CITY OF SANTA CRUZ
809 Center Street
Santa Cruz, California 95060

CITY COUNCIL AGENDA

Study Session – January 18, 2022

4:00 p.m. GENERAL BUSINESS, ZOOM

COVID-19 ANNOUNCEMENT: Due to the Omicron variant, in an abundance of caution, this meeting will be held via teleconference ONLY.

In order to minimize exposure to COVID-19 and to comply with the social distancing suggestion, the meeting may be viewed remotely, using any of the following sources:

- **Click on Zoom link (no time delay): https://zoom.us/j/94684401344**
- **Online at http://www.cityofsantacruz.com/government/city-council/council-meetings**
- **Online at Watch - Community Television of Santa Cruz County**
- **Comcast Channel 25**

Or: Call any of the numbers below. If one is busy, try the next one.

- 1-833-548-0276 (Toll Free)
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Enter the meeting ID number: 946 8440 1344

- When prompted for a Participant ID, press #.
- Press *9 on your phone to "raise your hand" when the Mayor calls for public comment.
- It will be your turn to speak when the Mayor calls on you. Press *6 to unmute yourself. The timer will then be set to 2 minutes.

Correspondence to be included in the agenda packet must be received by 5:00 pm on Monday, January 17th.

The City of Santa Cruz does not discriminate against persons with disabilities. Out of consideration for people with chemical sensitivities we ask that you attend fragrance free. Upon request, the agenda can be provided in a format to accommodate special needs. Additionally, if you wish to attend this public meeting and will require assistance such as an interpreter for American Sign Language, Spanish, or other special equipment, please call the City Clerk's Department at 420-5030 at least five days in advance so that we can arrange for such special assistance, or email CityClerk@cityofsantacruz.com. The Cal-Relay system number: 1-800-735-2922.

Si desea asistir a esta reunión pública y necesita ayuda - como un intérprete de lenguaje de señas americano, español u otro equipo especial - favor de llamar al Departamento de la Secretaría de la Ciudad al 420-5030 al menos cinco días antes para que podamos coordinar dicha asistencia especial o envié un correo electrónico a cityclerk@cityofsantacruz.com. El número del sistema Cal-Relay es: 1-800-735-2922.

City Council Study Session

4:00 P.M.

Call to Order

Roll Call

General Business

1. Climate Action Plan 2030 – Target Setting Study Session (CM)

   Review and provide feedback on the Climate Action Plan 2030 greenhouse gas emissions reduction target options.

Adjournment

City Council Study Session
AGENDA REPORT

DATE: 01/11/2022

AGENDA OF: 01/18/2022

DEPARTMENT: City Manager

SUBJECT: Climate Action Plan 2030 – Target Setting Study Session (CM)

RECOMMENDATION: Review and provide feedback on the Climate Action Plan 2030 greenhouse gas emissions reduction target options.

BACKGROUND: It is up to the global community collectively to take action through governmental, civic, corporate and diplomatic means to limit greenhouse gas (GHG) emissions to keep global temperature rise to under 1.5 degrees Celsius, the tipping point for irreversible climate impacts. According to the Intergovernmental Panel on Climate Change Working Group I sixth assessment, under the current emissions trajectory, 1.5 degrees Celsius of warming will occur with the next two decades. Limiting warming to this level to prevent the most severe climate impacts depends on implementation of transformational actions this decade. While making investments to ensure this tipping point is not reached will be difficult and require managing trade-offs, it also provides a massive opportunity to create and retain better quality jobs, and achieve equitable health benefits and livelihoods. This agenda report outlines the technical considerations and options for setting community-wide and municipal emissions reduction targets. The study session will include a presentation that delves into deeper context and nuance when considering this information. The aim of the study session is to review and provide feedback on the GHG emissions reduction target options.

Since April 2021, City staff have worked with Climate Action Task Force members, other municipal staff and the broader community to develop the Climate Action Plan 2030 (Plan). The aim of the Plan development effort, coined Resilient Together Santa Cruz, is to determine the year and most equitable pathway to carbon neutrality. Two major community and employee engagement efforts since project initiation enabled the staff and consultant team to identify and iterate on working vision and value statements for the Plan and its intended outcomes. Through its equity advisors and small focus groups with historically under represented and frontline groups, the team has also iteratively developed and applied an equity screening tool, integrating equity considerations in both process and outcomes at each Plan development stage. A summary of the visioning and goal setting community engagements as well as the analysis of equity considerations from community engagement and frontline groups in particular are found in the attachment entitled Community Engagement Results and Summary.

In sum, the community as a whole has an aspirational vision for rapidly drawing down greenhouse gas emissions and seeks to set targets and an implementation pathway grounded in data and science. The working vision and value statements include:

Vision: Enact climate solutions that rapidly achieve deep decarbonization, and support and enhance an equitable community with robust active and public transportation, plentiful housing that is affordable, sustainable, and resilient, and regenerative landscapes.

Values:
• Ensure equity in all policies
• Build people-centric transportation infrastructure
• Promote efficient and low carbon/no carbon energy and water
• Protect and enhance natural resources and urban parks
• Eliminate waste and support local food sources

In addition to emissions reduction targets, the project team, based on community and staff engagement, is also developing climate restoration and climate economy goals, which may be more qualitative in nature. These goals will complement the emissions reductions targets eventually adopted to ensure other climate supportive actions are taken to achieve outcomes that support the community's climate values.

DISCUSSION: Based on the feedback provided by the community, the requirements for a CEQA qualified Plan, state emissions reduction targets and considerations, and analysis of Paris Climate Agreement compliant science based target, the project team has drafted a set of potential emissions reduction target options, the focus of this study session for City Council to discuss and consider.

In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32), which created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in the State. For the State to reach its GHG emissions reductions goals and targets, local governments must reduce their "fair share" of emissions to limit global warming. California currently has established goals/targets for reducing GHG emissions by 40 percent compared to 1990 levels by 2030 (Senate Bill 32) and achieving carbon neutrality by 2045 (EO B-55-18).

For the City's Climate Action Plan to be considered a "Qualified GHG Reduction Plan" (referred to thereon as a CEQA-qualified Climate Action Plan) that can be used for CEQA GHG emissions analyses tiering purposes pursuant to CEQA Guidelines Section 15183.5[1] , the City is required to adopt a GHG emissions reduction target that is at least as stringent as these State

[1] [1] For a CAP to be a CEQA-qualified Climate Action Plan, the Plan needs to meet the criteria set forth in CEQA Guidelines Section 15183.5(b), which is to accomplish the following: A. Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area; B. Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable; C. Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area; D. Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level; E. Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels; F. Be adopted in a public process following environmental review.

targets. Other advantages for jurisdictions that have a CEQA-qualified Climate Action Plan is that it shows a stronger commitment to reducing GHG emissions in line with State goals and therefore makes CEQA documents more legally defensible to potential litigation. It will also enable the City to be more competitive for grant funding.

In June 2021, Governor Newsom requested the California Public Utilities Commission (CPUC) and California Air Resources Board (CARB) to accelerate California's progress toward its climate goals in order to meet the urgency of the climate crisis. Given this new direction, and feedback received from the community, the City may want to consider a more ambitious target or aspirational vision to better align with the anticipated acceleration of the State's carbon neutrality goal to 2035. A more ambitious target is one that the City and community would strive to reach, even if it is unlikely that the community achieves this level of emissions reductions. As aspirational vision instead would establish an intention to exceed State requirements and specify areas to accelerate implementation. In order to under the nuance of these different emissions reduction targets, it is important to review historical and project emissions.

Historical and Forecasted Emissions

As part of the Plan update effort, the City's historical GHG inventories (2005, 2010, 2015, 2018, and 2019) were updated from work presented in the June, 2021 CAP 2020 close out report to include off-road emissions and new on-road transportation data that used an origin-destination methodology. These updates give a complete picture of the community's historical GHG emissions, and bring them into alignment with guidance from the Local Governments for Sustainability (ICLEI)[2] U.S. Community Protocol.

As previously mentioned, for the State to reach its GHG targets, local governments must reduce their "fair share" of emissions to limit global warming. The State's GHG targets have been established as mass emissions targets and are often referenced as the legislative, or SB 32, target in local government target setting[3]. The State's specific targets are each benchmarked to a 1990 GHG inventory, and, for most local governments, it is technically challenging to accurately back-cast a GHG inventory and estimate the amount of 1990 emissions due to the lack of available 1990 jurisdictional activity data. Guidance in the California Air Resources Board's 2008 Climate Change Scoping Plan identified local governments as "essential partners" in achieving the State's GHG targets, and encouraged adoption of local GHG targets "…that parallel the State's previous target to reduce greenhouse gas emissions by approximately 15% from current levels by 2020."

To align with the State's 2020 target, many local governments followed the 2008 Climate Change Scoping Plan guidance, which estimates 1990 emissions (also the 2020 target) as 15% below "current" (2005-2008) emissions. Following this methodology, Santa Cruz's 1990 emissions is estimated to be 302,319 metric tons of carbon dioxide equivalent (MT CO2e), or 15% below 2005 GHG emissions. Table 1 shows the City's updated 1990, 2005, and 2019 mass (city-wide) and per capita (per person) emissions. Figure 1 shows the City's 2019 emissions as a proportional pie chart. Figure 2 and Figure 3 graphically represents of the City's 2019 mass and

[2] Local Governments for Sustainability (ICLEI) is the lead author of the greenhouse gas accounting protocols. ICLEI engages with local and regional governments worldwide to strengthen action and support sustainable urban development.

[3] Mass emissions refer to the total GHG emissions within a particular boundary (in this case, the State of California), rather than emissions per person, also known as per capita emissions.

per capita GHG emissions, respectively. Transportation accounts for the largest source of emissions, followed by energy and waste/wastewater.

Table 1 Santa Cruz 1990, 2005 and 2019 GHG Emissions

GHG Emissions Sector	1990 (MT CO_2e)	2005 (MT CO_2e)	2019[1] (MT CO_2e)
Annual GHG Emissions (Mass)	302,319	355,669	274,584[2]
Annual GHG Emissions (Per Capita)	6.08	5.53	4.22

Notes: MT CO_2e: metric tons of carbon dioxide equivalent

[1] Due to the COVID19 pandemic, which disrupted community functions in 2020, 2019 is used as a proxy for 2020.

[2] The City's 2020 target was 30% below 1990 levels, or 211,623 MT CO_2e.

Figure 1 2019 GHG Emissions by Sector

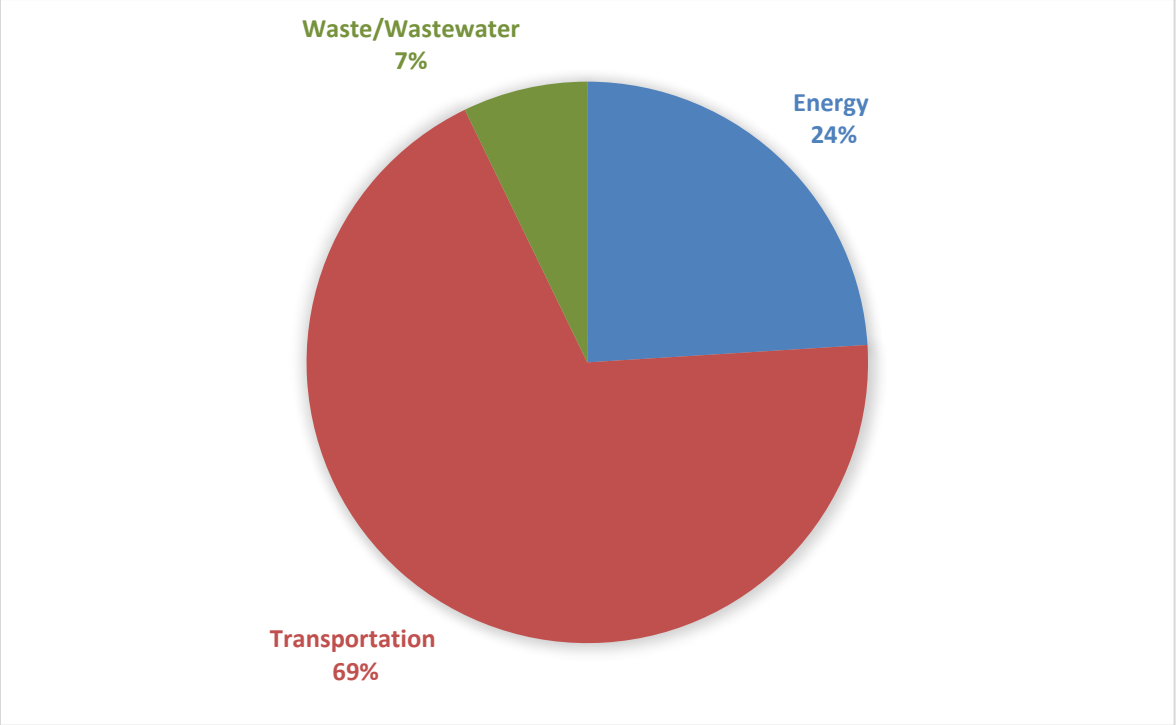


Figure 2 2019 Mass GHG Emissions by Sector

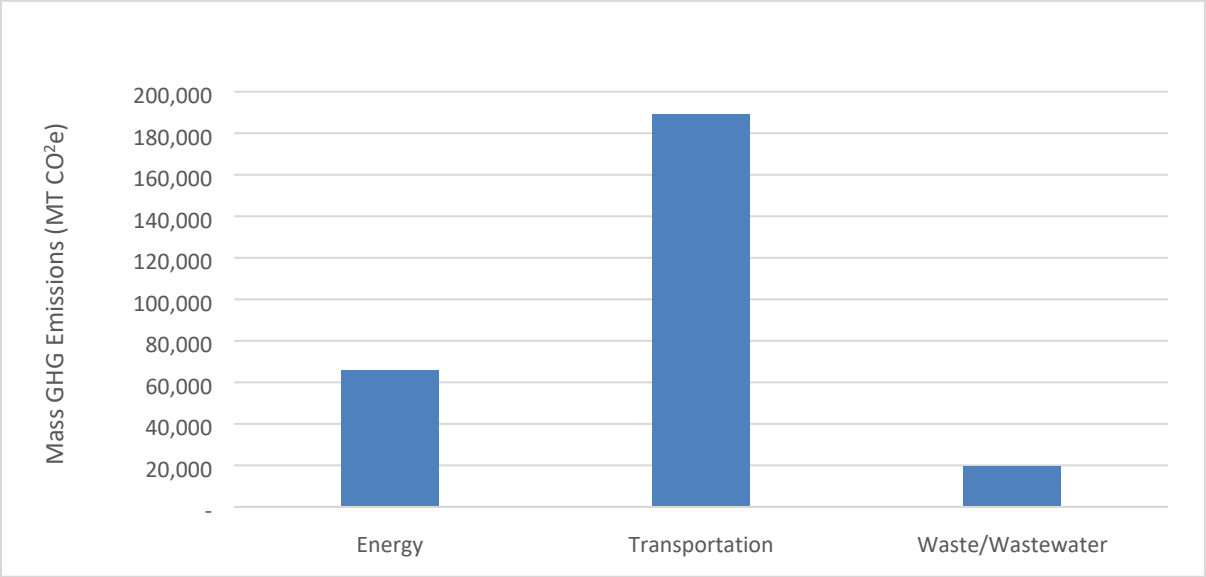
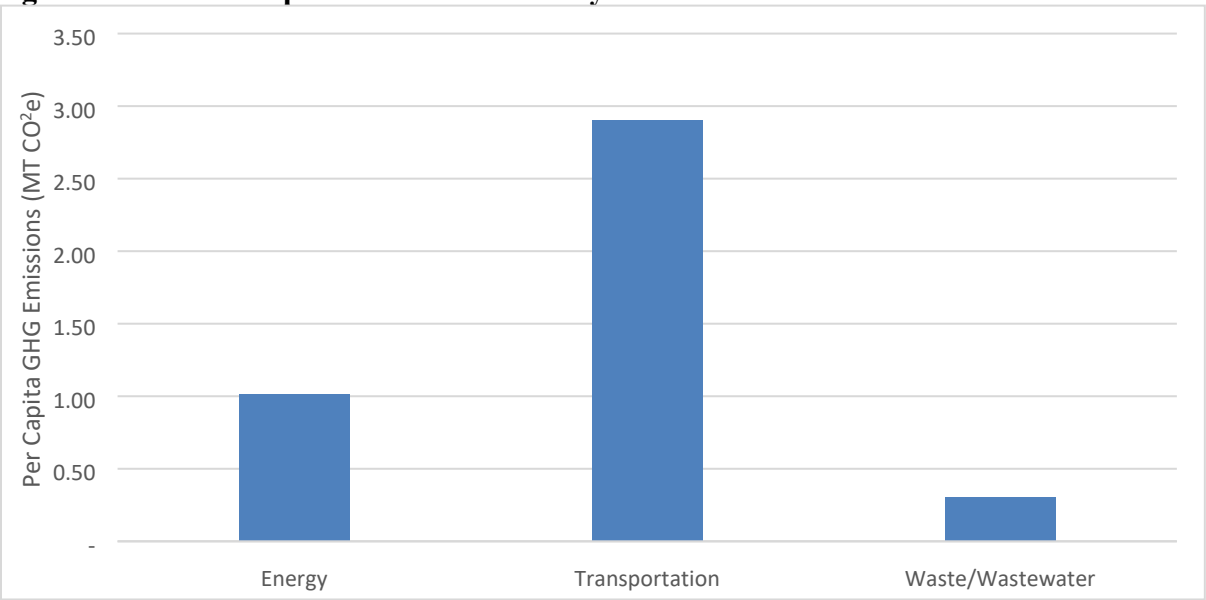


Figure 3 2019 Per Capita GHG Emissions by Sector



The State reached its target to return to 1990 GHG levels in 2016, four years ahead of schedule.[4] As shown in Table 1, the City of Santa Cruz reduced emissions below 1990 in 2019[5]. However, the City adopted a more ambitious 2020 target of reducing community-wide GHG emissions 30% below 1990 levels by 2020 as part of its 2012-2020 Climate Action Plan. Although the CAP 2020 closeout report indicated the City met its 2020 target, upon inclusion of additional vehicle miles traveled not accounted for the AMBAG model, the City did not meet its 2020 target (211,623 MT CO2e), largely due to population and employment growth[6].

[4] California Air Resources Board (CARB). Latest state Greenhouse Gas Inventory shows emissions continue to drop below 2020 target. Available <https://ww2.arb.ca.gov/news/latest-state-greenhouse-gas-inventory-shows-emissions-continue-drop-below-2020-target>. Accessed December 8, 2021.

[5] Due to the COVID19 pandemic, which disrupted community functions in 2020, 2019 is used as a proxy for 2020.

[6] ICLEI USA. July 2021. City of Santa Cruz Contribution Analysis. Submitted to City August 4, 2021.

The GHG inventories and Santa Cruz specific demographics projections were used to determine the community's GHG emissions forecasts. The forecasts in Table 2 were developed to better understand how population and job growth in Santa Cruz could affect future GHG emissions in the years 2025, 2030, 2035, 2040, and 2045. These forecasts help to determine the level of emissions reductions necessary to meet targets. For more information on the GHG inventories and forecasts see attachment entitled GHG Emissions Forecasts Memorandum.

Table 2 GHG Emissions Forecasts Emissions Forecast 2025

Emissions Forecast	2025 (MT CO_2e)	2030 (MT CO_2e)	2035 (MT CO_2e)	2040 (MT CO_2e)	2045 (MT CO_2e)
Business as Usual Forecast	335,150	300,519	309,929	320,156	330,054
Adjusted Forecast	311,244	256,715	249,834	248,562	250,569

Notes:

MT CO_2e: metric tons of carbon dioxide equivalent

[1] The Business-as-Usual Forecast (BAU) projects GHG emissions levels that scale with population, employment and transportation growth consistent with regional projections.

[2] The Adjusted Forecast (Adjusted) accounts for GHG reductions expected to occur from adopted State legislation (e.g., 2019 Title 24 Building Energy Efficiency Standards, Senate Bill 100 – California Renewables Portfolio Standard Program, and more). For more information on the forecasts, reference the Santa Cruz GHG Forecasts Memorandum submitted to the City on November 11, 2021.

GHG Emissions Target Options

As the State is continuously considering and setting new GHG emission targets, this allows the City to choose one or more GHG emissions target(s) to meet the overall objectives of the Climate Action Plan. One of these objectives is to develop a CEQA-qualified Climate Action Plan that is consistent with State-mandated targets. But the City may also want to set additional targets to be either consistent with or go beyond international agreements like the Paris Climate Agreement, i.e., a science-based target (SBT). The general options for targets include, but are not limited to:

- State-mandated target for a CEQA-qualified Climate Action Plan (SB 32 Minimum Target)
  - Senate Bill (SB) 32/Executive Order (EO) B-55-18 – 40% below 1990 emissions level by 2030, carbon neutrality by 2045. The State-mandated target (or SB 32 minimum) requires a clear plan to reach the 2030 target of 40% below 1990 levels, and a pathway toward carbon neutrality by 2045.
- ICLEI – Local Governments for Sustainability[7] Science-Based Target (SBT)
  - 60.7% below 2019 mass emissions by 2030 (62.8% below 2019 per capita emissions by 2030). The SBT sets a 2030 target that reflects maximum effort toward or beyond a fair share of the Paris Climate Agreement to keep global warming to under 1.5 degrees Celsius (50% reductions by 2030, compared to 2019 levels).
- Aspirational targets not subject to CEQA qualified CAP requirements under consideration
  - Carbon neutrality by 2035. This target aligns with Governor Newsom's recent direction to CARB to explore feasibility of carbon neutrality by 2035.

[7] ICLEI – Local Governments for Sustainability is an international non-governmental organization that promotes sustainable development. ICLEI provides technical consulting to local governments to meet sustainability objectives. The "International Council for Local Environmental Initiatives" thus became "ICLEI - Local Governments for Sustainability", with a broader mandate to address sustainability issues, not only environmental issues. As a member of ICLEI, the City's science based target was computed by ICLEI based on the revised 2019 emissions inventory results.

- Carbon neutrality by 2030. This target represents the most ambitious target that the City could pursue, consistent with the initiative called, "Climate Safe California."

- State-mandated Plus Target
  - This target could be more ambitious than the State-mandated target for a CEQA qualified Climate Action Plan (40% below 1990 levels) but less ambitious than carbon neutrality by 2030 or 2035. This target could aim to reduce GHG emissions somewhere between 45% - 85% below 1990 levels by 2030[8]. The emissions reductions associated with this potential target are not shown in the data and tables below since a target within the range of emission reductions is dependent on feedback from City Council, staff and stakeholders.

As long as the SB 32 minimum target is selected or exceeded on the community-wide scale, different targets may be considered for emissions reductions on the community-wide and municipal scale only. For example, Santa Cruz County has adopted a non-binding aspirational target of carbon neutral municipal operations by 2030 but has not yet considered or adopted a community-wide (County-wide) target. After the study session, the project team will refine the target preferences and bring specific emissions target recommendations at both scales to City Council at an early March, 2022 study session, along with a implementation action set to consider.

Following the consideration and selection of one or more of the targets above, there are two methodologies for calculating the minimum GHG emissions reductions the City must monitor to stay on track for meeting the selected target(s). The City could choose to adopt mass emission or per capita target. Mass emission targets describe emissions in terms of total MT CO2e without any adjustment for population growth. Many local governments, including the City of Santa Cruz, have been unable to reach their mass emissions targets because of population growth. The most recent (2017) California Climate Change Scoping Plan Update includes guidance that details the methodology and benefits of developing per capita targets. The key benefit of a per capita target is that it accounts for population growth, as the target does not become more difficult to reach if the City grows faster than projected. Since the City's growth may be about 10% in the next 8 years, adopting a per capita emissions target is strongly suggested by the project team. Per capita emissions targets are developed by dividing the projected emissions in each target year by the forecasted population. Conversely, per capita target can be translated to mass emissions by multiplying the per capita emissions by the population.

[8] Other jurisdictions that have adopted such targets include: City of San Luis Obispo – carbon neutrality by 2035; City of Watsonville – aspirational goal of net-negative emissions by 2030 and legal target 80% below 1990 levels by 2030; City of Santa Monica – 80% below 1990 levels by 2030; City of Palo Alto – 80% below 1990 levels by 2030; City of Cupertino – 49% reduction by 2035 and 83% by 2050.

Emissions Target Types

Mass Emissions Target Type

The first proposed methodology for the City to consider for setting a GHG emissions reduction target type is based on a total GHG emissions basis, also known as mass emissions. This is the traditional methodology for establishing emissions targets as a part of Climate Action Plans and was employed by the City for development of the 2020 target. The SB 32/Executive Order (EO) B-55-18 pathway to achieve statewide carbon neutrality by 2045 meets the minimum requirements for CEQA GHG emissions analyses streamlining[9] . The pathway sets a 40 percent reduction from 1990 levels by 2030 and then carbon neutrality by 2045 consistent with EO B-55-18. 3 provides GHG emissions targets for 2025, 2030, 2035, 2040, and 2045 for the City based on the four potential targets under consideration discussed above. Figure 4 displays these targets graphically and compares them to the Business as Usual (BAU) and Adjusted Forecast.[10]

Table 3 GHG Emissions Forecasts and Potential Targets – Mass Reduction

Emissions Forecast/Target	2025 (MT CO_2e)	2030 (MT CO_2e)	2035 (MT CO_2e)	2040 (MT CO_2e)	2045 (MT CO_2e)
Business as Usual Forecast[1]	335,150	300,519	309,929	320,156	330,054
Adjusted Forecast[2]	311,244	256,715	249,834	248,562	250,569
State-mandated Target (40% below 1990 emissions level by 2030, and progress toward carbon neutrality by 2045)	223,752	181,391	120,928	60,464	0
Carbon neutrality by 2035 Target (CARB directed to explore feasibility of this target)	171,615	85,808	0	0	0
Carbon neutrality by 2030 Target)	124,811	0	0	0	0
ICLEI - Science-Based Target (based on Paris climate goals – or 50% reductions by 2030 compared to 2019 levels)	191,086	107,912	N/A	N/A	N/A

Notes:

MT CO_2e: metric tons of carbon dioxide equivalent; CARB: California Air Resources Board)

The emission associated with a "State-mandated Plus" target is not shown since a target within the range of emission reductions would have to be determined.

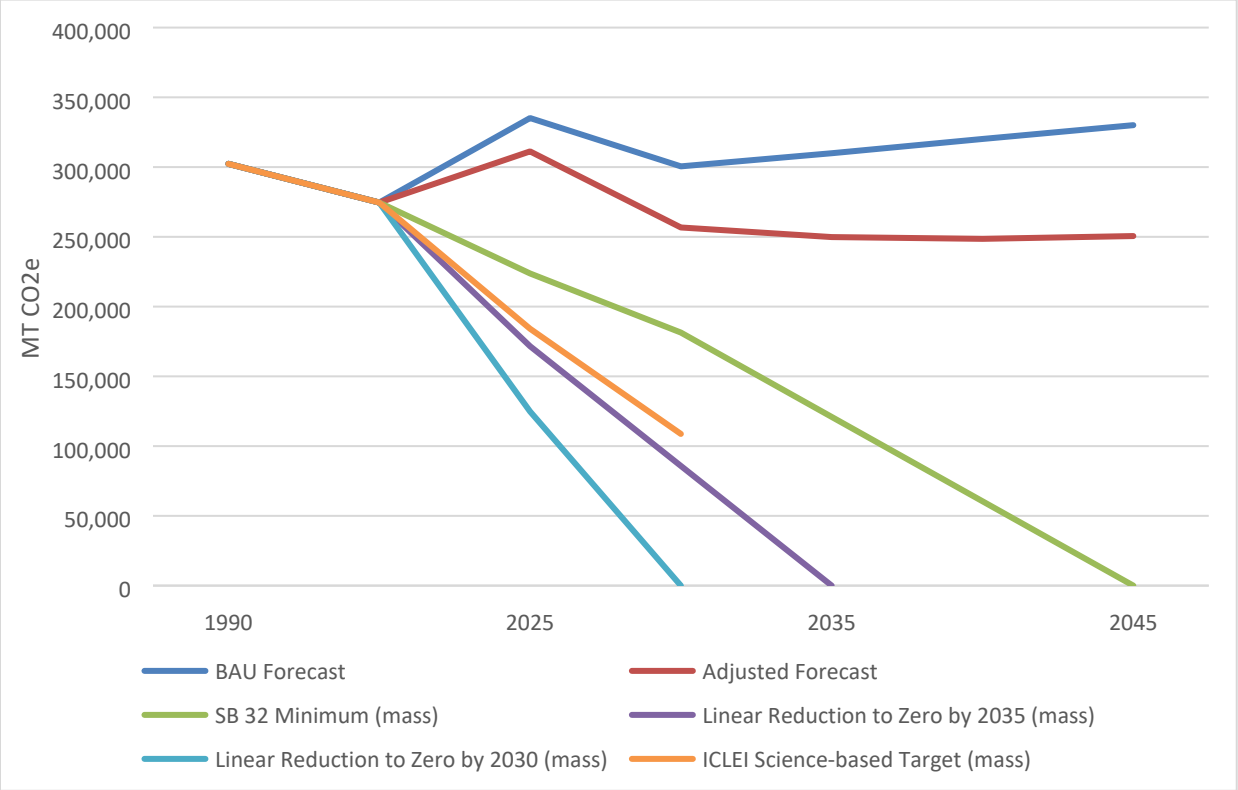
[1] The Business-as-Usual Forecast (BAU) projects GHG emissions levels that scale with population, employment and transportation growth consistent with regional projections.

[2] The Adjusted Forecast (Adjusted) accounts for GHG reductions expected to occur from adopted State legislation (e.g., 2019 Title 24 Building Energy Efficiency Standards, Senate Bill 100 – California Renewables Portfolio Standard Program, and more).

[9] CEQA streamlining refers to the ability of allowance lead agency to tier-off of existing environmental review and avoid the duplication of analysis prepared during planning-level or "programmatic". The CEQA Guidelines provide several ways to streamline GHG analysis within CEQA documents. The CEQA guidelines state that project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175–15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

[10] For more information on the forecasts, reference Attachment 2, the Santa Cruz GHG Forecasts Memorandum submitted to the City on November 11, 2021.

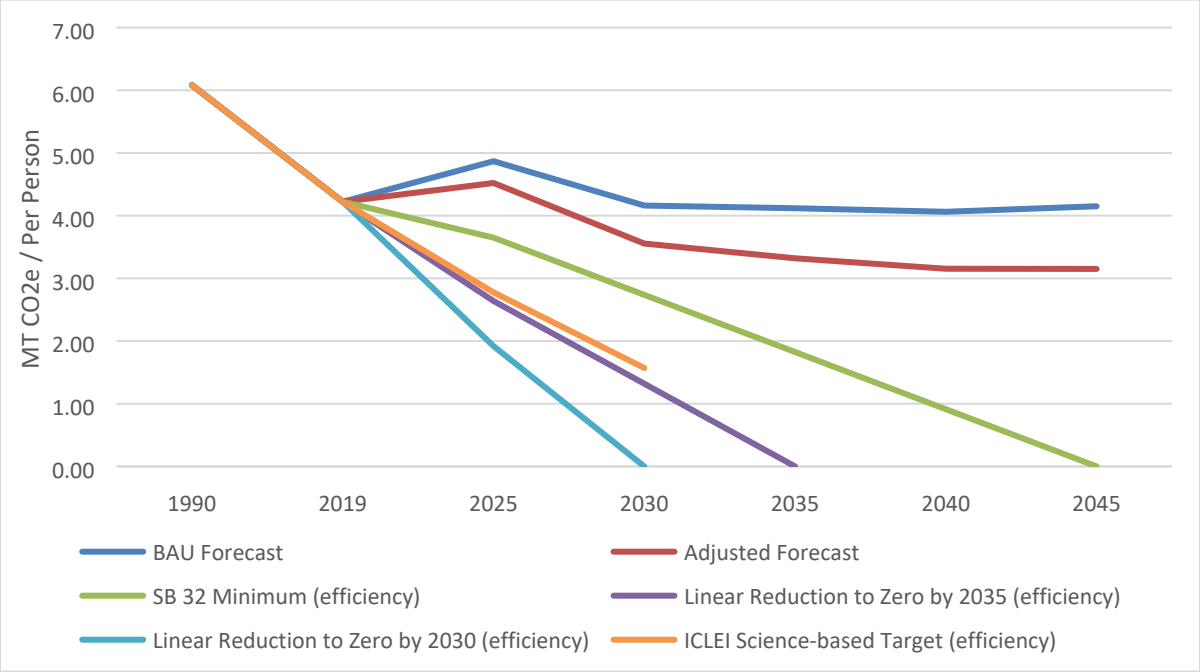
Figure 4 Potential GHG Emissions Forecast (Mass Emissions)



Per Capita Emissions Target Type

The mass GHG emission targets can also be expressed on a per capita basis (the second proposed methodology for setting GHG emissions reduction targets). Per capita targets are derived by dividing the mass emissions by the forecasted population in each target year. The benefit of per capita targets is primarily the ability to control for population growth over time. By adopting a per capita target, the City can grow without sacrificing the ability to reach its GHG reduction goals. Per capita emissions targets can be calculated by dividing the mass emission presented above by the population in order to translate mass emissions into a per capita emissions target. Table 3 provides per capita GHG emissions targets for 2025, 2030, 2035, 2040, and 2045 for the City based on the targets described above. Figure 5 details the per capita GHG emissions targets compared to the projected BAU and Adjusted Forecast.

Figure 5 Potential GHG Emissions Forecast (Per Capita Emissions)



Target Comparisons

For the City to have a CEQA-qualified Climate Action Plan, the State requires that the City of Santa Cruz reduce GHG emissions 40% below 1990 levels by 2030, under SB 32, and make progress toward carbon neutrality by 2045 under EO B-55-18. However, the City may choose to also set a more ambitious, or aspirational, target to meet carbon neutrality before 2045. As mentioned above, setting an aspirational target of carbon neutrality by 2035 would align with Governor Newsom's recent direction to the California Air Resources Board (CARB) to explore carbon neutrality by 2035[11]. This could make the City more competitive for future funding opportunities to meet a more ambitious carbon neutrality target. In addition, a more ambitious aspirational target, such as the ICLEI science-based target, would provide a conservative approach to keep warming below 1.5 degrees Celsius (°C), which the Intergovernmental Panel on Climate Change (IPCC)[12] determined is necessary to avoid the most negative impacts of climate change and ease climate change adaptation.[13]

[11] Office of Governor Gavin Newsom. 2021. Governor Newsom Holds Virtual Discussion with Leading Climate Scientists on State's Progress Toward Carbon Neutrality. Available <https://www.gov.ca.gov/2021/07/09/governor-newsom-holds-virtual-discussion-with-leading-climate-scientists-on-states-progress-toward-carbon-neutrality/>. Accessed November 11, 2021.

[12] The IPCC is an intergovernmental body of the United Nations responsible for advancing knowledge on human-induced climate change.

[13] Hoegh-Guldberg, O., D. Jacob, M. Taylor, M. Bindi, S. Brown, I. Camilloni, A. Diedhiou, R. Djalante, K.L. Ebi, F. Engelbrecht, J.Guiot, Y. Hijioka, S. Mehrotra, A. Payne, S.I. Seneviratne, A. Thomas, R. Warren, and G. Zhou, 2018: Impacts of 1.5ºC Global Warming on Natural and Human Systems. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I.Gomis, E. Lonnoy, T.Maycock, M.Tignor, and T. Waterfield (eds.)]. In Press

Table 4 presents an initial analysis of the level of effort required to achieve the State-mandated SB32 target (40% below 1990 levels by 2030) versus a more ambitious 2030 or 2035 carbon neutrality target or the ICLEI Science-based Target which is slightly less ambitious than the 2035 carbon neutrality target. This analysis includes the major GHG reduction measures required pursuant to the State Scoping Plan. Each measure was analyzed to that identify specific goals (i.e., activity data targets by 2030 and 2045) to address GHG emissions in each sector required for a CEQA qualified CAP (energy, transportation, and waste and wastewater)[14] . A single measure generally addresses a subsector; for example, five measures may be established under the Transportation sector to address subsectors such as active transportation, public transportation, passenger vehicles, commercial vehicles, and off-road equipment. The initial measure reductions depicted are in the process of being considered and adjusted in consultation with staff and relevant stakeholders. Table 4 also provides estimated costs and equity considerations.

Table 4 Target Comparisons

	State-mandated SB 32 Minimum Target (40% below 1990 levels by 2030 and pathway to carbon neutrality by 2045)	Carbon Neutrality by 2030 or 2035
Energy Measures	▪ Electrify 28% of existing residential buildings by 2030 ▪ Electrify 20% of existing commercial buildings by 2030 ▪ Time of replacement implementation and voluntary (could be as high as 10%) ▪ Assumes 6% non-compliance for residential and 1.7% for commercial	▪ Electrify 100% of existing residential buildings by 2030 or 2035 depending on target ▪ Electrify 100% of existing commercial buildings by 2030 or 2035 depending on target ▪ Requires retrofits before time of replacement ▪ Assumes 100% compliance
Transportation Measures	▪ 25% active transportation mode share by 2030 (currently 19.5%) ▪ 8% public transportation mode share by 2030 (currently 7%) ▪ 35% of passenger vehicles are electric by 2030	▪ >25% active transportation mode share by 2030 or 2035 depending on target ▪ >8% public transportation mode share by 2030 or 2035 depending on target ▪ 35% remaining passenger vehicles are electric by 2030 or

[14] The State is currently considering revising the State Scoping Plan to include carbon sequestration (e.g., tree planting, compost application). While this is not required for a CEQA qualified CAP currently, the project team is analyzing the potential for sequestration and will include it as a climate restoration measure in the Plan.

	(currently 5% passenger and commercial) ▪ 25% of commercial vehicles are electric by 2030 (currently 5% passenger and commercial) ▪ 50% off-road equipment decarbonized by 2030	2035 depending on target ▪ 20% remaining commercial vehicles are electric by 2030 or 2035 depending on target ▪ 50% off-road equipment decarbonized by 2030 or 2035 depending on target
Waste and Wastewater Measures	▪ 85% reduction in organic waste by 2030 ▪ 35% reduction in inorganic waste by 2030 ▪ 0% reduction in wastewater process emissions by 2030	▪ 100% reduction in organic waste by 2030 or 2035 depending on target ▪ 100% reduction in inorganic waste by 2030 or 2035 depending on target ▪ 100% reduction in wastewater process emissions by 2030 or 2035 depending on target

Notes: M = million; ft^2 = square foot; 3CE = Central Coast Community Energy; SCCRTC = Santa Cruz County Regional Transportation Commission; EV = electric vehicle; MBARD = Monterey Bay Air Resources District

As shown above, implementation of GHG reduction measures would need to reach 100% by 2030 or 2035 to reach an aspirational carbon neutrality target by those dates. This level of implementation is likely to be difficult to achieve in the next 10 to 15 years without substantial changes in federal and state funding and education and infrastructure investments. Although the Plan is designing implementation to mitigate equity concerns, in the near term those impacts may be more pronounced with a more ambitious target option because of the added investments required in the next 10 years. Moreover, the impacts of unmitigated climate change could likely also cause equity issues in the longer term, particularly to frontline communities ,which the City is addressing through the climate change adaptation initiatives.

Mass and per capita emissions targets for each of the potential targets listed above (i.e., state-mandated SB 32 target and aspirational targets) are described in detail below.

Practically Achievable Emissions Reductions	Aspirational Targets
▪ State-mandated Target (that meets SB 32 minimum requirements) ▪ State-mandated Plus Target (This target could aim to reduce GHG emissions somewhere between 45% - 85% below 1990 levels by 2030)	▪ Carbon Neutrality by 2030 ▪ Carbon Neutrality by 2035 ▪ Science-based

	Target

The City could choose to solely adopt the State-mandated target or a more ambitious State-mandated Plus Target, which meet or exceed the SB 32 minimum requirement. The City could also choose to adopt an aspirational overall emissions reduction target on the community-wide or municipal level, including measure specific aspirations, to reflect an aspirational vision. Any aspirational target would not be used for CEQA streamlining purposes but would allow the City to track progress made towards this target and potentially align with a science-based target and/or a more ambitious State target that could be enacted as a result of Governor Newsom's direction to CARB to explore carbon neutrality by 2035.

Next Steps

The project team has developed an initial set of actions (i.e., the projects, policies, infrastructure and programming) across all State Scoping Plan measure categories (e.g., transportation, building energy, waste and wastewater) to reach the minimum emission reductions required to achieve a CEQA qualified CAP. The equity screening tool is currently being applied to the draft action set and actions will be revised based on the outcomes of the equity screening and internal staff dialogue. The revised draft action set will be released to the community for feedback through an online community dialogue platform the last week of January 2022, and will remain open through March 1, 2022.

In the meantime, the project team will consider the discussion from the January 18 study session and prepare emissions reduction targets and climate restoration and climate economy goal recommendations. In February, 2022 the project team will also prepare preliminary funding and implementation plans to reach the recommended emissions targets and associated goals. The project team will bring this body of work back to City Council for a study session the first week of March, 2022 to consider recommendations for emissions target(s) and other goals to adopt. Between March and May, 2022, the project team will refine the final action set and funding and implementation plan, and draft the Climate Action Plan 2030. The project team aims to visit relevant commissions, conduct one additional major community engagement and bring the final Plan to City Council for adoption in June, 2022.

FISCAL IMPACT: The review of GHG emissions reduction targets as part of this study session does not have a direct fiscal impact but eventual setting of targets and adoption of the Plan will require significant investment from both the community and City municipally to implement the Plan. While example order of magnitude and per unit costs for various emission reduction actions were presented to at context to the target setting discussion, the next phase of the project will focus on costs, implementation and funding. In addition to seeking direction on preferred emissions reduction targets from City Council, the March study session will focus discussion on these important elements of the Plan development.

Prepared By:	**Submitted By:**	**Approved By:**
Tiffany Wise-West Sustainability and Climate Action Manager	Laura Schmidt Assistant City Manager	Matt Huffaker City Manager

ATTACHMENTS:

1. COMMUNITY ENGAGEMENT RESULTS AND SUMMARY.PDF
2. GHG EMISSIONS FORECASTS MEMORANDUM.PDF

Visioning Engagement Overview

To develop a community vision of Santa Cruz in 2030, City staff, with support from BluePoint Planning and from Greenlining Institute for equity considerations, led a variety of engagement efforts in the City from June 29-July 29, 2021. This included an online visioning board through the Padlet application – one for the community at large and one for City staff – and 12 in-person visioning sessions, in which community members contributed images and words to posters. In-person visioning sessions were held at a local laundromat (2), the main and midtown branches of the Santa Cruz Library (5), the Beach Flats garden (2), Depot Park (1), a community market event (1), and the Museum of Art and History (1). Overall, an estimated 263 people took part in the in-person visioning activities. Additionally, the Padlet had 221 posts and 169 comments from a total of 134 users. Some community members who were unable to contribute to the in-person poster also submitted comments via email afterward. Those comments are included in this summary as well. The outreach, the Padlet and all materials used in the in-person sessions were offered in English and Spanish. This summary takes into account all comments from in-person visioning sessions, and all Padlet comments dated through the month of July.

Below are the categories listed on the Padlet and the number of comments/ ideas received for each category for all forms for visioning outreach. This set of numbers also includes "likes" on Padlet for a specific idea. If there was a single comment that touched on different category areas, each category the comment touched on were attributed to a separate category and assigned a category/ subcategory. A full PDF of all posts from the Padlet and a detailed list of all subcategories and support for each set of ideas is attached.

1. Transportation (368)
2. Housing (156)
3. Energy (148)
4. Open Spaces, Nature, and Ocean (124)
5. Water (86)
6. Public Health and Safety (78)
7. Jobs and Green Economy (70)
8. Waste, Food, and Food Systems (65)
9. Equity and Climate Justice (51)
10. Miscellaneous (104)

Primary Themes

Below are the most salient themes that surfaced through the engagement process. These themes are aggregated concepts built from the broader categories listed above and the community comments. These themes will be the basis for the Climate and Energy Action Plan Community Vision and Goals. Detailed comments are provided below.

1. **Create a seamless and safe active transportation network.** This includes creating more protected bike lanes and completing the County-wide rail trail to ensure that cyclists of all abilities feel comfortable biking. It also includes increasing walkability throughout the City and promoting pedestrian safety.
2. **Create a robust, decarbonized, reliable public transportation system.** There is support for reliable, electric buses, as well as an electric rail in the region. This aligns with general support for reducing the number of cars and traffic in Santa Cruz.
3. **Establish more affordable, denser housing.** Many comments indicated support for more, and denser affordable housing. Comments also expressed a sentiment against vacant second homes in the City.
4. **Foster the unique City of Santa Cruz Community Character.** There is support for maintaining the current cohesive building types and density in City. It is important to ensure that new development considers water supply, traffic, and impact on community character. Comments also offered visions of more ADUs to address the need for housing. Safety and resilience are also considered in this theme. This theme needs to be balanced with the Affordable and Denser Housing theme.
5. **Support and maintain beautiful and regenerative landscapes and environment.** There is great support for planting more trees in Santa Cruz, community gardens, and many people also expressed support for keeping heritage trees in the City. Community members also envisioned healthy, organic regenerative landscapes and agriculture in the City, as well as accessible beaches and ocean.
6. **Promote clean energy and create resilient energy infrastructure and buildings.** There is support for efficient, all-electric buildings, including increasing solar panels on buildings of all types. Many community members also envisioned a stable energy grid, including microgrids, energy storage, and electric vehicle charging.
7. **Ensure sustainable water use in the City.** There is a desire to align the City's development with the capacity of the water system. There is also a desire for conserving and reusing water through greywater systems and other means.
8. **Secure economic, racial, and environmental justice.** Community members expressed a vision of economic and racial equity and environmental justice. This includes giving space for and centering BIPOC community groups.

Detailed Comments by Theme

Below are detailed summary comments organized under the themes and general comment categories. The information is provided with the most common mentioned items down to the least. Some of the comments in the latter part can be considered within the 8 themes and are noted as appropriate.

Transportation (368)

Theme 1. Create a seamless and safe active transportation network throughout the City.

"We hope the city creates more open spaces for people and bikes. We envision a city where there are fewer cars on the road and biking to school and work is fun and safe for everyone."

- More bike lockers
  - More bike lockers on the wharf & at the boardwalk
  - More lockers downtown near major employers to disincentivize bike theft and encourage biking
- Re-establish bike share
  - Support for JUMP bikes
  - More bike share parking advertising in the SC Sentinel, Metro Headways, Goodtimes, and CTV.
- More protected bike lanes
  - Well-marked, protected bike lanes bike lanes make it safer to get around on bikes and encourage biking
- Countywide rail trail (with UCSC link)
  - Complete the Rail/Trail by 2023
  - More equity & inclusion thought in the rail/trail
- Use parking department income to fund rebates for eBikes, especially for low-income populations
- Prioritize building sidewalks
  - Wider sidewalks
  - Sidewalks away from street so there can be green space between moving vehicles and pedestrians
  - Create a pedestrian mall on Pacific Ave.
- Better and safer pedestrian crossing
  - Install flashing beacons for crosswalks

Theme 2. Create a robust, decarbonized, reliable public transportation system.

- Electric buses
  - Expand and electrify bus fleet
- Greater bus service
  - Greater service on the Westside and along Highway 1
  - Explore bus on shoulder programs
  - Have much earlier and much later bus times for Downtown Go program, including a late-night bus route from Watsonville, SLV, Scotts Valley, Capitola & Santa Cruz.
  - Have an express bus from Watsonville to Scotts Valley.

    - Add an electrical fleet back-up emergency plan to a feasibility study to consider grid stability
    - Establish a light rail
        - Support and establish an electric light rail from Santa Cruz to Watsonville
    - Greater alternative transit
        - Create a park and ride with free shuttle to beach and tourist locations
- Fewer cars
    - Reduce traffic
    - Stop building of parking garage

Housing (156)

Theme 3. Establish more affordable, denser housing.

"Create high-density housing located near transit and job centers to move away from an auto centric Santa Cruz."

- High density housing near transit
- Allow single-family lots to be split
- Create low-income apartments for varying size families
- More homes for locals and less vacant vacation homes
    - Establish vacancy tax

Theme 4. Foster the unique City of Santa Cruz Community Character.

- **Less dense development**
    - Reduced requirements for ADUs
    - No tall buildings over 3-5 stories
    - Maintain city's ambiance
- **Less Development**
    - Stop overdevelopment
        - Cap growth to what City can sustain
        - Concern about sustainability of water use
        - Limit UCSC enrollment
    - No more luxury hotels or apartments

Open Spaces, Nature, and Ocean (124)

Theme 5. Support and maintain beautiful and regenerative landscapes and environment.

- **Tree filled, shady spaces**
    - Save heritage trees, don't build at farmer's market
    - Plant more trees
- **Healthy Landscaping**
    - Encourage lawn removal
    - Regenerative landscaping and agriculture
        - Healthy forestry initiatives

        - Drought tolerant, native planting
        - Stop pesticide use
        - Prohibit gas landscaping equipment
- **Healthy Oceans and Beaches**
    - Accessible for people of all incomes - No parking fees
    - Healthy ocean ecosystems
- **Manage sea level rise**
    - Managed retreat of West Cliff
    - Manage sea level rise

Energy (148)

Theme 7. Promote clean energy and create resilient energy infrastructure and buildings.

- **Greater renewable energy**
    - More solar
        - Put on new infrastructure
        - Incentivize solar
    - All-electric buildings
        - Government buildings should be all-electric
- **Stable energy grid**
    - Highly efficient buildings
        - Construct Passive House buildings
    - Reliable energy in blackouts
        - Battery storage
        - Establish municipally controlled microgrids
        - More TOU rates
        - Vehicle-to-grid charging
- **Electric Car Infrastructure**
    - More electric vehicle charging
        - Zero carbon electric vehicle charging at city parking lots and garages, powered by municipally-owned solar
        - Install pay-for-use electric vehicle charging stations on curbs of multifamily buildings
        - Charging at apartment buildings, grocery stores, restaurants
    - More electric vehicles
        - Electrify City fleet
- **Clean Energy Homes**
    - Make old rental units efficient
    - Clean energy homes with solar power

- **Support for zero carbon goal by 2030**
    - Ensure City follows up on action plan and implementation
    - Ban fossil fuel extraction

Water (86)

Theme 6. Ensure sustainable water use in the City.

- **Sustainable Water Use**
  - Stormwater capture
    - For homes
    - Use stormwater to water golf course
  - Gray water systems
    - For City buildings
    - Toilets in residential buildings
    - Gray water system for Waste Management to wash down recyclables

- **Align development with capacity of water system**
  - Concern over water related to planned development
    - Division over what water source should be used for growing population
  - Create a water conservation plan

Equity and Climate Justice (51)

Theme 8. Secure economic, racial, and environmental justice.

- **Economic Equity**
  - More diversity in property ownership
  - Equitable housing conditions
  - Address poverty
    - Better wages
- **Racial Equity**
  - Anti-racism work
    - Center BIPOC and traditional ecological knowledge
    - Symbiotic relationships and collaboration between groups
  - Diversity
  - Remembering the past and healing
- **Environmental and Social Justice**
  - Equitable outdoor spaces
    - BIPOC can reclaim outdoor spaces

Public Health and Safety (78)

- **Safety and Resilience (Connect to Theme 4)**
  - Safety and security
  - Safety in extreme heat
  - Resilience

        - Paid BIPOC leadership to establish resilience hubs
        - Emergency response plan
    - Reduce wildfire risk
    - Covid safety
        - Outdoor dining
        - Walk-up window for stores/ restaurants

- **Good sense of community (Connect to Theme 4)**
    - Community streets
    - Mutual aid
    - Community art and murals
    - Support and expand the Downtown Streets Team
    - Establish a neighborhood liaison team or Equity Department within the City

Waste, Food, and Food Systems (65)

- **Reduce food waste**
    - Compost program
        - Establish compost program for the City
        - Make more compost bins available
    - Divert biowaste for fuel
    - Distribute extra food from restaurants
    - Create city waste reduction goal

- **Greater food access (Connect to Theme 5)**
    - More community gardens
        - Support for homeless garden project
        - Create a Santa Cruz Agricultural Park/ demonstration garden
    - Public fruit trees

Jobs and Green Economy (70)

- **Healthy local economy**
    - Living wage jobs (Connect to Theme 8)
    - Reduce parking requirement for businesses to make City more walkable and increase foot traffic (Connect to Theme 1)
- **Create green jobs**
    - More LEED professionals trained in building systems (Connect to theme 7)
    - Green job apprentice program (Connect to Theme 8)
- **Encourage remote work**
    - Incentivize working from home to reduce car use
    - Encourage employers to allow remote work

Miscellaneous (104)

- **Reduce plastic use and waste (Connect to Theme 4)**
    - Ban single-use plastics
        - Ban sale of plastic water bottles
        - Charge $ 0.25 for plastic bags
    - Greater recycling
        - Increase local recycling
        - Advocate for extended producer responsibility
        - Recycle bottle caps
- Reduce and enforce littering finds

Goals Survey Summary

Santa Cruz Climate and Energy Action Plan | October 20, 2021

Survey Details

- Survey was open between September 8- October 13, 2021
- 271 responses
  - 76% of respondents live in the City (many in unincorporated SC County)
  - 13% of respondents identify as BIPOC
  - 17% of respondents age 30 or younger
  - 2% of respondents (n=5) from Beach Area, 3% (n=7) from Lower East Side
  - 20% of respondents are City employees

Survey Details

- Top 5 fields of professions of respondents were:
  - Government, (24%)
  - Education/ research (24%)
  - Non-profit or CBO (23%)
  - Retired (17%)
  - Technology (13%)

- Top 5 neighborhoods of respondents were:
  - Unincorporated Santa Cruz (21%)
  - Lower Westside (18%)
  - Outside of Santa Cruz (10%)
  - Upper Westside (10%)
  - Downtown (7%)

- Top 5 participation experiences were:
  - Reviewed Climate Action Plan 2030 project website (45%)
  - Received status updates and notifications from City staff (40%)
  - Participated in the Community Engagement Preferences Survey (32%)
  - Submitted comments via email or online forms.(31%)
  - Learned about the project at other events where the Climate Action Program tabled or presented (13%)

Major Takeaways

- Overall there is strong agreement with all of the goal statements.
- Biggest action that community supports is to reduce emissions from personal vehicles by improving biking, walking, and public transit
- Strong desire to build more dense, mixed use and transit focused housing
- Providing good wages are important to Santa Cruz community
- Community somewhat split about “moonshot” vs measured approach to emissions reductions targets

Takeaways from Frontline Stakeholders

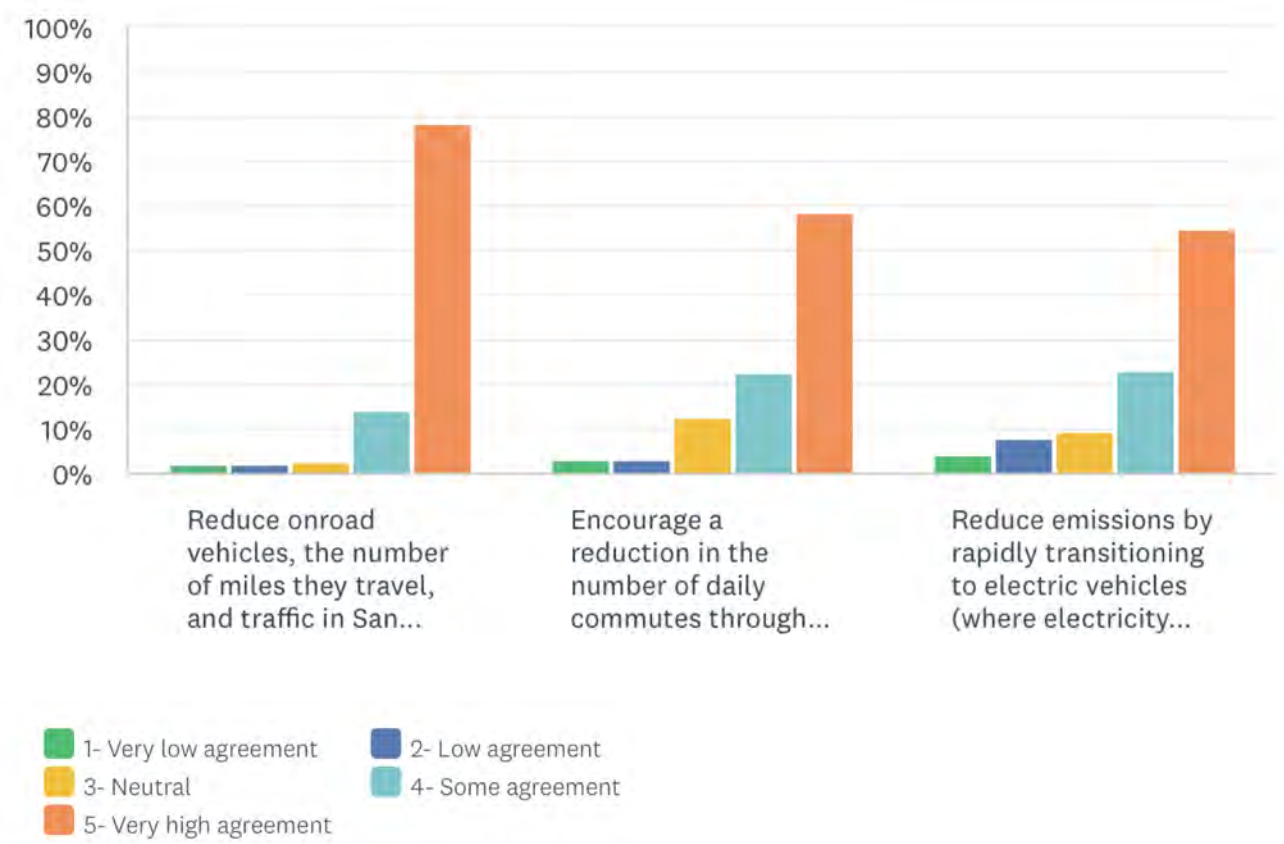
- Includes BIPOC, youth, and Beach Flats/ Lower Eastside groups
- Overall there is strong agreement with all of the goal statements
- Frontline stakeholders have similar priorities as overall respondents
- Unlike the general survey responses, there is a strong preference for a measured and clear approach to achieving carbon neutrality

Takeaways from City Employees

- Slightly different priorities than general population, with an increased desire for the City to promote teleworking policies
- Lower support for City to lead educational efforts (plant-based diets, material consumption) than general population
- Lower support for promoting resilient neighborhoods
- Lower support for creating and promoting resilience in the business district
- Overwhelming desire for a measured approach to achieving carbon neutrality

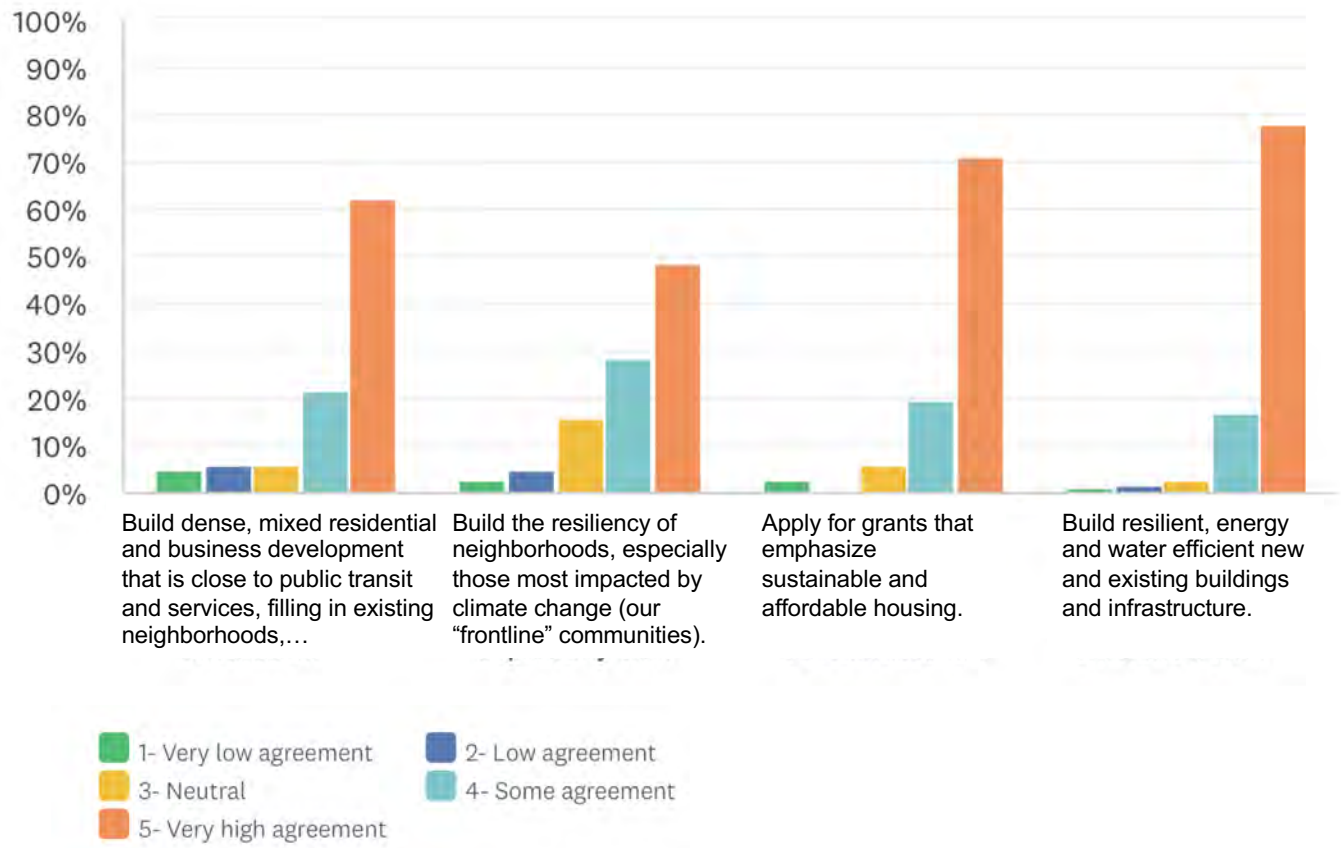
Theme 1. Transportation

Transportation is by far the largest source of emissions in Santa Cruz. From the CAP 2030 visioning process, there is recognition that the community will need to consider how to drastically reduce these emissions.



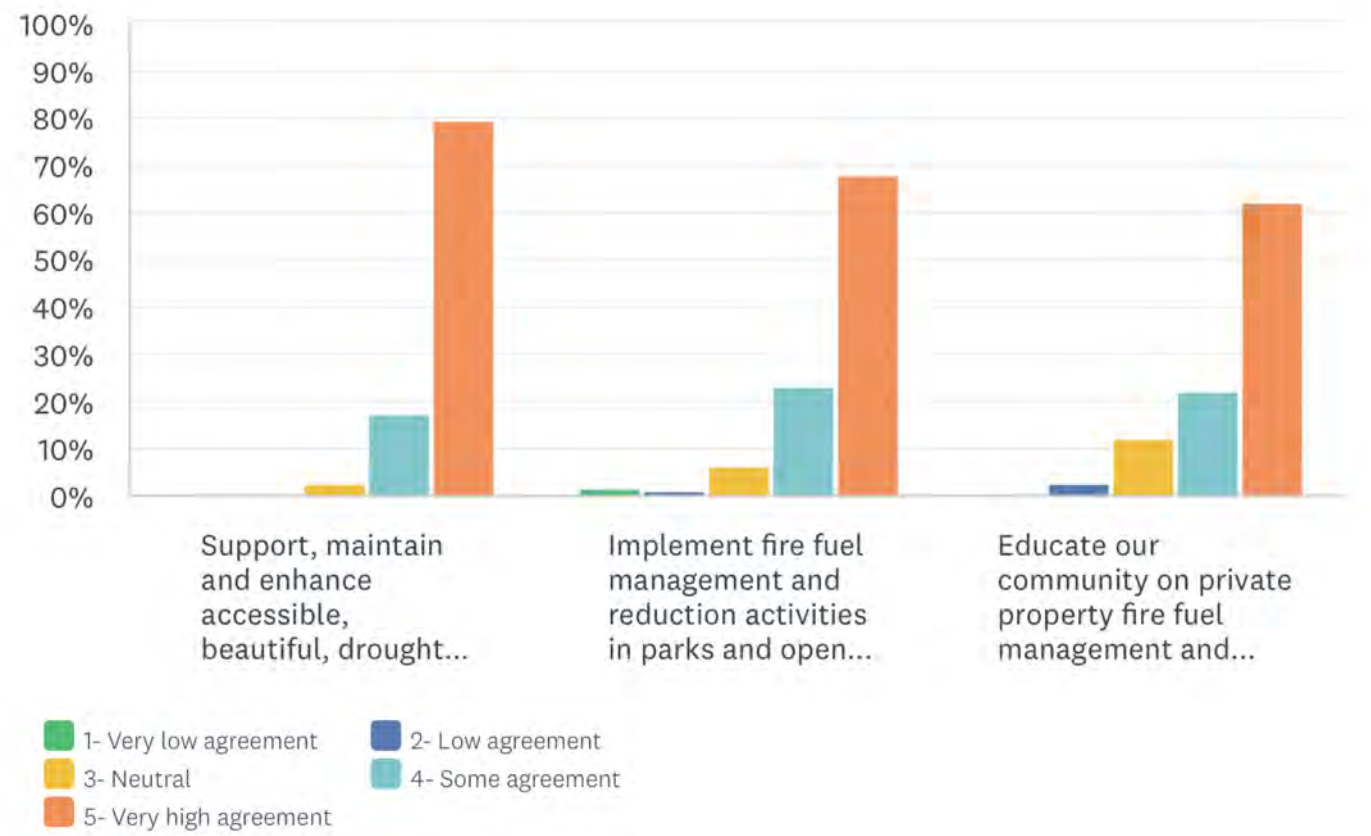
Theme 2. Buildings, Housing and Development

Energy use in buildings is the second largest source of emissions in Santa Cruz. How and where we construct new buildings and existing developments have the potential to significantly reduce these emissions. As identified in the CAP 2030 visioning process, affordable housing is also a desirable use expressed by the community.



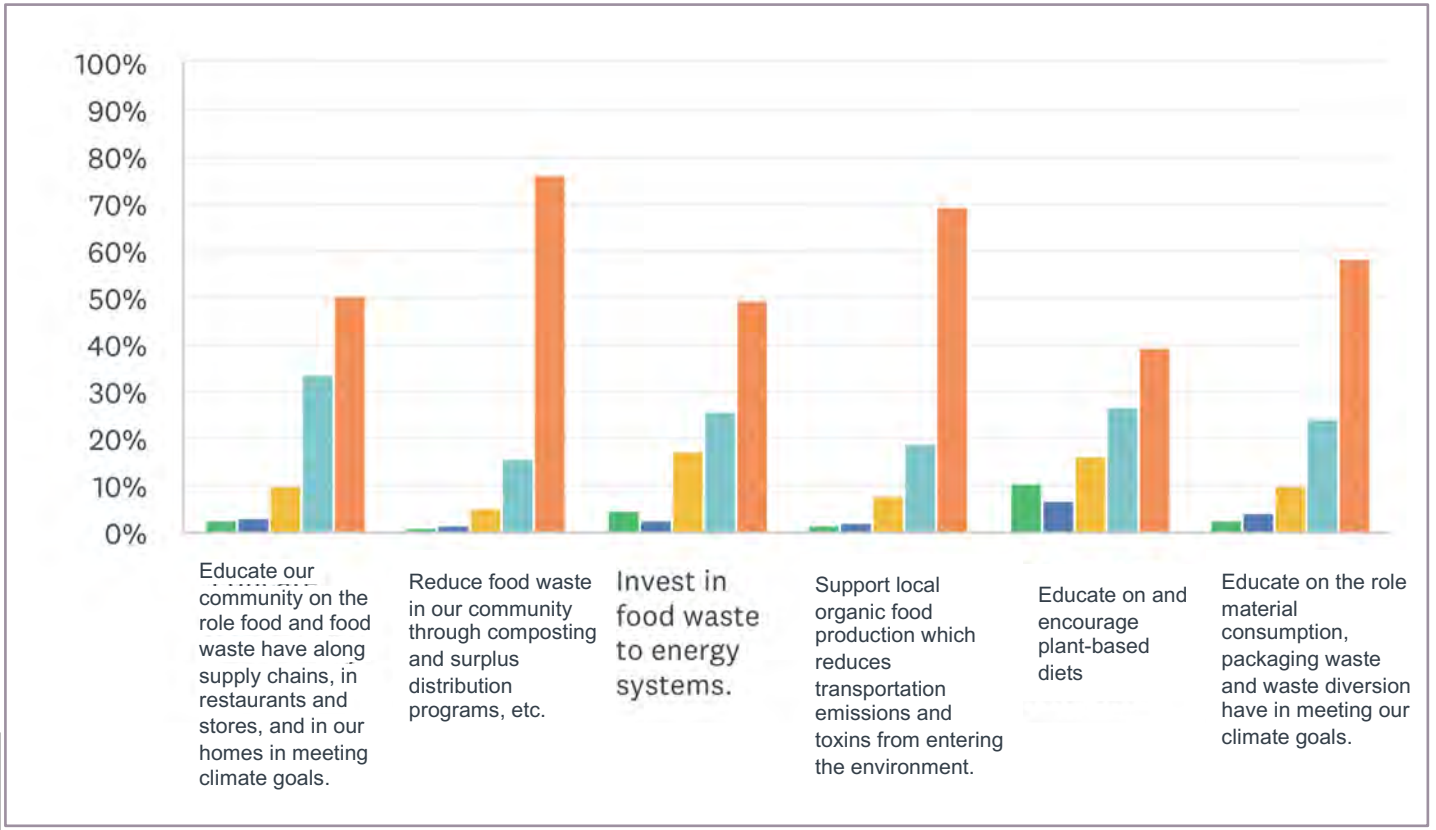
Theme 3. Parks and Open Spaces

From the CAP 2030 visioning process, our community indicates parks and open spaces are a priority, integral to our City's health by providing cooling to counter heat island effects, increasing habitat, and filtering stormwater. While the potential is limited, trees and vegetation in parks and open spaces are also central to our retention of carbon.



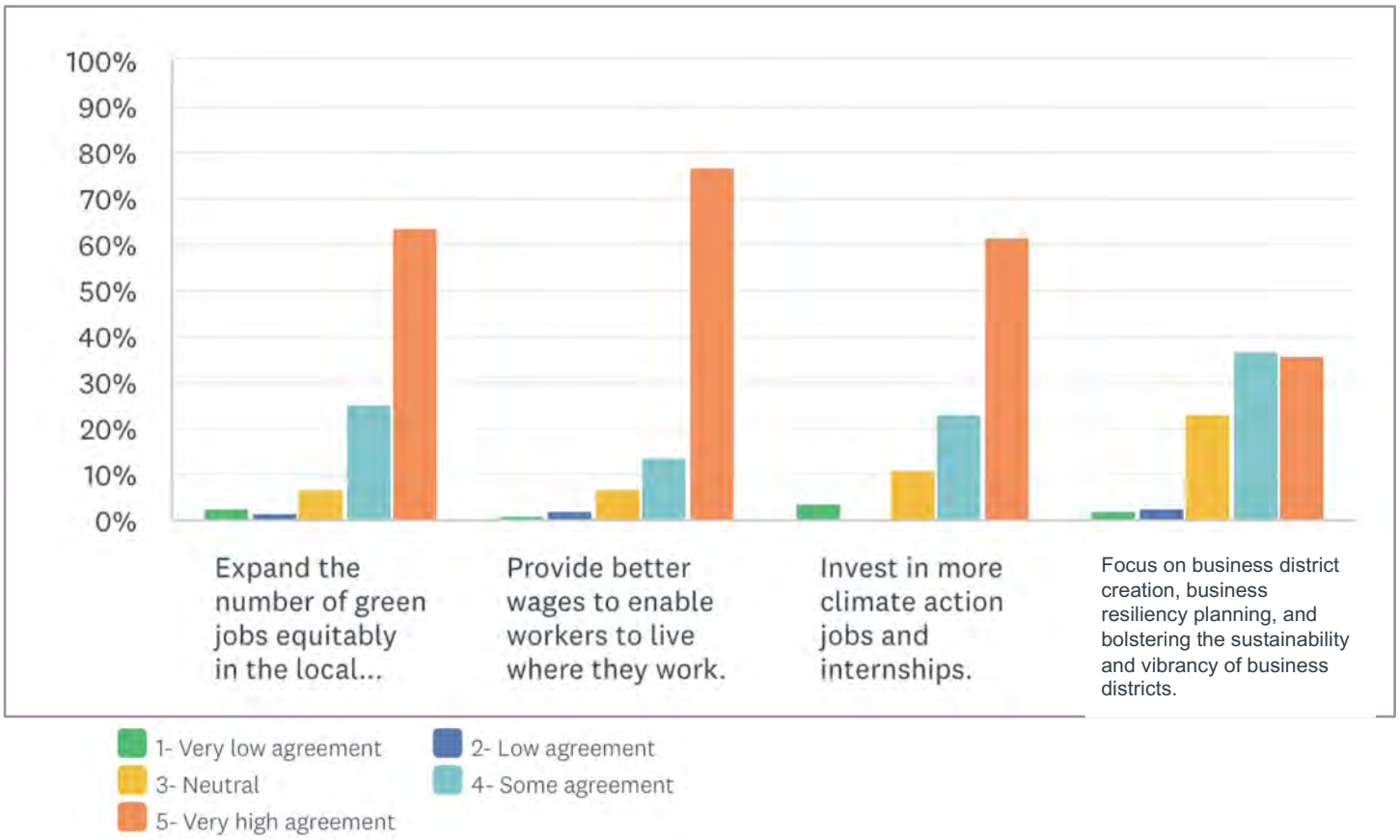
Theme 4. Food and Waste

There is a desire to reduce food waste in our community and support local organic food production. This could reduce emissions from food waste while supporting carbon-sequestration by promoting healthy soil practices.



Theme 5. Green Economy

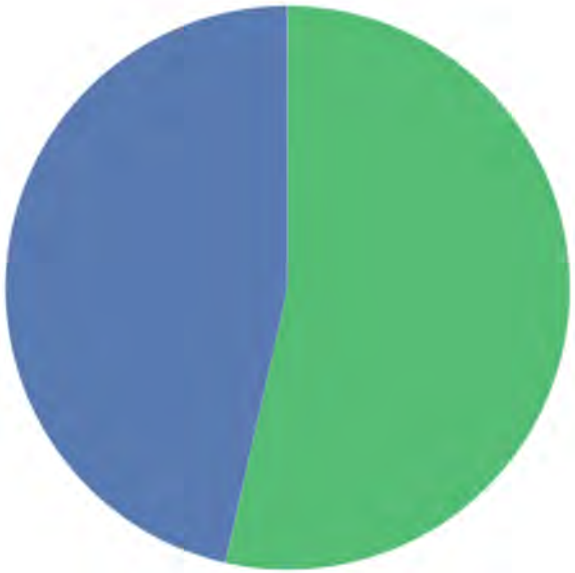
There is a strong community desire to provide higher wages to enable workers to live where they work and equitably increase the number of green jobs in Santa Cruz.



Select the 5 statements you feel are most important for the community to address

Reduce onroad vehicles, the number of miles they travel, and traffic in Santa Cruz by equitably improving bikability, walkability, and public transportation.	67.90%	184
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	50.55%	137
Provide better wages to enable workers to live where they work.	39.11%	106
Build resilient, energy and water efficient new and existing buildings and infrastructure.	32.10%	87
Support, maintain and enhance accessible, beautiful, drought tolerant and/or regenerative landscapes and ecosystems that store carbon and support biodiversity.	30.63%	83
Reduce emissions by rapidly transitioning to electric vehicles (where electricity in 2030 is emissions free) for any remaining commute trips.	30.26%	82
Apply for grants that emphasize sustainable and affordable housing.	30.26%	82
Reduce food waste in our community through composting and surplus distribution programs, etc.	30.26%	82
Support local organic food production which reduces transportation emissions and toxins from entering the environment.	26.94%	73
Encourage a reduction in the number of daily commutes through expansion of equitable teleworking.	23.99%	65
Implement fire fuel management and reduction activities in parks and open spaces to reduce the potential release of massive emissions due to wildfire.	22.88%	62

Climate Action Plan Emissions Target



- Nearly even on which approach to the target the City should take
- Slight preference for the bolder approach

■	As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined. (1)	53.56%	143
■	As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal. (2)	46.44%	124

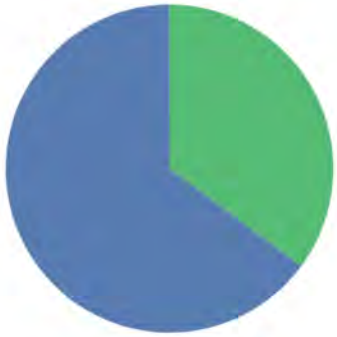
Breakdown of resident responses

ANSWER CHOICES	RESPONSES	
Reduce onroad vehicles, the number of miles they travel, and traffic in Santa Cruz by equitably improving bikability, walkability, and public transportation.	74.75%	151
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	51.98%	105
Provide better wages to enable workers to live where they work.	37.13%	75
Build resilient, energy and water efficient new and existing buildings and infrastructure.	34.16%	69
Apply for grants that emphasize sustainable and affordable housing.	32.67%	66

	As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined. (1)	53.56%	143
	As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal. (2)	46.44%	124

Breakdown of BIPOC responses

ANSWER CHOICES	RESPONSES	
Reduce onroad vehicles, the number of miles they travel, and traffic in Santa Cruz by equitably improving bikability, walkability, and public transportation.	64.86%	24
Provide better wages to enable workers to live where they work.	45.95%	17
Encourage a reduction in the number of daily commutes through expansion of equitable teleworking.	37.84%	14
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	37.84%	14
Apply for grants that emphasize sustainable and affordable housing.	37.84%	14



As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined.	35.14%	13
As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal.	64.86%	24

Breakdown of youth responses (under 30)

ANSWER CHOICES	RESPONSES	
Reduce onroad vehicles, the number of miles they travel, and traffic in Santa Cruz by equitably improving bikability, walkability, and public transportation.	71.11%	32
Provide better wages to enable workers to live where they work.	53.33%	24
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	51.11%	23
Apply for grants that emphasize sustainable and affordable housing.	35.56%	16
Build resilient, energy and water efficient new and existing buildings and infrastructure.	35.56%	16
Support, maintain and enhance accessible, beautiful, drought tolerant and/or regenerative landscapes and ecosystems that store carbon and support biodiversity.	35.56%	16
Reduce food waste in our community through composting and surplus distribution programs, etc.	35.56%	16

As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined.	37.78%	17
As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal.	62.22%	28

Breakdown of responses from Beach Flats and Lower Eastside/ Eastside Sphere

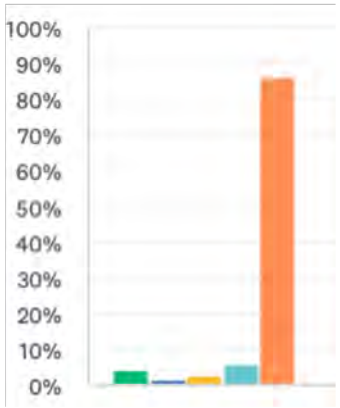
ANSWER CHOICES	RESPONSES	
Provide better wages to enable workers to live where they work.	46.00%	23
Build resilient, energy and water efficient new and existing buildings and infrastructure.	28.00%	14
Reduce emissions by rapidly transitioning to electric vehicles (where electricity in 2030 is emissions free) for any remaining commute trips.	20.00%	10
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	20.00%	10
Build the resiliency of neighborhoods, especially those most impacted by climate change (our "frontline" communities).	16.00%	8

As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined.	36.11%	26
As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal.	63.89%	46

Breakdown of responses from Beach Flats and Lower Eastside

Listed are responses from Beach Flats and Lower Eastside from the standout categories in which their opinions' differed from the general public, along with their responses.

Please note that 50 additional responses from the Beach Flats community were collected after the public response to the survey. These responses are included here but are not included in the general summary provided on the ppt.



Expand the number of local green jobs

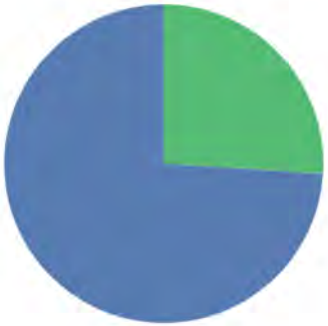
Encourage reduction in number of daily commutes through expansion of equitable teleworking

Support local organic food production

Educate on and encourage plant-based diets

Breakdown by City employees

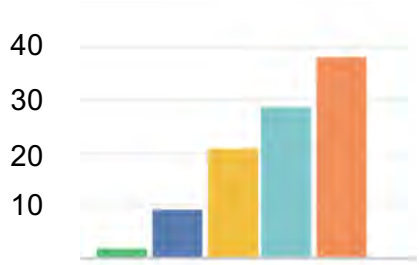
Encourage a reduction in the number of daily commutes through expansion of equitable teleworking.	64.15%	34
Provide better wages to enable workers to live where they work.	49.06%	26
Reduce onroad vehicles, the number of miles they travel, and traffic in Santa Cruz by equitably improving bikability, walkability, and public transportation.	43.40%	23
Build dense, mixed residential and business development that is close to public transit and services, filling in existing neighborhoods, rather than extending development into the wildland urban interface and other undeveloped areas.	39.62%	21
Support, maintain and enhance accessible, beautiful, drought tolerant and/or regenerative landscapes and ecosystems that store carbon and support biodiversity.	39.62%	21



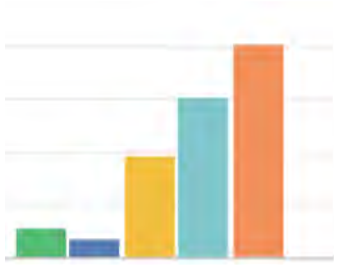
As a community, we need to recognize the urgency of climate change by adopting a bold target for carbon neutrality, a "moonshot" to rally the community around a common goal, although the path to achieving it may not be fully defined.	26.00%	13
As a community, we need to take a measured approach to becoming carbon neutral, establishing a clear focus and detailed path that may increase both community buy-in and our chance of achieving our carbon neutrality goal.	74.00%	37

Breakdown by City employees

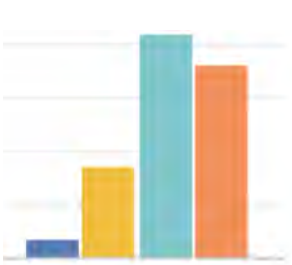
Listed are some responses from City employees from the standout categories in which City employees opinions' differed from the general public, along with their responses.



Build the resiliency of neighborhoods,

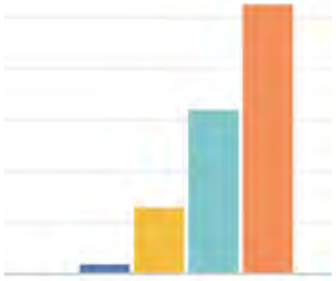


Invest in more climate action jobs and internships.



Focus on business district creation, business resiliency planning, and bolstering the sustainability and vibrancy of business districts.

Educate and encourage plant-based diets



Educate on the role material consumption, packaging waste and waste diversion have in meeting our climate goals.

Select representative comments

I would like to see post fire ecological regeneration research and implementation become a priority within the CAP. We have the potential to draw down carbon, heal our soil and create more drought/fire resistant landscapes through various projects with a lot of potential in the CZU and elsewhere.

It is absolutely crucial to mandate that all proposed new residential and business housing be water neutral as well as energy efficient.

Great Work!

Tiffany is a Rock Star!

Even though all the areas you mention are crucial for our area, keeping food waste out of landfill is low hanging fruit and can be implemented the quickest of all.

We can not successfully reduce traffic if we do not invest in light rail.

Initiatives which also have public health benefits should be prioritized. Electrifying technologies that currently burn gasoline (especially in two-stroke engines) would have major benefits and cost savings to residents' health.

Initial Community Values & Vision

- Expand and improve equitably distributed bikability, walkability, and public transportation infrastructure
- Limit onroad vehicles, the miles traveled, and traffic while transitioning any remaining car trips to electric vehicles.
- Build affordable, dense, mixed residential and business development that is close to public transit and services, especially for frontline communities
- Ensure that all buildings and infrastructure are resilient, and water and energy efficient.
- Increase the number of well paying jobs for Santa Cruz residents to live where they work.
- Support, maintain and enhance accessible, beautiful, drought tolerant and/or regenerative landscapes and ecosystems.
- Reduce food and material waste and educate on the role of waste reduction in achieving the City's climate action goals.


Thank
You!
blue
point
planning

Equity Considerations Recap

The following slides include equity considerations for the emissions reduction measures the community will need to implement.

This information was gathered from community engagement in the Fall 2021, Jamboard/ in-person exercises with Climate Action Task Force and Equity Advisors, and focus groups with unsheltered people, youth and the NAACP of SC County

Equity Considerations Recap

Emissions Reduction Measures

Energy

- Consider affordability and impacts of electrification
- Consider the ability of renters to electrify
- Ensure that benefits from distributed energy resources (e.g. solar) are distributed equally

Transportation

- Take into account the affordability of EVs, bikes, and public transportation
- Consider accessibility of payment methods for transportation
- Promote safe and inclusive access to active, public, and electric transportation, (including for people of different mobilities, unsheltered groups)
- Ensure equitable outreach for rebates and programs

Water, Waste, and Wastewater

- Ensure that renters and multifamily residents can participate in water efficiency/ waste programs
- Conduct equitable and intentional outreach to frontline communities
- Consider economic impact of water use/ upgrades
- Consider who can access compost/ waste collection programs/ restrooms in public spaces

Equity Considerations Recap

Climate Economy Measures

Green Jobs and Sectors

- Address equitable access (and any associated funding) to job training and green jobs
- Consider how to support green businesses, particularly those owned by frontline communities
- Consider how to make folks feel comfortable going into different trades (e.g. through education)
- Equitably and responsibly address public safety

Consumption

- Address affordability of long-lasting goods
- Consider a community's access to long-lasting goods
- Ensure equitable education on these topics
- Ensure affordability for sustainable single-use or reusable packaging for small businesses

Diet

- Consider access to fresh foods and water
- Promote equitable health benefits for all
- Address the cultural appropriateness of foods
- Consider who is being supported by food policies/ programs (e.g. small farmers)

Equity Considerations Recap

Climate Restoration Measures

Regenerative Landscapes

- Address access to green and public space, including associated shading and cooling benefits
- Incorporate culturally diverse/ indigenous knowledge whenever possible
- Consider how to create job opportunities for low-income and unsheltered populations
- Address risk of displacement - gentrification and repurposing of land
- Address a community's vulnerability to climate hazards

Air Quality

- Consider exposure to pollution
- Address vulnerability to pollution
- Consider affordability of air purifiers and similar devices

Carbon Sequestration

- Promote equitable access to benefits of regenerative landscapes, including healthy soils, reduced stormwater runoff and increased groundwater infiltration
- Consider equitable resources protection

SUMMARY OF EQUITY CONSIDERATIONS FROM SMALL FOCUS GROUPS WITH UNSHELTERED, YOUTH AND BIPOC GROUPS (FALL 2021/WINTER 2022)

Emissions Reductions			**Climate Economy**			**Climate Restoration**		
Energy	Transportation	Waste, Water, and Wastewater	Green jobs and sectors	Consumption	Diet	Regenerative Landscapes	Air Quality	Carbon sequestration
Lack of affordable housing	High costs for EVs	The same renter considerations under Energy apply to this section as well, around control, retrofits, etc.	Access to skills training	need to encourage "Free share" low cost trades and other exchanges	Food deserts: Access to fresh fruit and vegetables	Proximity of regenerative landscapes to Frontline communities	Proximity to air pollutants	Redevelopment requirements for green infrastructure, etc. are equally enforced across neighborhoods.
Assuring energy burden of frontline does not increase and potentially can be decreased	Disincentives for parking could increase costs for lower income workers who need to drive to work	Lack of education/ enforcement of proper waste collection (e.g. compost) for Multifamily building owners, which are more likely to house low-income communities	Internet access for training	Packaged foods with plastics, high amount of waste, more often consumed in lower income communities. How to reduce overly packaged products while allowing folks to still access cheaper food in minimal packaging, able to be paid for by food subsidies programs, etc	Access to culturally appropriate food	more parks in heavily populated area	Sound pollution impacts that impact quality of life in front line communities are often paired with air quality concerns - proximity to highways, etc.	Unequal access to benefits of lower temperatures from trees
Electrification of buildings can increase utility costs for renters and owners.	Complicated rebate processes prevent access to cost-saving measures	Ensuring considerations for multi-family households in fee structures for water, waste, etc.	Ensuring multi-lingual job training is connected to career fairs and creating easy to access job pipelines	The notion that "thrifting is trendy" by more affluent people has caused some resentment amongst those who must thrift - almost a competition among used goods and the gentrification of thrifting (wrong word but IDK). How to address this?	access to recipes, kitchen appliances	Philadelphia has shown a reduction in gun violence with an increase in green spaces, reduction of urban blight.	Increasing red tides, starting earlier and ending later and the connected air quality implications of these toxins released into the air, specifically communities that spend a lot of time on or near water (fisherfolks).	ensure tree planting is prioritized in frontline blighted neighborhoods
enforcement of building energy efficiency standards for alterations of existing dwellings and new construction. Full cooperation with CEC. California Energy Commission	need grants to help low income people buy USED EVs	Potential rebates for water-saving measures down the line may not reach Frontline communities without intentional outreach	rebranding of green jobs to be more inclusive, and not as gendered (solar, construction, etc commonly considered male jobs) left behind so many other green jobs that are not seen as such.	Access to repair, maintenance shops that encourage reuse rather than disposal products.	Addressing regulation that prevents access to local foods - i.e. continuing to offer parking pass for the produce vendor in Beach Flats	Ensure equitable investment in open spaces and parks, ensure frontline communities feel welcome in and safe in accessing neighborhood parks	tree planting with tree species specific to increased air quality scrubbing (like ginkos) in communties with poor air quality	tree planting with tree species specific to increased air quality scrubbing (like ginkos) in communties with poor air quality
Costly retail spaces - limits ability to manage and run small businesses	Access to bike helmets, bike lights, etc.	How are large employers accountable not only for their operations but supporting their employee's participation especially lower income employees across these categories	lifting up people living with homelessness and other frontline neighborhood/groups with job opportunities	Places to shop are near where people live, work.	Access to good diet and organic food in schools	How make sure all affected, with chance for benefits, get the word and easy access	extreme heat events causing the release of methane in built environments - collision of multiple issues at once in front line communities like newly released air toxins, urban heat island, etc.	Giving access to the ocean to those that otherwise don't come. The ocean is a carbon sink and phytoplankton produces much of the oxygen we breath - hence we need to protect it by supporting research education and resource protection.
incentives for median range income households to change out natural gas / propane fuels	Poor access to charging stations	near term: how can we do account shutoff prevention for water like we do with energy (CCES)	Jobs that don't require college degrees		access and funding for organic food and good diets in schools	Equitable access to open spaces - ocean/hiking safety, transportation access	Early consequences of sea level rise, in SC, black mold, impacting housing, health, and equity	

Complicated rebate processes prevent access to cost-saving measures	Housing insecurity contributes to lack of ability to switch to EVs, as renters do not know if their next rental will have EV charging access	need much simpler ways to reuse grey water	lifting up people living with homelessness and other frontline neighborhood/groups with job opportunities		Development of food spaces in neighborhood	a lot of our landscapers are culturally diverse. How do we use their knowledge coupled with our direction to implement regenerative landscapes	Seasonal allergies and the shifting seasons - how this effects those whose health is severely compromised by allergens including but not limited to particulates from seasons..	Blue Carbon - the ocean sequesters so much carbon-protection is not only healthy ocean ecosystems, but also means sustainable tourism, jobs creation and a vibrant economy.
leverage reliable partners like Central Coast Energy Services to expand services to low income folks that align with our essential emissions reduction measures (electrification, transpo, green and health homes)	Ensuring connection between bus, rail/metro, public transit so that there are not gaps in service. I.e - I caught the bus at 10 at night, I am a single female, I have to walk ___ distance to get connection. Ensure public transit is timed well to not leave folks stranded or uncomfortable because in those moments folks spend tons of money on ubers, etc. or feel unsafe		Small business startups and training along with the job specific skills		change rules around how community garden plots get assigned (e.g., prioritize lower income levels) - also more gardens -- our neighborhood doesnt have one	use indigenous knowledge to develop actions at this nexus	Opportunities to partner with health care providers re: connections of air quality and rates of asthma	regulate (prevent) tree removal - some neighbors want to remove 5 redwoods because of the roots creeping towards their detached garages, i feel this would be such a loss for our neighborhood
Lower income folks may be renters and unable to engage landlords to electrify buildings	Limited public transportation service		Funding for new new kinds of businesses for BIPOC and poor in transition		emphasis on more community gardens for food "ownership", access, low carbon footprint - equity practices on who has access to spaces	Tie jobs to maintenance of landscapes - trash cleanups, restoration, etc.	Protection against increasingly lethal heat	
Advantages aren't extended to renters.	Transit needs to be reimagined, from the rail corridor to more shuttle like regular services to better serve community members - outside UCSC ridership our metro ridership seems low		training for understanding building science as an individual trade as opposed to only an electrician or plumber		Eating less meat will improve community health	How can we bring frontline groups list Benchlands Encampment Stewardship Program restoration efforts be scaled into actual good living wage jobs.	<<<adding onto this: prioritize cooling centers and other actions for exposed community members	
Renters have a really hard time having influence over their household energy use and modifications especially with landlords in this town.	ask RTC to approve coast futura system to transport low income workers		Address current inadequate climate science education		ensuring food banks are providing healthy options - Second Harvest is amazing at this. addressing hunger issues with good food.	Danger of gentrification - improve the areas may create increased property values, driving out the people that the actions were intended to benefit.	Affordability of air purifiers	
Renters may lack ability to implement changes without landlords on board	Gas station owners and repair shops (not sure if they are lower income or POC) may need help transitioning to electric vehicle service		safe and affordable childcare options for newborn through preschool. - lack of access to childcare keeps women from being able to work		better food is good for everyone - tacos can be made with meat substitutes	Canopy increases increase property values and hence gentrification. How spread trees and gardens, parks etc. into the neighborhoods most needing them without driving those neighbors out!	reducing emissions will help avoid further increases in wildfires	
need funding for electric building retrofits for landlords	Lower income people are only accessing state EV rebates/purchasing EVs at a fraction of moderate and high income people. Bilingual/Bicultural community outreach and purchase guidance support is needed.				Studies on meat consumption being gendered - more meat eaten by males. How to consider cultural and gendered norms around meat eating and how to shift that without ostracizing folks.	how do we make sure we don't squeeze out folks living outside if and when we want to restore and create regenerative landscapes. how can we enlist them in efforts to protect		

Local renewable energy projects can be designed to provide community center emergency benefits to low income communities	Safety while encouraging more walking, biking.				Access to culturally appropriate food	Multiple benefit projects i.e. airing low impact development / bioswale components to reduce the impacts of flooding while enhancing greenspaces		
CCCE may be purchasing large scale utility renewables versus local distributed solutions that can provide jobs and benefit low income communities.	ensure all modes are considered, such as folks in wheelchairs, etc for forms of public transit or using sustainable modes of transit (buses, trains, sidewalks that connect all corridors) Example: not cross walks along Bay street even though there are sidewalks				How to work with local neighborhood vendors - already providing food to frontline communities, and providing resources to support more climate conscious choices	consider adaptive landscapes that allow multiple uses (e.g., flood control but also community spaces when not flooded) so people don't need to move.		
how do we address enforcement action concerns in homes we are looking to electrify (e.g.,homes with multiple families, homes in lower income areas)	City should do equity budgeting /capital planning to ensure accountability on transportation investments				draw on existing, make new and cultivate trust with orgs to direct low income, other frontline folks to access actions and resources. just bc it exists doesn't mean people can find it	trees help keep people cool during heat waves		
Out of town property owners may not fully engage.	require bigger employers to provide free electric van pools from watsonville and salinas					Multiple benefit projects i.e. airing low impact development / bioswale components to reduce the impacts of flooding while enhancing greenspaces		

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December 10, 2021
Project No: 20-10678

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Subject: Santa Cruz Climate Action Plan,
GHG Emissions Forecasts Memorandum

As part of Task 3 of the Santa Cruz Climate Action Plan (CAP) Update, Rincon Consultants, Inc. (Rincon) has calculated future greenhouse gas (GHG) emissions forecasts for each sector associated with land use in the City of Santa Cruz. The GHG emissions forecasts are based on the 2019 GHG emissions inventory and utilize Santa Cruz specific demographics projections. The forecasts were developed to better understand how population and job growth in Santa Cruz could affect future GHG emissions in the years 2025, 2030, 2035, 2040, and 2045. The GHG emissions forecast presents two scenarios:

- Business-as-Usual Scenario (BAU) that projects GHG emissions levels that scale with population, employment and transportation growth consistent with regional projections, and
- Adjusted Scenario (Adjusted) that accounts for GHG reductions expected to occur in response to local and regional compliance with adopted State legislation.

The presentation of these two forecast scenarios allows for an understanding of how GHG emissions levels may evolve without further action and how compliance with State legislation may contribute to reducing future GHG emissions levels.

GHG Emissions Sectors and Sources

The GHG emissions forecasts presented in this paper are based on the 2019 GHG emissions inventory calculated for Santa Cruz. The transportation sector was updated to include off-road emissions using the California Air Resources Board (CARB) OFFROAD2021 model, which were not calculated in the previous GHG inventories. In addition, on-road transportation data was updated by Kimley-Horn using the Santa Cruz County travel demand model (SCC TDM). The models used are widely accepted and regularly updated; this contributes to consistency and replicability of the data for future forecasts. All historical GHG inventories were also updated to include off-road emissions sources and updated on-road transportation emissions to allow for apples-to-apples comparison of inventories. Updates to previous inventories will be described in further detail in the Santa Cruz 2019 GHG Emissions Inventory section. The GHG emissions sources included in this analysis align with those in the most recent (2017) California Climate Change Scoping Plan, which includes GHG emissions sources related to land use and

transportation in the City of Santa Cruz planning area.[1] The GHG emissions sectors and associated sources included in this analysis are provided in Table 1.

Table 1 Santa Cruz GHG Emissions Sectors and Sources

Transportation	Aggregated On-Road Transportation
	Aggregated On-Road Transportation – EV Adjustment
	Off-Road – Diesel
	Off-Road – Gasoline
	Off-Road - Natural Gas (LPG)
Residential	Residential Electricity Consumption[1]
	Residential Natural Gas Consumption
Commercial	Commercial Electricity Consumption[1]
	Commercial Natural Gas Consumption
Wastewater	Effluent from Treatment and Discharge of Wastewater
Solid Waste	Methane Commitment of Solid Waste Generated by Community
Notes: EV = electric vehicle; LPG = liquefied petroleum gas [1] Electricity Consumption includes electricity provided by Pacific Gas and Electric Company and Central Coast Community Energy.	

Santa Cruz 2019 GHG Emissions Inventory

The GHG emissions forecast analysis presented here is based on the emissions levels from each emissions source included in the 2019 GHG emissions inventory. Sources updated for the 2019 GHG Inventory baseline year include both on-road transportation and off-road vehicle emissions.

Off-Road Transportation Sector Updates

All historical GHG emissions inventories (2005, 2010, 2015, 2018, and 2019) were updated to include off-road emissions sources. Off-road activity data, measured in U.S. gallons of fuel consumed by fuel type, was estimated using a combination of outputs from the CARB OFFROAD2021 Model (V1.0.1), per CARB recommendations. The updated inventories aggregate off-road activity by fuel type and allocate these emissions to the transportation sector. A summary of Santa Cruz historical off-road emissions for each inventory year is provided in Table 2.

[1] California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. Available <https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf>. Accessed December 7, 2021.

Table 2 Santa Cruz Historical Off-Road Transportation Emissions Summary

Off-Road GHG Emissions Source	2005	2010	2015	2018	2019
Annual Activity Data (U.S. Gallons of Fuel)	**985,725**	**1,069,503**	**1,030,882**	**1,015,670**	**1,008,050**
Off-Road - Diesel	316,027	417,137	396,579	369,444	357,192
Off-Road - Gasoline	449,531	434,952	428,799	446,059	452,948
Off-Road - Natural Gas (LPG)	220,167	217,414	205,503	200,168	197,910
CO_2 Emissions (MT)	**8,424**	**9,313**	**8,981**	**8,825**	**8,748**
Diesel	3,227	4,259	4,049	3,772	3,647
Gasoline	3,947	3,819	3,765	3,916	3,977
Natural Gas	1,251	1,235	1,167	1,137	1,124
CH_4 Emissions (MT)	**4.34**	**4.23**	**4.16**	**4.30**	**4.36**
Diesel	0.07	0.10	0.10	0.10	0.09
Gasoline	4.09	3.96	3.83	3.92	3.97
Natural Gas	0.16	0.16	0.15	0.15	0.15
N_2O Emissions (MT)	**0.28**	**0.32**	**0.32**	**0.31**	**0.30**
Diesel	0.15	0.19	0.18	0.17	0.17
Gasoline	0.06	0.06	0.06	0.06	0.06
Natural Gas	0.09	0.09	0.08	0.08	0.08
Total CO_2e Emissions (MT)	**8,624**	**9,521**	**9,183**	**9,028**	**8,951**
Diesel	3,268	4,313	4,101	3,820	3,693
Gasoline	4,077	3,945	3,889	4,046	4,108
Natural Gas	1,279	1,263	1,194	1,163	1,150

Notes: Values in this table may not add up to totals due to rounding.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent

On-Road Transportation Sector Updates

All historical GHG emissions inventories (2005, 2010, 2015, 2018, and 2019) were updated to include new on-road transportation data that follows the U.S. Community Protocol-recommended origin-destination methodology. Previously, the City's inventories included VMT data from the Highway Performance Monitoring System (HMPS) and accounted for travel on Santa Cruz's local roads only, otherwise known as in-boundary methodology. The Association of Monterey Bay Area Governments (AMBAG) received a public records act request from Land Watch relating to Monterey County GHG inventories as well as pushback on the idea of cities not using an origin destination methodology as part of their climate action plan. To address the concerns raised by Land Watch, Kimley-Horn provided new daily Vehicle Miles Traveled (VMT) data for the years 2019, 2025, 2030, 2035, 2040, and 2045, and associated documentation describing the origin-destination methodology used to obtain the data for the City of Santa Cruz using the Santa Cruz County travel demand model (SCC TDM). Reference Appendix A for the detailed VMT methodology.

A summary of Santa Cruz on-road VMT emissions for each inventory year is provided in Table 3. To update the 2005, 2010, 2015, and 2018 inventories, average VMT per capita was calculated (6,504) and multiplied by the city population for each of the inventory years and daily VMT was converted to annual VMT. On-road transportation emissions were calculated using the updated VMT data and updated emissions factors were derived from the California Air Resources Board (CARB) EMission FACtor (EMFAC) 2021 on-road model. In addition, passenger and commercial electric vehicle (EV) electricity consumption was updated using EMFAC 2021. Passenger and commercial EV emissions from electricity consumption are subtracted from residential and commercial energy emissions respectively and then added to the transportation sector for 2019. In forecast years, emissions from EV charging are attributed to the transportation sector. This emissions reallocation is labeled as an "EV adjustment" in the forecasts.

Table 3 Santa Cruz Historical On-Road Annual VMT and GHG Emissions

On-Road Total Annual VMT	397,305,791	397,057,721	396,809,806	396,561,890	406,985,890
On-Road Total CO_2e Emissions (MT)	204,940	198,684	184,181	177,773	179,967

Notes: Values in this table may not add up to totals due to rounding.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent

Updated Santa Cruz 2019 GHG Emissions Inventory

A detailed summary of the updated 2019 GHG emissions inventory, incorporating the aforementioned on-road and off-road transportation updates, is provided in Table 4.

Table 4 Santa Cruz 2019 GHG Emissions Inventory Summary

GHG Emissions Sector/Source	CO_2 (MT)	CH4 (MT)	N_2O (MT)	CO_2e (MT)	Activity Data	Activity Data Units
Transportation						
Aggregated On-Road Transportation	176,445.5	14.1	11.8	179,966.9	406,985,890	VMT
Aggregated On-Road Transportation – EV Adjustment	9.9	0.0	0.0	11.9	2,186,508	kWh
Off-Road - Diesel	3,646.9	0.09	0.17	3,693.3	357,192	U.S. Gallons
Off-Road - Gasoline	3,976.9	4.12	0.06	4,108.1	452,948	U.S. Gallons
Off-Road - Natural Gas (LPG)	1,124.1	0.15	0.08	1,149.8	197,910	U.S. Gallons
Residential						
Residential Electricity - 3CE	288.2	0.95	0.12	345.4	63,591,331	kWh
Non Government Electricity - PG&E	3.0	0.04	0.00	5.2	2,452,316	kWh
Residential Electricity – EV Adjustment	-8.0	-0.03	0.00	-9.6	-1,771,071	kWh
County Natural Gas	0.0	0.00	0.00	0.0	1	Therms
Non Government Natural Gas	42,244.0	3.98	0.08	42,377.0	7,967,582	Therms
Commercial						
County Electricity - 3CE	20.5	0.07	0.01	24.6	4,523,275	kWh
City Electricity - 3CE	49.8	0.16	0.02	59.7	10,985,268	kWh
Non Government Electricity - 3CE	709.9	2.35	0.28	850.9	156,663,619	kWh
District Electricity - 3CE	22.2	0.07	0.01	26.6	4,901,850	kWh
City Electricity - PG&E	0.3	0.00	0.00	0.5	236,870	kWh
District Electricity - PG&E	0.0	0.00	0.00	0.0	8,552	kWh
County Electricity - PG&E	0.0	0.00	0.00	0.0	5,140	kWh
Commercial Electricity – EV Adjustment	-10.4	-0.03	0.00	-12.5	-437,286	kWh
County Natural Gas	791.1	0.07	0.00	793.6	149,201	Therms
City Natural Gas	591.5	0.06	0.00	593.4	111,569	Therms
District Natural Gas	978.7	0.09	0.00	981.7	184,583	Therms
Non Government Natural Gas	19,825.0	1.87	0.04	19,887.0	3,739,129	Therms
Wastewater						
Emissions from the Combustion of Digester Gas	2,633.1	0.16	0.03	13.0	84,002,000	scf/Year
Process N2O Emissions from Wastewater Treatment	N/A	N/A	0.43	114.9	108,393	population in service area
Emissions Associated with Effluents to Ocean	N/A	N/A	2.36	626.5	825	kg N/day

Solid Waste						
Solid Waste Disposed of Outside Jurisdiction	N/A	138.71	N/A	3,883.8	13,575	wet tons of waste
City of Santa Cruz Resource Recovery Facility	N/A	539.01	N/A	15,092.0	52,751	wet tons of waste

Notes: Values in this table may not add up to totals due to rounding.
NA = not applicable; CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent; PG&E = Pacific Gas and Electric Company; 3CE = Central Coast Community Energy; kWh = kilowatt-hour

Business-as-Usual GHG Emissions Forecast

A Business as Usual (BAU) GHG emissions forecast uses demographic projections and modeled on-road and off-road transportation emissions to estimate future GHG emissions without also considering the influence that compliance with adopted GHG reduction legislation or policies may have to reduce GHG emissions in the future. The BAU forecast is based on projected growth trends in population, and employment over time, consistent with local and regional projections. The BAU forecast does not account for GHG emissions reductions associated with local GHG reduction measures or legislative actions. BAU forecasts were estimated for 2025, 2030, 2035, 2040 and 2045. The BAU GHG emissions projections were calculated based on the guidance of the Association of Environmental Professionals 2012 whitepaper Forecasting Communitywide GHG Emissions and Setting Reduction Targets.[2] To develop a GHG emissions forecast, the appropriate "growth metrics" (e.g., population, housing, and employment projections) are multiplied by BAU "growth indicators," (e.g., kilowatt hours of electricity used in households in 2019 divided by the number of households in 2019). This allows for projections of activity data that can be converted into GHG emissions estimates using specific GHG emissions factors, which is assumed to be the same in the future as in the 2019 GHG emissions inventory for most sectors. The result is a BAU forecast in which GHG emissions change with time in relation to demographics, with the assumption that per capita activity data will continue in the future as it was in 2019, the year of the most recent GHG emissions inventory. This methodology is used for most GHG emissions sectors and sources included in the 2019 GHG emissions inventory. Exceptions include:

- 3CE emissions factors, which are projected to increase through 2025 before decreasing again due to 3CE's published procurement strategy – more detail provided in the Emissions Factors section below.
- On-road transportation emissions, which are projected using the EMFAC Model, which models a business-as-usual scenario.
- Off-road transportation emissions, which are forecasted using the OFFROAD 2021 model, which models a business-as-usual scenario.

The following provides an overview of the growth metrics, growth indicators, and GHG emissions factors used to project GHG emissions for the BAU forecast calculations.

Growth Metrics

In this BAU GHG emissions forecast, GHG emissions are assumed to be largely driven by consumption of fuel and energy, and generation of solid waste and wastewater by residents, households, and

[2] Association of Environmental Professionals (AEP). Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets. Available: <https://califaep.org/docs/Forecasting_and_Target_Setting.pdf>. Accessed December 8, 2021.

employees in a jurisdiction.[3] As such, this forecast assumes that as population and employment grow over time, it is expected that without changes to behaviors, policies, or technologies, GHG emissions will also grow. In a BAU forecast, this growth is assumed to be the primary metric for determining changes in future GHG emissions. For the Santa Cruz planning area, the growth and demographic projections used as the growth metrics for the BAU GHG emissions forecast were drawn from the Association of Monterey Bay Area Governments (AMBAG) 2022 Regional Growth Forecast. AMBAG updates its regional forecast for population, housing, and employment to support planning efforts. A yearly increase in housing stock commensurate with the Regional Housing Needs Assessment (RHNA) allocations for 2015-2023 is attributed yearly from 2015 to 2045. Santa Cruz growth metrics for the BAU forecast are provided in Table 5.

Table 5 Growth Metrics for Santa Cruz BAU GHG Emissions Forecast

Population[1]	65,041	68,845	72,218	75,257	78,828	79,534
Employment[2]	24,193	25,465	26,045	26,441	26,762	26,992
Service Population[3]	40,343	44,317	45,594	46,863	48,203	49,636
Housing[4]	105,384	113,162	117,812	122,120	127,031	129,170

Notes: Service Population = Population + Employment

[1-4.] The compound growth rate for 2015-2020 period was used to estimate 2019 values.

Source:
Association of Monterey Bay Area Governments (AMBAG). 2020. Final 2022 Regional Growth Forecast. Available: <https://www.ambag.org/sites/default/files/2020-12/Final%20Draft%202022%20Regional%20Growth%20Forecast_PDF_A.pdf>. Accessed August 24, 2021

[3] All GHG emissions and forecasts are in the context of a CEQA-qualified Climate Action Plan and follow guidance from California's 2017 Climate Change Scoping Plan, which excludes sources largely outside of jurisdictional control, such as consumption-related emissions.

Growth Indicators

Growth indicators were developed from the baseline 2019 GHG emissions inventories by dividing the activity data for each emissions source by the appropriate growth metric for the year 2020. The appropriate growth metric used for each growth indicator is developed based on the relevance of the GHG emissions source. For example, residential energy consumption would be expected to grow with the number of new households, commercial energy consumption would be expected to grow with the number of new jobs, and total solid waste generation would be expected to grow with both residents and employment (service population). Table 6 provides the growth metrics that were associated with each GHG emissions sector to develop growth indicators and project GHG emissions from each GHG emissions source in the respective sectors. Table 7 provides the growth indicators for Santa Cruz for each GHG emissions source.

Table 6 Growth Metrics and Associated GHG Emissions Sectors

GHG Emissions Sector	GHG Emission Source	Associated Growth Metric	Growth Metric Data Source
Transportation	All GHG Emissions Sources	Service Population	AMBAG 2022 Regional Growth Forecast
Residential	All GHG Emissions Sources except EV Adjustment	Households	AMBAG 2022 Regional Growth Forecast
	Residential Electricity - EV Adjustment	Service Population	AMBAG 2022 Regional Growth Forecast
Commercial	All GHG Emissions Sources except EV Adjustment	Employment	AMBAG 2022 Regional Growth Forecast
	Commercial Electricity – EV Adjustment	Service Population	AMBAG 2022 Regional Growth Forecast
Wastewater	All GHG Emissions Sources	Service Population	AMBAG 2022 Regional Growth Forecast
Solid Waste	All GHG Emissions Sources	Service Population	AMBAG 2022 Regional Growth Forecast

Table 7 Growth Indicators for BAU GHG Emissions Forecast

GHG Emissions Source	Growth Indicator	Units
Residential		
Non Government Electricity - PG&E	98.6	kWh/Household
County Natural Gas	0.0	Therms/Household
Non Government Natural Gas	329.3	Therms/Household
Commercial		
City Electricity - PG&E	5.9	kWh/Employee
District Electricity - PG&E	0.2	kWh/Employee
County Electricity - PG&E	0.1	kWh/Employee
County Natural Gas	3.7	Therms/Employee
City Natural Gas	2.8	Therms/Employee
District Natural Gas	4.6	Therms/Employee
Non Government Natural Gas	92.7	Therms/Employee
Wastewater		
Emissions from the Combustion of Digester Gas	797.1	scf/Year/Person Served
Process N2O Emissions from Wastewater Treatment	1.0	Population in Service Area/Person Served
Emissions Associated with Effluents to Ocean	0.0	kg N/day/Person Served
Solid Waste		
Solid Waste Disposed of Outside Jurisdiction	0.1	Wet Tons of Waste/Person Served
City of Santa Cruz Resource Recovery Facility	0.5	Wet Tons of Waste/Person Served

Notes: PG&E = Pacific Gas and Electric Company; 3CE = Central Coast Community Energy; EV = electric vehicle; kWh = kilowatt-hour; scf = standard cubic foot; kg N = kilograms of nitrogen.

On-road transportation and off-road transportation BAU growth indicators not provided because BAU projections were modeled using the EMFAC and OFFROAD2021 models, respectively. 3CE BAU growth indicators not provided because 3CE energy BAU projections were estimated using 3CE published emissions factors based on confirmed changes in procurement strategy.

[1] Person Served includes residents and employees (service population)

On-Road Activity Data

Activity data for the forecast of on-road transportation was modeled separately from the above growth metrics and growth indicators, using the Santa Cruz County travel demand model. Trip data was allocated based on whether the entirety of a trip took place within the City of Santa Cruz transit area, started or ended within the transit area, or started and ended outside of the transit area. 100 percent of daily trips completely within the jurisdiction, 50 percent of partially-within trips, and 0 percent of outside trips were allocated to the city. Reference Appendix A for the detailed VMT methodology. Daily VMT data was annualized using the annualization factor of 347, described in the EMFAC 2017 documentation for Light Duty Autos and Light Duty Trucks 1 and 2. The results are summarized in Table 8.

Table 8 Santa Cruz BAU GHG Emissions Forecast On-Road Transportation Data

Growth Metric	2019	2020	2025	2030	2035	2040	2045
VMT	406,985,890	427,528,637	444,647,535	461,766,086	478,884,984	496,003,882	406,985,890
Notes: VMT = vehicle miles traveled							

Off-Road Activity Data

Activity data for the off-road GHG emissions forecast was modeled separately from the above growth metrics and growth indicators, using the outputs from the CARB OFFROAD2021 model. The OFFROAD2021 model was run for Santa Cruz County for the forecast years to obtain fuel consumption for gasoline, diesel, and natural gas. The equipment sectors drawn from the OFFROAD2021 model include:

- Construction and Mining Equipment
- Industrial Equipment
- Lawn and Garden Equipment
- Light Commercial Equipment
- Pleasure Craft
- Recreational Equipment
- Portable Equipment
- Transportation Refrigeration Units

The results of the OFFROAD2021 model were summarized for the above equipment sectors in Santa Cruz County. Santa Cruz City was allocated a percentage of county fuel consumption for each sector relative to Santa Cruz City's proportion of jobs or population in the county. The results are summarized in Table 9.

Table 9 Santa Cruz BAU GHG Emissions Forecast Off-Road Fuel Consumption

Diesel	361,388	408,104	432,205	459,180	486,713	541,090
Gasoline	459,542	486,615	504,663	521,901	537,927	555,690
Natural Gas	206,367	207,364	207,852	210,232	211,353	213,175

Notes: All values are of the unit U.S. gallons of fuel.
Source: California Air Resources Board. 2021. OFFROAD2021 – ORION. Available: <https://arb.ca.gov/emfac/emissions-inventory/43c4fb407b5290c4aa6bc403e03c79c39ed6224a/>. Accessed November 2, 2021.

Emissions Factors

The BAU GHG emissions forecast is representative of a scenario where per capita community activities are generally similar to that of the baseline 2019 GHG emissions inventory and GHG emissions change based on projected population and job growth. As such, BAU activity data is multiplied by the emissions factors used to calculate GHG emissions from the baseline GHG emissions inventory to generate an estimate of future GHG emissions without influence from GHG reduction policies at the State or local level. The BAU GHG emissions factors for the relevant GHG emissions sources and sectors are provided in Table 10, reported in MT CO_2e.

Table 10 BAU GHG Emissions Factors

GHG Emissions Source	GHG Emissions Factor	Units
Transportation		
Aggregated On-Road Transportation	0.0004421945	MT CO2e/VMT
Aggregated On-Road Transportation - EV Adjust	0.0000054266	MT CO2e/kWh
Off-Road - Diesel	0.0103397100	MT CO2e/U.S. Gallons
Off-Road – Gasoline	0.0090696385	MT CO2e/U.S. Gallons
Off-Road - Natural Gas (LPG)	0.0058095100	MT CO2e/U.S. Gallons
Residential		
Residential Electricity - 3CE	0.0000054312	MT CO2e/kWh
Non Government Electricity - PG&E	0.0000021156	MT CO2e/kWh
County Natural Gas	0.0053187000	MT CO2e/Therms
Non Government Natural Gas	0.0053186776	MT CO2e/Therms
Commercial		
County Electricity - 3CE	0.0000054312	MT CO2e/kWh
City Electricity - 3CE	0.0000054314	MT CO2e/kWh
Non Government Electricity - 3CE	0.0000054313	MT CO2e/kWh
District Electricity - 3CE	0.0000054314	MT CO2e/kWh
City Electricity - PG&E	0.0000021155	MT CO2e/kWh
District Electricity - PG&E	0.0000021155	MT CO2e/kWh
County Electricity - PG&E	0.0000021156	MT CO2e/kWh
Commercial Electricity - EV Adjust	0.0053186641	MT CO2e/kWh
County Natural Gas	0.0053186817	MT CO2e/Therms

City Natural Gas	0.0053186371	MT CO2e/Therms
District Natural Gas	0.0053186183	MT CO2e/Therms
Non Government Natural Gas	0.0000054312	MT CO2e/Therms
Wastewater		
Emissions from the Combustion of Digester Gas	0.0000001544	MT CO2e/scf/Year
Process N2O Emissions from Wastewater Treatment	0.0010600316	MT CO2e/population in service area
Emissions Associated with Effluents to Ocean	0.7598059430	MT CO2e/kg N/day
Solid Waste		
Solid Waste Disposed of Outside Jurisdiction	0.2860994475	MT CO2e/wet tons of waste
City of Santa Cruz Resource Recovery Facility	0.2860988417	MT CO2e/wet tons of waste
Notes: MT CO2e = metric ton carbon dioxide equivalent; PG&E = Pacific Gas and Electric Company; 3CE = Central Coast Community Energy; kWh = kilowatt-hour; scf = standard cubic foot; kg N = kilograms of nitrogen		

Electricity BAU GHG Emissions Factors

GHG emissions associated with electricity provided by Central Coast Community Energy (3CE) are expected to change between the baseline 2019 GHG emissions inventory and the 2030 forecast year, and as such are accounted for in the BAU GHG emissions forecast. 3CE has published the expected GHG emissions factor associated with its electricity procurement between 2018 and 2030, with the GHG emissions factors increasing between 2020 and 2025, before decreasing again from 2026 to 2030. These changes to the emissions factor are expected to occur regardless of the effects related to compliance with local policies and state legislation. As such, it would not be appropriate to account for these adjustments in the legislative reductions in the Adjusted forecast, and they are instead accounted for here in the BAU forecast. GHG reductions associated with 3CE electricity and the requirements of SB 100 beyond 2030 are accounted for in the Adjusted Forecast. PG&E emissions factors are applied to all PG&E energy provided, meaning for any customers opting out of 3CE energy.

Table 11 provides the GHG emissions factors used in the BAU forecast for 3CE and PG&E provided electricity for each of the forecast years. The weighted average of the two providers is used to project BAU electricity emissions from electric vehicles.

Table 11 BAU GHG Emissions Factors for Electricity

	2020	2025	2030	2035	2040	2045
Central Coast Community Energy (3CE)	0.000005431	0.000176000	0.000003725	0.000000000	0.000000000	0.000000000
Pacific Gas and Electric (PG&E)	0.000002116	0.000002116	0.000002116	0.000002116	0.000002116	0.000002116
Weighted Average	0.000005308	0.000169544	0.000003665	0.000000079	0.000000079	0.000000079
Notes: All values are of the unit metric tons of carbon dioxide equivalent per kilowatt-hour. Source: Reference 3CE power content label						

BAU GHG Emissions Forecast Results

The following provides a summary of the results of the BAU GHG emissions forecast for each source in Santa Cruz. The results are reported in MT CO_2e. The BAU forecast projects an increase in GHG emissions above the baseline 2019 GHG emissions inventory from transportation, wastewater, and solid waste. In terms of residential and commercial energy, emissions increase from 2019 to 2025, decrease from 2025 to 2030, and then slowly increase through 2045. An increase in the GHG emissions factor for 3CE electricity leading up to 2025 is expected to create a sharp increase in GHG emissions associated with electricity and the overall GHG emissions for the City of Santa Cruz. The subsequent decrease of the 3CE electricity GHG emissions factor results in a leveling off of GHG emissions levels in 2030, at which point steady growth in GHG emissions continues through 2045. Energy provided by Pacific Gas and Electric Company (PG&E), though only a small proportion of the total energy provided in Santa Cruz, shows an increase over time due to population and job growth. Table 12 and Figure 1 provide a summary of the Santa Cruz BAU GHG emissions forecast.

Table 12 Santa Cruz BAU GHG Emissions Forecast Summary (MT CO_2e)

GHG Emissions Source	2019	2025	2030	2035	2040	2045
Transportation	**188,930**	**199,287**	**206,883**	**214,893**	**222,900**	**231,203**
Aggregated On-Road Transportation	179,967	189,051	196,621	204,190	211,760	219,330
Aggregated On-Road Transportation - EV Adjustment	12	398	9	0	0	0
Off-Road – Diesel	3,693	4,220	4,469	4,748	5,032	5,595
Off-Road – Gasoline	4,108	4,413	4,577	4,733	4,879	5,040
Off-Road - Natural Gas (LPG)	1,150	1,205	1,208	1,221	1,228	1,238
Residential	**42,718**	**56,057**	**45,825**	**46,319**	**46,881**	**47,284**
Residential Electricity - 3CE	336	11,448	200	0	0	0
Non Government Electricity - PG&E	5	5	5	6	6	6
County Natural Gas	0	0	0	0	0	0
Non Government Natural Gas	42,377	44,604	45,620	46,314	46,876	47,279
Commercial	**23,216**	**58,599**	**25,753**	**25,853**	**26,592**	**27,383**
County Electricity - 3CE	25	872	15	0	0	0
City Electricity - 3CE	60	2,119	37	0	0	0
Non Government Electricity - 3CE	849	30,214	531	0	0	0
District Electricity - 3CE	27	945	17	0	0	0
City Electricity - PG&E	0	1	1	1	1	1
District Electricity - PG&E	0	0	0	0	0	0
County Electricity - PG&E	0	0	0	0	0	0
County Natural Gas	794	872	897	922	948	976
City Natural Gas	593	652	671	689	709	730
District Natural Gas	982	1,078	1,110	1,140	1,173	1,208
Non Government Natural Gas	19,887	21,846	22,475	23,101	23,761	24,468

Wastewater	**754**	**810**	**843**	**874**	**909**	**925**
Emissions from the Combustion of Digester Gas	13	14	15	15	16	16
Process N2O Emissions from Wastewater Treatment	115	123	128	133	139	141
Emissions Associated with Effluents to Ocean	626	673	700	726	755	768
Solid Waste	**18,976**	**20,376**	**21,214**	**21,989**	**22,874**	**23,259**
Solid Waste Disposed of Outside Jurisdiction	3,884	4,170	4,342	4,501	4,682	4,760
City of Santa Cruz Resource Recovery Facility	15,092	16,206	16,872	17,489	18,192	18,498
TOTAL	**284,059**	**345,093**	**310,860**	**320,668**	**331,294**	**341,589**

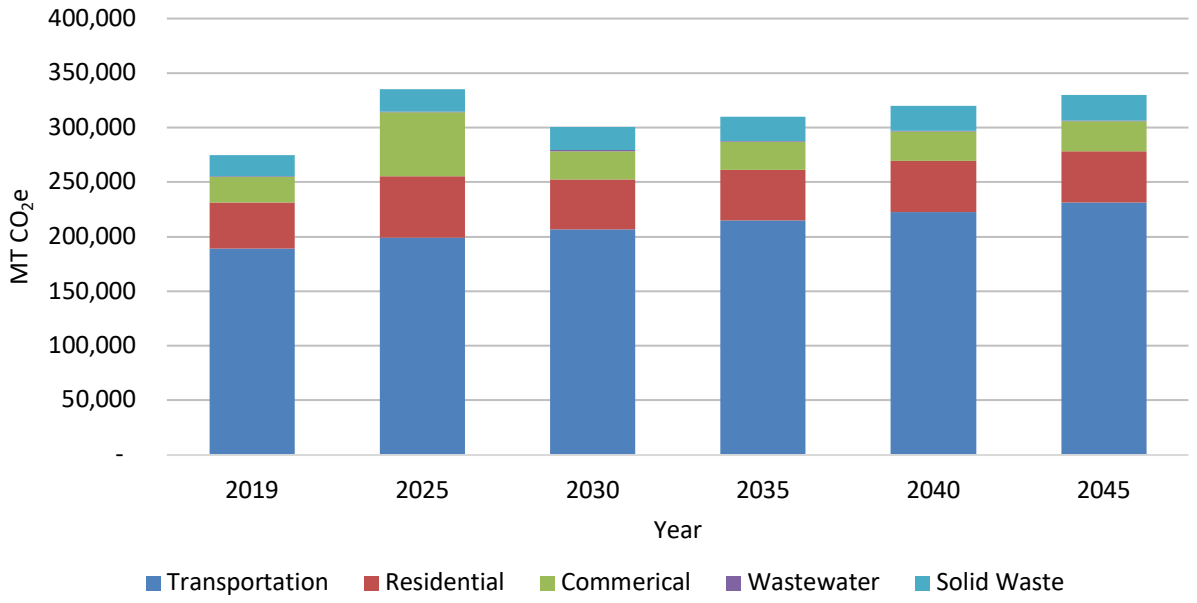
Notes: Values in this table may not add up to totals due to rounding

All values are of the unit metric tons of carbon dioxide equivalent (MT CO2e)

To avoid double counting EV emissions in 2019 (the inventory year) and to attribute these emissions to the transportation sector, EV emissions were added to the transportation and removed from residential and commercial electricity. Forecast years do not require an adjustment, but rather an addition in emissions based on projected EV adoption, and consequent energy usage, to the transportation sector.

PG&E = Pacific Gas and Electric Company; 3CE = Central Coast Community Energy; N2O = nitrous oxide; EV = electric vehicle

Figure 1 Santa Cruz BAU GHG Emissions Forecasts (MT CO_2e) through 2045



Adjusted GHG Emissions Forecasts

The Adjusted GHG Emissions Forecast accounts for GHG emissions reductions that can be reasonably expected from local compliance with State legislation and regulations. These forecasted projections were calculated based on the guidance of the Association of Environmental Professionals 2012 whitepaper Forecasting Communitywide GHG Emissions and Setting Reduction Targets.[4] The following section describes the State legislation and regulations that are expected to reduce Santa Cruz's future GHG emissions.

GHG Reduction Legislation Included in Santa Cruz GHG Emissions Forecasts

The State of California has enacted regulations intended to reduce the state's future GHG emissions. The impact of compliance with these regulations was quantified and incorporated into an Adjusted GHG Emissions Forecast to provide an alternate forecast of future GHG emissions growth based on the City's commitment to achieve a 30% reduction in GHG emissions beyond established State regulations by 2020. The following State legislation were accounted for in the Adjusted Forecasts for Santa Cruz. They represent currently adopted State legislation with clear implementation and enforcement mechanisms at the regional/state scale.

- 2019 Title 24 Building Energy Efficiency Standards
- Senate Bill (SB) 100 - California Renewables Portfolio Standard Program: emissions of greenhouse gases
- SAFE Part One - U.S. EPA and NHTSA Safer Affordable Fuel-Efficient or SAFE Vehicles Rule Part One
- Innovative Clean Transit (ICT) Regulation
- Pavley Regulation
- Advanced Clean Cars Program
- Advanced Clean Trucks (ACT) Regulation

GHG Reduction Legislation Calculations

EMFAC2021 was used to model transportation-related GHG emissions for the Santa Cruz forecasts. In addition, the following methodology was used to calculate energy-related GHG emissions reduction related to Title 24 and SB 100.

- **Title 24:** It is assumed that all growth in the residential sector is from new construction. Accordingly, Title 24 GHG emissions reduction for natural gas and electricity are calculated as a percentage of the projected increase in energy consumption beyond the baseline 2019 GHG emissions inventory, under the BAU forecast, as provided in Table 12. Overall, the energy consumption reduction impact of Title 24 is:
  - 53 percent reduction beyond the 2019 baseline for residential electricity and

[4] Association of Environmental Professionals (AEP). Forecasting Community-Wide Greenhouse Gas Emissions and Setting Reduction Targets. Available: <https://califaep.org/docs/Forecasting_and_Target_Setting.pdf>. Accessed December 8, 2021.

- 7 percent reduction beyond the 2019 baseline for residential natural gas.[5]

- **SB 100:** Pacific Gas and Electric Company (PG&E) and Central Coast Community Energy (3CE) currently provide electricity in Santa Cruz and are subject to SB 100 requirements. GHG emissions from electricity consumption are largely determined by the emissions factor associated with the supplied electricity. Legislative GHG emissions reductions from compliance with SB 100 are calculated as the difference between GHG emissions under the BAU GHG Emissions Forecast electricity and GHG emissions calculated using a SB 100-adjusted GHG emissions factor for a given forecast year. An adjusted GHG emission factor is calculated by scaling the baseline electricity GHG emissions factor with the Renewable Portfolio Standard (RPS)[6] percentage for eligible renewable electricity required for compliance with SB 100. Both of the electricity providers for Santa Cruz had different electricity emissions factors due to different RPS percentages in their electricity delivery mix. The RPS percentages and associated GHG emissions factors used to determine the Adjusted GHG Emissions Forecast electricity emissions are provided in Table 13. GHG emissions factors were converted from kilowatt-hour (kWh) to Megawatt-hour (MWh) in the table. Note that while both Title 24 and SB 100 compliance influence GHG emissions reductions in the electricity sector, double counting of these reductions is avoided by accounting for Title 24 compliance reductions first and then accounting for reductions from SB 100 compliance.

Table 13 Electricity Provider Forecasted RPS and Electricity GHG Emissions Factors

Energy Provider	2019 (Baseline)	2025	2030	2035	2040	2045
Pacific Gas and Electric Company (PG&E)						
Renewable Portfolio Standard Percentage	29%	45%	60%	73%	87%	100%
Adjusted Electricity Emission Factor (MT CO2e/MWh)	0.0021156	0.0016537	0.0011919	0.0007946	0.0003973	0.0000000
Central Coast Community Energy (3CE)						
Renewable Portfolio Standard Percentage	33%	60%	100%	100%	100%	100%
Adjusted Electricity Emission Factor (MT CO2e/MWh)	0.005431	0.176000	0.003007	0	0	0
Notes: MT CO2e = metric tons of carbon dioxide equivalent; MWh = Megawatt-hour						

[5] California Energy Commission. 2018. 2019 Building Energy Efficiency Standards Frequently Asked Questions. Available: <https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf>. Accessed June 21, 2021.
[6] The RPS is one of California's key programs for advancing renewable energy. The program sets continuously increasing renewable energy procurement requirements for the state's load-serving entities.

Adjusted GHG Emissions Forecast Results

Compliance with state legislation is expected to result in GHG emissions reduction from the BAU GHG Emissions Forecast in the transportation, residential, and commercial sectors. Compliance with both the Pavley regulation, which requires automakers to control GHG emission from new passenger vehicles for the 2009 through 2016 model years, and the Advanced Clean Car Program, which combines the control of smog-causing (criteria) pollutants and GHG emissions into a single package of regulations, are expected to reduce GHG emissions from transportation. Compliance with Title 24 requirements are expected to reduce GHG emissions from reduced electricity and natural gas consumption in new residential housing units. Compliance with SB 100 requirements are expected to further reduce GHG emissions in the residential sector through reduced GHG emissions associated with electricity generation, as well as similar reductions in the commercial sector. The expected legislative reductions from SB 100 and Title 24 are summarized in Table 14.

Table 14 Santa Cruz Adjusted GHG Emissions Reductions

Transportation Rules Reductions	23,601	43,799	60,091	71,589	79,479
Aggregated On-Road Transportation	24,571	43,830	60,091	71,589	79,479
Aggregated On-Road Transportation – EV Adjust[1]	-970	-30	0.18	0.19	0.21
Title 24 Reductions	**304**	**2**	**0**	**0**	**0**
Residential	**304**	**2**	**0**	**0**	**0**
Residential Electricity - 3CE	303	2	0	0	0
Residential Electricity - PG&E	0	0	0	0	0
County Natural Gas	0	0	0	0	0
Non Government Natural Gas	0	0	0	0	0
SB 100 Reductions	**1**	**3**	**4**	**5**	**6**
Residential	**1**	**2**	**3**	**5**	**6**
Residential Electricity - 3CE	0	0	0	0	0
Residential Electricity - PG&E	1	2	3	5	6
Commercial	**0**	**0**	**0**	**1**	**1**
County Electricity - 3CE	0	0	0	0	0
City Electricity - 3CE	0	0	0	0	0
Non Government Electricity - 3CE	0	0	0	0	0
District Electricity - 3CE	0	0	0	0	0
City Electricity - PG&E	0	0	0	0	1
District Electricity - PG&E	0	0	0	0	0
County Electricity - PG&E	0	0	0	0	0
TOTAL REDUCTIONS	**23,906**	**43,804**	**60,095**	**71,594**	**79,485**

Notes:

[1] Negative emissions reduction indicate an increase in emissions from electric vehicle adoption, and consequently energy usage. This adjustment goes to zero as the electricity emissions factor goes to zero.

PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; EV = electric vehicle; SB = Senate Bill

Figure 2 shows the GHG emissions trends in terms of MT CO_2e for the Adjusted Forecast. Adjusted GHG Emissions Forecast emissions trend downward over time through 2045.

Figure 2 Santa Cruz Adjusted GHG Emissions Forecasts (MT CO_2e) through 2045

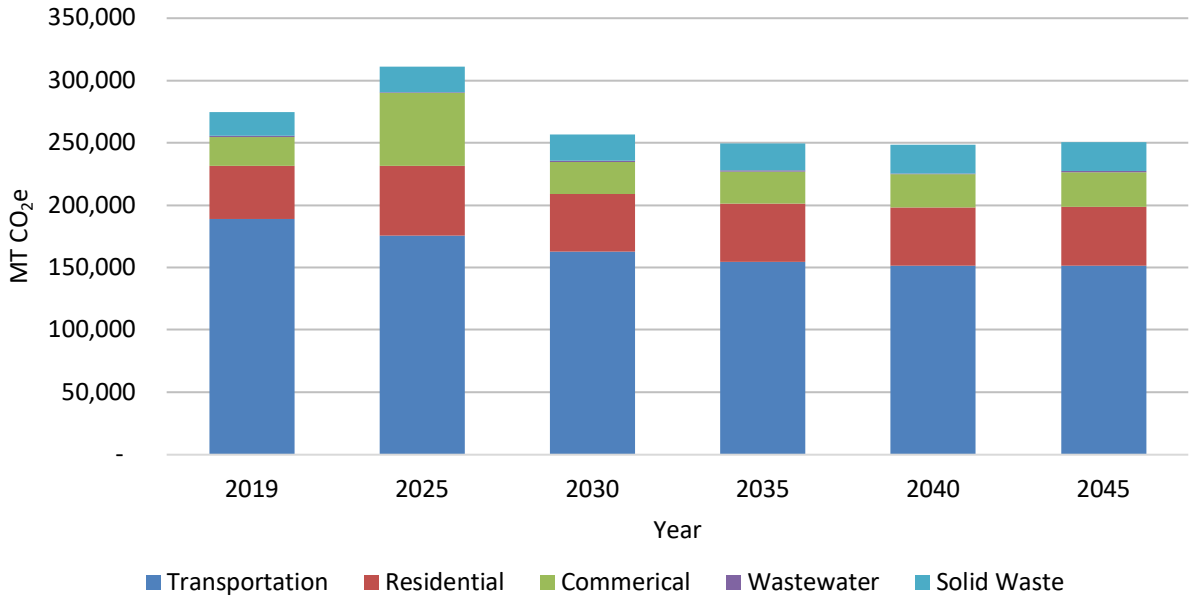


Figure 3 shows the GHG emissions trends in terms of MT CO_2e over the course of the BAU and Adjusted forecasts to illustrate the influence of compliance with state legislation on projected GHG emissions. The BAU GHG Emissions Forecast projects an overall increase of GHG emissions with population, housing, and employment growth. A substantial increase in GHG emissions is expected between 2019 and 2025 due to increased GHG emissions associated with electricity delivered by 3CE caused by a potential increase in GHG-generating electricity sources. However, these emissions are projected to decrease again leading up to 2030 and are expected to remain low compared to 2025 levels for the remainder of the forecast period. Compliance with SB 100 and Title 24 are expected to provide some reductions in GHG emissions resulting from reduced electricity consumption and a reduction in residential natural gas consumption required in association with new construction. However, since GHG emissions associated with electricity consumption are already low, the GHG reduction impact of these programs may be minimal.

Figure 3 Santa Cruz BAU and Adjusted GHG Emissions Forecasts (MT CO_2e) through 2045

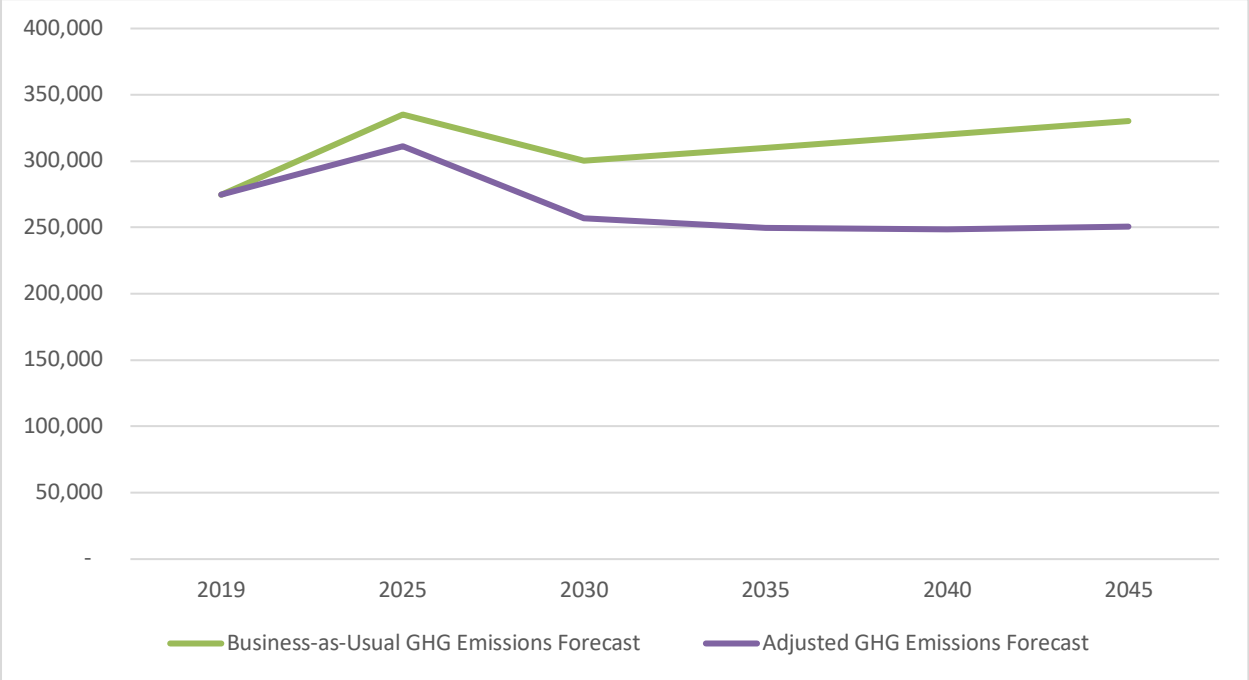


Table 15 provides the results summary of the GHG emissions forecast for Santa Cruz, including the BAU GHG Emissions Forecast, the Adjusted GHG Forecast, and the expected percentage GHG emissions reduction based on compliance with state GHG legislation.

Table 15 Santa Cruz GHG Emissions Forecast Results Summary

Business-as-Usual Forecast	274,594	335,150	300,519	309,929	320,156	330,054
Transportation Reductions	0	23,601	43,799	60,091	71,589	79,479
Title 24 Reductions	0	304	2	0	0	0
SB 100 Reductions	0	1	3	4	5	6
Legislative Adjusted Forecast	274,594	311,244	256,715	249,834	248,562	250,569
Percent Reduction in GHG Emissions from Legislation	0.0%	7.1%	14.6%	19.4%	22.4%	24.1%
SB = Senate Bill; GHG = greenhouse gas						

Table 16 provides more detail including emissions (in MT CO_2e) by sector for milestone years from 2025 through 2045.

Table 16 Santa Cruz Adjusted GHG Emissions Forecast Detail (MT CO_2e)

GHG Emissions Source	2025	2030	2035	2040	2045
Transportation	**188,930**	**199,287**	**206,883**	**214,893**	**222,900**
Aggregated On-Road Transportation	179,967	189,051	196,621	204,190	211,760
Aggregated On-Road Transportation - EV Adjust	12	398	9	0	0
Off-Road - Diesel	3,693	4,220	4,469	4,748	5,032
Off-Road - Gasoline	4,108	4,413	4,577	4,733	4,879
Off-Road - Natural Gas (LPG)	1,150	1,205	1,208	1,221	1,228
Residential	**42,718**	**56,074**	**45,826**	**46,319**	**46,881**
Residential Electricity - 3CE	336	11,464	200	0	0
Non Government Electricity - PG&E	5	5	5	6	6
County Natural Gas	0	0	0	0	0
Non Government Natural Gas	42,377	44,604	45,620	46,314	46,876
Commercial	**23,216**	**58,603**	**25,753**	**25,853**	**26,592**
County Electricity - 3CE	25	872	15	0	0
City Electricity - 3CE	60	2,119	37	0	0
Non Government Electricity - 3CE	849	30,218	531	0	0
District Electricity - 3CE	27	945	17	0	0
City Electricity - PG&E	0	1	1	1	1
District Electricity - PG&E	0	0	0	0	0
County Electricity - PG&E	0	0	0	0	0
County Natural Gas	794	872	897	922	948
City Natural Gas	593	652	671	689	709
District Natural Gas	982	1,078	1,110	1,140	1,173
Non Government Natural Gas	19,887	21,846	22,475	23,101	23,761
Wastewater	**754**	**810**	**843**	**874**	**909**
Emissions from the Combustion of Digester Gas	13	14	15	15	16
Process N2O Emissions from Wastewater Treatment	115	123	128	133	139
Emissions Associated with Effluents to Ocean	626	673	700	726	755
Solid Waste	**18,976**	**20,376**	**21,214**	**21,989**	**22,874**
Solid Waste Disposed of Outside Jurisdiction	3,884	4,170	4,342	4,501	4,682
City of Santa Cruz Resource Recovery Facility	15,092	16,206	16,872	17,489	18,192
TOTAL	**274,594**	**335,150**	**300,519**	**309,929**	**320,156**

Notes: Values in this table may not add up to totals due to rounding
All values are of the unit metric tons of carbon dioxide equivalent (MT CO_2e)
PG&E = Pacific Gas and Electric; 3CE = Central Coast Community Energy; N_2O = nitrous oxide

Rosemary Balsley

From: Garrett <garrettphilipp@aol.com>
Sent: Saturday, January 15, 2022 5:41 PM
To: City Council
Subject: 1.18.22 Agenda Item #1 Climate Action Plan

1.18.22 Agenda Item #1 Climate Action Plan

Dear Council,

I can see you are spending a lot of money under the guise of one of the greatest scams in history, namely the CO2 climate change panic save the planet mass hysteria.

While I agree moving away from fossil fuels is itself desirable since pollution is itself unwanted and those sources of energy are not limitless, the panic "end of the world" fear tactics of the advocates who want to wield power and spend money need reigning in.

The "science" is nowhere advanced enough to say for sure the world will end in 10 years if massive action is not taken. We can't figure out whether this year to the next is a drought or not. There have been 100 year droughts, and short ones, it means little. the earth has been hotter, and colder before. The earth has had much higher CO2 before , and less. The earth is not static but also resilient, and very unpredictable even 50-100 years out. The earth has been warming for 20,000 years, but also undergoes some cooling periods along with the hot. The idea man can control climate is a lie. The idea man can predict climate 50-100 years out is a lie. We can't predict even weather much beyond a few weeks let alone climate many years out. The sea has been rising for 20,000 years. It's better to be too hot than too cold. If the earth were 2 degrees cooler, we'd be under 2 miles of ice.

This is to say your blowing a LOT of money in staff, blowing fear bubbles, and little will be shown for it.

There is nothing, absolutely nothing, Santa Cruz can do that can be proven to have an effect on climate of the earth.

Yes, get used to the idea we will have to move away from the shore a bit over the next 100 years, but it won't be all that far for most people.

Admit renewable energy isn't ready for all out prime time and legislating away the use of fossil fuels before we are able and have RELIABLE renewable replacements is a fools errand.

From your own data, natural gas should be relived on most heavily as a replacement to coal and oil energy. This is doable, but in your ignorance you legislated away using natural gas last year in new homes. Stupid.

The EU has now finally admitted on Jan 5 that nuclear and natural gas will be considered clean energy. Smart.

The sun don't shine at night, the wind doesn't always blow, the all the rivers are dammed with hydro, and we can't store that energy with cost effective or even energy efficient, or pollution avoiding means.
Even solar panels are an eco disaster looming when they fail in 25 years.

Yes, fear mongering sells, allows the expenditure of vast sums of money, corrupt favors are passed out, and gas prices soar (Let's go Brandon!).

I missed the part where you calculated the exact climate benefit as a fraction of global climate change and how you will be measuring proof of that estimated benefit, in a cost per benefit analysis. I see only blind assumptions of fear.

I assume you mean "global warming" benefit, you don't really say.

I searched for "cow farts" in your documents, you missed that one.

Have a nice meeting.

Approach to GHG Reduction Targets, Measures

Santa Cruz Climate Action Plan 2030 | City Council Study Session

Resilient Together


OUR MEETING
IS HELD
ON NATIVE
LAND
USDAC.US/NATIVELAND
U.S. DEPARTMENT OF ARTS AND CULTURE

Goal of Climate Action Plan 2030 development process:

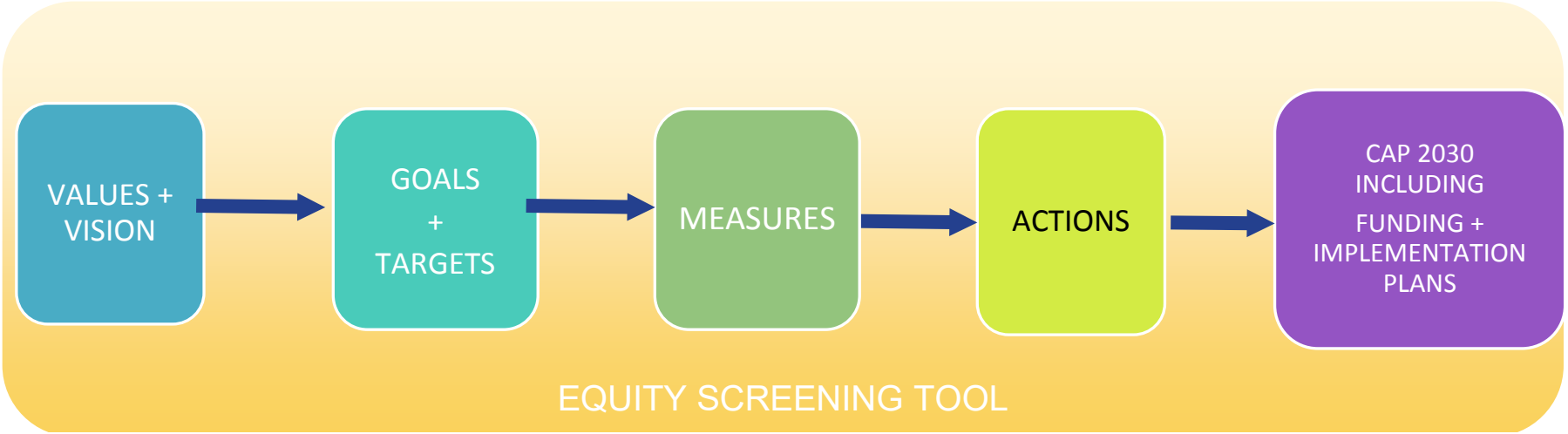
- Prepare a CEQA qualified CAP that meets state targets
- Determine the year and most equitable pathway to carbon neutrality

Objectives of Study Session

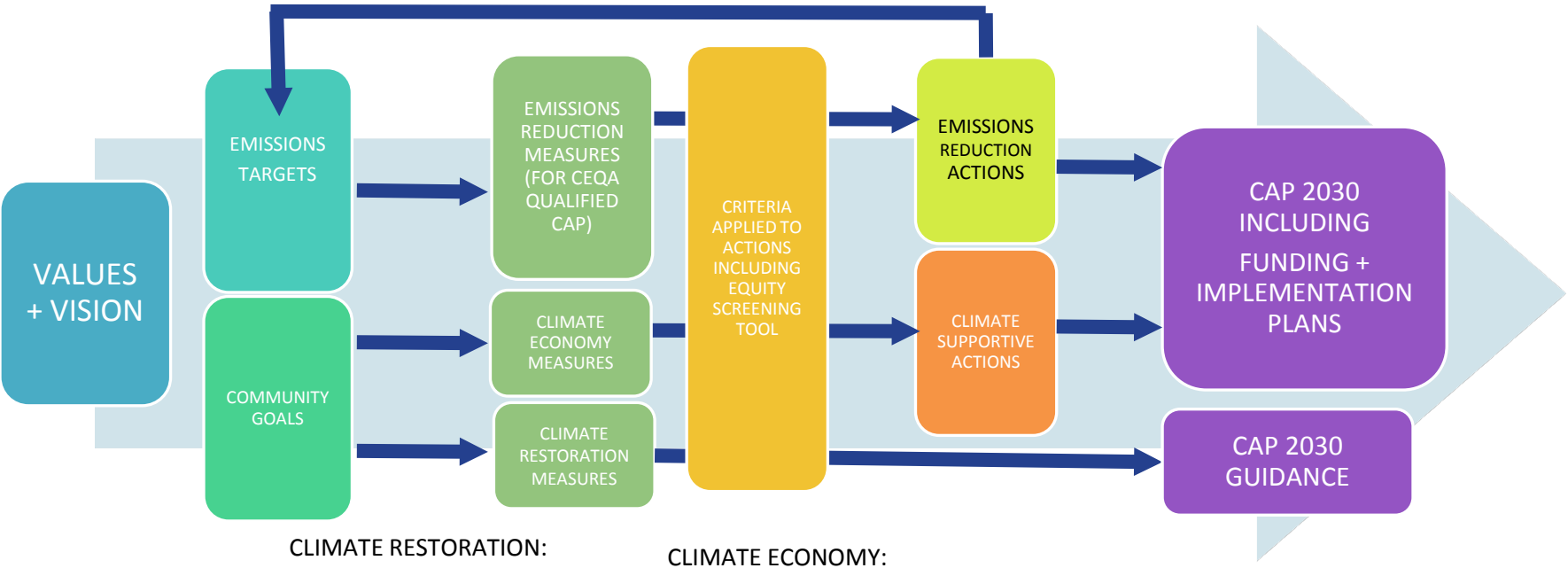
- Receive update on Climate Action Plan 2030 development progress
- Discuss considerations of various potential emissions reduction targets


“The greatest threat to our planet is the belief that someone else will save it.”
–Robert Swan

CAP 2030 Process and Components



CAP 2030 Process and Components



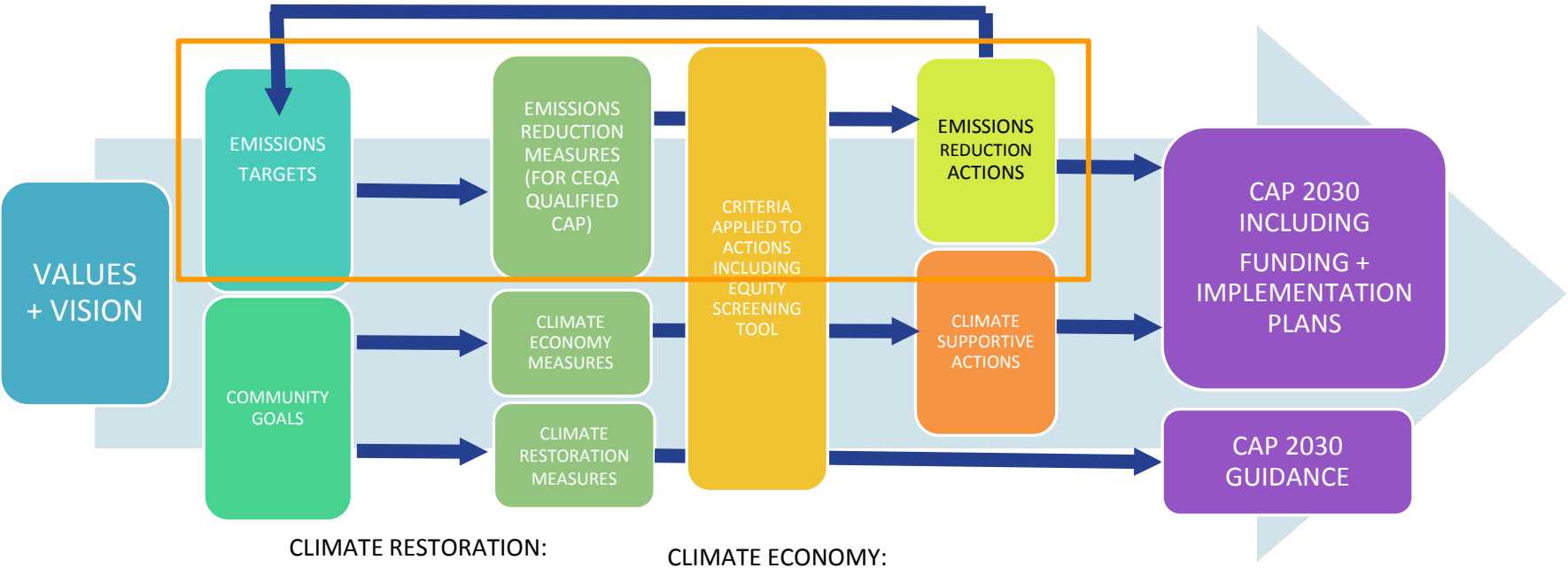
CLIMATE RESTORATION:

- Regenerative Landscapes
- Urban Forest and Sequestration
- Co-benefits like Air Quality/Habitat/Ocean Protection/ Healthy Soils/Green Infrastructure

CLIMATE ECONOMY:

- Green Jobs + Sectors
- Consumption
- Diet
- Others

CAP 2030 Process and Components



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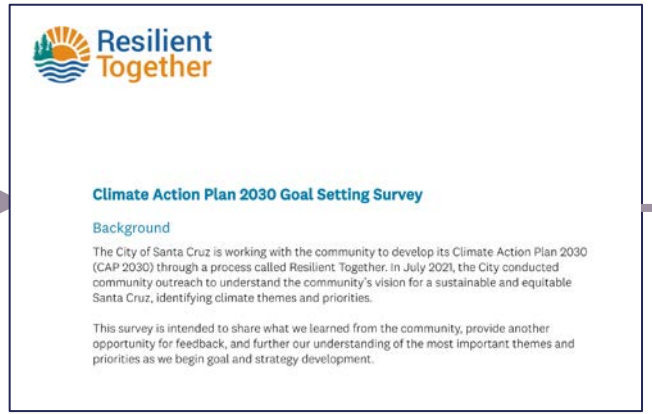
- Others

Engagement Process…



VALUES + VISION

Visioning Engagement

- Padlet (65 unique individuals)
- Email comments (60)
- 16 in person events
- Several talks

Goal Setting Engagement

- 278 Survey responses to 2 dozen potential goal statements
- +50 frontline survey responses
- Small group meetings
- Several talks

Initial Community Vision & Values

Vision: Rapidly enact climate solutions that support and enhance an equitable community with robust active and public transportation, plentiful housing that is affordable, sustainable, and resilient, and regenerative landscapes.

An Aspirational + Equitable Climate Vision grounded in Science + Data

Values:

- Ensure **equity** in all policies
- Build **people-centric transportation** infrastructure
- Promote **efficient and low carbon/no carbon** buildings, energy + water
- Protect and enhance **natural resources and urban parks**
- Eliminate **food waste and support local food sources**

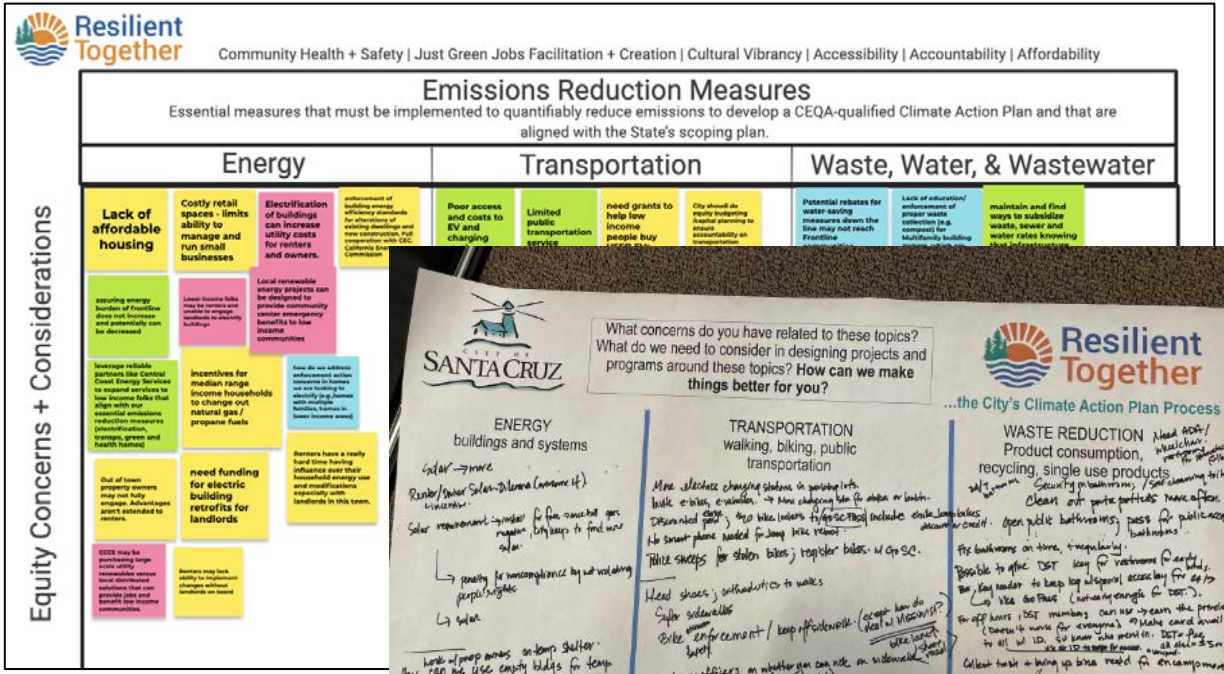
Equity Screening Tool Creation Process

SCREENING AREAS:

- Community Health + Safety
- Just Green Jobs Facilitation + Creation
- Cultural Vibrancy
- Accessibility
- Accountability
- Affordability

VALUES + VISION

MEASURES



Equity Considerations Recap

Emissions Reduction Measures

Energy

- Consider affordability and impacts of electrification
- Consider the ability of renters to electrify
- Ensure that benefits from distributed energy resources (e.g. solar) are distributed equally

Transportation

- Take into account the affordability of EVs and bikes
- Promote safe and inclusive access to active, public, and electric transportation, including for people of different mobilities
- Ensure equitable outreach for rebates and programs

Water, Waste, and Wastewater

- Ensure that renters and multifamily residents can participate in water efficiency/ waste programs
- Conduct equitable and intentional outreach to frontline communities
- Consider economic impact of water use/ upgrades

MEASURES

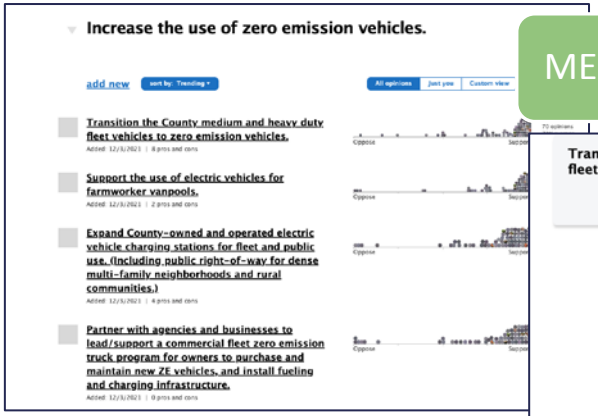
Applying Equity Screening Tool to Actions

- Each action evaluated through questions for each screening area
- Is the action...
  - Beneficial (+)
  - Neutral (0)
  - Harmful (-)
- An action cannot cause harm to frontline, low-income communities or communities of color
  - If an action does cause harm, it was revised, or there is a complementary action that mitigates that harm

ACTIONS

…Engagement Process (Jan - May)

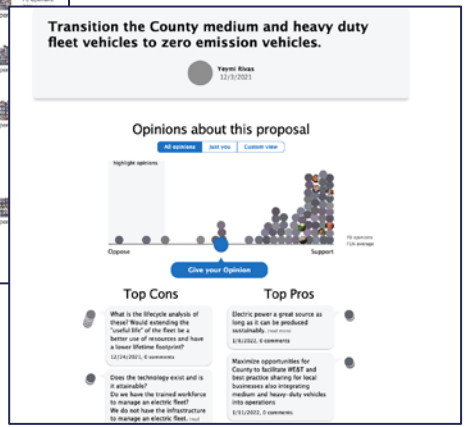
VALUES + VISION



^Public Dialog Platform On Draft Actions

MEASURES

ACTIONS



REFINED GOALS + TARGETS

REFINED ACTIONS

+

draft FUNDING + IMPLEMENTATION PLANS

More focus groups (Feb) City Council Study Session (March)

CAP 2030, CEQA, FUNDING + IMPLEMENTATION PLANS

(Webinar - May

Adopted - Aug)

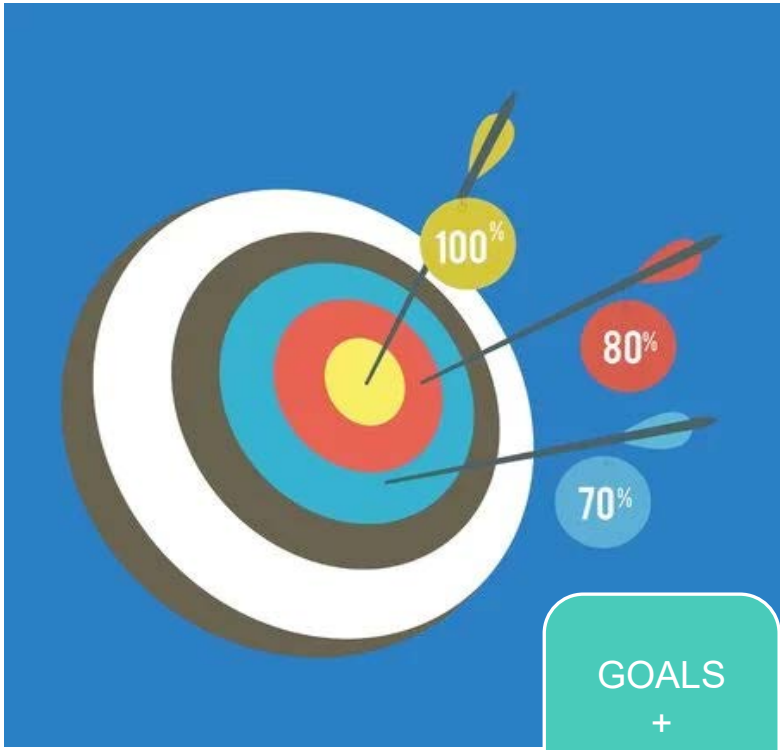
Break for Questions before Target Setting Slides + Discussion

Emissions Reduction Target Setting

1) CEQA Qualified CAP Target
   - Mass or Per Capita

1) Aspirational or Stretch Targets

Can adopt one or both



GOALS
+
TARGETS

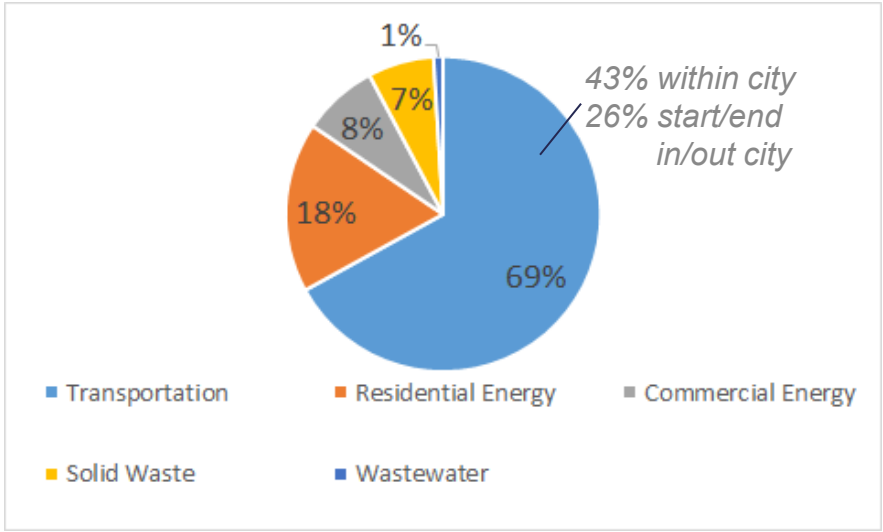
CEQA Qualified CAPs & State Scoping

- ★ *Strongest lever to reduce emissions in development*
- ★ *Streamlines CEQA requirements*

To develop, City must:

1) Conduct a GHG Inventory for areas under local influence
2) Identify a GHG reduction target consistent with State goals
3) Monitor progress of reaching State Goals

2019 Santa Cruz Community-Wide Emissions Inventory



~3% of Community-wide Emissions are from Municipal Operations
Carbon Sequestration not part of State Scoping Plan - yet

Potential Emissions Reduction Targets

CEQA Qualified Targets *(legally defensible)*

- AB 32: 80% by 2050 from 1990 levels (*adopted in 2020 CAP)*
- SB 32: 40% reduction by 2030 from 1990 levels *(9% reduction 1990 to 2020)*

  ** Minimum required for CEQA*

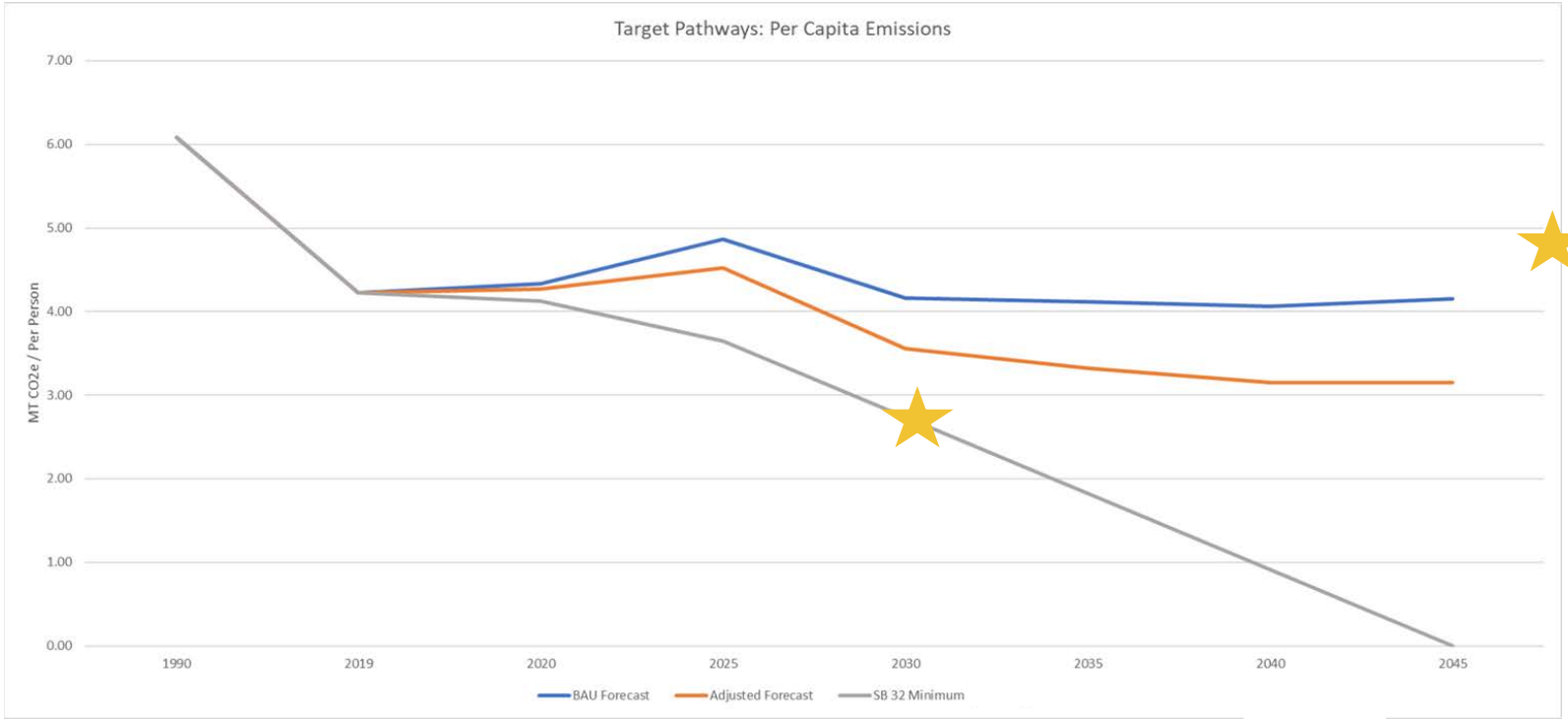
  **Puts us on path to Carbon Neutrality by 2045*

  **SB 32+ is also possible (≥40%) if can demonstrate + attain feasible actions*

Aspirational or Stretch Targets *(voluntary)*

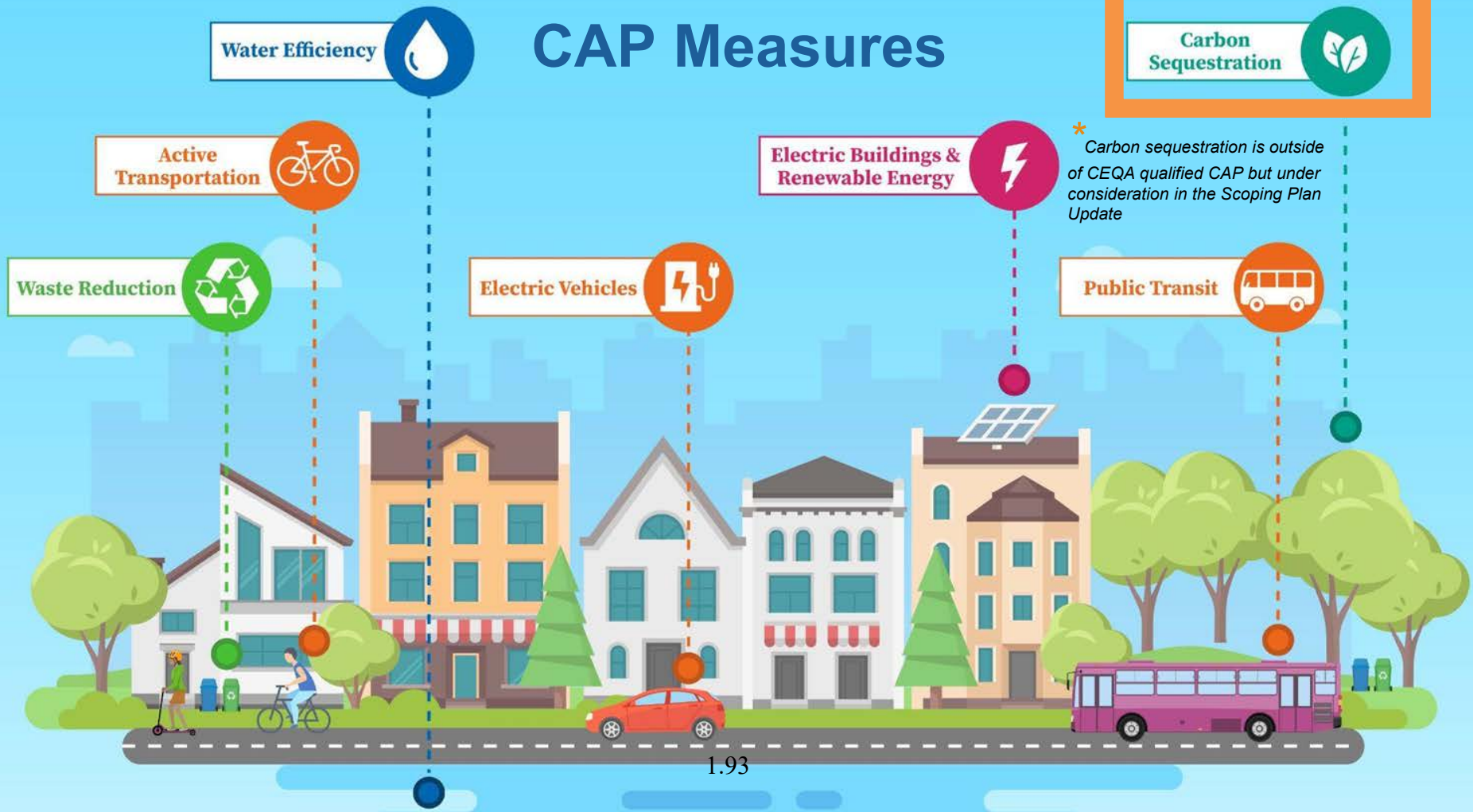
- State Carbon Neutrality Goal of 2045
- Science Based Target *(60.7% reduction from 2019 by 2030)*
- Aspirational Target of Carbon Neutrality by 2030 or 2035

City of Santa Cruz Forecasts



SB 32: **40% reduction by 2030 from 1990 levels** (*minimum required for CEQA)* + Pathway to carbon neutral by 2045.

CAP Measures



* *Carbon sequestration is outside of CEQA qualified CAP but under consideration in the Scoping Plan Update*

Emissions Reduction Measure Refinement Process

- Held working meetings with department heads and other stakeholders responsible for measure and action implementation
- Developed Suite of actions that exceed state minimum
- Aggressive, yet feasible, implementable, and defensible

**Implementable actions are a key requirement of a CEQA CAP*

Energy Reduction Measures

2030 GHG Reduction Potential | 26% of emissions	
	**Exceeds the SB32 Required Target** *>40% reduction from 1990 by 2030 & pathway to carbon neutral by 2045*
Measures	- Reduce natural gas usage by 33% in residential buildings - Reduce natural gas usage by 30% in commercial buildings - Approach = time of replacement (natural gas equipment must be replaced with electric equipment at end of useful life) - Assumed non-compliance ○ (6% res; 1.6% comm requires permit compliance program)
Costs	- ~$117M to electrofit 9,360 dwelling units ($5k - $30k/DU - w/o rebates) - ~$3.2M to electrofit 30% of commercial spaces (exc. industrial spaces) - Roadmap developed in parallel to CAP - complete by July

Key Implementation Actions

Key Electrification Actions for SB 32 by 2030

- Pass an **existing building electrification ordinance** prohibiting new natural gas equipment in the City by 2024.
- **Enforce compliance** with new building natural gas prohibition and existing bldg electrification ordinances
- Co-develop a tariffed **on-bill financing program**

Transportation Reduction Measures

2030 GHG Reduction Potential | 69% of emissions	
	**Exceeds the SB32 Required Target** *>40% reduction from 1990 by 2030 & pathway to carbon neutral by 2045*
Measures	- 25% active transportation mode share (19.5% now) - 8% public transportation mode share (7% now; assume no rail thru 2030) - 35% passenger EV mode share (<5% pas+com now) - 25% commercial EV mode share (<5% pas+com now) - 50% off-road equipment decarbonized
Costs	- Active transportation infrastructure-related costs by the City w/grants - Public transit requires partner cooperation + major grant investments - Community-wide EV + charging investment >$500M - Residential EV investment w/o rebates ~$5k - $30k/used or new EV - Commercial EV investment w/o rebates can exceed $100k/EV

Key Implementation Actions

Key Transportation Actions for SB32 by 2030

- Add 1,247 new publicly accessible Level 2 and 3 EV chargers
- Require residential rental + commercial building owners to **install working electric vehicle chargers in 20% of parking** spaces.
- **Reduce number of vehicles in high-traffic zone**(s) or on roads where other transit options are available i**mplementing congestion charge** that applies to passenger cars and car-sharing services with exceptions for handicap drivers and residents of those areas.
- Focus on **telework** and **evaluate land use** to keep people working in town

Waste/Wastewater Reduction Measures

2030 GHG Reduction Potential | 8% of emissions	
	**Exceeds the SB32 Required Target** *>40% reduction from 1990 by 2030 & pathway to carbon neutral by 2045*
Measures	- 85% reduction in organic waste - 35% reduction in inorganic waste - 0% reduction in wastewater process emissions
Costs	- Reducing wastewater process emissions, though only a small part of the City's overall emissions, would require substantial financial investments from the City - Organic waste handling is a City cost with likely grant funding to assist

Key Implementation Actions

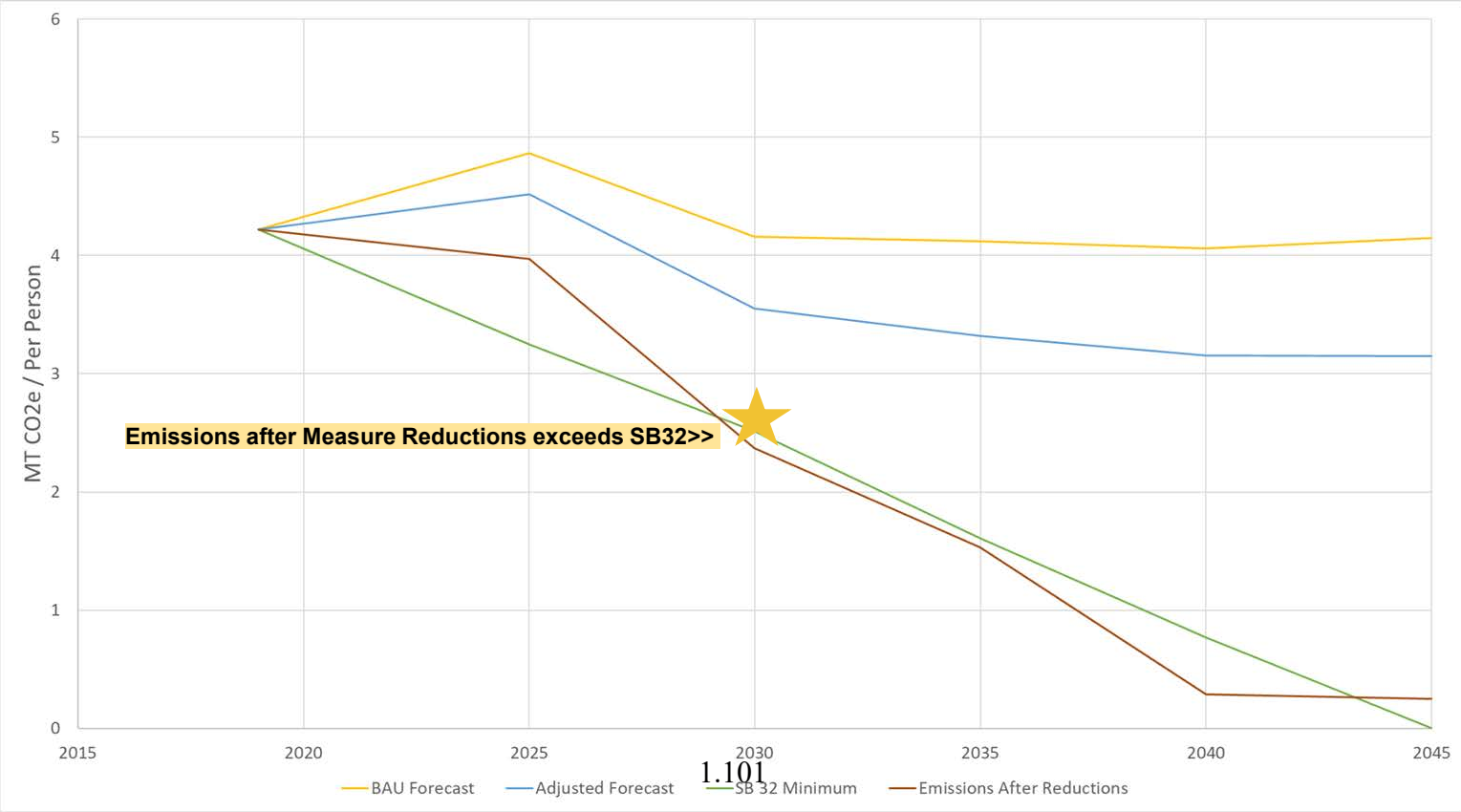
Key Waste Actions for SB 32 by 2030

- Implement an organic waste solution beyond food waste program.
- Heavy education

IN SUM, SB32 minimum requires…

- reduce from 4.2 to 3.7 MT/CO2e per person by 2030
- ~$750M in investment community-wide by 2030
- Ramped up municipal staffing + investment by 2030 (>$50M)

Potential Emissions Reduction from Measures



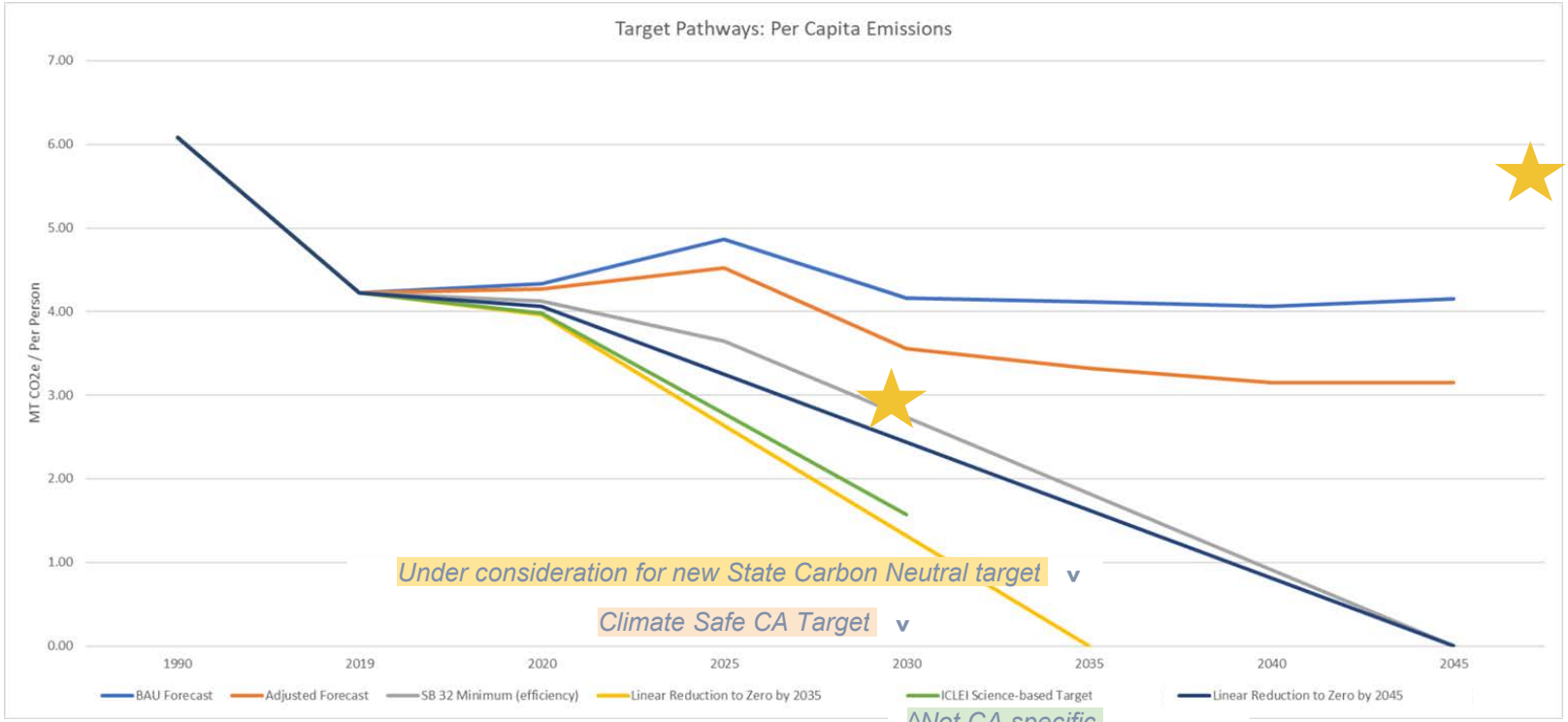
SB32+ Can we be more aggressive?

Yes, but would require more aggressive actions

- Require replacement of natural gas appliance before the end of their useful life through mandatory ordinance
- Substantially increase cost of driving single occupancy/gas vehicles through additional taxes/parking fees
- Institute other zero-emission vehicle areas in the City
- Ban cars in high traffic zones to increase public and active transportation
- Set a date for natural gas shut-off citywide (e.g., 2030 or 2035)

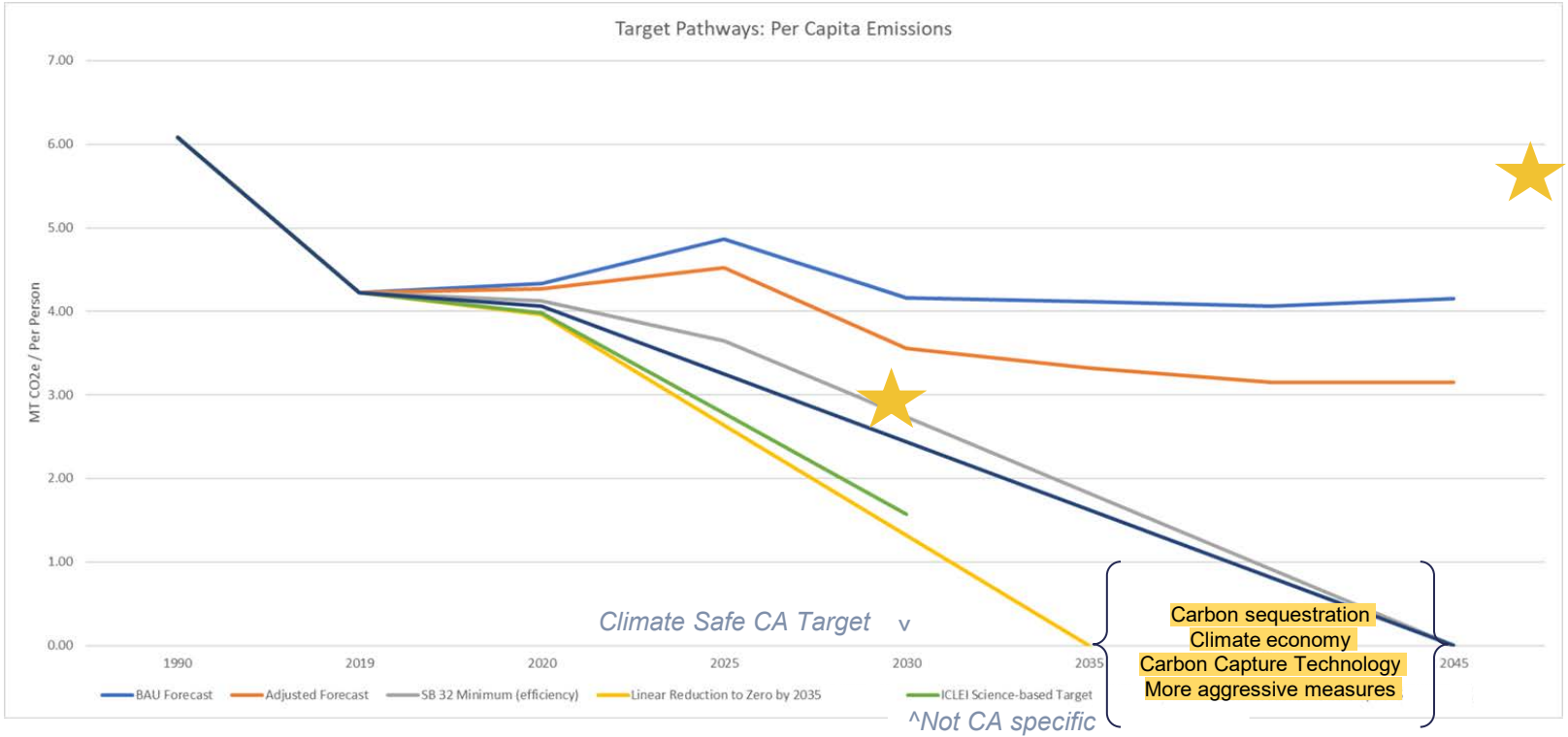
CEQA CAP must be able to achieve real reductions + be legally defensible

City of Santa Cruz Forecasts



SB 32: **40% reduction by 2030 from 1990 levels** (*required for CEQA*). Pathway to carbon neutral by 2045.

City of Santa Cruz Forecasts



SB 32: **40% reduction by 2030 from 1990 levels** (*required for CEQA*). Pathway to carbon neutral by 2045.

Possible Stretch Target Approaches

- Adopt a linear reduction to carbon neutrality by 2045
- Establish a visionary/aspirational goal of carbon neutrality by 2035 or 2030, with a strong focus on equity
  - Lean into climate restoration + economy measures (outside of CEQA CAP)
  - Focus acceleration municipally under areas of control
  - Enable innovation + pursuit of new technologies and opportunities
  - Adjust to address equity concerns as they arise

Update the CAP every 5 years to account for new opportunities and changing technologies/legislation

What Other Jurisdictions are Doing

City of San Luis Obispo Climate Action Plan for Community Recovery*
- Carbon neutrality by 2035

City of Watsonville 2030 Climate Action and Adaptation Plan*
- Aspirational goal of net-negative emissions by 2030
- Legal target 80% below 1990 levels by 2030 (City has already achieved the SB 32 minimum target of 40% below 1990 levels by 2030)

City of South Pasadena Climate Action Plan*
- SB 32 minimum target of 40% below 1990 levels by 2030 and progress toward carbon neutrality by 2045

City of Santa Monica Climate Action and Adaptation Plan*
- 80% reduction below 1990 levels by 2030 (City was 36% below 1990 levels in 2019)

City of Palo Alto Sustainability and Climate Action Plan (not CEQA qualified)
- 80 percent below 1990 levels by 2030 (City's electricity portfolio is carbon neutral)

City of Cupertino Climate Action Plan
- 49% reduction by 2035 and 83% by 2050 (includes carbon sequestration from urban forest program)

Other Carbon Neutral by 2035: Fremont, Sunnyvale, Portola Valley, Menlo Park

**CEQA Qualified Plan*

Funding + Implementation

Infrastructure Investment + Jobs Act

ROADS, BRIDGES, OTHER PROJECTS

$110 billion

ENERGY AND GRID

$65 billion

RAIL AND PUBLIC TRANSIT

$105 billion

WATER INFRASTRUCTURE

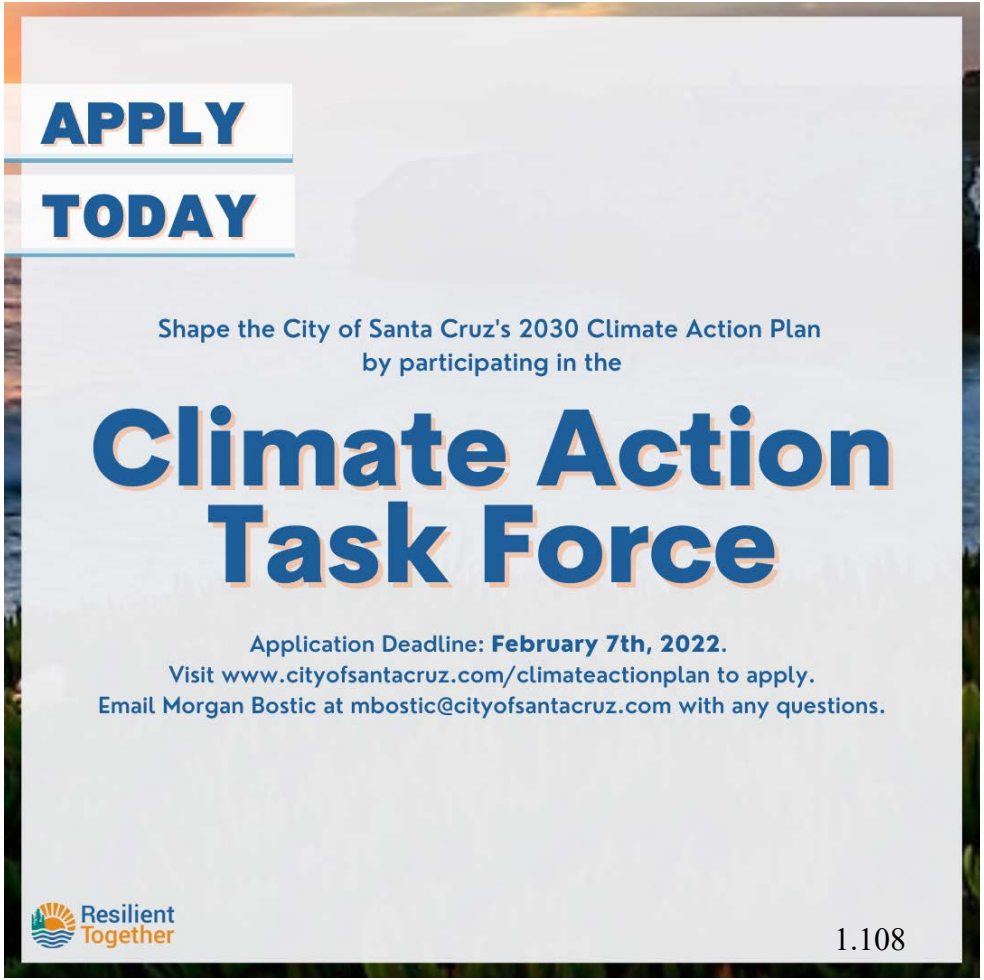
$55 billion

BROADBAND

$65 billion

RESILIENCE

$47 billion



January

- **1/18** City Council Study Session on CAP Goals
- **1/24** Consider.It community engagement dialogue on CAP Actions to be released
- **1/24 - 1/28** More municipal + community focus groups

February

- **1/31 - 2/4** CATF + Equity Task Force - Implementation and Funding (date TBD)
- **2/7** CATF recruitment closes
- **2/10** CATF new members announced
- More small focus group engagement (Business / developer engagement, bikers, etc)

March

- **3rd week of March** City Council study Session on Actions, Implementation + Funding