

Native Land Acknowledgement



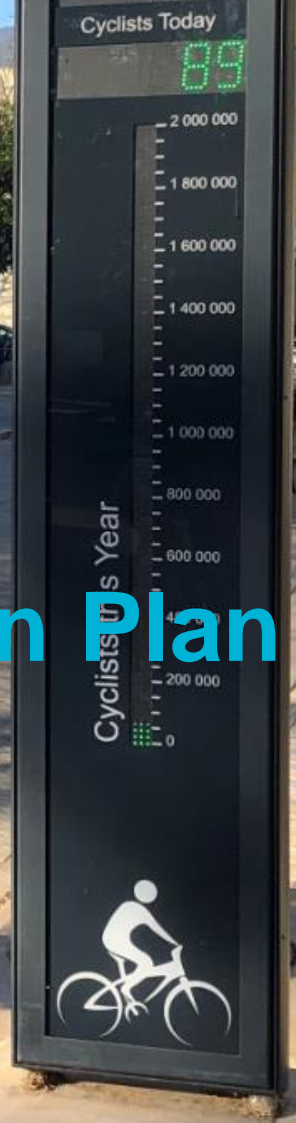
Photo Courtesy: Cool Davis

- *As we begin, we'd like to acknowledge the land on which we are gathered.*
- *For thousands of years, this land has been the home of Patwin people.*
- *Today, there are three federally recognized Patwin tribes: the Cachil DeHe Band of Wintun Indians of the Colusa Indian Community, Kletsel Dehe Wintun Nation, and Yocha Dehe Wintun Nation.*
- *The Patwin people have remained committed to the stewardship of this land over many centuries.*
- *It has been cherished and protected, as elders have instructed the young through generations.*
- *We are honored and grateful to be here today on their traditional lands.*

Davis Climate Action and Adaptation Plan

TAC Meeting #1

February 24th, 2021



Meeting Agenda

- Welcome and Introductions (Dianna J. – 10 mins)
- Project Goals (Dianna J. – 10 mins)
- Expectations and Role of TAC Members (Dianna J. – 5 mins)
- CAAP Scope and Development Process (Josh – 25 mins)
 - Emissions Addressed
 - Interim 2030 Target
 - Carbon Neutrality
 - Questions/Discussion
- Vulnerability Assessment Process Review (Diana E. – 20 mins)
- Existing and Planned Actions Review (Josh – 10 mins)
- Next Steps (Josh – 5 mins)

Welcome and Introductions

- Project Approach—three areas of input
 - **City Team:** City Project Management, Consultant, Internal Staff Staff Team (inter-departmental), City Council and Commissions
 - **Technical Advisory Committee**
 - **Community Outreach and Engagement**—workshops, on-line surveys, dedicated CAAP webpage and email

Welcome and Introductions

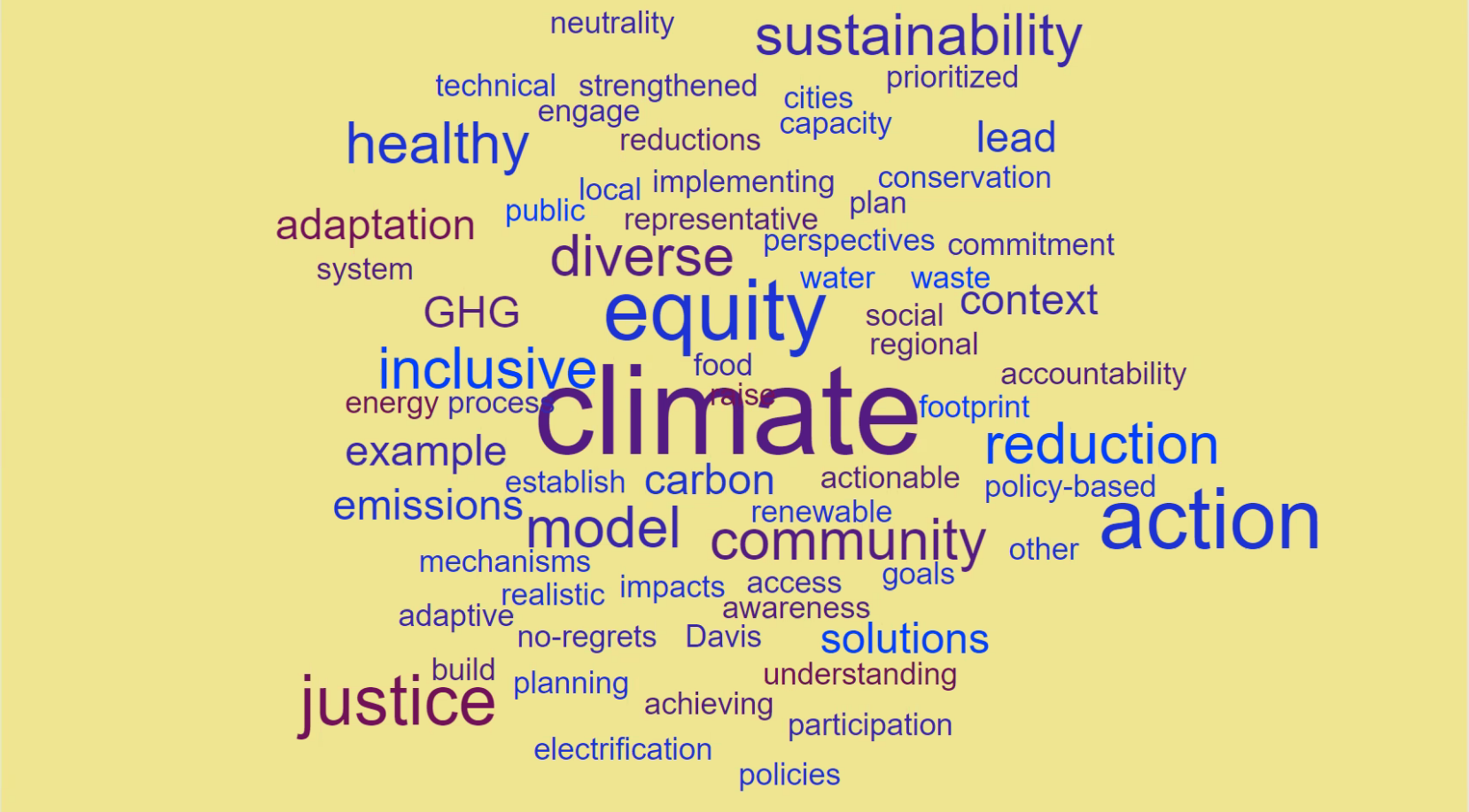
– TAC Member Roll Call

– Name & Organization

- Arnold Bloom
- Greg McPherson
- Kate Scow
- Nathan Bengtsson
- Ben Finkelor
- Kristin George Bagdanov
- Meena Venkatraman
- Kevin Robert Perry
- Erik de Kok
- Camille Kirk
- Bernadette Austin
- Lucia Kaiser
- Tessa Smith
- Mollie D'Agostino
- Jeffrey Flynn
- Susan Handy
- Gil Tal
- Giovanni Circella

Welcome and Introductions

Highlights: “What would a successful CAAP look like to you?”



City Team

Dianna Jensen,
City Engineer
Project Director

Kerry Loux,
Sustainability Coordinator
Project Manager

AECOM Team



Claire Bonham-Carter
Project Director



Diana Edwards
Project Manager
and
Vulnerability Assessment



Josh Lathan
GHG Technical
Lead



Vanessa Goh
Sustainability Planner



Michael Conrardy
Sustainability
Planner

AECOM Project Partners

FEHR & PEERS



Project Goals

- **SUPPORT** recent City Council actions to establish climate action and carbon reduction policies
 - Demonstrate City’s commitment to climate action and expand on City’s existing 2010 CAAP
 - Provide measurable actions to achieve accelerated 2040 carbon neutrality goal
 - *Beyond California’s 2018 Executive Order (EO) B-55-18 for statewide carbon neutrality by 2045*
 - Meet commitments in 2019 Climate Emergency Resolution
- **INCORPORATE / PRIORITIZE EQUITY and INCLUSION** throughout CAAP process, including robust community engagement
- **ESTABLISH** communitywide GHG reduction target for 2030
 - Interim target to be defined to support future project CEQA streamlining, align with State’s 2030 AB32 target
- **EVALUATE / IDENTIFY** strategies to reduce climate risk by assessing primary local climate vulnerabilities/hazards
- **COMPLY** with current state legislation



Expectations and Role of TAC Members

Expectations and Roles

- Provide information/data from your organization or other climate-related projects
- Provide expertise on technical topics within Davis context
- Provide feedback/insight on CAAP project milestones, action prioritization criteria, and high-level strategies
- Provide input on how to implement deep carbon reduction actions within Davis context
- Represent data, programs and information from your constituency/organization
- Attend monthly virtual meetings
- Help maximize community engagement

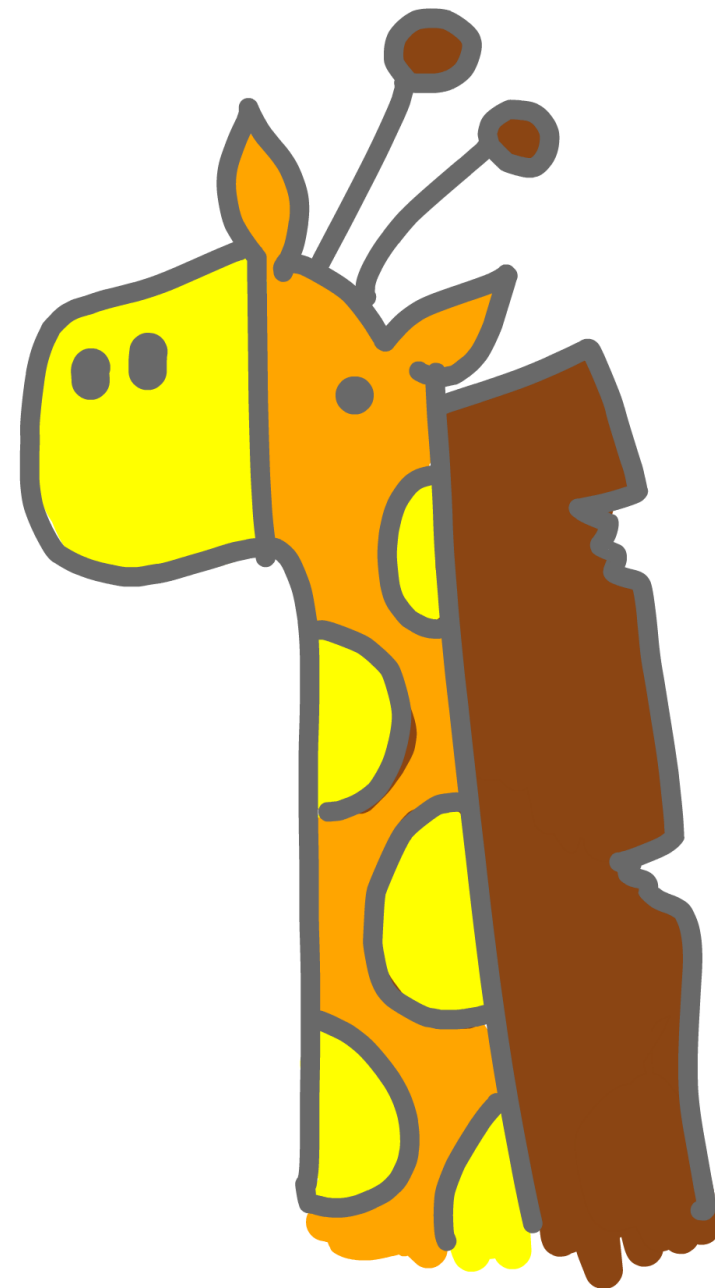
Reminder: TAC does not have decision-making responsibilities, but your input will be carefully considered and incorporated into CAAP, as possible

TAC Meeting Draft Schedule and Topics

Meeting	Month	Tentative Topics
TAC #1	February	<ul style="list-style-type: none">• CAAP Development Process• Carbon Neutrality Definition• Vulnerability Assessment Process
TAC #2	March	<ul style="list-style-type: none">• Survey #1 and draft action evaluation criteria• Preview workshop #1• Final vulnerability assessment
TAC #3	April / May	<ul style="list-style-type: none">• Adaptation strategies and evaluation criteria• Names for expert interviews• Review survey results• GHG action evaluation criteria
TAC #4	June / July	<ul style="list-style-type: none">• GHG draft actions• Adaptation action evaluation criteria and adaptation strategy priorities• Survey #2• Introduce action prioritization
TAC #5	September	<ul style="list-style-type: none">• Discuss action prioritization• Introduce implementation roadmaps and metrics
TAC #6	October	<ul style="list-style-type: none">• Discuss content for implementation roadmaps

Meeting Etiquette

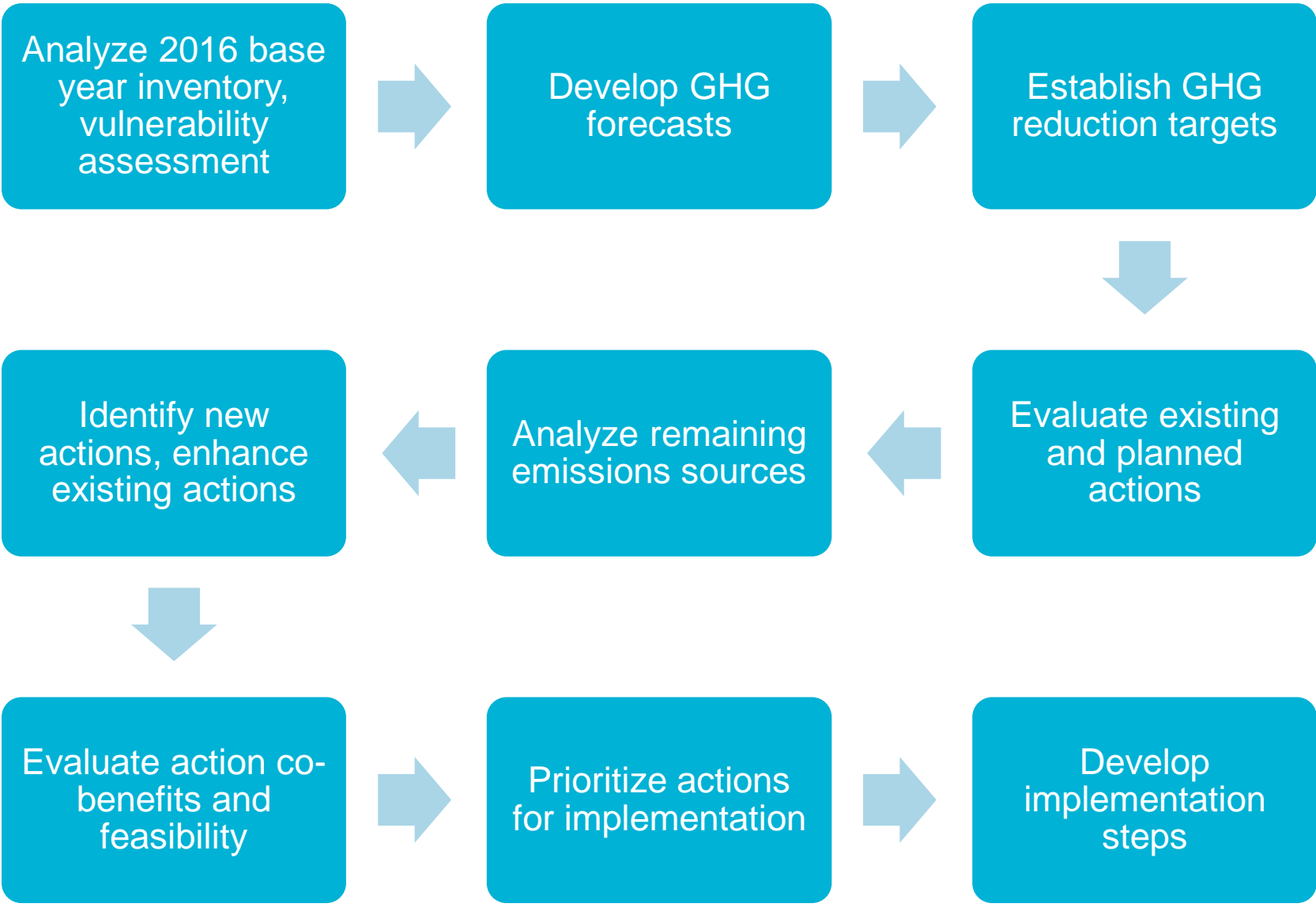
- Be present (cameras on)
- One conversation at a time
- Safe space
- Assume positive intent
- No acronyms (jargon giraffe)
- Be concise!





CAAP Scope and Development Process

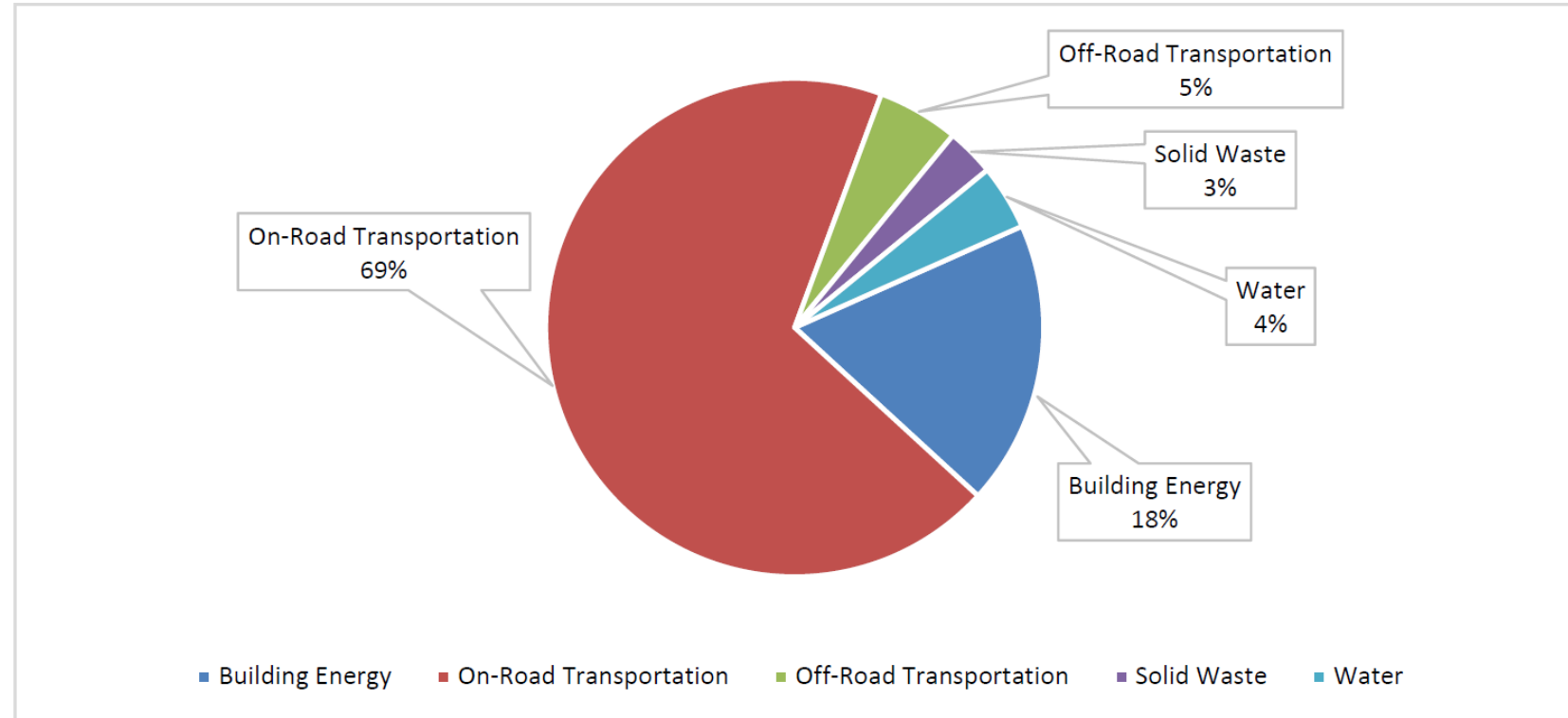
CAAP Development Process



What Emissions are Addressed in a CAAP?

- 2016 base year inventory (US Community Protocol)
 - Focus on emissions where cities have some control
 - Not all emissions sources are included
- 2016 results indicate focus for CAAP actions
- Fehr & Peers has started on-road travel analysis, alignment with City planning projects

Figure 1: City of Davis Communitywide GHG Emissions by Sector, 2016



Source: Data compiled by Ascent Environmental in 2020

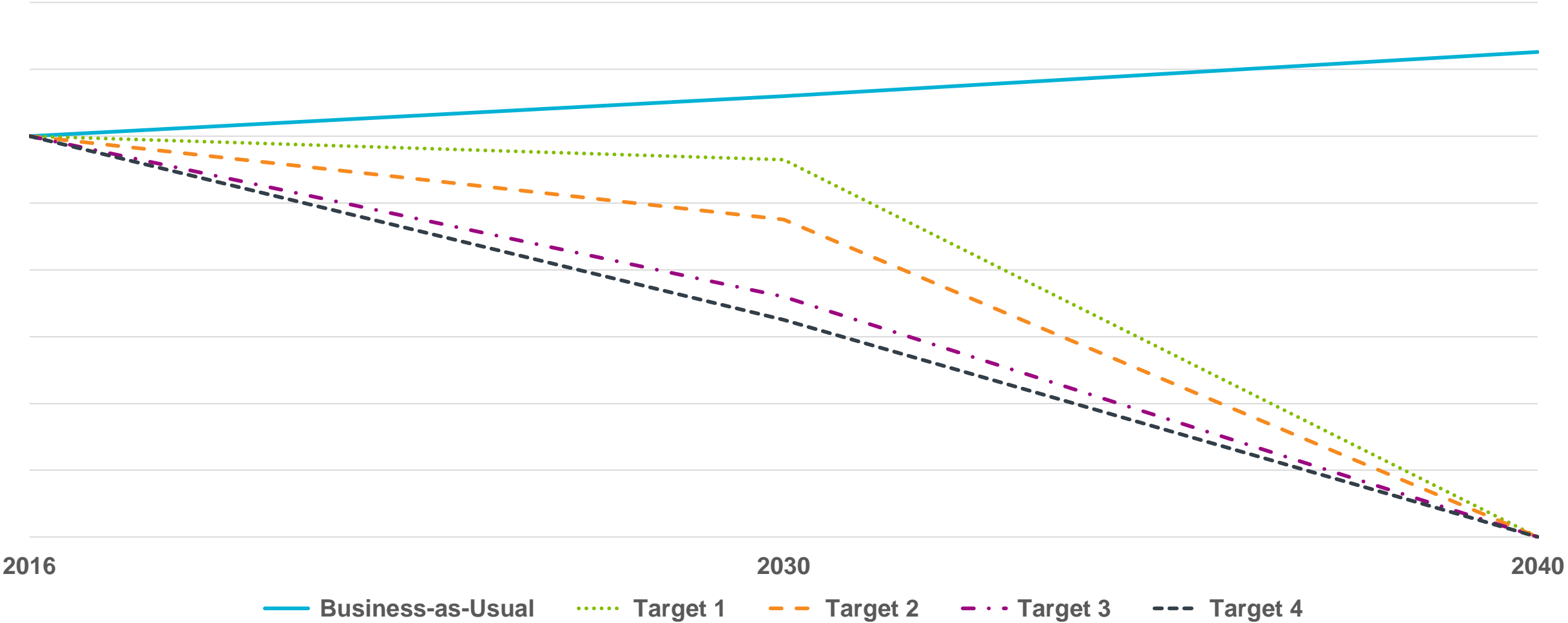
Emissions Mitigation (CAP context): Design and implementation of policies, programs, and other actions that will reduce the amount of emissions occurring from community activities (e.g., vehicle travel, building energy use, waste management)

Interim 2030 Target – Draft Options from Target Setting Memo

- 2030 interim target year selected to align with SB 32
- CARB 2017 Climate Change Scoping Plan guidance:
 - Compare local inventory to state inventory to derive local per capita target
 - Express target in multiple metrics (e.g., mass emissions, MT/capita, MT/service pop)
- Iterative interim target selection
 - Informed by emissions forecasting analysis (in progress) and draft action results

Interim Target Options	Source/Considerations
1. 40% below 2016 levels by 2030	SB 32 (CA GHG levels in 2016 are approx. equivalent to GHG levels in 1990)
2. 6.0 MT CO ₂ e/capita by 2030	ARB 2017 Scoping Plan (considers all statewide emission sectors)
3. 5.2 MT CO ₂ e/capita	ARB 2017 Scoping Plan (considers local emissions sectors)
4. 3.7 MT CO ₂ e/capita	ARB 2017 Scoping Plan (considers local emissions sectors but excludes transport sectors addressed in SB 375)

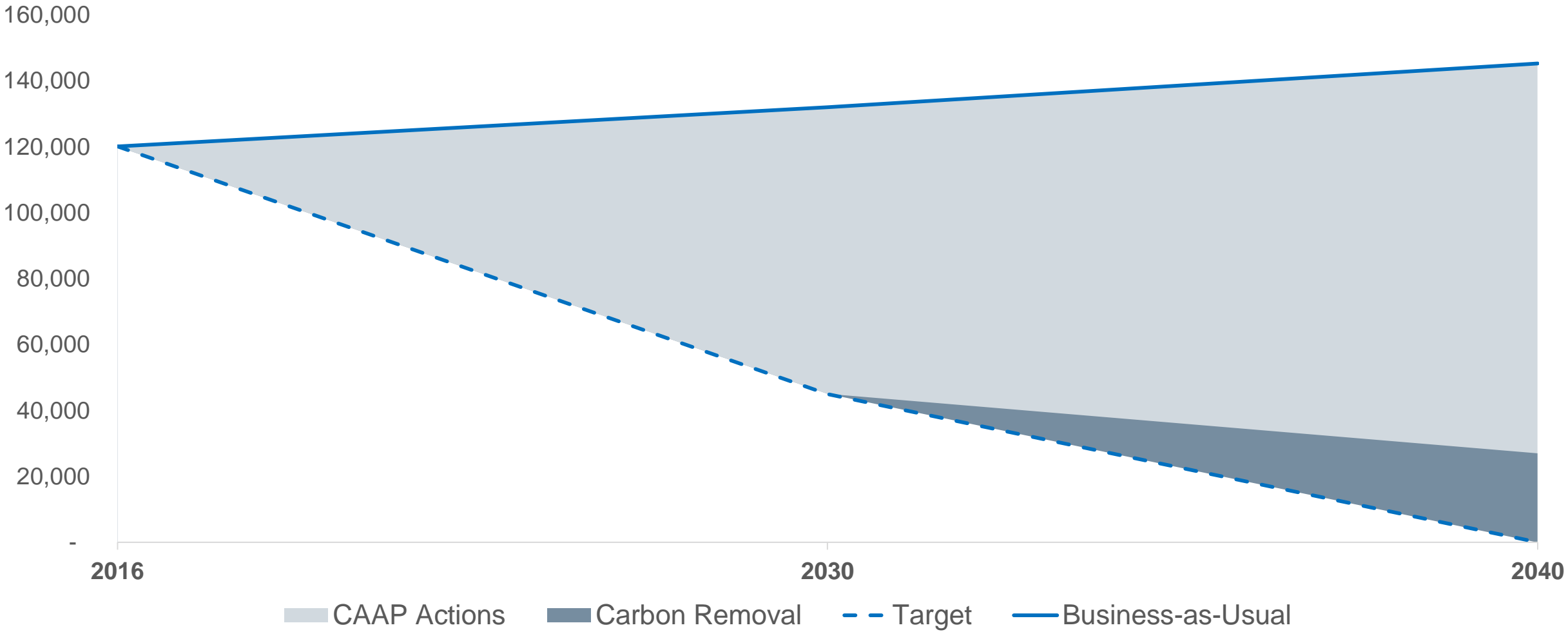
Interim Target Options – Illustrative Examples



Carbon Neutrality – Davis CAAP Definition Recommendation

- “Carbon neutrality is demonstrated through ambitious local CAAP actions that reduce GHG emissions to the extent feasible, with local/regional agriculture-based carbon removal opportunities implemented to remove any residual emissions estimated to occur in the 2040 target year.”
- City continues to monitor industrial carbon removal options and carbon markets as secondary options to remove remaining residual emissions

Carbon Neutrality – Illustrative Example



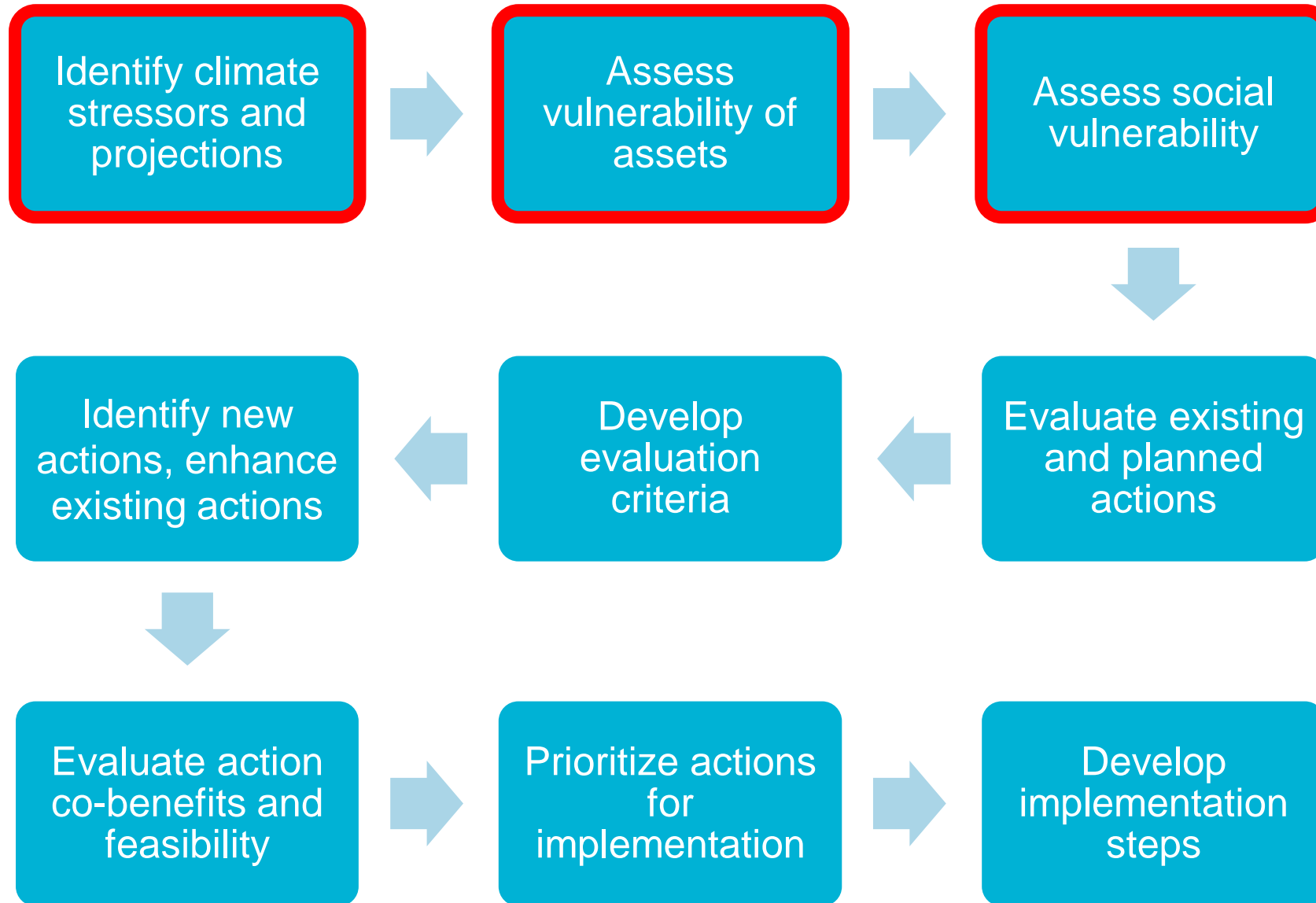
Questions / Discussion

1. Does this definition of carbon neutrality align with your expectations?
2. Would you be willing to support the City pursuing funds to pay for credits, reductions, or carbon removal outside the city as part of demonstrating carbon neutrality?



Vulnerability Assessment Process Review

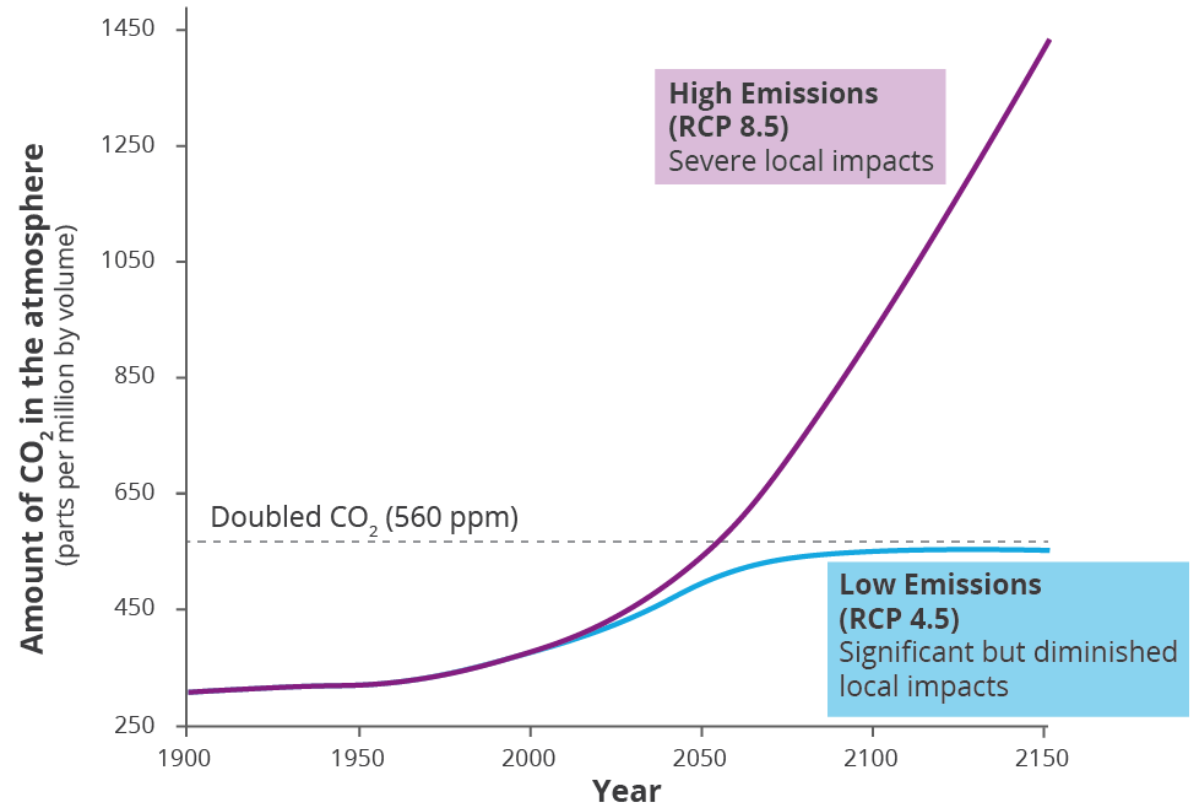
Adaptation Plan Development Overview



Climate Projections

- Climate Adaptation: Adjusting to expected climate change and impacts
- Climate projections from [Cal-Adapt](#)
- Considers two future emission scenarios:
 - Representative Concentration Pathway (RCP) 4.5 – Low emissions scenario
 - RCP 8.5 – High emissions scenario
- Two Planning Horizons and Timeframes:
 - Mid-century: 2035-2064
 - End-of-century: 2070-2099
- Use FEMA Flood Map for flood impacts

Future Emissions Scenarios



Climate Stressors

Climate Stressor	Observed Historical (1976-2005)	Mid-Century (2035-2064)		End-of-Century (2070-2099)	
		RCP 4.5	RCP 8.5	RCP 4.5	RCP 8.5
Extreme Heat (above 103.9°F) Annual Days of Extreme Heat	5	22	28	30	50
Heat Waves Per Year	0.2	2.9	3.9	4.3	8.4
Precipitation Annual Average (inches)	19.7	20.6	20.8	20.3	22.7
Wildfires and Air Quality	While wildfire risk within the city is projected to remain comparatively low, increased risk of wildfires in other areas of the state will likely result in heightened air quality impacts in the city, as evidenced by the 2017 and 2020 fire seasons.				
Drought	Multi-year droughts, similar to the recent drought experienced 2011–2019, are projected to increase in frequency.				

Physical Assets

- Asset categories:
 - Transportation (roads, rails, ped/bike routes, EV charging stations)
 - Public Utilities (electrical, gas)
 - Natural Resources (open space and conservation lands, water bodies)
 - Community Assets (schools, assisted living, city parks, golf courses, City trees, etc)
 - Property (buildings, parcels)
 - City Facilities (public buildings)
 - Emergency Response



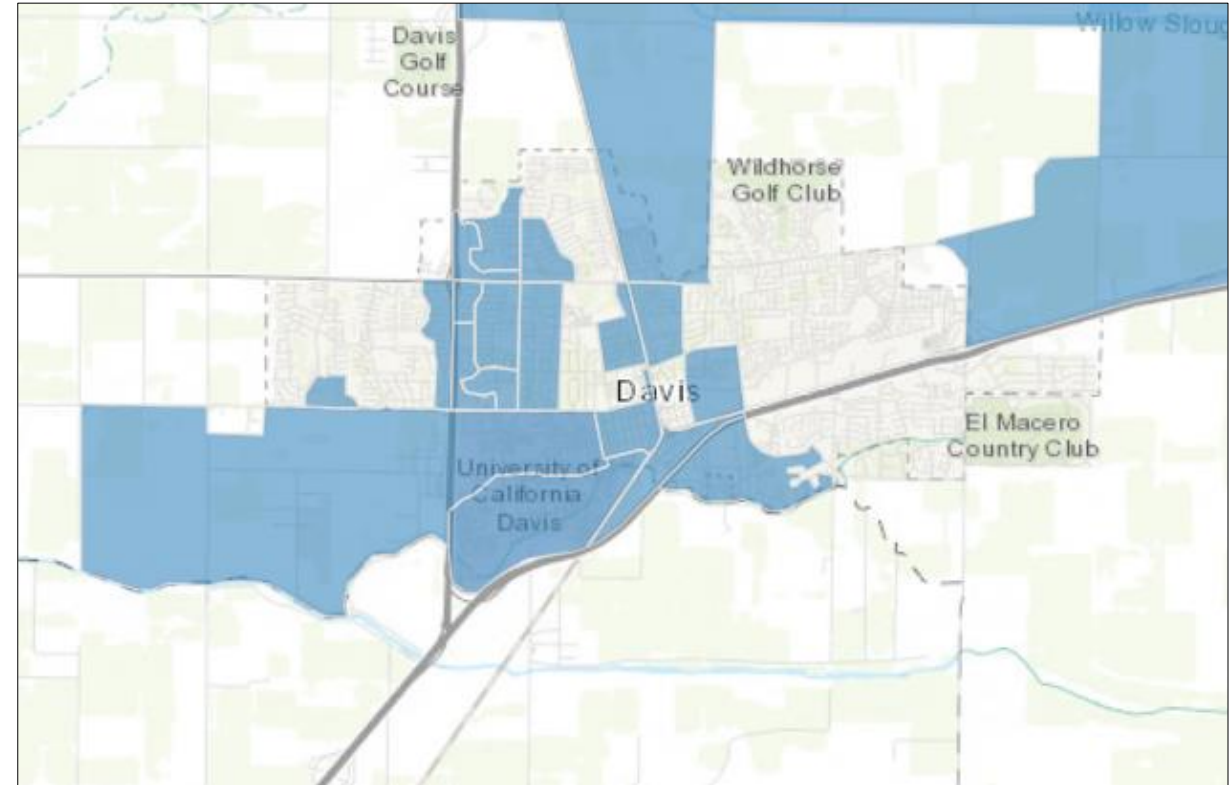
Social Vulnerability

- In Yolo county top health issues of concern include obesity, heart disease, and diabetes
- Climate stressors, including extreme heat and wildfire, can exacerbate health issues
- Health or socioeconomic issues are correlated to increased sensitivity to climate hazards
- Social Vulnerability Indexes (SVIs) identify areas of heightened social vulnerability based on composite of socioeconomic and demographic indicators such as poverty, race/ethnicity, housing, etc.



Social Vulnerability Index

- Sacramento Area Council of Governments Environmental Justice Areas (EJAs)
 - Nine indicators in five themes
 - Pollution
 - Socioeconomic status
 - Household compositions
 - Race/ethnicity/language
 - Housing
 - Developed through robust public outreach effort
- Approximately 43% of the population of Davis are living in environmental justice areas
- EJAs partially based on CalEnviroScreen
- Align with regional planning efforts



[EJAs in Davis](#)

Questions / Discussion

1. Are we using the best available climate data?
2. What are your thoughts on social vulnerability index choice?



Existing and Planned Actions Review

Existing & Planned Actions

- Developed action matrix to summarize what City is already doing in mitigation and adaptation
 - CAAP will build upon this foundation, inform additional action opportunities
- Reviewed existing / planned actions to understand:
 - What has been tried
 - Action or program gaps (e.g., per emissions sector)
 - Opportunities to expand actions
 - Data availability to quantify impacts
- City staff are currently populating matrix in response to question prompts for specific information

Existing and Planned Actions Review – Organization

Mitigation action review:

- Electricity Generation
 - Grid Decarbonization
 - Distributed Renewables
- Building Energy
 - Existing Buildings
 - New Construction
- Transportation
 - Travel Mode Shift
 - Vehicle Fuel Switch
- Waste Management
 - Solid Waste
 - Wastewater

Adaptation action review:

- Extreme Heat
- Drought
- Wildfires and Air Quality
- Flooding, Precipitation & Severe Storms

Next Steps

- Discussion and further input on topics addressed today
- Timing of upcoming meetings
 - Fourth Wednesdays
 - 1:30-3pm;
 - 3-4:30pm;
 - 5-6:30pm: or
 - Alternating afternoon/evening
- Upcoming meetings and meeting topics
 - On-line survey input
 - Community workshop content
 - Final vulnerability assessment
 - Adaptation strategies and evaluation criteria
 - GHG action evaluation criteria
 - Action prioritization, implementation roadmaps and metrics

Next Steps

- Summary of upcoming dates
- Note: Schedule of all upcoming TAC meetings to be provided at later time

Date	Milestone
March 24, 2021	TAC #2 Meeting
March-April	On-line Survey #1 available to public
April 21, 2021	Community Workshop #1 (approx. date—actual date TBD)
June 2021	Community Workshops #2 (A and B—same workshop offered at different times)
July 2021	Community Workshops # 3 (A and B—same workshop offered at different times)

Thank you!

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