

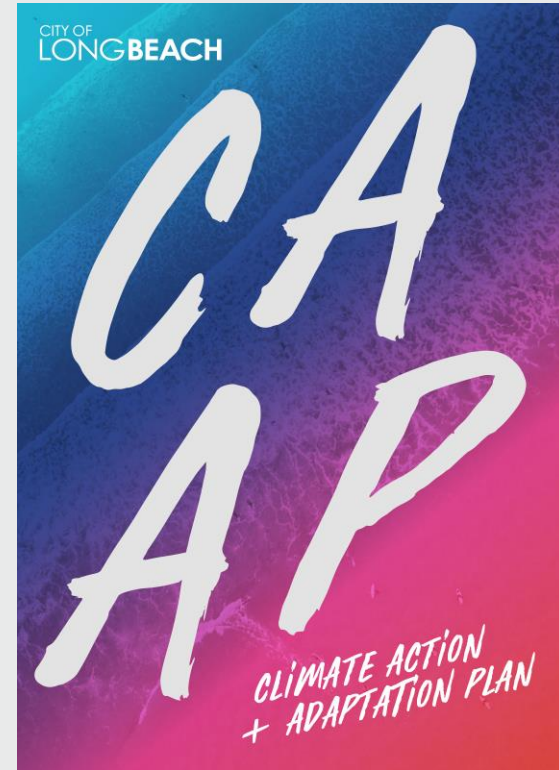
Climate Action & Adaptation Plan

Sustainable City Commission

January 27, 2022

Agenda

1. CAAP Overview
2. CAAP Plan status, next steps and adoption process
3. Implementation updates
4. Questions/Discussion



What is the Climate Action & Adaptation Plan (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?

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



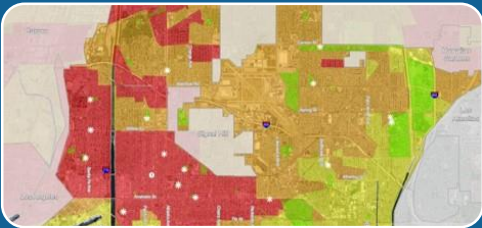
Mitigation

- 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

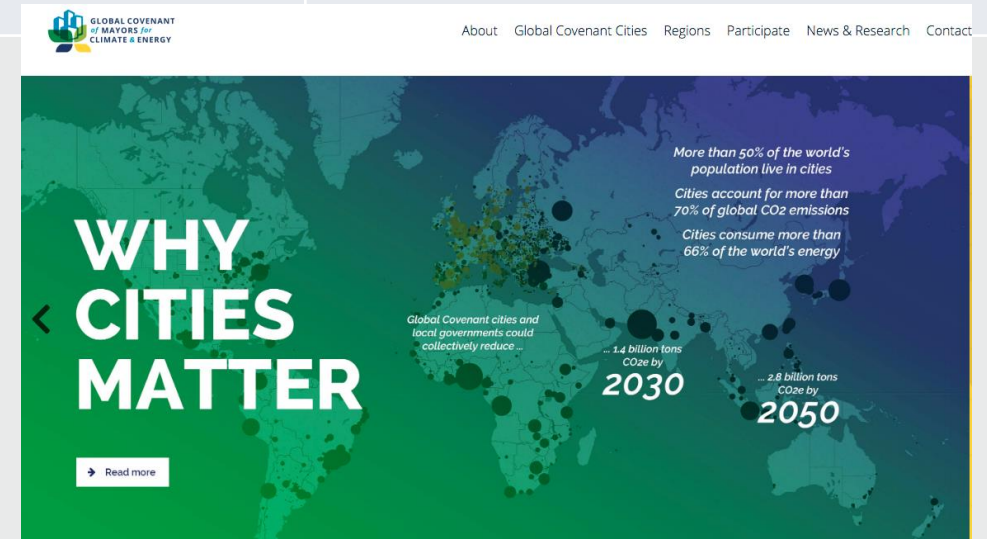
- State emissions reduction targets do not ensure that climate issues are equitably addressed
- CAAP helps address environmental justice & can help steer climate finance opportunities to communities most impacted by climate change

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)

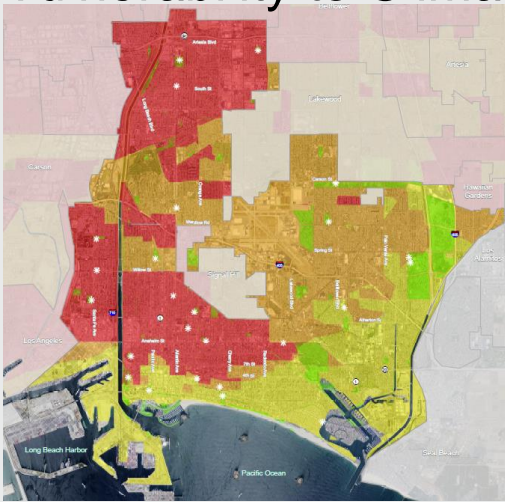
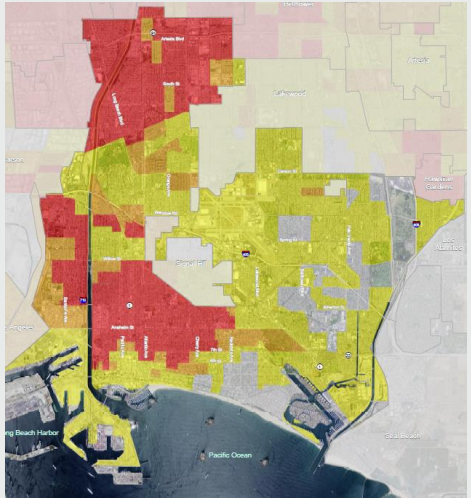
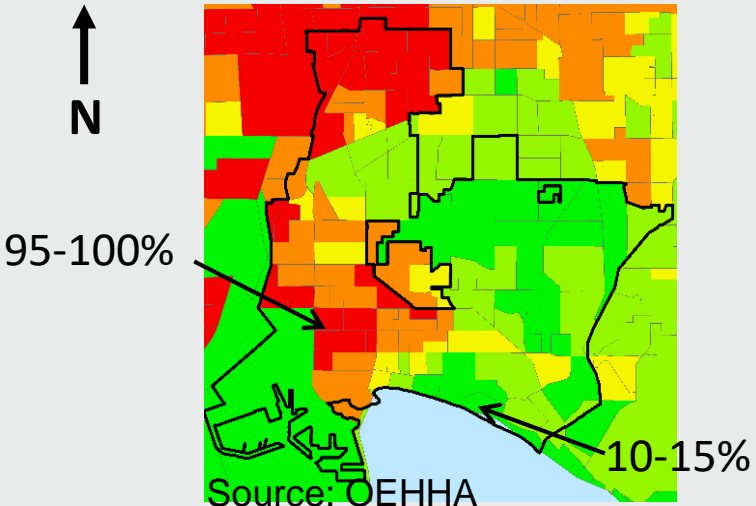


Environmental Justice Context & Equity Analysis

CalEnviroScreen 3.0

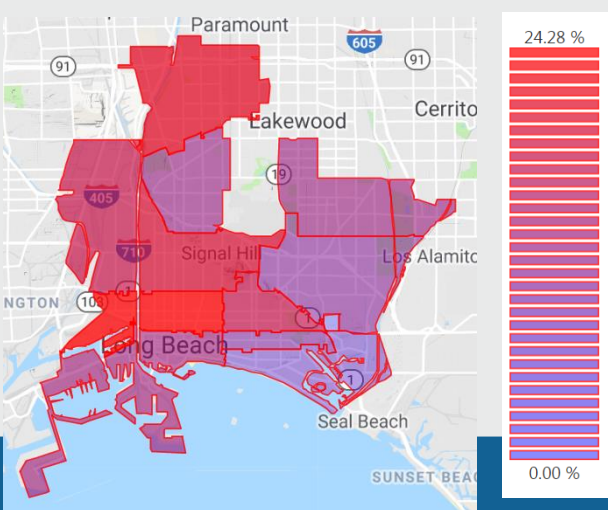
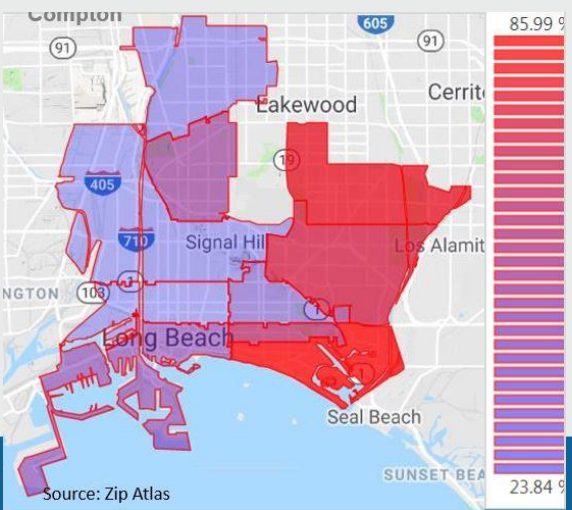
Extreme Heat Vulnerability

Social Vulnerability to Climate Change



Percentage of White Residents

Percentage of Children under Age 10

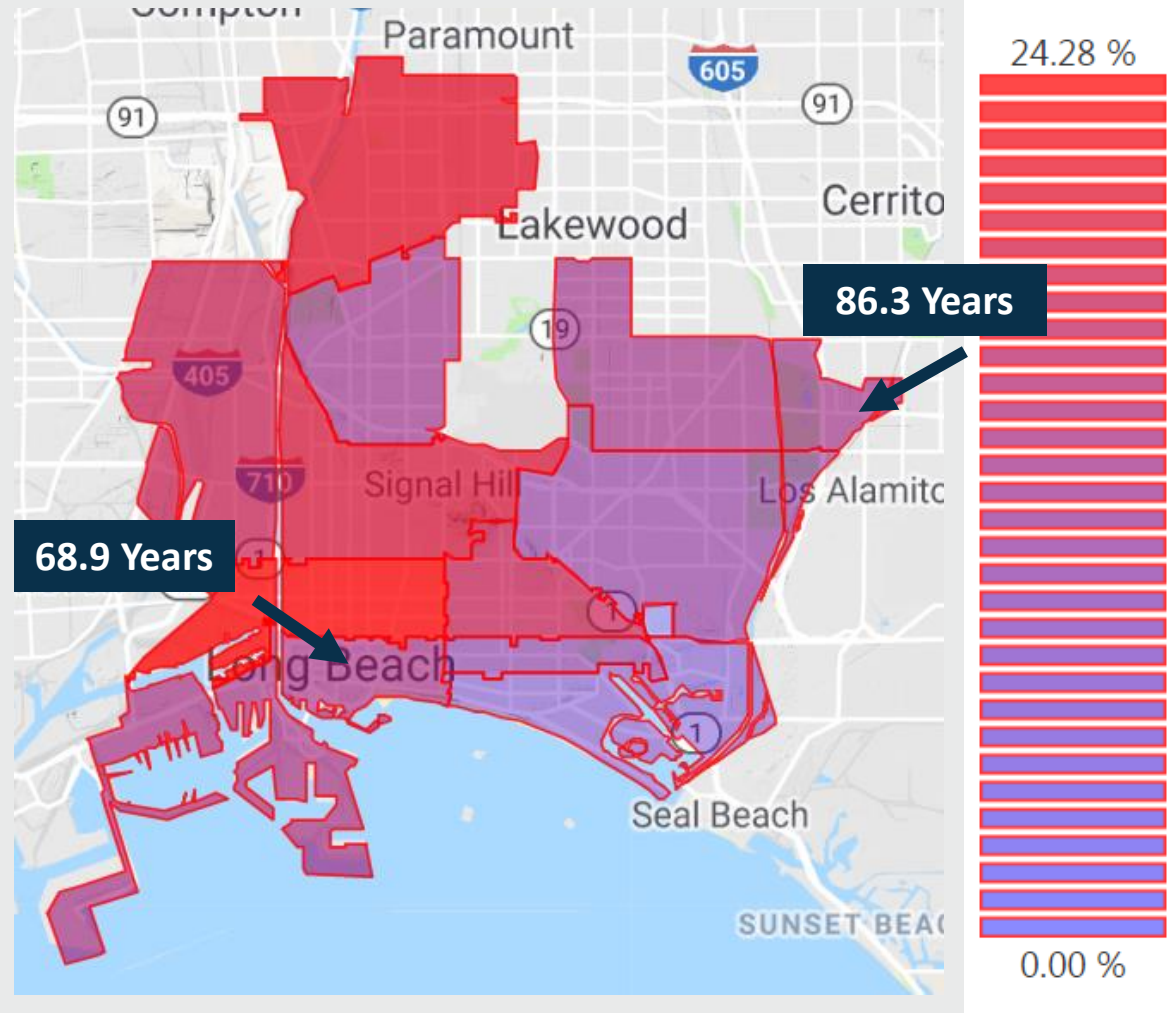


Tale of Two Zip Codes (or worse, Census Tracts)

Percentage of Children
under Age 10

Life Expectancy at Birth

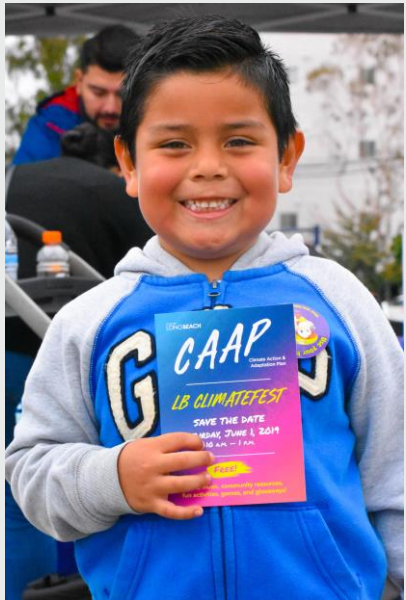
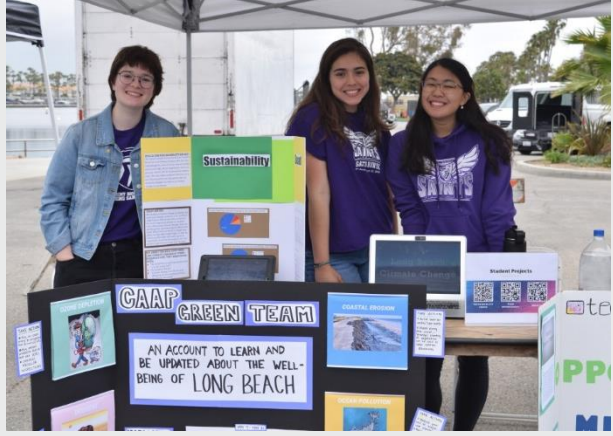
East Side:	86.3 years
- West Side:	68.9 years
Difference	17.4 years



Source: Zip Atlas

CAAP Community Outreach (2018 – 2019)

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

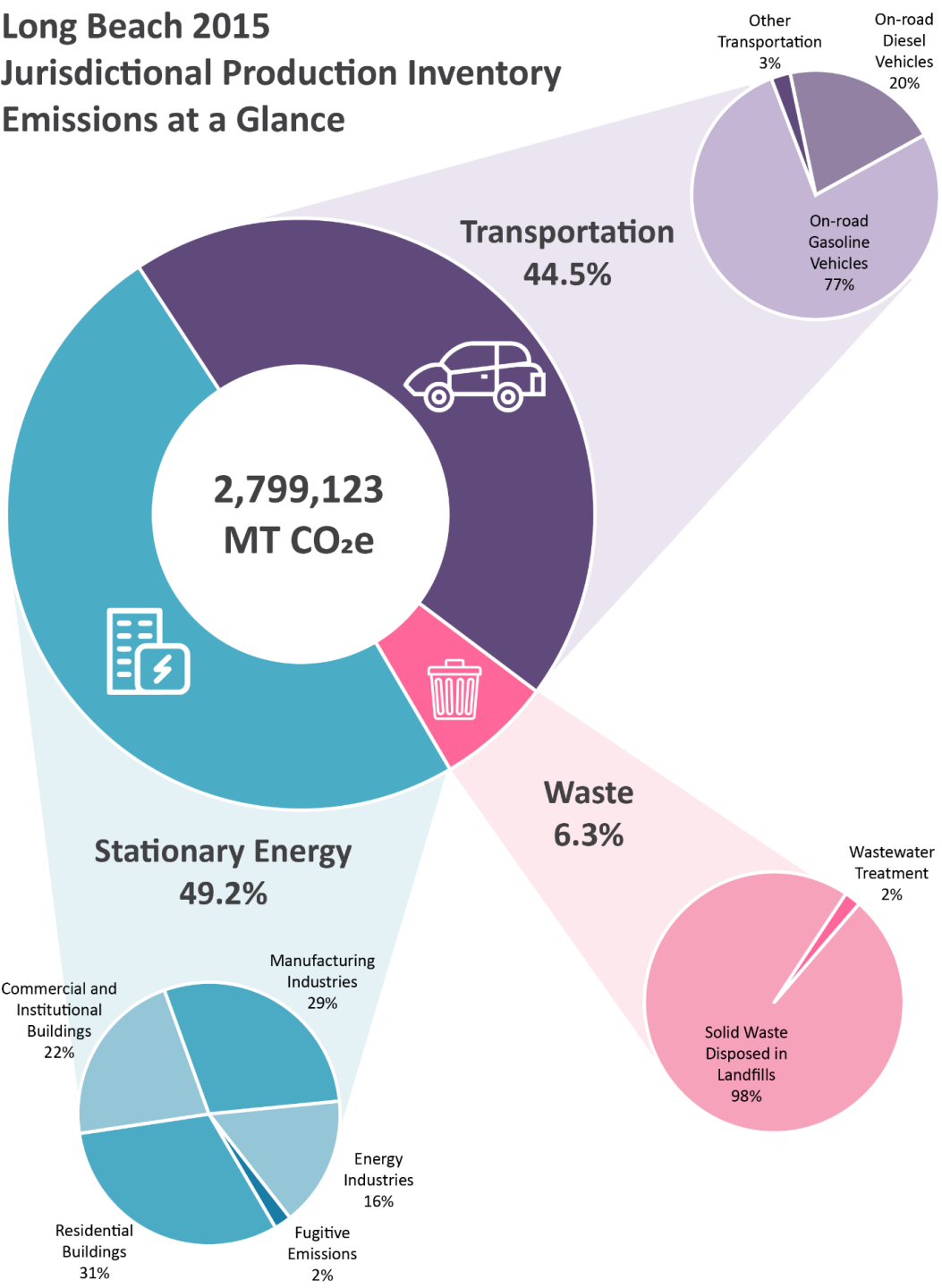


GHG Inventory

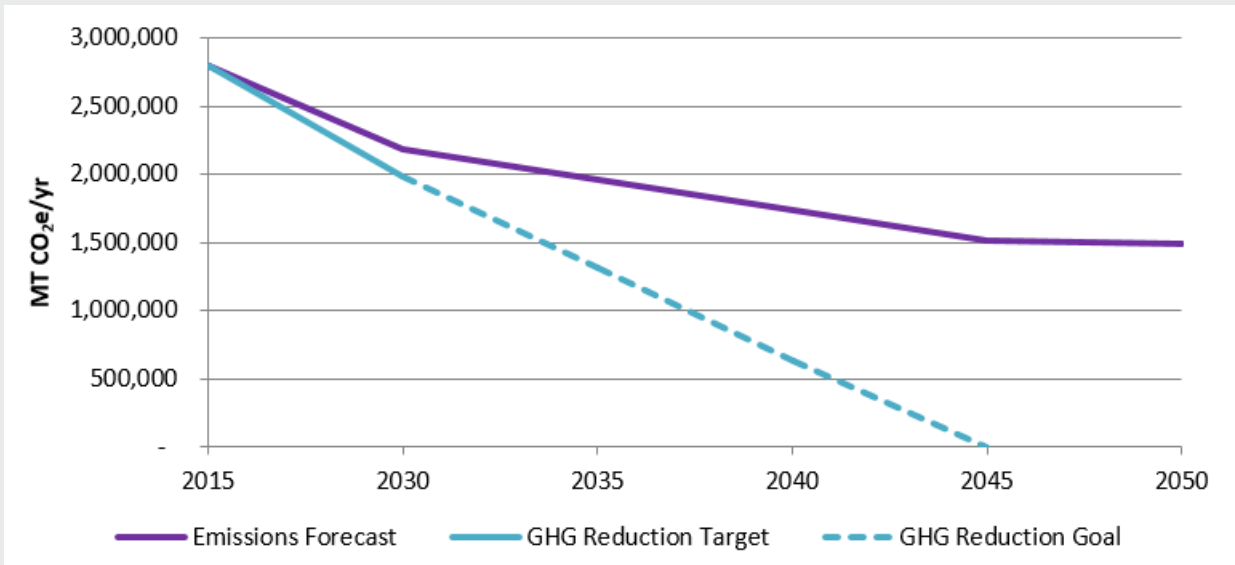
Sector	MT CO2e	% of Total
Stationary Energy	1,377,291	49.20%
Transportation	1,244,981	44.48%
Waste	176,850	6.32%
Total	2,799,123	100.00%
Per Capita	6.0	--

- 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.

Long Beach 2015
Jurisdictional Production Inventory
Emissions at a Glance



Long Beach GHG Emissions Reduction Pathway



State:
192,659
MT CO₂e
equivalencies



41,623
Passenger
vehicles
driven for one
year



32,618
homes'
electricity use
for one year

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 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 Needed (Long Beach GHG Pathway)	0.56 MT CO ₂ e (17% reduction/person)

What Will the CAAP Do?

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

Mitigation

Buildings

Transportation

Waste

Adaptation

Extreme Heat

Air Quality

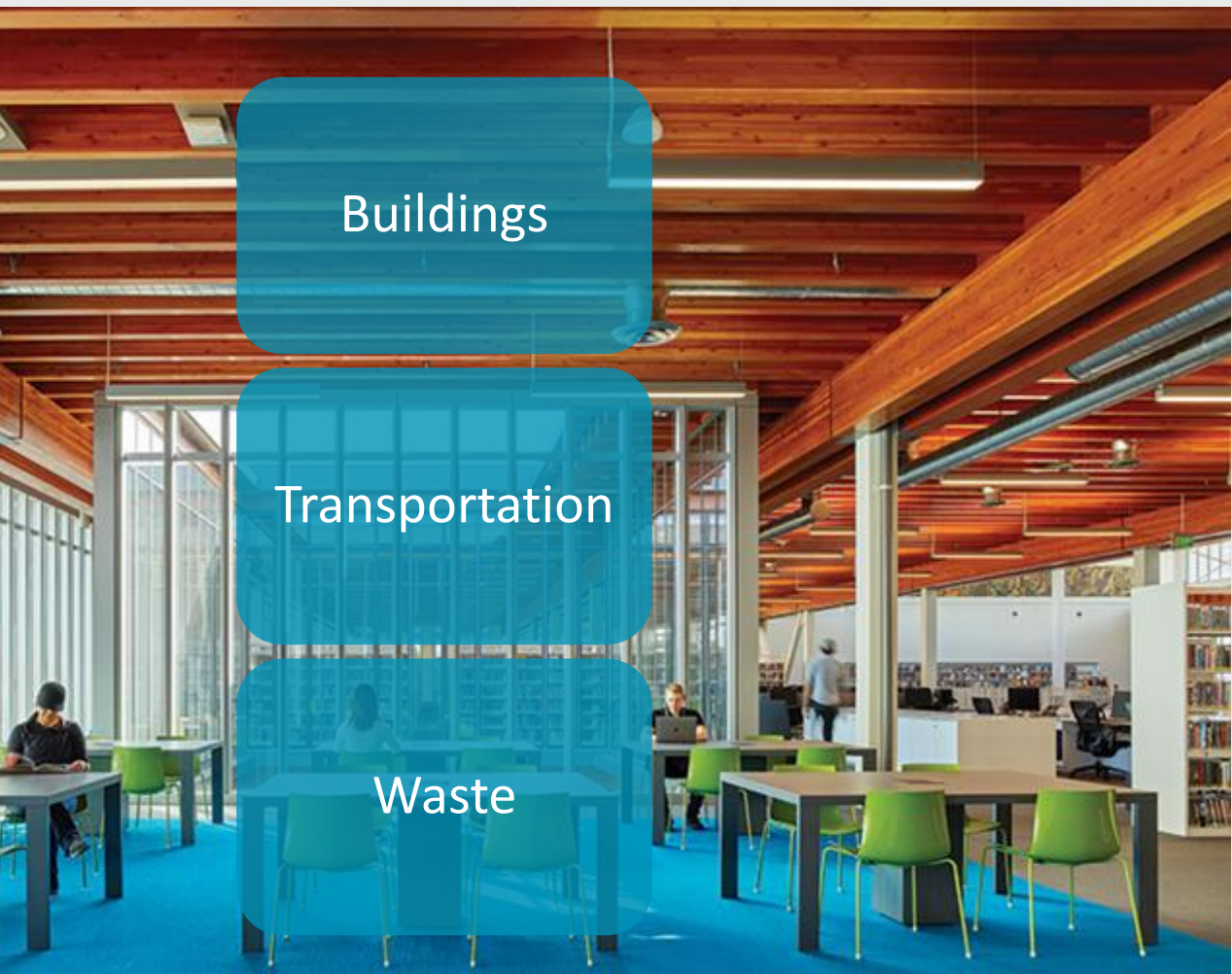
Drought

Flooding

Sea Level Rise

EQUITY/ENVIRONMENTAL JUSTICE STRATEGY Example: Identify corridors in the areas most impacted by extreme heat and/or poor air quality to prioritize them for shade, cool pavement, and other reflective surfaces.

CAAP Mitigation Actions Example



THEME	SECTOR/ STRESSOR	ACTION	ACTION NUMBER
Residents and businesses with minimized carbon footprint	Transportation	Expand and improve pedestrian and bikeway infrastructure citywide	T-2 T-3
	Transportation	Implement the San Pedro Bay Ports Clean Trucks Program	T-4
	Transportation	Increase access to additional electric vehicle charging stations	T-5
	Transportation	Increase employment and residential development along primary transit corridors and increase frequency of public transit and access to multimodal transportation	T-1 T-6
	Transportation	Increase density and mixing of land uses and update the Transportation Demand Management Ordinance to require strategies that encourage multimodal transportation use	T-7 T-8 T-9
	Building + Energy	Provide access to renewably generated electricity	BE-1
	Building + Energy	Implement short-term measures to reduce emissions related to oil and gas extraction	BE-8
	Waste	Increase recycling in multifamily and commercial development, in compliance with state law	W-1
	Waste	Develop an organic waste collection program and identify organics processing options such as composting, mulching or anaerobic digestion	W-2 W-3 W-4
	Air Quality	Support sustainability planning efforts at the Long Beach Airport and San Pedro Bay Ports and support LBUSD school bus electrification	AQ-3 AQ-5 AQ-6
	Air Quality	Electrify local, small GHG emitters such as lawn and garden equipment, outdoor power equipment, and others	AQ-4

Quantified Emissions Reduction Measures

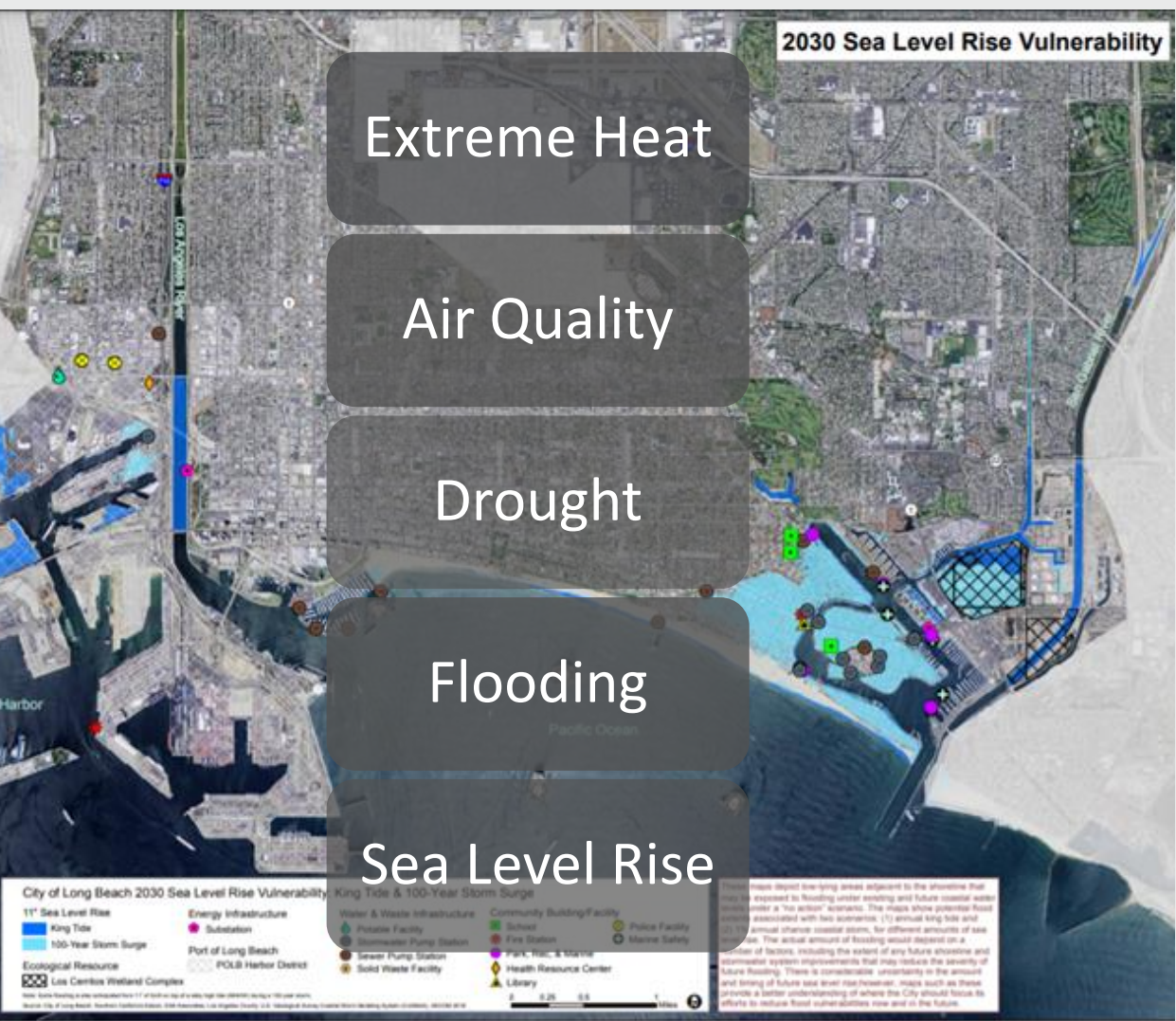
2030 GHG Reduction Needed: 192,659 MT CO₂e

Action	2030 MT CO ₂ e/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 CO ₂ e/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.

CAAP Adaptation Actions Example



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

CAAP Status

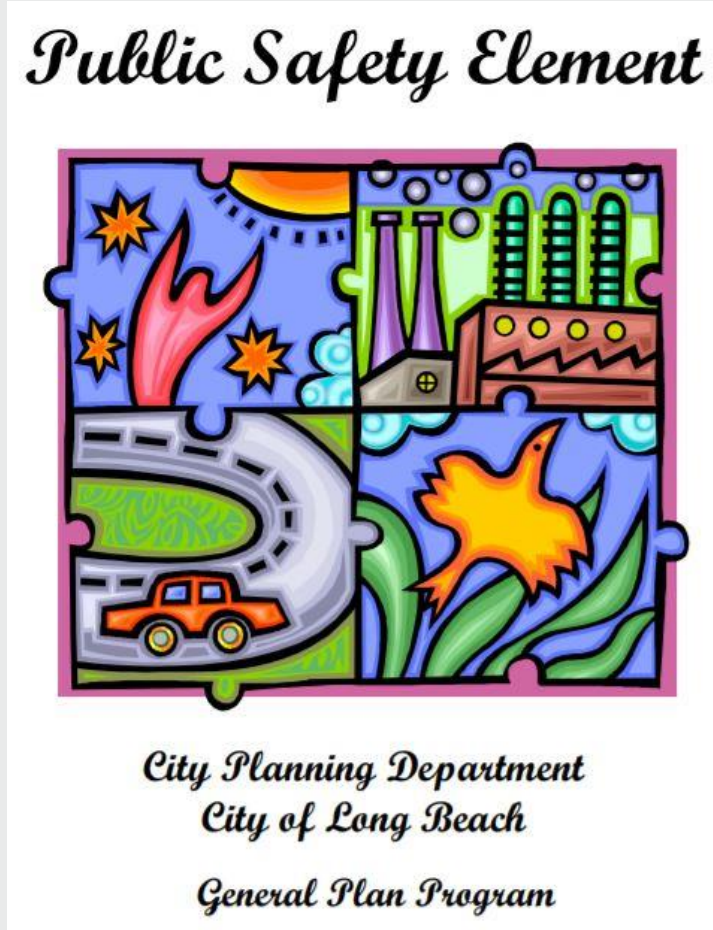
- City Council confirmed the CAAP on January 5, 2021
 - Confirmed GHG reduction pathway for 2030
- Staff is preparing a Subsequent Environmental Impact Report (EIR) as required by the California Environmental Quality Act (CEQA) and anticipates bringing the CAAP forward for adoption in Spring 2022.
- Staff expects EIR to be ready for public review in 1-2 months.
- Early implementation actions underway

California Environmental Quality Act (CEQA)

1. To disclose information about potentially significant environmental effects of a project
2. To identify ways to avoid or mitigate significant environmental impacts
3. To enhance public participation in the planning process
4. To encourage stakeholder collaboration in the review of projects

Why an EIR for the CAAP?

- CAAP is a “project” under CEQA (policy plan but no physical project)
- Provides program level analysis to assess possible impacts of mitigation actions and adaptation framework
- Does not environmentally clear any physical projects or improvements
- Includes General Plan Safety Element updates to incorporate climate adaptation and resiliency pursuant to state law



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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):	Date of site permit submitted (if applicable):
Compliance Checklist Prepared By:	Date:
Brief Project Description:	

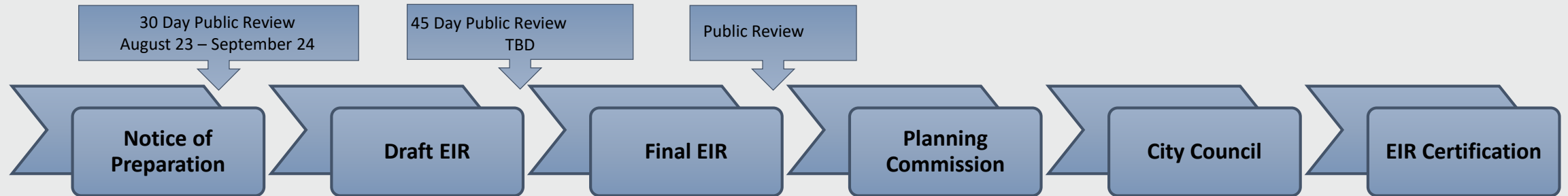
B. COMPLIANCE CHECKLIST TABLE

Instructions: Complete the following table by determining project compliance with the identified adopted regulations and providing project-level details in the "Remarks" column. Projects that do not comply with an ordinance/regulation may be determined to be inconsistent with San Francisco's Greenhouse Gas Reduction Strategy, although compliance with most ordinances/regulations is not optional. (See next page)

1. Refers to the standard to be met per the San Francisco Green Building Code. See <http://sfbc.org/administrative-bulletins> for latest "AB-693" to determine which standard your project is required to meet, if applicable.

CEQA Process Timeline

Environmental Impact Report



CAAP Implementation Chapter

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 & 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 Governance Structure

CAAP Governance

- Cross-departmental CAAP Governance held by City Manager's office in 2021
- Several cross-departmental actions underway
- Staff have developed CAAP Action Implementation Tracking Tool



Early CAAP Implementation: Vehicle Miles Traveled (VMT) Adoption

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 & 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 & Organics Processing

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

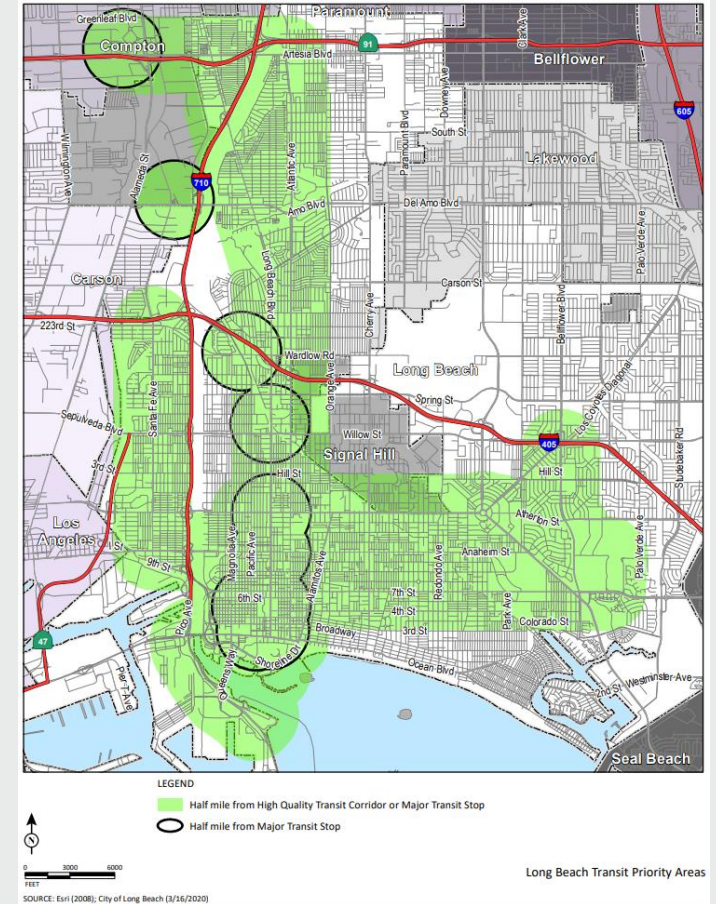
- Reduce Greenhouse Gas (GHG) by reducing Vehicle Miles Traveled (VMT)
- Most likely in mixed use corridors and Downtown/ Midtown areas, near highest quality transit

UPLAN & ACZIP

- UPLAN and 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 & Enhanced Density Bonus

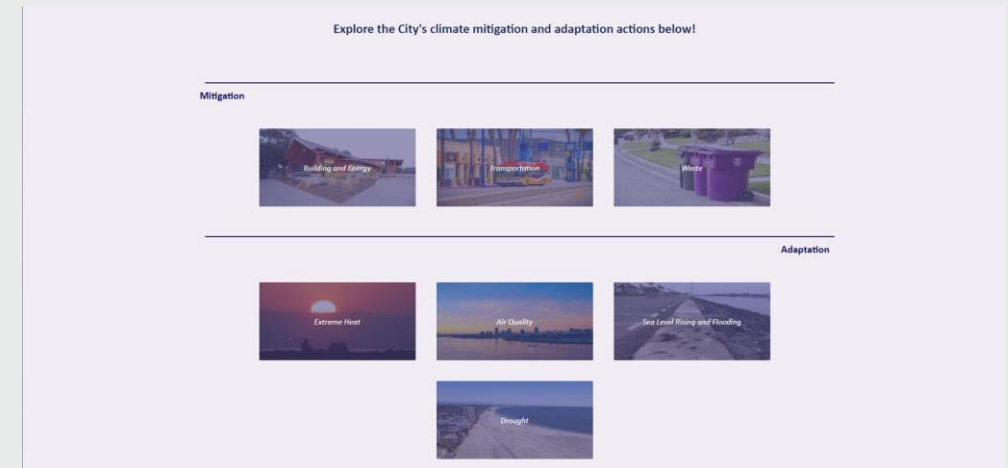
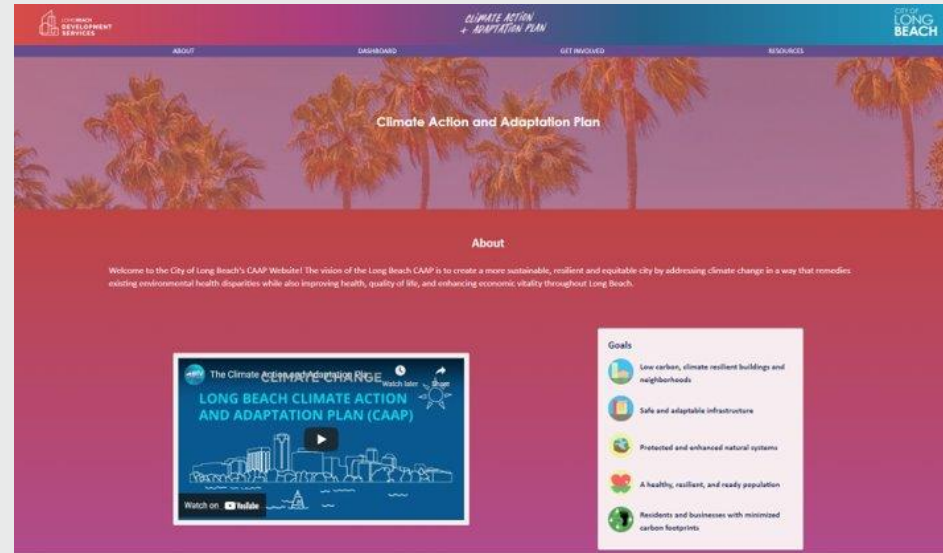
- two critical strategies adopted in 2021 to ensure affordable housing is included as part of market-rate developments to the maximum extent feasible



Long Beach Transit Priority Areas

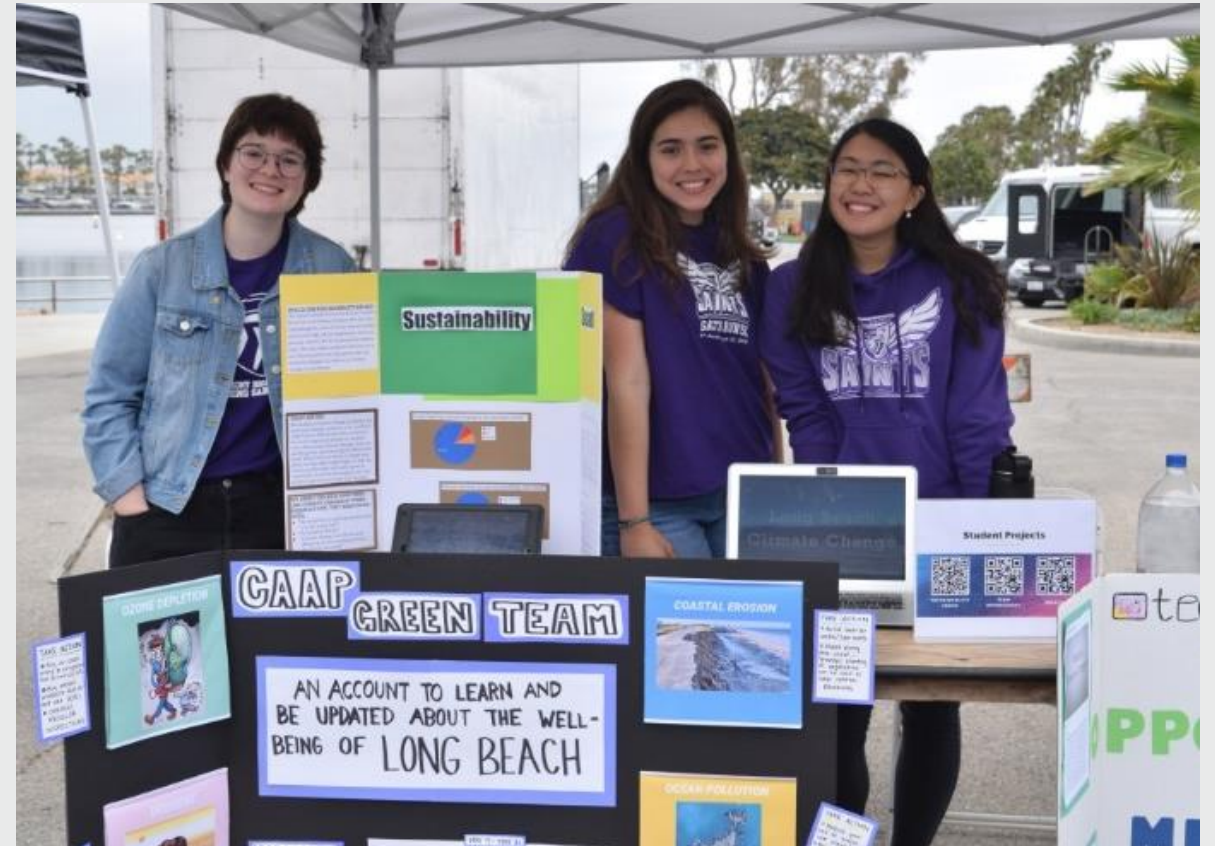
Early CAAP Implementation: CAAP Dashboard

- Internally reviewed in November 2021
- To include community input through User Testing
- Expected to be launched around final adoption of CAAP (Spring 2022)



Early CAAP Implementation: Climate Ambassador Program

- Engage youth in climate action and environmental education
- Funding received through AB 32 and PGWIN
- Program start expected in March-May 2022
- Will be used to inform Youth Climate Corps programs



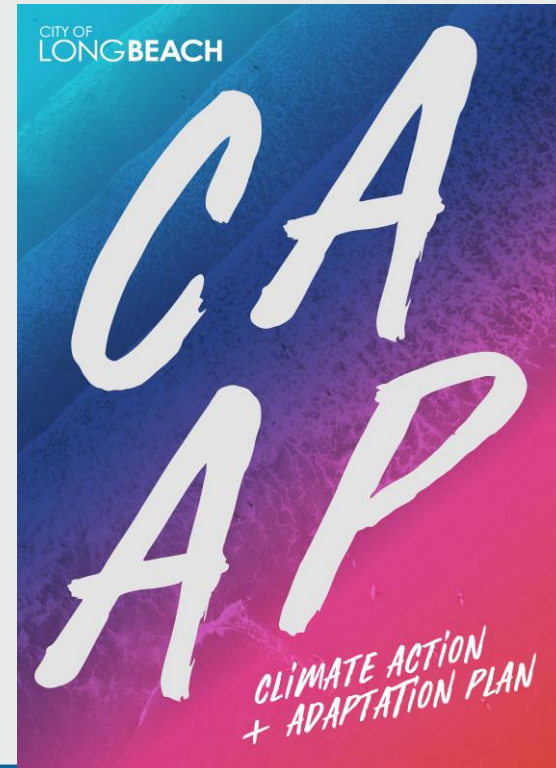
Early CAAP Implementation: Youth Climate Corps

- \$5 million from State of California
- Support youth in Long Beach to engage in green workforce development
- Programs slated to start July 2022



Next Steps

- Complete Subsequent Environmental Impact Report for public review
- Final Plan and Environmental Document Adoption by City Council (Spring 2022)
- Learn more and stay involved! Visit our website for updates, to review the CAAP and much more:
<https://www.longbeach.gov/lbds/planning/caap/>





Thank you

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