQA Guidelines* Section 15183)

- All future projects subject to CEQA in Long Beach will have to complete the CAAP checklist

- CAAP Checklist applies to new development that require discretionary and environmental review under CEQA
  - CAAP Actions that do not apply to new development (i.e. T-4 Implement Port of Long Beach Clean Air Action Plan and BE-8 Identify and Implement Short-term Measures to Reduce Emissions Related to Oil and Gas Extraction) would be addressed by alternative tools, when feasible

CAAP Consistency Checklist Continued

- Extensive technical analysis conducted for this EIR to show what actions new projects will have to incorporate to demonstrate that future development takes on a "fair share" of the GHG reductions needed citywide to meet State reduction targets

- Projects not consistent with the checklist will still have to complete project-level GHG analysis, including:
  - Quantification of existing and projected GHG emissions
  - Incorporation of the measures in this CAAP Checklist to the extent feasible

Checklist Example: Building Energy

Building Energy		
1. TIER 1: Zero-Carbon Electricity For all projects except heavy industry (but including light industrial projects), the project must utilize 100% zero-carbon electricity on-site. The project must comply with one of the following options: 1. Install on-site renewable energy systems or participate in a community solar program to supply 100% of the project's estimated energy demand to the maximum extent feasible. 2. Participate in Southern California Edison at the Green Rate level (i.e., 100% carbon-free electricity) for all electricity accounts associated with the project until which time SCE provides 100% carbon-free electricity for all accounts by default. 3. A combination of #1 and #2 above such that 100% of the project's electricity is zero-carbon. **Supports CAAP Measures:** BE-1, BE-2, BE-3	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

Checklist Example: Transportation

10. <u>TIER 1:</u> Incorporate Pedestrian Infrastructure The project must incorporate pedestrian infrastructure into its design: 1. Pedestrian facilities and connections to public transportation consistent with the City's Mobility Element, CX3 Pedestrian Plan, and any other relevant governing plan 2. Increase sidewalk coverage to improve pedestrian access 3. Improve degraded or substandard sidewalks 4. Maximize shade for pedestrians through tree planting and maintenance 5. Incorporate best practices to ensure pedestrian infrastructure is contiguous and links externally with existing and planned pedestrian facilities; best practices include high-visibility crosswalks, pedestrian hybrid beacons, and other pedestrian signals, mid-block crossing walks, pedestrian refuge islands, speed tables, bulb-outs (curb extensions), curb ramps, signage, pavement markings, pedestrian-only connections and districts, landscaping, and other improvements to pedestrian safety 6. Minimize barriers to pedestrian access and interconnectivity, such as walls, landscaping buffers, slopes, and unprotected crossings	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

Public Participation

- 10,000+ residents engaged in developing the CAAP
- SEIR process
  - **July 2021**: Native American Tribal Consultation
  - **9/1/2021**: Scoping Meeting
  - **3/18 – 5/2/2022**: Draft SEIR Comment Period
    - Seven comments received
      - Three State and local government agencies
      - Four interested parties
    - All comments responded to in Final SEIR

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Early CAAP Implementation: Vehicle Miles Traveled (VMT) Adoption

CAAP Action T9- Implement SB 743:

- New State law established Vehicle Miles Traveled (VMT) as the method for determining transportation impacts, for environmental purposes
- Aligns with updated General Plan and draft Climate Action and Adaptation Plan
- City adopted VMT methodology in June 2020

The Move to VMT Analysis:

- Encourages more sustainable, compact development patterns
- Aims to reduce GHG emissions and improve air quality
- Prioritizes multimodal mitigation measures over vehicular roadway improvements

Early CAAP Implementation: SB 1383 and Organics Processing

CAAP Actions W2 and W3 implemented through SB 1383

- Reducing short-lived climate pollutants through organic waste diversion and surplus food recovery
- City adopted compliance updates in December 2021
- Helps implement W-2 and W-3 of the CAAP
  - CAAP Waste Action 2 (W2): Develop an organic waste collection program for City-serviced accounts
  - CAAP Waste Action 3 (W3): Partner with private waste haulers to expand organic waste collection community-wide

Early CAAP Implementation: New Housing Near Transit

Transit-focused housing (CAAP Actions T6 and T8)

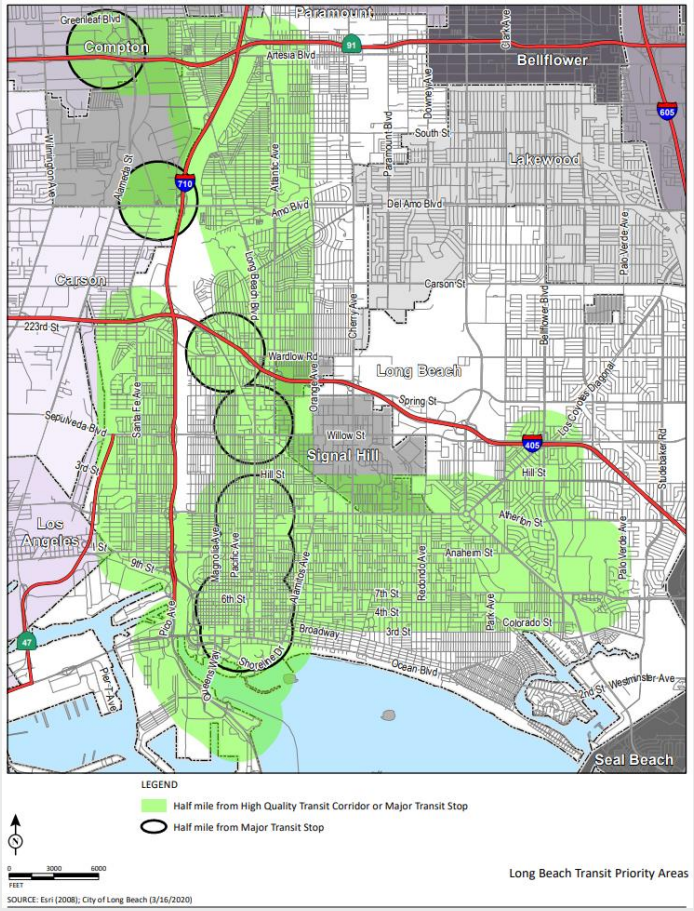
- Reduce GHG by reducing VMT
- Most likely in mixed use corridors and Downtown/Midtown areas, near highest quality transit

Rezoning Efforts (Uptown Plan (UPLAN), Zone In: City Core and West Long Beach)

- UPLAN and Zone In: City Core (ACZIP) rezoning in North and Central Long Beach to design zoning regulations that provide better access to quality jobs and housing near transit

Inclusionary Housing Requirement and Enhanced Density Bonus

- Two critical strategies adopted in 2021 to ensure affordable housing is included as part of market-rate developments to the maximum extent feasible



Long Beach Transit Priority Areas

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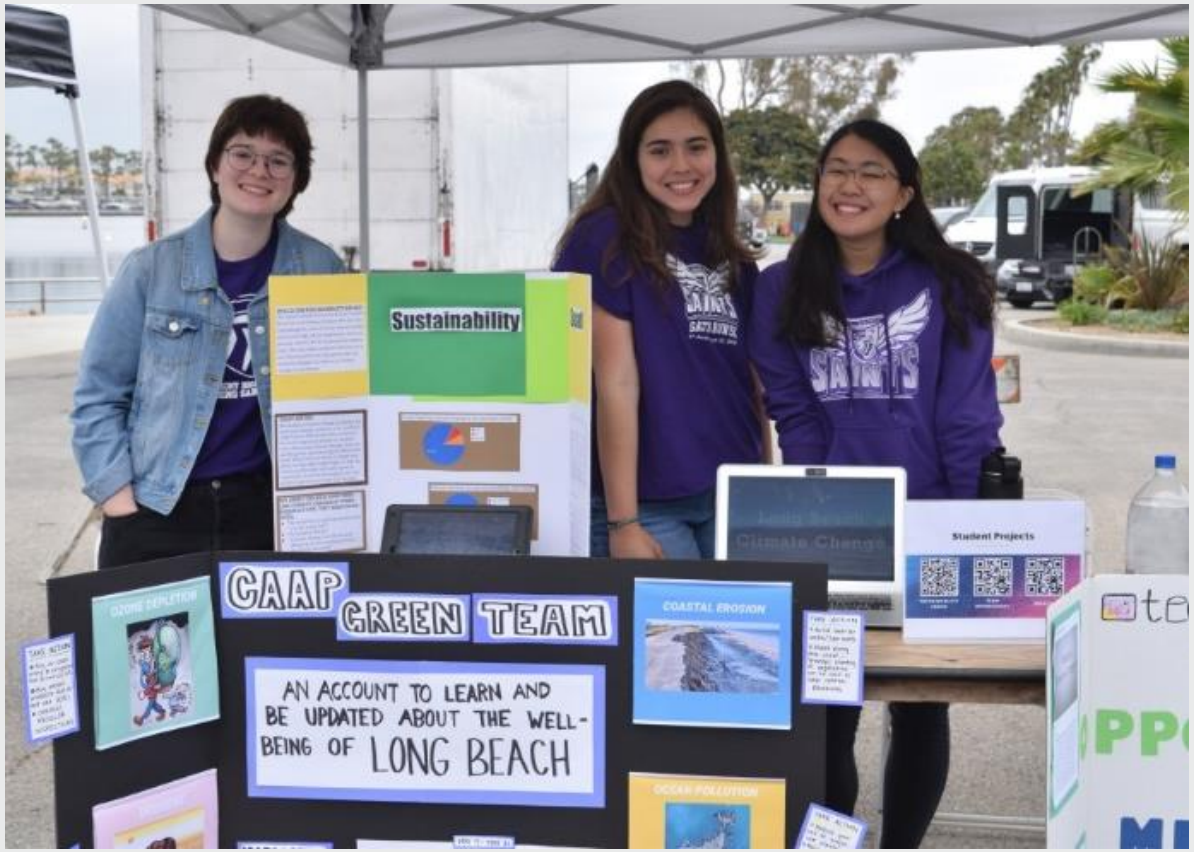
Early CAAP Implementation: Climate Ambassador Program

- Engage youth in climate action and environmental education
- Funding received through AB 32 and the Pacific Gateway Workforce Innovation Network (PGWIN)
- Application closed March 4, 2022
- Will be used to inform Youth Climate Corps programs



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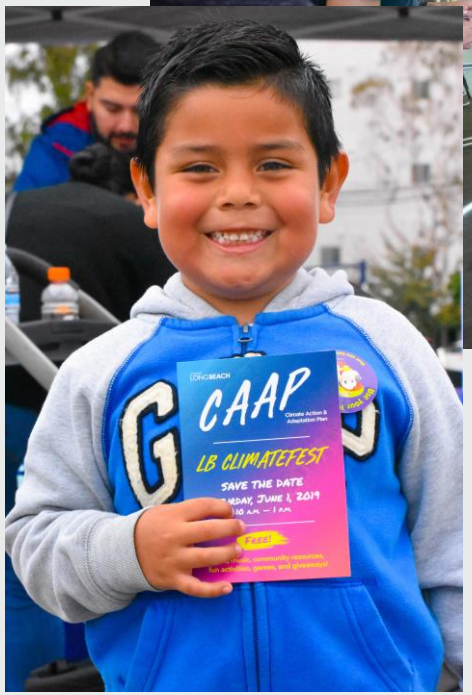
Early CAAP Implementation: Youth Climate Corps

- $6.3 million from State of California
- Approved by City Council November 9, 2021
- Support youth in Long Beach to engage in green workforce development
- Programs starting summer 2022



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Proposed CAAP Governance and Implementation – Office of Climate Action

- Fiscal Year 2023 Proposed Budget allocates $654,093 to create a new Office of Climate Action in the City Manager Department to oversee CAAP implementation and meet targets.
- The new Office of Climate Action will assure consistency across Departments and efforts to reduce emissions and adapt to the changing climate.

Responsibilities

Manage a coordinated City response to climate change **addressing public health disparities, fostering economic opportunity, and building community climate resilience**

Coordinate current and proposed CAAP initiatives to **achieve GHG emission reduction targets** led by City Manager and Commission oversight departments

Collaborate with external public and private agencies and institutions

Proposed CAAP Governance and Implementation – Office of Climate Action

Creation of new Office of Climate Action is in partnership with other city departments to offset costs

- In addition to the 5.3 FTEs from the Sustainability Office, four new positions will be created to support CAAP implementation and governance:
  - Assistant to the City Manager
  - Two Administrative Analysts
  - Administrative Aide
  - $50,000 for materials and supplies

- Staffing is commensurate with the need and focus on climate change.
- Funding and costs are spread across multiple departments responsible for climate change work.
- The Office of Climate Action will incorporate the City's existing positions in the Sustainability Office for a total of **9.3 positions** now dedicated to climate action and sustainability.

Recommendation

Receive the supporting documentation into the record, conclude the public hearing;

Adopt a Resolution approving and adopting a Subsequent Environmental Impact Report (EIR-03-21) to the General Plan Land Use Element and Urban Design Element Program Environmental Impact Report (PEIR) (PEIR-SCH# 2015051054), in accordance with the provisions of the California Environmental Quality Act (CEQA) Section 15164 of the CEQA Guidelines, and making certain CEQA Findings and Determinations relative thereto, including a finding that the adopted General Plan Land Use Element PEIR Mitigation Monitoring and Reporting Program shall apply; and that no new or different mitigation measures are required; approving the Climate Action and Adaptation Plan (2205-02); and,

Adopt a Resolution authorizing the City Manager, or designee, to submit Policy and Ordinance amendments, as necessary to the California Coastal Commission for its review, approval and certification to obtain a finding of conformance with the City's Certified Local Coastal Program (LCPA22-001). (Citywide)

Thank you

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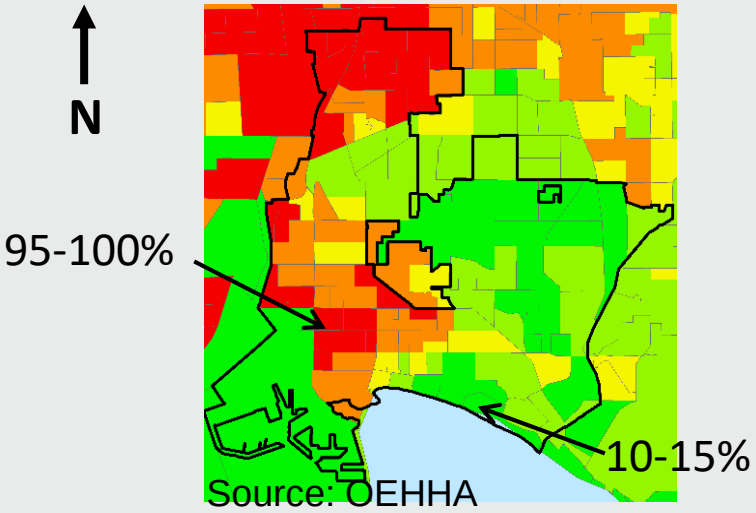
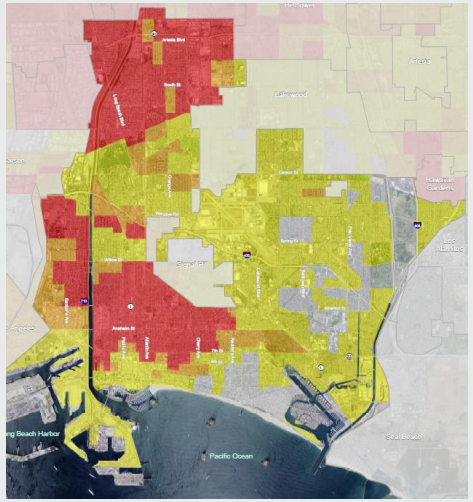
The following are resource slides for Q&A

Climate Change in the Environmental Justice Context

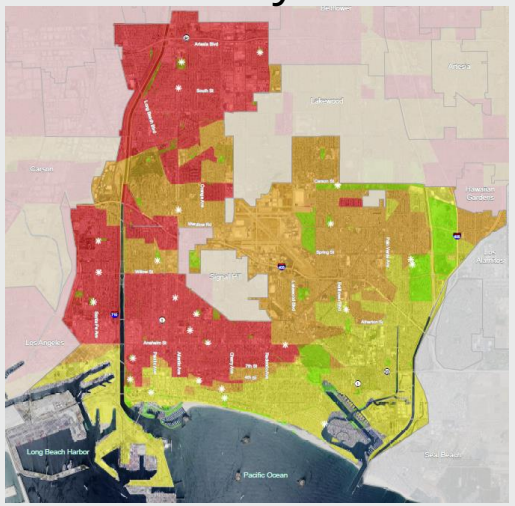
CalEnviroScreen 3.0



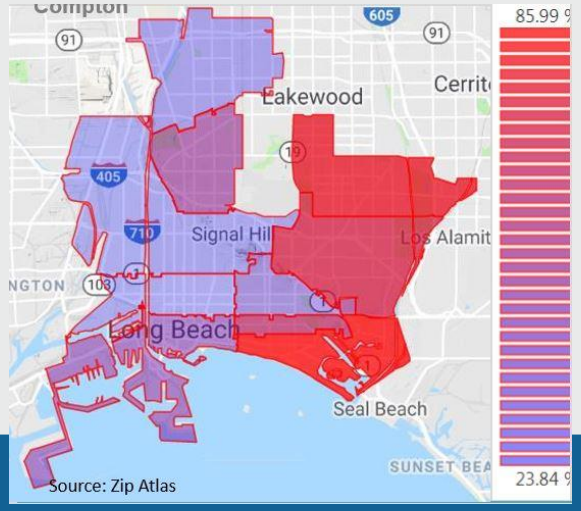
Extreme Heat Vulnerability



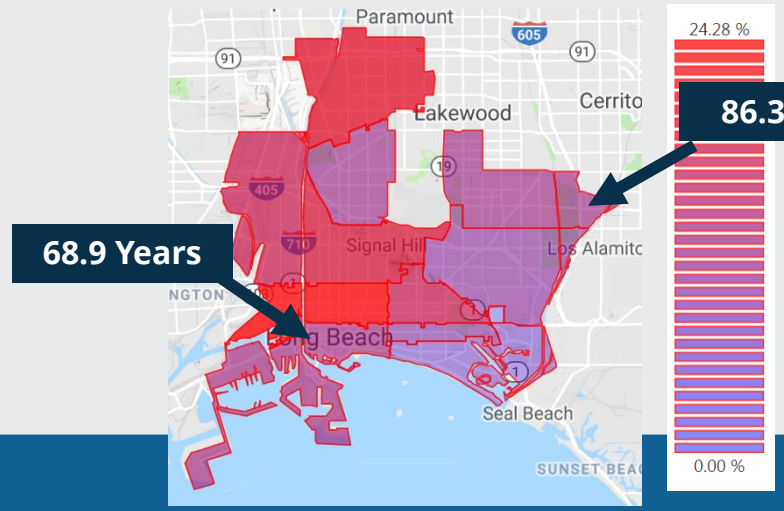
Social Vulnerability to Climate Change



Percentage of White Residents



Percentage of Children under Age 10



Life Expectancy at Birth

East Side:	86.3 years
- West Side:	68.9 years
Difference	**17.4 years**

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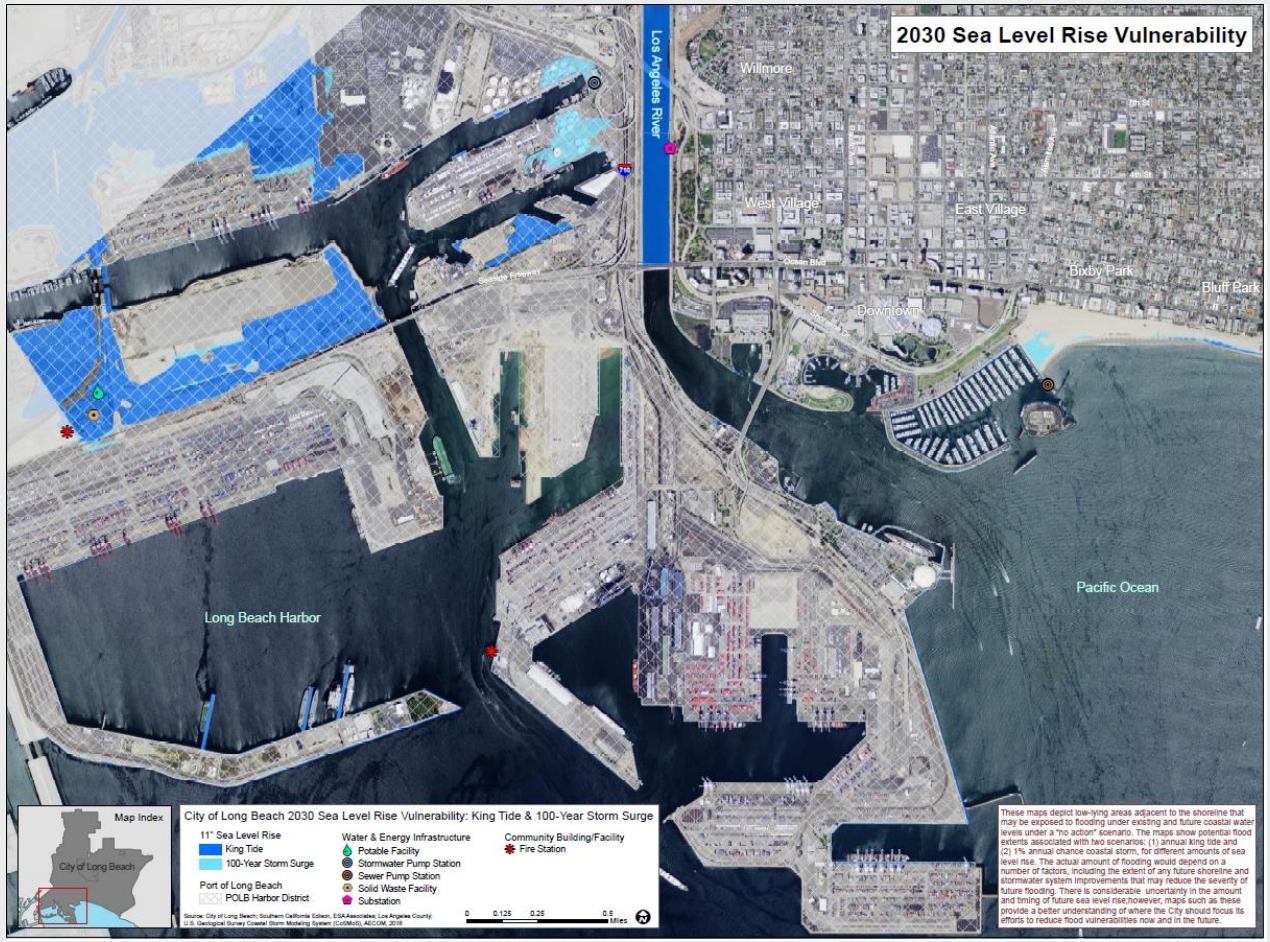
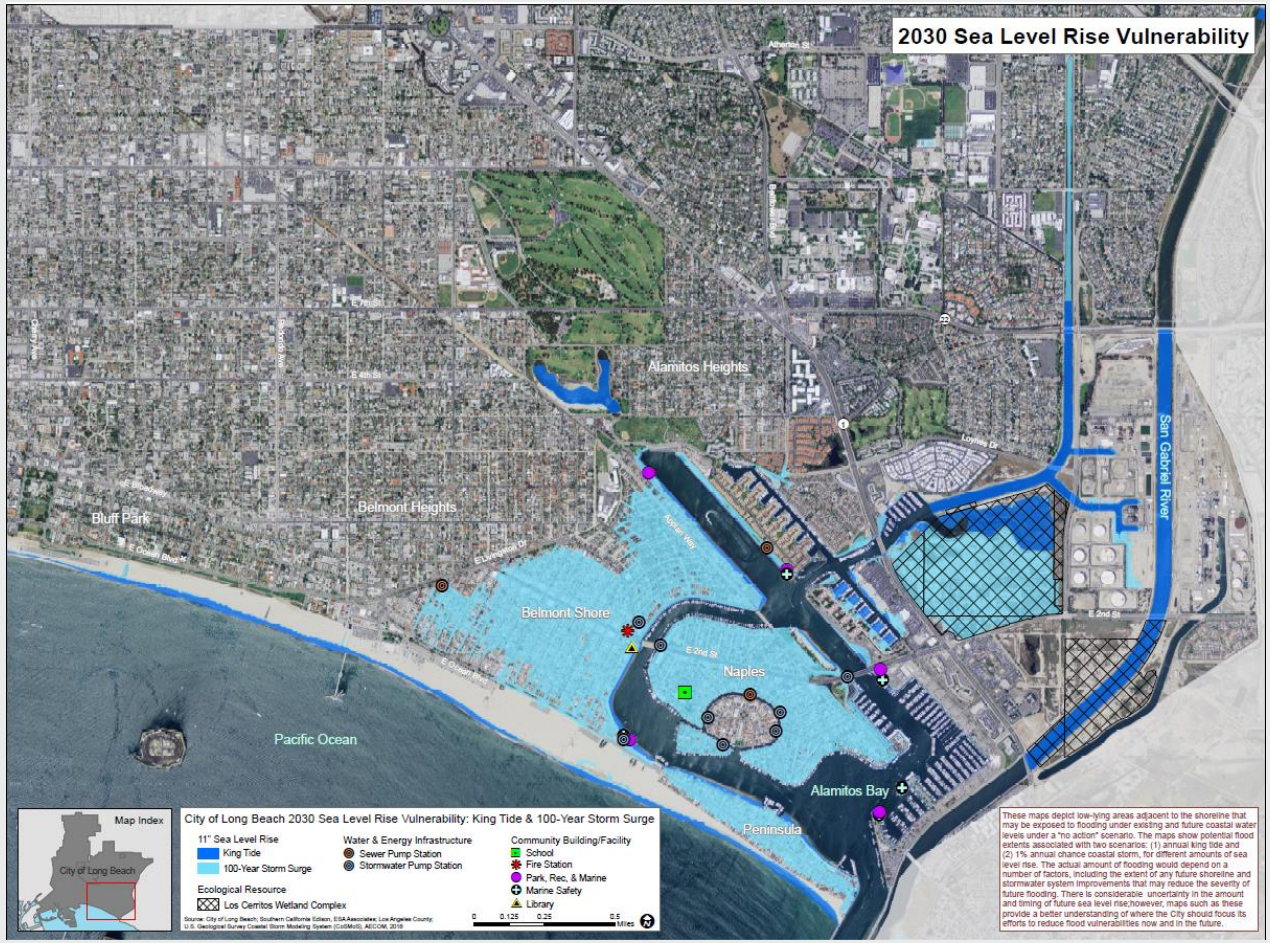
Near-Term Sea Level Rise Impacts (2030)





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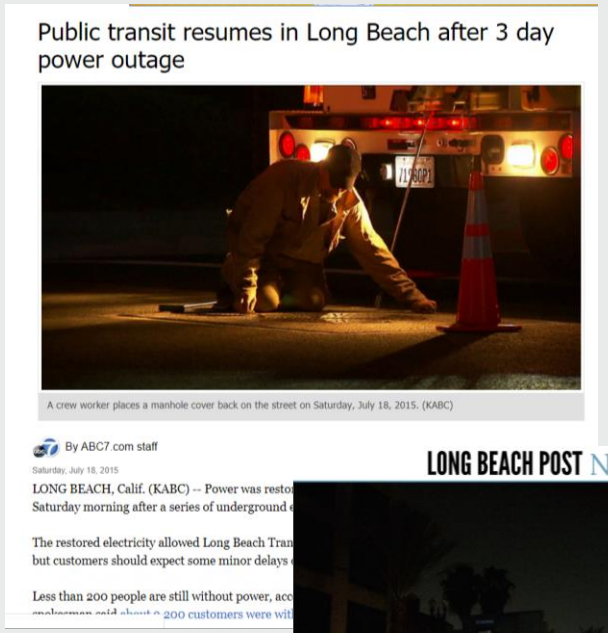
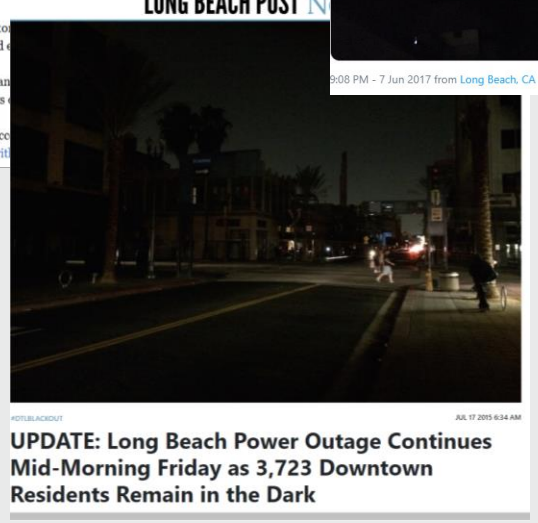
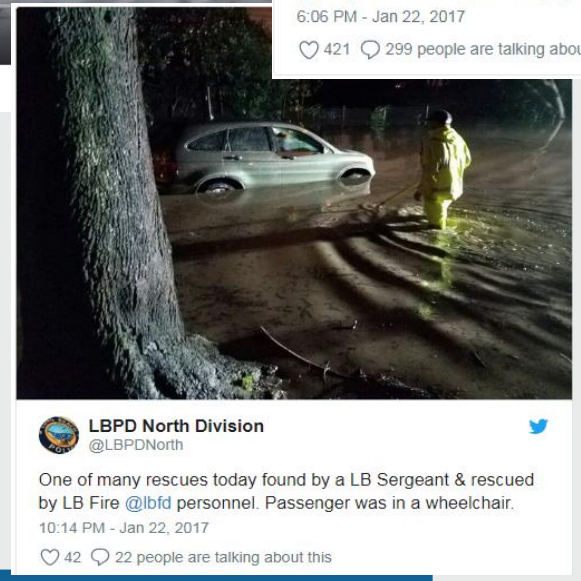
Climate Change is Already Impacting Long Beach

2015 Weeklong Power Outage in Downtown Long Beach during Heat Wave





2017 Flooding during intense storm in Long Beach



2018 Coastal Storm

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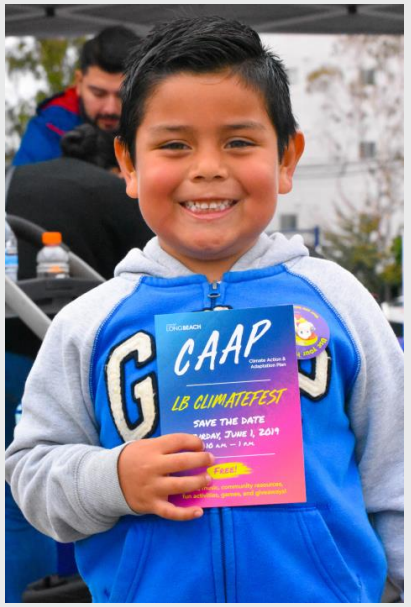
CAAP Community Outreach (2018 – 2019)

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



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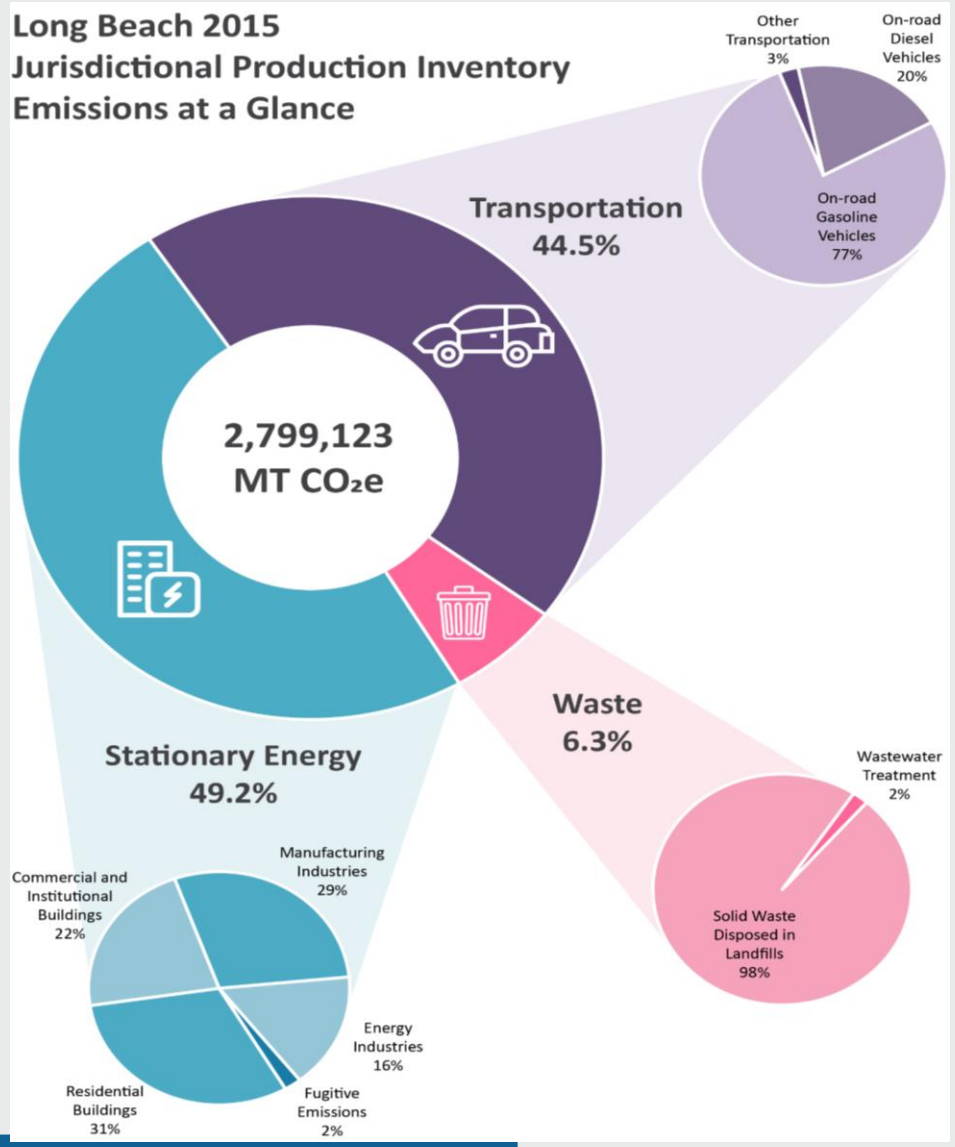
GHG Inventory

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	--

- Port waterborne activity not considered for GHG target-setting purposes because the City does not have direct authority to dictate emissions reductions for the Port.
- Airplane emissions from Long Beach Airport not considered for GHG target-setting purposes because the City has limited control as these emissions are federally regulated.



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Quantified Emissions Reduction Measures

2030 GHG Reduction Needed: 192,659 MT CO_2e

Action	2030 MT $C0_2e$/year*
Buildings	**247,700**
SCE Carbon-Free Electricity	188,960
Local Solar	3,880
Municipal Renewable Electricity	13,120
Reduced Oil Production	41,740

Action	2030 MT $C0_2e$/year*
Transportation	**30,480**
Port Clean Trucks Program	25,250
Enhanced VMT Reduction	5,230
Waste	**85,070**
Commercial Recycling	45,340
Commercial Organics Diversion	39,730
Total	**363,250**

*Estimates were developed based on standard GHG inventory protocols and methods.

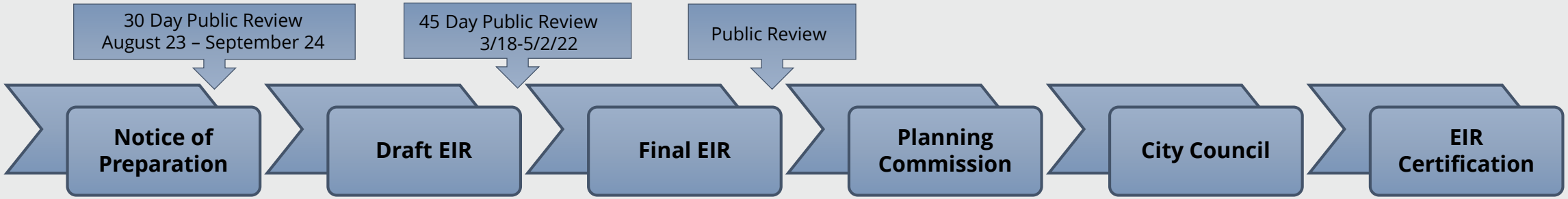
Checklist Example: Waste

Waste

5. <u>TIER 1:</u> Recyclable Materials Recycling The project must comply with all state and local requirements for recycling, also including but not limited to, Chapter 8.60 Solid Waste, Recycling, and Litter Prevention and Organic Waste Disposal Reduction in the City's Municipal code. The project must also: 1. Comply with all Mandatory Construction & Demolition (C&D) Recycling Program Requirements, including Section 18.67.100. 2. Provide substantial storage, collection, and loading of recyclables in a manner that is convenient and safe for all users of the building. Ensure there are sufficient sizes and amount of collection containers for recyclables. Containers must be kept clean, be clearly labeled, and are co-located next to any other solid waste receptacles. Ensure sufficient pick up of collection containers to meet the needs of the occupants. 3. Ensure that all projects include space for multi-stream collection containers in any location where a solid waste container is traditionally housed. This includes both outdoor	*Describe which project consistency options from the leftmost column you are implementing.* *OR,* *Describe why this action is not applicable to your project.* *OR,* *Describe why such actions are infeasible and identify the alternative measure proposed as a replacement strategy (provide additional documentation as described below)*	☐ Project Complies ☐ Not Applicable ☐ Project Does Not Comply ☐ Alternative Measure Proposed

CEQA Process Timeline

CAAP EIR



CITY OF LONG BEACH

CAAP Implementation

Governance	• Set up a governance structure that integrates climate action into operations and internal culture, public engagement, and financial decision-making processes • Dedicate staff to advance CAAP policies and programs
City Leadership	• Commit to demonstrating leadership in mitigation actions • Ensure CAAP implementation benefits those most impacted by climate change such as through job creation • Collaborate with public agencies and community organizations
Funding and 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