



City of Palo Alto Utilities Advisory Commission Staff Report

(ID # 11403)

Report Type: Agenda Items

Meeting Date: 6/17/2020

Summary Title: 2020 S/CAP Update - Additional Goals and Key Actions

**Title: Discussion of 2020 Sustainability and Climate Action Plan Update:
Updated Goals and Key Actions**

From: City Manager

Lead Department: Utilities

Recommendation

This item is being provided to the Utilities Advisory Commission (UAC) for feedback and discussion and no action is requested.

Executive Summary

In April 2016, City Council adopted the ambitious goal of reducing GHG emissions to 80 percent below 1990 levels by 2030, 20 years ahead of the State of California 80 x 50 target. In November 2016 Council adopted the S/CAP Framework, which has served as the road map for achieving Palo Alto's sustainability goals. In December 2017, Council accepted the 2018-2020 Sustainability Implementation Plan "Key Actions" as a summary of the City's work program. In early 2020, the City launched a 2020 S/CAP Update to determine the goals and key actions needed to meet its sustainability goals, including its goal of reducing GHG emissions 80 percent below 1990 levels by 2030. Staff drafted 2020 S/CAP Potential Goals and Key Actions as a starting point for discussion. Since then, the City has solicited feedback from the community through a virtual on-demand 2020 S/CAP Community Engagement Workshop (March 31 – April 14, 2020), the City of Palo Alto Sustainability website, and at the April 13, 2020 City Council Meeting. Staff reviewed all feedback received between January 22, 2020 and April 30, 2020 and incorporated it into updated 2020 S/CAP Proposed Goals and Key Actions. Staff also reviewed feedback received by the UAC at its May 20, 2020 meeting.

On June 16, 2020 staff requested that Council direct staff to continue with the 2020 S/CAP Update and evaluate the 2020 S/CAP Potential Major Goals and Key Actions Related to GHG reduction (Attachment A) before it goes to AECOM for impact analysis. Staff is requesting additional feedback on these Goals and Key Actions from the UAC at its June 17, 2020 meeting as well.

Attachments:

- Attachment A: 2020 SCAP Update



City of Palo Alto

City Council Staff Report

(ID # 11304)

Report Type: Action Items**Meeting Date: 6/8/2020****Council Priority: Climate/Sustainability and Climate Action Plan, Transportation and Traffic****Summary Title: 2020 SCAP Update Planning****Title: Direct Staff to Continue with the 2020 Sustainability and Climate Action Plan (S/CAP) Update and Evaluate the 2020 S/CAP Proposed Goals and Key Actions****From: City Manager****Lead Department: Public Works****Recommendation**

Staff recommends that City Council direct staff to continue with its work on the 2020 Sustainability and Climate Action Plan (S/CAP) Update and the evaluation of 2020 S/CAP Potential Major Goals and Key Actions related to greenhouse gas emissions reduction (Attachment A).

Executive Summary

Consistent with the Council's adoption of "Sustainability, in the context of climate change" as one of the top three priorities for CY 2020, Staff is developing a 2020 Sustainability and Climate Action Plan (S/CAP) Update to help the City meet its sustainability goals, including its goal of reducing greenhouse gas (GHG) emissions 80 percent below 1990 levels by 2030. Staff presented the [2020 Sustainability and Climate Action Plan \(S/CAP\) Update Process](#)¹ to Council at an April 13, 2020 Study Session. Council directed staff to return to Council before the City's consultant (AECOM) begins its analysis of Potential Key Actions. Attachment A shows the Potential Major Goals and Key Actions with the highest potential for reducing GHG emissions.

The Major Goals and Key Actions are intended to ensure that enough emissions and cost data are prepared to ultimately formulate multiple scenarios to meet the 80 x 30 goal, giving Council choices among scenario packages. The full list of the Potential Goals and Key Actions, both those that relate to GHGs and those that relate to other program areas are captured in the

¹ <https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=53475.02&BlobID=76048>

[2020 S/CAP Updated Potential Goals and Key Actions DRAFT](#)². These Potential Goals and Key Actions were modified based on 109 pages of comments on an earlier version presented to the community on March 26, 2020.

City Council discussion and feedback will be sought on the Major Goals and Key Actions. In particular, staff is requesting Council feedback on the level of intervention necessary to achieve Palo Alto's S/CAP goals. This will help staff refine the planned approach to community awareness and engagement.

Background

In April 2016, City Council adopted the ambitious goal of [reducing GHG emissions to 80 percent below 1990 levels by 2030](#)³ - 20 years ahead of the State of California 80 x 50 target. In November 2016 Council adopted the [S/CAP Framework](#)⁴, which has served as the road map for achieving Palo Alto's sustainability goals. In December 2017, Council accepted the [2018-2020 Sustainability Implementation Plan "Key Actions" as a summary of the City's work program](#)⁵.

In early 2020, the City launched a 2020 S/CAP Update to determine the goals and key actions needed to meet its sustainability goals, including its goal of reducing GHG emissions 80 percent below 1990 levels by 2030. Staff drafted 2020 S/CAP Potential Goals and Key Actions as a starting point for discussion. Since then, the City has solicited feedback from the community through a virtual on-demand 2020 S/CAP Community Engagement Workshop (March 31 – April 14, 2020), the City of Palo Alto Sustainability website, and at the April 13, 2020 City Council Meeting. Staff reviewed all feedback received between January 22, 2020 and April 30, 2020 and incorporated it into updated 2020 S/CAP Proposed Goals and Key Actions. Now staff is proposing that Council direct staff to continue with the 2020 S/CAP Update and evaluate the 2020 S/CAP Potential Major Goals and Key Actions Related to GHG reduction (Attachment A) before it goes to AECOM for impact analysis. The full list of the Potential Goals and Key Actions, both those that relate to GHGs and those that relate to other program areas are captured in the [2020 S/CAP Updated Potential Goals and Key Actions DRAFT](#).

Discussion

For the City to continue progress towards its climate and sustainability goals and targets, a 2020 S/CAP Update is necessary to further study the highest impact actions to take. The 2016 S/CAP Framework provided direction and overall goals through 2020. The intent was for staff to update the S/CAP every five years and develop more granular five-year work plans and short-term programs, rather than attempt to build a detailed 14-year work plan.

In preparation for the 2020 S/CAP Update, staff reviewed the goals and actions in the 2016 S/CAP Framework, the 2018-2020 Sustainability Implementation Plan, the 2018 Zero Waste

² <https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=58649.63&BlobID=76860>

³ <https://www.cityofpaloalto.org/news/displaynews.asp?NewsID=3534&TargetID=268>

⁴ <https://www.cityofpaloalto.org/civicax/filebank/documents/60858>

⁵ <https://www.cityofpaloalto.org/civicax/filebank/documents/63141>

Plan, the 2030 Comprehensive Plan, the Urban Sustainability Directors Network Greenhouse Gas Reduction High Impact Practices, and the Carbon Neutral Cities Alliance Game Changers list to draft 2020 S/CAP Potential Goals and Key Actions. These Potential Goals and Key Actions were meant to be a starting point for discussion. Staff initiated a community engagement effort and received feedback between January 22, 2020 and April 30, 2020 on the 2020 S/CAP Potential Goals and Key Actions from 204 people who participated in the 2020 S/CAP Community Engagement Virtual Workshop, 7 people who responded to the Virtual Workshop invite, 3 people who reviewed the materials on the sustainability website, and 21 people who submitted comments for the April 13 Council Study Session. Staff reviewed 109 pages of feedback from the community, which included many helpful suggestions for improvement. Several themes surfaced in the input received:

- The commenters are generally supportive of the 2020 S/CAP and do not want to delay action on climate change, despite the uncertainties created by the current coronavirus pandemic.
- The 2020 S/CAP needs to include more aggressive but achievable goals, measurable targets, and accessible reporting, with more focus on electrifying buildings, transportation, and equipment.
- The commenters are not supportive of counting natural gas offsets in our overall greenhouse gas emissions reductions. Offsets are meant to be a bridging strategy and should be phased out.
- The coronavirus pandemic has shown that it is possible to work from home regularly. The City should explore remote work strategies as a way to reduce transportation-related GHG emissions.
- Housing, land use, and education are areas of focus that are missing from the 2020 S/CAP.

A summary of all input received on the 2020 S/CAP Potential Goals and Key Actions and the 2020 S/CAP Community Engagement Virtual Workshop can be found in Attachment B. The full unedited text of all input received can be found in the [Compilation of All Input Provided between 1/22/2020 to 4/30/2020⁶](#).

Staff presented the 2020 S/CAP Potential Goals and Key Actions to the Utility Advisory Commission (UAC) on May 20, 2020. The UAC was generally supportive of the first draft of the 2020 S/CAP Potential Goals and Key Actions and provided several recommendations for improvement related to electrification of appliances and buildings, including City buildings; financing tools such as on-bill financing; inclusion of e-bikes, e-scooters, and other personal electric vehicles in mobility discussions; and electric vehicle group buy programs and infrastructure. The UAC also posed the questions of how the Key Actions will be financed, whether we can achieve our targets through incentives alone, and whether natural gas offsets should count towards our emissions reductions goal. While no action was taken by the UAC on

⁶ <https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=68527.83&BlobID=76499>

the 2020 S/CAP Potential Goals and Key Actions, the UAC voted 7-0 to recommend maintaining the Carbon Neutral Gas Program supplied by carbon offsets as part of another agenda item, the FY 2021 Budget.

Staff incorporated community input to update the 2020 S/CAP Potential Goals and Key Actions, which will be the foundation for the 2020 S/CAP. The 2020 S/CAP Potential Goals and Key Actions cover seven sustainability areas - Energy, Mobility, Electric Vehicles, Water, Climate Adaptation and Sea Level Rise, Natural Environment, and Zero Waste. While all seven areas are important, staff is highlighting Potential Major Key Actions in three areas for Council to evaluate – Energy, Mobility, and Electric Vehicles. Staff is presenting more Key Actions than needed to get to the 80 X 30 goal, so that Council will have choices in what Key Actions are ultimately selected. Staff is including Key Actions that will be difficult, expensive, and/or inconvenient to achieve. Some of these Potential Key Actions will require additional legal analysis and coordination with other agencies, such as the California Energy Commission, before being presented to Council for final selection. Others may require voter approval, and could ultimately be included in a potential Ballot Measure.

Each of the 2020 S/CAP Update Potential Key Actions falls along a Spectrum of Tools for Achieving Climate Goals (See Figure 1) below. The Spectrum ranges from market-driven solutions that require low intervention but also low certainty of achievement, such as voluntary programs, to government-driven solutions that require higher intervention but yield high certainty of achievement, such as city-wide voter-approved mandates. Once Council directs staff to proceed with the evaluation of the 2020 S/CAP Potential Goals and Key Actions, our consultant (AECOM) will estimate the GHG reduction potential, the costs, and the sustainability co-benefits (such as improved local air quality or reduced cost of living) of the Potential Key Actions. This impact analysis will provide a range of costs per GHG reductions that will have various options along the Spectrum of Tools for Achieving Climate Goals. Staff envisions using the impact analysis to come up with a set of potential Key Actions that allow multiple options to get us to our 80 x 30 goal, as well as trigger points for when more interventions are needed to achieve the targets for the Key Actions.

Figure 1. Spectrum of Tools for Achieving Climate Goals

Spectrum of Tools for Achieving Climate Goals



Market driven solutions

Government driven solutions

As an example, City of Palo Alto Utilities currently has several Electrification Programs, one of which focuses on electric heat pump water heaters. The Heat Pump Water Heater Program provides rebates for residents to voluntarily replace water heaters with electric heat pump water heaters. These rebates are an example of a tool with low intervention – the rebates are voluntary – and low certainty – the number of residents who have voluntarily replaced their water heaters is far lower than the goal. In order to reach the targeted number of water heaters that need to be replaced, the City may need to explore development of a Reach Code Ordinance⁷ to provide more certainty to meet the target, or whether a mandate would be a legally viable option to ensure that the target is reached.

It should be noted that should the Council believe that “high” level intervention is needed and supportable to advance Palo Alto’s S/CAP goals, a different approach to community awareness and engagement may be warranted. For example, should a 2022 voter measure to finance electrification (or other purposes) be a possibility, staff could orient our workplan to begin building community awareness of the value and options for electrification, developing cost estimates and delivery options, and evaluating voter support for the various forms such a measure could take. In fact, should a citywide measure for electrification be pursued, coordination and potential economies of scale with electrical undergrounding and fiber-to-the-home could also be concurrently evaluated. Staff requests Council discuss and provide feedback on the potential for such long lead-time strategies.

⁷ Development of a “Reach Code” ordinance that would exceed California Building Energy Efficiency Standards (the Energy Code) requires a showing that the measures would be cost effective, and findings by the California Energy Commission that the proposed Reach Code requires buildings to be designed to use less energy than permitted by the Energy Code.

Staff will schedule a Council Study Session in early fall to present the results of the AECOM and staff analysis.

Stakeholder Engagement

Staff developed, and is implementing, a 2020 S/CAP Update Engagement Plan which identified relevant stakeholders, proposed materials, and desired meeting milestones and outcomes. Key steps to date have been a March 31 – April 14, 2020 Community Engagement Virtual Workshop and an April 13, 2020 Council Study Session. Further, Council reviewed the opportunities for engagement in the 2020 S/CAP Update Proposed Process and the Community Engagement section of the 2020 – 2021 Sustainability Work Plan.

Policy Implications

The 2020 S/CAP Update aligns with two of the top three Council Priorities for CY 2020: “Sustainability, in the context of climate change” and “Improving mobility for all.”

Resource Impact

Appropriate resources are already in place to develop the 2020 S/CAP Update. Contract Number C20176783 With AECOM Technical Services, Inc., for Professional Services Related to the 2020 Sustainability and Climate Action Plan Update and SB743 Implementation was approved on February 24, 2020 ([CMR 11112](#)). Funding is included in the operating budgets from City Manager’s Office – Office of Sustainability and the Office of Transportation. Any additional appropriation of necessary funding is subject to City Council approval.

Environmental Review

Directing staff to continue with the 2020 S/CAP Update does not require California Environmental Quality Act review, because this action is not a project under section 21065 of Public Resources Code and section 15378(b)(5) of CEQA Guidelines, as an administrative governmental activity which will not cause a direct or indirect physical change in the environment. A CEQA analysis of the Update itself will be presented with the final 2020 S/CAP Update.

Attachments:

- Attachment A - 2020 Sustainability and Climate Action Plan Potential Major Goals and Key Actions
- Attachment B - Summary of Input on 2020 S/CAP Potential Goals and Key Actions and Community Engagement Workshop through April 30 2020



ENERGY



MOBILITY



ELECTRIC
VEHICLES

2020 Sustainability and Climate Action Plan Potential Major Goals and Key Actions For Greenhouse Gas Reduction

DRAFT

The 2020 Sustainability and Climate Action Plan (S/CAP) Potential Major Goals and Key Actions for Greenhouse Gas Reduction listed on the following pages are a subset of the full list of updated 2020 S/CAP Potential Goals and Key Actions. Staff is highlighting the 2020 S/CAP Potential Goals and Key Actions that have the highest potential Greenhouse Gas (GHG) reduction for Council to evaluate. These Key Actions are from the Energy, Mobility, and Electric Vehicles (EVs) areas.

The 2020 S/CAP Potential Major Key Actions listed in the following pages do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will potentially be prioritizing. They are numbered to make it easier to refer to specific Key Actions and are numbered the same as the Key Actions in the full list of 2020 S/CAP Potential Goals and Key Actions. They are NOT numbered based on priority.

Each of the 2020 S/CAP Update Potential Key Actions falls along a Spectrum of Tools for Achieving Climate Goals (See Figure 1) below. The Spectrum ranges from market driven solutions that require low intervention but also low certainty of achievement, such as voluntary programs, to government driven solutions that require higher intervention but yield high certainty of achievement, such as city-wide voter-approved mandates. Once Council provides input on the updated 2020 S/CAP Potential Goals and Key Actions, a consultant (AECOM) will estimate the GHG reduction potential, costs, and sustainability co-benefits (such as improved local air quality or reduced cost of living) of the Potential Key Actions. This impact analysis will provide a range of costs per GHG reductions that will have various options along the Spectrum of Tools for Achieving Climate Goals. Staff will use the impact analysis to come up with a set of potential Key Actions that allow multiple options to get us to our 80 x 30 goal, as well as trigger points for when more interventions are needed to achieve the targets for the Key Actions. Some of these measures will require additional legal analysis and potential coordination with other agencies, such as the California Energy Commission, before being presented to Council for final selection.

Figure 1. Spectrum of Tools for Achieving Climate Goals

Spectrum of Tools for Achieving Climate Goals



Market driven solutions

Government driven solutions

POTENTIAL MAJOR GOALS FOR GREENHOUSE GAS REDUCTION



- ü Reduce Greenhouse Gas (GHG) emissions from the direct use of natural gas in Palo Alto's building sector by¹:
 - a. 40% below 1990 levels by 2030 (or 24% below 2018 level) OR
 - b. 60% below 1990 level by 2030 (or 50% below 2018 level) OR
 - c. 80% below 1990 level by 2030 (or 76% below 2018 level)



- ü Reduce transportation related GHG emissions 80%, from 300,000 MT CO_{2e}/year to 60,000 MT CO_{2e}/year by:
 - a. Increasing the mode share for active transportation modes (walking, biking, and transit) from 19% to 40% of local work trips by 2030
 - b. Increasing the availability of transit and shared mobility services from 61% to 100% by 2030 by increasing the proportion of residents within a quarter-mile walkshed of frequent transit corridors to 30% and by providing on-demand transit options to the rest of the City
 - c. Utilizing development regulations and standards to continue creating a housing density and land use mix that supports transit and non-SOV transportation modes
 - d. Utilizing pricing, fees, and other program and policy tools to encourage reductions in GHGs and VMT



- ü Reduce transportation related GHG emissions 80%, from 300,000 MT CO_{2e}/year to 60,000 MT CO_{2e}/year by:
 - a. Increasing the EVs registered in Palo Alto from 4,500 (2019) to 42,000 (80% of vehicles)
 - b. Increasing the share of EV commute vehicles from single digits to 80% by 2030
 - c. Develop a public and private charging network to support these levels of EV penetration.

¹ Prior to the AECOM analysis, there are 3 alternative goals to choose from for the Energy Sector, based on 40%, 60% and 80% of GHG reduction from the direct use of natural gas in the building sector. The AECOM analysis will determine the least cost bundle of GHG reduction measures across the different sectors to meet the 80x30 goal, which in turn will establish the goal for the Energy sector.

POTENTIAL MAJOR KEY ACTIONS FOR GREENHOUSE GAS REDUCTION²

Energy: Potential Major Key Actions for GHG Reduction

Residential

5. Retrofit all gas wall furnaces in multifamily buildings to electric heat pump systems for space heating by 2030 (Estimated total reduction of 5,600 MT CO_{2e})
7. Electrify gas appliances in single family homes upon home sale beginning in 2025
 - a. Water heating only (Estimated total reduction of 7,800 MT CO_{2e})
 - b. Space heating only (Estimated total reduction of 10,800 MT CO_{2e})
 - c. Full electrification (Estimated total reduction of 19,600 MT CO_{2e})
8. Electrify water heating on replacement in all single family homes by 2030 (Estimated total reduction of 20,000 MT CO_{2e})
9. Phase out fossil fuel use in existing buildings starting with areas that have older gas lines that need to be repaired or replaced. Disconnect natural gas distribution service to residential areas by 2030.
 - a. Target only single family homes with PVC gas line (Estimated total reduction of 1,400 MT CO_{2e})
 - b. Target 50% of single family homes (Estimated total reduction of 24,500 MT CO_{2e})
 - c. Target 50% of residential buildings (Estimated total reduction of 36,000 MT CO_{2e})
 - d. Target 100% of single family homes (Estimated total reduction of 49,000 MT CO_{2e})
 - e. Target 100% of residential buildings by 2030 (Estimated total reduction of 72,000 MT CO_{2e})

Non-Residential

11. Electrify water heating and space heating in all K-12 facilities by 2030 (Estimated total reduction of 3,300 MT CO_{2e})
12. Convert all rooftop gas packs on non-residential buildings to electric heat pump systems by 2030 (Estimated total reduction of 1,100 MT CO_{2e})
13. Require all-electric non-residential new construction projects starting in 2021³ (Estimated total reduction of 2,300 MT CO_{2e})
14. Electrify 80% of existing city-owned buildings by 2030
15. Require all commercial buildings above 25,000 sq ft to meet a carbon emissions intensity target by occupancy class with a goal of reducing carbon emissions by 40%⁴ (Estimated total reduction of 16,200 MT CO_{2e})

² A Consultant, AECOM, will determine the GHG reductions and associated costs for each of these Key Actions.

³ City Council adopted an all-electric mandate for residential new construction projects effective 4/1/2020. Expanding this mandate to non-residential construction will require an additional cost effectiveness study and coordination with the CEC. Estimated total reduction of 2,100 MT CO_{2e}

⁴ Buildings > 25,000 sqft represent 75% of total nonresidential square footage in Palo Alto, or around 19,000,000 total sqft. This strategy is modeled after NYC's Local Law 97 (Building Emissions Law) and may need a Green Building Code amendment.

Mobility: Potential Major Key Actions for GHG Reduction

1. Reduce the current transportation mode split of 64%⁵ Single Occupancy Vehicle (SOV) use for work trips to increase active transportation modes (walking, biking, and transit) by implementing the Bicycle + Pedestrian Transportation Plan, the Complete Streets policy, Vision Zero, and other programs to create safe streets for all road users, particularly vulnerable road users
2. Reduce SOV use by eliminating free parking and adjusting parking requirements
3. Implement key transportation Capital Improvement Projects to significantly increase transit use coverage, service quality, frequency, speed and/or access
4. Enhance traffic signals to improve traffic flow and reduce idling and associated GHG emissions.
5. Update and strengthen public and private Transportation Demand Management (TDM) programs
 - g. Reduce Vehicle Miles of Travel (VMT) by mandating telework two days per week. (Includes both new and existing development.)
6. Use land use strategies to reduce VMT
 - d. Accommodate new housing and employment growth in areas walkable to retail and Caltrain or corridors that meet requirements for VTA-provided transit via zoning standards, consistent with state law.

Electric Vehicles: Potential Major Key Actions for GHG Reduction

3. Continue to electrify municipal fleet as opportunities arise, and by 2021 develop a comprehensive fleet electrification workplan and associated EV charging needs⁶. Replace City's fleet vehicles with EVs at end of life, whenever suitable EVs are available in the market.⁷ (Estimated total reduction of 250 - 500 MT CO_{2e}/yr)
10. Require at least 50% of all parking spaces at Palo Alto's 800+ multi-family properties (~10,000 units) install EV chargers, with the City providing rebates and technical assistance.
11. Require an appropriate percentage of EV charger installations at all commercial parking spots. (e.g. 25 to 50% of all parking spaces)
12. Consider a Palo Alto-specific Internal Combustion Engine (ICE) vehicle fee, tax and/or assessment to provide a disincentive for the ownership or use of a fossil fuel vehicle. Consider application of the fee, tax, or assessment to both residential households and workplaces⁸ and utilize the revenue to incentivize VMT reduction and EV adoption.⁹
13. Require private bus fleets serving Palo Alto office campuses to electrify by 2030.
14. Evaluate programs to reduce the number of fossil fuel vehicles in Palo Alto. Ban the registration of gasoline vehicles in Palo Alto by 2030. (Estimated total reduction of 150,000 MT CO_{2e}/yr)

⁵ US Census, American Community Survey, 5-Year Estimates, 2018

⁶ Study would assess what it would take to electrify 252 Light Duty Vehicles (LDV) in the City fleet - including needs of Police and Fire LDV, age of vehicles and replacement timelines, budgets, location and # of necessary EVSE's and staffing availability to implement projects

⁷ This is the emission reduction potential if 90% of 252 Light Duty Vehicles could be electrified. Due to lower miles traveled by city vehicles, each vehicle switched assumed to lower GHG by 1 to 2 MT/year.

⁸ For example, a residential assessment or tax might apply to each household unless they produce evidence of EV ownership or attest to not owning a vehicle. A workplace fee might be imposed on gasoline vehicles parking at a workplace under a transportation demand management program.

⁹ For example, a \$50/month fee, on the estimated 50,000 vehicles driving into Palo Alto, could raise \$30 million/year

Input on the 2020 Sustainability and Climate Action Plan Potential Goals and Key Actions, and Community Engagement Workshop #1

- Summary of All Input Provided between 1/22/2020 to 4/30/2020

In early 2020, the City of Palo Alto launched a 2020 Sustainability and Climate Action Plan (S/CAP) Update to determine the Goals and Key Actions needed to meet its sustainability goals, including its goal of reducing greenhouse gas (GHG) emissions 80 percent below 1990 levels by 2030. City staff proposed priorities in seven areas: Energy, Mobility, Electric Vehicles, Water, Climate Adaptation and Sea Level Rise, Natural Environment, and Zero Waste, which are summarized in the [2020 Sustainability and Climate Action Plan Potential Areas and Priorities](#) document (More details can be found in [Staff Report 10941](#)). After reviewing different City of Palo Alto Plans and external Climate Action Plans, Staff drafted [2020 S/CAP Potential Goals and Key Actions](#) as a starting point for discussion. Since then, the City solicited feedback from the community through a virtual on-demand 2020 S/CAP Community Engagement Workshop (March 31 – April 14, 2020), the City of Palo Alto Sustainability website (<http://cityofpaloalto.org/sustainabilityplan>), and at the April 13, 2020 City Council Study Session (More details can be found in [Staff Report 11201](#)). Staff received feedback from 204 people who participated in the Virtual Workshop, 7 people who responded to the Virtual Workshop invite, 3 people who reviewed the materials on the website, and 21 people who submitted comments for the April 13 Council Meeting.

Staff received 109 pages of feedback from the community between January 22, 2020 and April 30, 2020, including many helpful suggestions for improvement. Several themes surfaced in the input received:

- The commenters are generally supportive of the 2020 S/CAP and do not want to delay action on climate change, despite the uncertainties created by the current coronavirus pandemic.
- The 2020 S/CAP needs to include more aggressive but achievable goals, measurable targets, and accessible reporting, with more focus on electrifying buildings, transportation, and equipment.
- The commenters are not supportive of counting natural gas offsets in our overall greenhouse gas emissions reductions. Offsets are meant to be a bridging strategy and should be phased out.
- The coronavirus pandemic has shown that it is possible to work from home regularly. The City should explore remote work strategies as a way to reduce transportation-related GHG emissions.
- Housing, land use, and education are areas of focus that are missing from the 2020 S/CAP.
- The commenters appreciated the opportunity to provide input on the 2020 S/CAP Potential Goals and Key Actions, but would have preferred a webinar with an option to pause, rewind, and fast-forward with a link to a survey, over the ability to provide feedback during the webinar.

Staff are incorporating the feedback received to-date and will post an updated version of the 2020 S/CAP Potential Goals and Key Actions on our website for further input. In addition, Staff will bring the updated list to City Council in early June, to review before it goes to AECOM for an impact analysis to estimate the GHG reduction potential of the proposed actions, estimated costs, and additional sustainability co-benefits (such as improved local air quality or reduced cost of living). We hope to host a 2020 S/CAP Summit in the early fall to prioritize which of the Key Actions are needed to get us to our 80 x 30 goal & other goals so that we can draft the 2020 S/CAP by the end of the year.

The following pages include a longer summary of the input provided between January 22, 2020 and April 30, 2020. The full unedited text of all input provided can be found [here](#)¹.

¹ <https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=68527.83&BlobID=76499>

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General Feedback

Supportive Feedback

- Climate Change is urgent, and action is needed now. Addressing climate change must remain a top priority for Palo Alto. (+ 16 similar comments)
- I support the Sustainability and Climate Action Plan (+ 12 similar comments)
- There are similarities between the pandemic and the climate crisis (and listening to scientists). Both are worldwide problems where local corrective measures are needed. In both cases early actions are needed to get the problems under control. (+ 3 similar comments)
- Thank you for your time and effort in working on this, especially in light of the difficult circumstances that we are all in right now due to the pandemic. (+ 2 similar comments)
- The impacts of city initiatives have ripple impacts that are orders of magnitude greater than the direct GHG reductions within Palo Alto.
- We are pleased that staff has adopted the philosophy of SMART goals (Specific, Measurable, Achievable, Relevant, Time-Bound).
- Sustainability means walkability, workability, rentability and SHARING. Sustainability means we have to house, at least, seniors, local essential workers, homeless AND more.
- The City municipal accomplishments seem robust.

Items that need to be addressed

- Palo Alto's natural gas emissions and overall emissions have remained relatively unchanged from 2013 to 2018 (without offsets). Palo Alto should shift its emphasis towards real emissions reductions within City boundaries, rather than bridging strategies such as offsets, with a timeline for when offsets will be phased out. (+ 14 similar comments)
- Present programs that can actually reach our GHG reduction goals. The City should measure all fossil fuel reduction programs against meaningful annual targets. (+ 6 similar comments)
- Follow the strategies of the 2016 S/CAP, specifically with respect to transportation and electrification. (+ 1 similar comment)
- There are many more important items to deal with. We should be addressing the REAL needs of society and not elitist action to address hypothetical, computer modeled climate change. (+ 1 similar comment)
- Palo Alto's "sustainability" goals are not realistic. Doing away with natural gas for heating and fireplaces is not practical, any more than expecting all cars to be EV by 2030.
- Unless Palo Alto's actions can be repeated by other communities, we are too small to make a real difference
- Educate residents about the pollution they create and the magnitude of the consequences.
- The finance committee has a general investment principle that encourages some amount of divestment from fossil fuel content in the City's holdings, but more actionable goals around fossil free finance are needed going forward.
- Palo Alto's general planning/zoning process has led to a segregated community split between "residential" and "industrial/commercial." There should be more mixed-use developments and denser housing near transportation to minimize transit, encourage resilience, and reduce GHGs.
- Cement is the source of about 8% of the world's carbon dioxide (CO₂) emissions. Why aren't we requiring the use of CO₂ trapping cement?

Suggestions for Improvement

- Include big (but achievable) numbers for each goal, a range of key actions to support them, and clear metrics and measurable targets, with transparent reporting. (+ 18 similar comments)
- Make the use of all gasoline powered equipment, aside from automobiles, illegal with proper enforcement. (+ 4 similar comments)
- Greatly enhance community involvement and input in the planning process, with annual study sessions with Council. (+ 3 similar comments)
- Adopt a metric of dollars per carbon unit avoidance, including increasing energy efficiency investments – the most cost-effective ways to reduce GHG emissions. (+ 2 similar comments)
- Continue to grow resources such as Cool Block which foster neighborhood interaction and behavior change while building community. Provide more online tools and data so households can track their footprints and understand ways to reduce their impacts. (+ 2 similar comments)
- Prohibit burning of firewood. (+ 1 similar comment)
- Develop a holistic Plan that simultaneously addresses GHG reduction, increased resilience, enhanced emergency response, and public health goals. (+ 1 similar comment)
- Integrate sustainability in City operations. State how Capital Improvement Projects address 2020 S/CAP Goals and including a sustainability section in staff reports. (+ 1 similar comment)
- Review other Climate Action Plans and coordinate regional efforts (+ 1 similar comment)
- Include options that work for lower-income people, renters, and people in multi-unit housing.
- Be careful about the reliability of our power (even a perception problem can hurt adoption of electric water heaters and especially space heaters).
- Contemplate whether a golf course and/or a city airport are compatible with our vision of a sustainable city. It's not clear we are being good stewards of the space we have.
- Build relationships with organizations engaged with the same issues.
- Utilize City Commissions as a conduit for community feedback for each of the sustainability areas during the community engagement cycle. Develop a communication strategy to ensure effective coordination and cooperative effort between various commissions, staff, and City Council.
- Implement programs that leverage resources beyond city staff with a focus on near term implementation of the on-bill financing program for retrofit electrification of existing buildings.
- Safer chemicals (and safer materials, more broadly) is an area of focus that should be added as a standalone part of the plan on the same level as energy, mobility, water, etc.
- Prohibit construction of basements.

80 x 30 Goal

- The goal of 80% reduction of GHG's by 2030 is reasonable. However, we need to be very aggressive to get there. (+ 3 similar comments)
- 2050 seems like a more likely goal to achieve GHG emission limits without causing a serious economic dislocation. (+ 3 similar comments)
- Many of these climate goals require funding. Consider a municipal carbon tax to fund climate mitigation and new programs. (+ 1 similar comment)
- Consider a "reach goal" of 100 x 30 rather than 80 x 30.
- Consider explaining how non-incremental policies (policies that reduce > 10%) will be required to achieve 80 x 30. Non-incremental policies often require difficult-to-enact legal mandates.

- Consider dedicating staff for leadership among nearby cities, the county, and the region to advocate for non-incremental policies. Some policies will be easier to enact regionally.
- Consider polling residents on different baskets of policies (with different forecasted 2030 GHG reductions), including Business As Usual.
- Backcast from 80 x 30. Work backwards to identify policies and programs that will get us there.

Airport

- Acknowledge the full environmental cost of running the airport, especially with regard to the greatest local impact: training operations that involve circling planes practicing take-off/landing for hours on end.
- No effort or progress has been made to ban the sale of leaded aviation gas at Palo Alto Airport.
- Add jet emissions as part of the climate priority and prioritize airplane noise in 2020.

Education

- Prioritize education as part of the S/CAP and create a multi-faceted educational campaign (+ 3 similar comments)
- Hang a big banner down from City Hall, using a tree outline to signify our progress towards 80 x 30. Every six months, color in more branches, until our "Palo Alto goal" is filled in completely.

Housing

- The built environment and land use, including policies for increasing affordable housing and supporting urban infill, should be included and integrated into the S/CAP (+ 9 similar comments)
- While urban infill in general is important, ADU and JADU construction should be included in the S/CAP. In addition to its climate benefits, this is a substantially less expensive and faster to market approach than large projects for both more and more affordable housing. (+ 1 similar comment)

Webinar Feedback

- Thank you for all the effort you put into the virtual Community Engagement Workshop and the innovative approach you have taken to get community input, despite the challenges of our current COVID-19 emergency. (+ 16 similar comments)
- It would help a lot if you could pause and rewind the webinars. (+ 13 similar comments)
- Indicate how much time is remaining in the webinar (+ 1 similar comment)
- 8-minute videos are great, very nice size and easy to do.

Energy

Potential Goals

- 🕒 Reduce greenhouse gas emissions from the direct use of natural gas in Palo Alto's building sector by 40% below 1990 levels by 2030
- 🕒 Increase Heat Pump Water Heater adoption to 25% by 2030
- 🕒 Increase all-Electric homes to 20% of all residential single-family homes by 2030

Energy: Feedback on Potential Goals

- The goals need to be more ambitious (+ 2 similar comments)
- These are very ambitious goals, but are they realistic? (+ 1 similar comment)
- We seem to be prioritizing the most expensive options, and options that do not apply to renters or people in larger buildings. (+ 1 similar comment)
- Residents are increasingly concerned with the reliability of our electricity, and that will make conservation and efficiency more appealing than electrification. (+ 1 similar comment)
- While ambitious, these goals are doable and essential.

🗑️ Reduce greenhouse gas emissions from the direct use of natural gas in Palo Alto's building sector by 40% below 1990 levels by 2030

- This goal should be more aggressive. 70% by 2030 or reaching 40% earlier (+ 1 similar comment)
- Do not eliminate natural gas in homes for heating, cooking and hot water. The other options are not cost effective. Natural gas is an important backup to electricity and is the preferred method to cook for many. A better option is to replace natural gas with renewable natural gas. (+ 2 similar comments)

🗑️ Increase Heat Pump Water Heater adoption to 25% by 2030

- Do you mean 25% of new water heaters are heat pump or ALL are by 2030? Is this residential only or also commercial? Need clarification. (+ 1 similar comment)
- The Heat Pump Water Heater (HPWH) adoption rate should be 70% not 25%. All water heaters, on failure, must be required to be replaced with a HPWH when possible. (+ 1 similar comment)
- An infrastructure of reliable and available plumbing and electrical contractors for this conversion work needs to be developed. (+ 2 similar comments)
- The HPWH goal is good, but not all homes can use HPWH and Heat Pump heaters.
- Heat Pump Water Heater conversion is an important component of reducing natural gas usage, but based on personal experience, it's not an easy sell and it's not so easy to get done.

🗑️ Increase all-Electric homes to 20% of all residential single-family homes by 2030

- This goal needs to be more aggressive to make a difference. (+ 1 similar comment)

Energy: Suggestions for New Goals

- Increase use of Renewable Natural Gas (Biomethane) to replace conventional Natural Gas usage (20% by 2030)
- Goal around efficiency and/or conservation, except as implied by the 40% reduction goal.
- Goal around retrofit electrification, not just new building electrification.
- 1 house in 10 (proportionately for other buildings) have the energy to power a refrigerator, water pump, and emergency communications.

Energy: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Actions
5	1. Meet or exceed City Council-adopted energy efficiency targets
7	2. Explore electrification of city-owned facilities with the goal of phasing out fossil fuel use in existing municipal buildings
9	3. Phase out fossil fuel use in new and existing buildings through a combination of programs & mandates (includes partnerships and collaborations to support market transformation)
4	4. Increase awareness and adoption of efficient electric alternatives to gas appliances and all-electric buildings through community engagement
3	5. Implement an all-electric utility rate
8	6. Explore opportunities to increase energy resilience (e.g. energy storage, microgrids)
3	7. Explore the impact of building decarbonization on City's gas utility and develop mitigation strategies
2	8. Continue to purchase carbon offsets to match natural gas emissions as a transitional measure. Evaluate potential local offset purchases

Energy: Feedback on Potential Key Actions

- Given that furnaces last 30 years, and an estimated 800 gas furnaces are replaced in Palo Alto every year, what is Palo Alto's plan to convert 40% of furnaces to heat pumps by 2030?
- Widespread adoption of heat pumps and all-electric homes requires ways to make it easier for homes to increase their electrical capacity.
- We need to mandate some of these measures in order to meet our goal.
- Focus exclusively on space and water heating and ignore appliances, which have relatively little impact. An easy action is detecting and repairing leaks (pipelines, gas meters).
- I am very much opposed to the Action Items that are aimed to phase out natural gas appliances and natural gas usage in homes.

1. Meet or exceed City Council-adopted energy efficiency targets

- Increase energy efficiency wherever possible (+ 2 similar comments)

2. Explore electrification of city-owned facilities with the goal of phasing out fossil fuel use in existing municipal buildings

- Change "Explore electrification of city-owned facilities" to "Electrify City-owned facilities" (+ 3 similar comments)
- Electrifying municipal buildings will give staff firsthand experience of the hurdles to do so.
- Amend #2 to also explore use of renewable natural gas (Biomethane) in concert with electrification efforts, with goal of phasing out fossil fuel use in existing municipal buildings

3. Phase out fossil fuel use in new and existing buildings through a combination of programs & mandates (includes partnerships and collaborations to support market transformation)
 - The most important Key Action is the phase out of fossil fuel use in residential and commercial buildings, including new construction, remodels, and appliances. (+ 11 similar comments)
 - Well-intentioned electrification policies such as natural gas bans in new construction will leave many seniors, lower income residents, and renters responsible for outstanding costs of maintaining legacy natural gas delivery systems (+ 2 similar comments).
 - Incentivize retrofits from natural gas to electric by providing concrete steps and making it cost effective. Consider raising natural gas utility fees to show the environmental cost of usage (based on the Reach Code discussions). (+ 1 similar comment)
 - Add "Ensure that installation of rooftop solar panels does not result in loss of existing trees."
 - Do not move away from natural gas for heating and cooking. It's too expensive for limited benefits.
 - Train CPAU staff to install retrofits and assist residents in planning their retrofits.
4. Increase awareness and adoption of efficient electric alternatives to gas appliances and all-electric buildings through community engagement
 - Take advantage of existing community partners such as non-profits.
 - In addition to awareness, we should be working on funding support.
5. Implement an all-electric utility rate
 - We strongly support an all-electric utility rate (+ 1 similar comment)
 - The city should also consider changing the solar net meter rates to the old net meter program (more favorable) for homes that go all electric as an incentive to do so.
 - This is redundant and regressive. It would disproportionately hurt those living in older dual fuel homes and require seniors and lower income residents to pay more to keep the existing infrastructure properly maintained. It is a misguided policy.
6. Explore opportunities to increase energy resilience (e.g. energy storage, microgrids)
 - Transition to more distributed energy systems (microgrids) and local storage that support the integration of renewable energy technologies. This will result in reduction of GHG emissions and improve the resiliency of our power system. (+ 5 similar comments)
 - Explore ways to make energy storage more affordable, including piloting approaches for using electricity stored in EVs during supply disruptions or natural emergencies. (+ 1 similar comment)
 - Include local solar farms in these opportunities. Developing methods to allow for both solar panels and trees can be achieved by batching solar panels in local solar farms.
7. Explore the impact of building decarbonization on City's gas utility and develop mitigation strategies
 - Add: for the phasing out of the city gas system to the home.
 - Consider (during exploration of impact on City's gas utility) the benefits of replacing conventional natural gas with renewable natural gas as a renewable source of baseload power.

8. Continue to purchase carbon offsets to match natural gas emissions as a transitional measure. Evaluate potential local offset purchases
 - Continue efforts to meet emission reduction goals without relying on natural gas offsets. (+ 7 similar comments)
 - Reword: “Shift the primary strategy to reduce natural gas emissions from carbon offsets to real-world infrastructure emission reductions within the City.”
 - Put the funds used for purchasing offsets into an aggressive retrofit program to switch out gas-burning water- and space heaters, stoves, clothes dryers, and industrial scale equipment.

Energy: Suggestions for New Key Actions

- Add an action around conservation (e.g., lowering the thermostat), and other universal solutions with low upfront cost.
- Add an action about understanding the barriers to electrification to determine the best programs and incentives to drive electrification.
- Evaluate whether or not key actions are proving useful or impossible to meet. Maybe the need for carbon offsets means there is a problem with the goal that carbon offsets are meant to meet.
- New homes should be wired so that an EV can run the house, known as “home to grid”.
- More effort on distributed PV

Energy: General Feedback

- Undertake a plan to phase out all natural gas use and eliminate the old and likely leaking gas pipes that are threaded under our streets. (+ 3 similar comments)
- Streamline the permitting process and reduce fees for retrofit permits. Some contractors will not work in Palo Alto due to the burdensome permitting process. (+ 2 similar comments)
- On bill financing for HPWH and space heating of homes will be critical in getting electrification of existing homes to happen. (+ 2 similar comments)
- Local renewable energy production, including domestic solar, is an important priority for reducing both building and transportation GHG emissions. (+ 2 similar comments)
- Passionate advocates who believe climate change must be tackled quickly at any cost may be less receptive to hearing that transitioning generation resources will take time or that innovations by natural gas suppliers and equipment manufacturers may, in some cases, actually reduce GHG emissions sooner. Enable consumer choice and avoid coercion. (+ 2 similar comments)
- Electrify everything does not take into account that our electricity overnight comes from gas generation. (+ 2 similar comments)
- It is better to use all sorts of energy as opposed to just electric. If there is an issue with the electric grid we have another source of energy. (+ 1 similar comment)
- Promote the installation of solar water heating systems. (+ 1 similar comment)
- Palo Alto should strive to reduce ALL Energy use, not only energy from fossil fuels.
- Focus electrification incentives and mandates on high consumption facilities.
- The #1 thing Palo Alto can do to mitigate building-related climate change is “negawatts” – dramatically increasing building energy efficiency.
- We would truly be innovative leaders if we support biogas, anaerobic digestion, or pyrolysis which have other environmental benefits. Maintain the Measure E site as a possible location.

- Palo Alto is one of only a few cities in California to not have Advanced Meter Infrastructure.
- Palo Alto needs to have true accounting for natural gas use. The global warming potential for natural gas should be 86 times that of CO2 (not 20) and natural gas leakage must also be accounted for including the entire natural gas supply chain and not just within city boundaries.
- Standardize Palo Alto's building codes to match those in PG&E's area to reduce retrofit costs.
- Set up a group buy discount for heat pump water heaters, space-heaters, stove tops, and dryers.
- Enforce Palo Alto laws forbidding natural gas leaf blowers.

Mobility

Potential Goals

- Ü Increase active transportation mode share to 25% for local work trips by 2030
- Ü Increase availability of transit and shared mobility services by increasing to 75% the proportion of residents within a quarter-mile walkshed of frequent transit by 2030
- Ü Implement Complete Streets and build out the Bicycle and Pedestrian Transportation Plan

Mobility: Feedback on Potential Goals

- These are great goals (+ 5 similar comments)
 - The top goal here should be better supporting e-bikes, scooters, and bikes, which are relatively quick, and are quite usable by many in our flat, temperate area (+ 1 similar comment).
 - This could be simplified to a single "Reducing the number of SOV mode use/VMT by X (eg 80%)" with supportive sub goals as appropriate.
 - There are no specific targets that directly tie these goals and actions to measurable results.
 - Transit and "shared mobility services" should not be lumped together; they serve vastly different audiences and the priority should be transit, resulting in a reduced percentage of people driving.
 - This doesn't take into account EVs if the goals are to reduce climate change.
 - We will never reduce our transportation emissions enough until we build more housing near transit, and more housing in general. Climate goals and housing goals are completely linked.
 - Stop building more parking structures. That money should be used to implement these goals.
 - The city should not spend any more time and money on bicycle plans and implementations.
- Ü Increase active transportation mode share to 25% for local work trips by 2030
 - These are great goals (+ 5 similar comments)
 - Please explain what active transportation mode share means (+ 5 similar comments)
 - The 10% mode share goal for 2020 was not reached. What will be done differently to achieve the 25% mode share goal for 2030?
 - Active Transportation needs more of a carrot (vs stick) approach. We need a green network of walkable and bikeable streets where cars are the LAST priority.
 - Goals should be directed towards commuters coming into Palo Alto from other cities. One possibility is to tax local businesses based on the number of drivers commuting to Palo Alto.
 - Ü Increase availability of transit and shared mobility services by increasing to 75% the proportion of residents within a quarter-mile walkshed of frequent transit by 2030

- This is a good goal, but public transportation has been poor for a long time in Palo Alto, and service needs to be every 15 minutes (+ 1 similar comment).
- What percentage of the population does this come out to be (1/4 mile of transit)? Adjust if necessary, with real GHG reduction numbers so this can be tracked.

U Implement Complete Streets and build out the Bicycle and Pedestrian Transportation Plan

- Complete Streets is a good concept and very important to separate engine-powered modes from human-powered modes, with streets categorized as 1. Pedestrian priority, 2. Auto priority, or 3. Mixed traffic for all modes (+ 4 similar comments)
- Council should modify its 'No closed streets' decision which has impacted negatively the options for the Bicycle and Pedestrian Plan. As a result, Transportation created a 'Bicycle Boulevard' along Ross Road that has caused opposition to the Bicycle Plan. Instead, Bicycle Infrastructure should have priority of creating Low Stress Bicycle Routes.

Mobility: Suggestions for New Goals

- Please add the goal of incentivizing local companies to reduce car trips per day by asking employees to work from home several days per week. (+ 2 similar comments)

Mobility: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Actions
2	1. Fund the Transportation Management Association (TMA) with the goal of reducing Single-Occupancy Vehicle commute trips downtown by 30%
4	2. Make transit investments that significantly enhance coverage, service quality, frequency, speed and/or access
7	3. Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the percentage of trips taken by walking or biking
1	4. Adopt Transportation Demand Ordinance per Comprehensive Plan Policy
0	5. Increase the number of City Employees utilizing commute benefits
3	6. Encourage the use of bike and/or scooter sharing, and the provision of required infrastructure throughout Palo Alto, especially at transit stations and stops, job centers, community centers, and other destinations
2	7. Enhance traffic signals to improve traffic flow and reduce idling and associated greenhouse gas emissions
6	8. Increase the number of bike facilities, including bike parking and signalized intersections with bicycle accommodations (e.g. bicycle signal heads, bicycle detection, colored bicycle lanes)

Mobility: Feedback on Potential Key Actions

- Include pricing of parking and congestion as major approaches to equitably reduce GHGs. Stop subsidizing single-occupancy vehicles (+ 2 similar comments)
 - This is a good list, but needs to be expanded and then pared down based on impact/effectiveness (+ 1 similar comment)
 - Consider lifecycle emissions of e-scooters due to manufacture, charging and daily pick-up and delivery for charging.
 - Ride hailing vehicles emit nearly 70 percent more carbon dioxide on average than the other forms of transportation they displace and increase vehicle travel and congestion. If ride hailing vehicles are included as part of the mobility plan, please encourage use of electric vehicles, increased pooled trips, and focus on complementing mass transit.
1. Fund the Transportation Management Association (TMA) with the goal of reducing Single-Occupancy Vehicle commute trips downtown by 30%
 - The multiprong approach of the TMA should be a model for the city Transportation department and should be expanded throughout the city. (+ 3 similar comments)
 - Edit: Fund the Transportation Management Association (TMA) with the goal of reducing Single-Occupancy Vehicle commute trips [to downtown and Cal Ave areas](#) by 30%
 - Add: Make 25% of City Streets Pedestrian and bike friendly with maximum speed limit of 15mph.
 - TMA goal of reducing single-occupancy vehicle commute trips should be for gasoline only vehicles. EV, Hybrid, Hydrogen cars should be excluded.
 - The Transportation Management Association should be funded through a business license tax.
 2. Make transit investments that significantly enhance coverage, service quality, frequency, speed and/or access
 - The availability of transit is only a portion of the issue. Transit needs to go to destinations that people actually go to, be more efficient, and coordinate better between various routes and providers (+ 5 similar comments)
 - Stay away from investing too much in transit because it won't ever work well in our area given peoples' busy lifestyles. No one wants to ride on the current & planned equipment. We should aim to get people on bikes or e-bikes or scooters, or in EVs. (+ 1 similar comment)
 - Add: Have secure bike parking at train stations.
 - Add: Public transit should be free. Pursue dense service walkable communities connected by micro mobility to other walk zones.
 - Need regulatory measures. Perhaps a toll on Central or Embarcadero or phasing out free parking.
 3. Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and/or safety in a manner that significantly increases the percentage of trips taken by walking or biking
 - Prioritize completion of the Bike and Ped Transportation Plan. We need to thoughtfully plan new infrastructure support for bicycles including increased facilities and accommodations, including separated bicycle lanes and bicycle parking (+ 1 similar comment)

- Prioritize thoughtful integration of native plants and shade trees along pathways for both enhanced community experience and increased carbon sequestration. (+ 1 similar comment)
 - Bicycle lanes should be extended beyond school routes. (+ 1 similar comment)
 - Add: Close Churchill and Alma grade crossings and have bike/ped tunnel. Install bike counters around the city to monitor bike/ped use.
 - Add measurable goals such as, "Expand and improve bicycle and pedestrian facilities, connectivity, convenience, and safety in a manner that increases the percentage of trips taken by walking or biking by 25% of 2019 levels by 2025 and 50% of 2019 levels by 2030.
 - Include making bicycle facilities "Low Stress" Routes so that more people will be willing and able to use bicycles.
 - No more bicycle investments.
4. Adopt Transportation Demand Ordinance per Comprehensive Plan Policy
- The Transportation Demand Ordinance must be adopted and enforced.
 - A Transportation Demand Ordinance should include taking an inventory of existing Transportation Demand Management plans as part of project approvals and enforcing them, including penalties for failure to perform.
5. Increase the number of City Employees utilizing commute benefits
- Consider making all commute benefits available to all employees, regardless of what primary site they work at. (+ 1 similar comment)
 - Provide free transit passes and/or very low rental rates, or 0% loans for the purchase of various forms of micro-mobility. Micro-mobility should be available for rent for visitors to the City.
6. Encourage the use of bike and/or scooter sharing, and the provision of required infrastructure throughout Palo Alto, especially at transit stations and stops, job centers, community centers, and other destinations
- Add: Increase bike parking and estimate the GHGs from sharing solutions. (+ 1 similar comment)
 - Add: Required renewal of business permits
 - More bike locking around commercial areas. Bike/ped only roads.
7. Enhance traffic signals to improve traffic flow and reduce idling and associated greenhouse gas emissions
- "Improving traffic flow" favors automobiles and should be deleted. Reducing idling is a fine goal but increasing capacity for more cars isn't a sustainability goal. Improved traffic flow should favor pedestrians, bicycles, and micro-mobility. (+ 2 similar comments)
 - Traffic signal improvement should be aimed at minimizing acceleration as well as idling. For minimal emissions, we want smooth flow at modest speed. If possible, traffic signals should be fitted with reliable bicycle detectors that are well-advertised. Too many cyclists press the pedestrian button to request a green, which gives an unnecessarily long cycle, making stops (acceleration, idling) on the cross street more likely. (+ 2 similar comments)
 - Add: Install cameras for light switching that also do bike and ped counts as well.

8. Increase the number of bike facilities, including bike parking and signalized intersections with bicycle accommodations (e.g. bicycle signal heads, bicycle detection, colored bicycle lanes)
 - Top priority as it addresses 25% Active Transportation goal. Blocking off some streets to motorized through traffic would make a huge difference. (+ 2 similar comments)
 - Increase the number of low stress bicycle facilities to encourage more ridership.
 - Don't do this. Enough has been done already. It serves too few people at the expense of everyone else.

Mobility: Suggestions for New Key Actions

- We have learned during this COVID-19 crisis that a lot of the work of companies can be done from home. Encourage Expansion of Remote Work Options, such as: incentivize companies to allow 70% of their work force to work from home 2-3 days/week; when approving new office developments, consider if the company is open to more work-from-home; make office space smaller; and, create shared work centers for the community. (+ 9 similar comments)
- Develop incentive and disincentive programs, including congestion pricing, to accelerate the reduction in gasoline powered vehicle use by residents and commuters. (+ 4 similar comments)
- Prioritize thoughtful integration of trees in the implementation of Complete Streets programs and in the maintenance and retrofit of existing streets. (+ 1 similar comment)
- Measure the environmental impact of ride share vehicles on the road which contribute to more GHG emissions. (+ 1 similar comment)
- Update Palo Alto's street design guidelines to include shared micro mobility services and active transportation to create protected and safe spaces for users and riders. Walkable development should be prioritized within ¼ mile of transit with emphasis on service density. (+ 1 similar comment)
- There is a big missing key action: urban infill. Land use reform, TOD, and housing near transit are needed actions (+ 1 similar comment)
- Recognize public street right-of-way as the largest public environmental asset and use more effectively
- Enact a moratorium on building in the 2050 inundation zone.

Mobility: General Feedback

- Stop privileging autos over people and subsidizing single passenger vehicles at the expense of our climate goals. Prioritize completion of the Bike and Ped Transportation Plan. Make improvements to bike and pedestrian infrastructure, including bike parking, and consider vehicle-free streets. Promote road changes that locally make riding/walking quicker than driving. Expand bicycle/scooter/car-sharing. (+ 19 similar comments)
- Electrify all transportation, including shuttles, public transit, Caltrain, and sanitation vehicles (+ 8 similar comments)
- Ensure that bicycle parking is plentiful, including secure bicycle storage at workplaces, Caltrain stations, and shopping centers. (+ 5 similar comments)
- Increase parking cost in downtown and on California Ave to encourage people to take different modes of transportation. Embrace a variable, dynamically-priced system for motor vehicle parking on all streets in the City (+ 5 similar comments)
- Provide and encourage the use of more and better public transit, including a connection between SFO and SJC and expanded shuttle bus service. (+ 4 similar comments)

- Add more education and oversight provisions for people who ignore traffic rules and are overly aggressive, including cyclists and scooter-sharing participants (+ 4 similar comments)
- Make zoning easier for high density residences around public transit. (+ 3 similar comments)
- Make it easier for everyone (including seniors) to get around without getting in their cars. Bicycles don't work for everyone (+ 2 similar comments)
- End any future construction of parking garages as they encourage increased use of low occupancy vehicles. (+ 1 similar comment)
- Support planning and research for travel routes, parking, and policy guidelines for new and future mobility modes, including "Mobility as a Service". (+ 1 similar comment)
- There should be both a methodology involving Vehicle Miles Traveled and Level of Service. Adopt Menlo Park's significance criteria for Level of Service.
- Require companies to have charging points for electric bicycles, offer cash credit for riding a bike and/or buying a bicycle instead of driving, and contribute to bicycling and walking infrastructure and public transit when building/opening an office.
- All occupants and businesses of new office buildings that are required to provide their own parking should not be allowed to purchase RPP permits.
- Use special taxes for people who live here but work elsewhere.
- Work with PAUSD on these items to reduce car traffic and promote biking and walking to schools
- Autonomous vehicles will go a long way to these goals, without government input, if affordable.

Electric Vehicles

Potential Goals

- Ü Increase the number of electric vehicles (EVs) registered in Palo Alto, as a share of total vehicles registered, from 7% in 2018 to 50% by 2030
- Ü Target to facilitate 50% of vehicles owned by low income households to be EVs by 2030
- Ü Ensure there are adequate numbers and types of EV chargers in Palo Alto to support the growing number of EVs registered in and commuting to Palo Alto
- Ü Expand the number of EVs in the City's fleet as the EV fleet market evolves

Electric Vehicles: Feedback on Potential Goals

- Prioritize charging infrastructure and the focus on lower-income households.
- Ü Increase the number of electric vehicles (EVs) registered in Palo Alto, as a share of total vehicles registered, from 7% in 2018 to 50% by 2030
 - 50% seems overly ambitious and difficult to achieve. Effort would be better spent electrifying public transportation vehicles instead of a system that favors solo drivers (+ 2 similar comments)
 - Is the goal 50% EV market penetration for 2030 new car sales or 50% of the entire owned residential fleet to be EVs in 2030?
- Ü Target to facilitate 50% of vehicles owned by low income households to be EVs by 2030
 - Prioritize local and free infrastructure to ensure that low-income households have sufficient resources to own and maintain an EV.

- The City could negotiate a subsidized insurance program for qualifying low-income residents.
- Adopt San Francisco’s goal of achieving 100% emission-free transportation by 2040.

Ü Ensure there are adequate numbers and types of EV chargers in Palo Alto to support the growing number of EVs registered in and commuting to Palo Alto

Ü Expand the number of EVs in the City’s fleet as the EV fleet market evolves

- To demonstrate its commitment to EVs, the City should lead with its fleet, at least with passenger cars. Another possibility is garbage trucks. If the City can set specific goals (50% EV penetration) for the public, it should do the same for itself. (+ 2 similar comments)

Electric Vehicles: Suggestions for New Goals

- All multiple use dwellings (apartment and condo buildings) must install electric vehicle chargers.

Electric Vehicles: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Actions
1	1. Ensure that at least 75% of the community is aware of the environmental and economic benefits of electric vehicles and the programs available to them
4	2. By 2022 quantify the public and private EV charger network needed within the community to support 50% EV penetration in Palo Alto, and develop an implementation plan to establish that charging network
3	3. Develop programs to assist and incentivize private EV charging installations in hard to reach locations such as multifamily properties, non-profits, and small commercial sites to ensure adequate and diverse EV charging infrastructure
0	4. By 2022, develop a strategic plan to encourage charging of inbound EVs within Palo Alto
1	5. Continue to electrify municipal fleet as opportunities arise, and by 2021 develop a comprehensive fleet electrification workplan and associated EV charging needs

Electric Vehicles: Feedback on Potential Key Actions

- Move each target to be one year early (+ 1 similar comment)
 - Most of the community is aware of EV and its benefits. You need to make sure the chargers are there. Is there any way to situate charging spots near existing gas stations? (+ 1 similar comment)
 - Incentivize e-bikes instead of or in addition to electric cars.
 - Share your EV leadership experience with other cities to magnify your savings
 - These are all too vague and unmeasurable. The City needs to do something here, not just plan.
1. Ensure that at least 75% of the community is aware of the environmental and economic benefits of electric vehicles and the programs available to them

- We need a 'total cost of ownership' approach for EVs – the upfront cost is or could be higher, but the cost to operate is much lower.
 - Make the target closer to 90%
2. By 2022 quantify the public and private EV charger network needed within the community to support 50% EV penetration in Palo Alto, and develop an implementation plan to establish that charging network
 - Prioritize daytime charging at workplaces, when electricity is generally cheaper and cleaner.
 - We should already know this. We need to start putting in more charging stations, especially at multifamily residences and low-income residences.
 - Change to Goal Date from 2022 to 2020
 3. Develop programs to assist and incentivize private EV charging installations in hard to reach locations such as multifamily properties, non-profits, and small commercial sites to ensure adequate and diverse EV charging infrastructure
 - I like the focus on multi-family chargers.
 - I would very much like to see support for chargers at low income residential facilities.
 - How will this be addressed for tenants? They make up about 40% of the city, so it depends on their landlord to go along with it.
 4. By 2022, develop a strategic plan to encourage charging of inbound EVs within Palo Alto
 - Change to Goal Date 2022 to 2021 (+ 1 similar comment)
 5. Continue to electrify municipal fleet as opportunities arise, and by 2021 develop a comprehensive fleet electrification workplan and associated EV charging needs
 - We are past discussion and should be more action focused. Add: "Palo Alto shall convert 50% of their fleet to EVs by 2025". (+ 3 similar comments)

Electric Vehicles: Suggestions for New Key Actions

- Shift 80% of car charging within the City to daytime hours: 8am-3pm, in order to take advantage of cheap, abundant solar energy.
- Require electric construction equipment on municipal projects and large commercial projects.
- Require commercial fleet operators to convert 50% of their fleet to EVs by 2025.
- Educate and encourage CARB to set a ZEV mandate that supports Palo Alto's EV goals.

Electric Vehicles: General Feedback

- Adopt policies to increase EV accessibility for all residents, include electric vehicle infrastructure in all buildings (multi-family, non-profits, small commercial sites, rentals), EV charger networks, and a comprehensive electrification plan (+ 4 similar comments)
- The EV goals and key actions are a good starting point but don't go far enough. (+ 1 similar comment)

- The City should subsidize installation costs, through a discount for a "group buy" of EV chargers, paying for trenching or other electrical work, or a reduced permit price (+ 1 similar comment)
- Numbers of EVs instead of EV-miles-traveled is a questionable metric. EVs don't solve parking and congestion problems. We need to focus on reducing VMT and SOV as well. (+ 1 similar comment)
- We are going to need stronger incentives for moving to EVs; perhaps an added gas tax, cheaper rates for utilities for supporting them, or a "climate tax" on fossil fuel powered cars, depending on their carbon emissions/mile if they are driven within city limits. (+ 1 similar comment)
- The City should encourage EV charging during the day when solar energy is most available. And incentivize EV chargers at workplaces (+ 1 similar comment)
- Incentivize the use of electric bicycles and electric buses.
- Consider electric motorcycles for the Police Departments.
- Expand to include Hydrogen vehicles.
- In coordination with other cities with similar climate goals, encourage the California Air Resources Board to adopt a more stringent Zero Emission Vehicle regulation in both increasing the EV numbers and types
- Require that all parking spaces have the requisite conduit for EV charging for new construction in addition to the rules enacted by Palo Alto in 2014.
- Reconvene the Electric Vehicle Task Force to develop a proposal for remodels of existing buildings.
- This topic should also take autonomy into account. Low income households and older residents, with the right incentives, might prefer to use shared vehicles.
- The issue of the impact on the electrical grid needs to be front and center.

Water

Potential Goals

- Ü Reduce per capita water use compared to 2019
- Ü Increase the percentage of recycled water used (volume of recycled water/recycled water filter capacity) by 10% in 2022 compared to 2019
- Ü Reduce the total dissolved solids by 50% compared to 2019 base year
- Ü Manage stormwater to slow the flow to receiving waters and improve water quality to protect the SF Bay, while also treating it as a beneficial resource for alternative uses

Water: Feedback on Potential Goals

- Ü Reduce per capita water use compared to 2019
 - Add a measurable target such as "Reduce per capita water use by x% (or to xx gal/day) by 202x compared to 2019" (+ 3 similar comments)
 - Conservation is always a good thing.
- Ü Increase the percentage of recycled water used (volume of recycled water/recycled water filter capacity) by 10% in 2022 compared to 2019
 - Increase recycled water used by more than 10% in 2022. (+ 3 similar comments)
- Ü Reduce the total dissolved solids by 50% compared to 2019 base year

- What is the water that you are addressing? Incoming water, wastewater, recycled water? What are dissolved solids and what are the consequences of this? (+ 2 similar comments)
- Add a date for the phase out of ground water pumping for home building.
- Remove Potential Goal #3. Does this goal affect greenhouse gas emissions? While worthy of work in improving sustainable water infrastructure, perhaps it is lower priority than the climate goals.

Ü Manage stormwater to slow the flow to receiving waters and improve water quality to protect the SF Bay, while also treating it as a beneficial resource for alternative uses

Water: Suggestions for New Goals

- Add water reuse capability as a long-term goal (gray and blackwater for example) and incentivize graywater to landscaping for fruit trees and native plants. (+ 2 similar comments)
- Use the concept of bioswales for storm water and measure this metric to see how much water can be reduced in storm water drains and go instead to landscape and ground water storage.
- Goals related to groundwater (continue ensuring emergency supply).
- Purple pipes installed whenever possible when a utilities project requires digging.
- Complete ban on basement construction and ground water waste.

Water: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Actions
3	1. Maximize cost-effective water conservation & efficiency
4	2. Expand the use of effluent from the Regional Water Quality Control Plant through Non-Potable Reuse, Indirect Potable Reuse, or Direct Potable Reuse
5	3. Establish quantifiable baseline and targets for implementation of green stormwater infrastructure on private property, municipal facilities and public rights-of-way by 2024
1	4. Design and build a salt removal facility for the Palo Alto Wastewater Treatment Plant
6	5. Develop a "One Water" Portfolio for Palo Alto

Water: Feedback on Potential Key Actions

- We applaud the clear delineation of the water-related goals and key actions (+ 1 similar comment).
 - If no water is allocated to backyard habitat and fruit trees, these Key Actions can lead to desertification of our beautiful city.
1. Maximize cost-effective water conservation & efficiency
 - Too general. Metrics? Who is going to do this, how will they do it and when will we know it's been achieved? (+ 1 similar comment)
 - Please include a basic educational component on water conservation for Palo Alto residents

2. Expand the use of effluent from the Regional Water Quality Control Plant through Non-Potable Reuse, Indirect Potable Reuse, or Direct Potable Reuse
 - I am most excited by #2. Recycled water in toilets is such a great idea.

3. Establish quantifiable baseline and targets for implementation of green stormwater infrastructure on private property, municipal facilities and public rights-of-way by 2024
 - It is always helpful to have a quantifiable baseline in order to manage goals, but not sure what this means in this context. (+ 2 similar comments)
 - This is very important (+ 1 similar comment)
 - Expand stormwater and wastewater outreach and education efforts, including on social and earned media. (+ 1 similar comment)
 - Add: "By including incentives, it is more likely that private property owners will implement green stormwater infrastructure such as rainwater catchment, permeable hardscape, and bioswales."
 - Encourage creation of "rain garden" type runoff catchments
 - Needs to be done quicker. Atherton has had a plan since 2013.

4. Design and build a salt removal facility for the Palo Alto Wastewater Treatment Plant
 - What is this addressing - recycled water, wastewater, incoming water to the plant? Is this to be a desal plant? How much energy will this take? Where does the salt go? How much will this cost? More explanation is needed. (+ 2 similar comments)
 - Remove Potential Key Action #4: This action appears to support Goal #3. (+ 1 similar comment)

5. Develop a "One Water" Portfolio for Palo Alto
 - This is very important because its focus is systemic. It should drive all the other key actions. When we embrace the belief that water in all its forms has value, the full water life cycle can be optimized to build strong economies, vibrant communities, and healthy ecosystems. All other aspects of water planning fall under the "One Water Portfolio". (+ 2 similar comments)
 - What is a "One Water" Portfolio? How it is helpful? (+ 1 similar comment)
 - Value shallow groundwater as an important part of our water portfolio.

Water: Suggestions for New Key Actions

- Allow for the wide-scale use of gray water on private property. All new homes should have two pipes 1) for grey water and 2) for sewer water. (+ 2 similar comments)
- Require climate-appropriate, drought-tolerant native species in public and private plantings. Expand the requirements of the Water Efficient Landscape Ordinance (WELO) to further the S/CAP goals. (+ 2 similar comments)
- Develop a model to distinguish home water use vs. irrigation vs. water to grow edibles. Develop a program for properties to support backyard habitat and vegetable/fruit gardens (and reduce transportation miles associated with the food we eat). (+ 1 similar comment)
- Ensure that water conservation measures in the landscape during drought and at all times adhere to California State "Save our Water and our Trees" principles to ensure existing trees are not lost.

- Create streamlined design guidelines and permitting process with minimal fees for onsite potable and non-potable water reuse on private (residential and commercial) property.
- Include actions related to groundwater, particularly resilient emergency supply.
- Add rainwater collection as a key action for both residential and commercial.
- Pair GSI projects with road diets and more protected (class IV) bike lanes.

Water: General Feedback

- Focus efforts on educational programs on climate change and water-waste, water conservation, and the safety of our tap water. (+ 2 similar comments)
- Palo Alto has been doing a good job on water conservation and management, and the goals and actions outlined are good ones. (+ 1 similar comment)
- Prioritize and start development of green stormwater infrastructure (+ 1 similar comment).
- Accelerate Direct Potable Reuse so it is available when it becomes absolutely needed. Cooperate with San Jose and others in this effort.
- Incentivize recycled water use, low-volume flush toilets, and greywater for outside watering.
- Encourage the use of drought-resistant and native California plants in commercial and residential plots to restore and improve the environment and reduce outdoor water usage.
- The City should outlaw the pumping of groundwater for residential basement construction.
- Use less water sprinkling in city parks. Many parks over watered.
- Since there are no direct GHG reductions that will result from these goals and actions, I would put other parts of the S/CAP at a greater priority.

Climate Adaptation and Sea Level Rise

Potential Goals

- Ü Develop a multi-year Sea Level Rise Adaptation Plan for Council Review by April 2021 to include a sea level rise vulnerability assessment and a community engagement strategy for plan development and implementation

Climate Adaptation and Sea Level Rise: Feedback on Potential Goals

- It would be good to see more specific goals.
- Ü Develop a multi-year Sea Level Rise Adaptation Plan for Council Review by April 2021 to include a sea level rise vulnerability assessment and a community engagement strategy for plan development and implementation
 - Expedite this goal - sooner than April 2021.
 - Groundwater levels rise with sea level rise and may double the extent of impact.

Climate Adaptation and Sea Level Rise: Suggestions for New Goals

- Preserve the wetlands. No more residential or commercial development in FEMA flood-prone areas.

Climate Adaptation and Sea Level Rise: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Actions
2	1. Begin Sea Level Rise Vulnerability and Risk Assessment in Spring 2020 (includes related groundwater impacts)
1	2. Develop a multi-year Sea Level Rise Adaptation Plan and community engagement strategy.
2	3. Council consideration of regional levee alignment projects
2	4. Alignment with existing local and regional efforts that address sea level rise

Climate Adaptation and Sea Level Rise: Feedback on Potential Key Actions

- There may be other climate adaptation actions beyond sea level rise that should be considered: wildfire, risks to the urban forest, extreme heat, etc. (+ 2 similar comments)
 - Zero content in these actions. Sounds expensive with nothing really to do. (+ 1 similar comment)
 - Include flooding of homes from creeks as a climate risk caused by more intense rains
 - Our biggest risk as a City with sea level rise is that our only substation that handles all electricity coming into the city is at a site next to the bay and below grade.
 - All are important and I would keep them in that order of importance.
1. Begin Sea Level Rise Vulnerability and Risk Assessment in Spring 2020 (includes related groundwater impacts)
 - The vulnerability assessment should already be completed.
 2. Develop a multi-year Sea Level Rise Adaptation Plan and community engagement strategy.
 - Needs a date associated with this action, ideally in the next 3 -6 months
 - Have a competition with the goal of participants providing ideas for what/how Palo Alto should address sea level rise risks. Something like what was done for electricity.
 3. Council consideration of regional levee alignment projects
 4. Alignment with existing local and regional efforts that address sea level rise

Climate Adaptation and Sea Level Rise: Suggestions for New Key Actions

- Notify property owners, both existing and prospective, that their property is located in an inundation zone and is expected to flood by years 20xx per data available.
- Include specific vision language calling for the protection of wetlands from development, as they are both a source of carbon sequestration and sea level rise protection.
- Create a Managed Retreat plan using Transfer of Development Rights.
- Build a second transmission connection and substation on the other side of town

Climate Adaptation and Sea Level Rise: General Feedback

- Maintain high priority for the SLR project and all aspects of developing the SLR Adaptation Plan. This is a long-term effort and any delays will likely be very costly in the long run. Protecting ecosystems is critically important. We should not be spending millions on undergrounding utilities, rebuilding Cubberley, roads, other structures and infrastructure, etc. unless we know that money won't literally be money down the drain. We need a Plan with data and modeling studies to guide building decisions and to protect life and property. (+ 7 similar comments)
- Work with adjacent cities and counties to develop a comprehensive regional plan and make sure all sea level rise efforts do not privilege one area over another. (+ 2 similar comments)
- Conduct targeted awareness campaigns that include what is projected to happen to any particular property/parcel in Palo Alto from the different sea level rise projections. (+ 1 similar comment)
- Collaborate with the San Francisquito Creek Joint Powers Authority and Valley Water in their work with the Army Corps of Engineers and California State agencies in studying Sea Level Rise adoptions for Palo Alto.
- Engage the real estate businesses. It is in their financial interest to act on sea level rise resilience.
- Enact a nature preservation plan (targeting areas such as sand dunes and wetlands) in preparation for major action by 2040-2050.
- Groundwater level rises as the sea level rises. Buildings and infrastructure are usually designed to last decades but will have a much shorter lifespan than expected when infiltrated by water.
- Palo Alto is a sea-level community that acts like it's on a mountain. Rising sea levels threaten our golf course and airport.
- Consider supporting a Golden Gate Dam to protect the entire bay and delta.
- Develop a "3 • /4 • Risk Assessment, Management, and Mitigation Plan." These plans may be self-standing or could be incorporated into ongoing climate/sustainability planning.

Natural Environment

Potential Goals

- Ü Renew, restore, and enhance resilience of our natural environment
- Ü Maximize biodiversity and stewardship of flora, fauna, and air, soil, and water resources
- Ü Reduce environmental impacts of our actions
- Ü Increase tree canopy to 40% city-wide coverage by 2030
- Ü Expand the designation of pesticide-free parks and city facilities

Natural Environment: Feedback on Potential Goals

- While all of the goals in this section are laudable, no specific objectives are outlined, except in regard to increasing city-wide tree canopy 40% by 2030. (+ 1 similar comment)
- Prioritize ensuring that we have the right trees and other flora in the right places to (a) last 50-100 years; (b) absorb carbon; and (c) support wildlife. (+ 1 similar comment)
- Make sure residents and/or their landscapers don't use pesticides and herbicides
- For trees, suggest including native and/or drought tolerant trees.
- Something must be done about the "standard" Mow blow and go "gardening" for homes in Palo Alto. The leaf blower ban has done almost nothing.

Ü Renew, restore, and enhance resilience of our natural environment

- We can continue to preserve existing undeveloped land by exercising infill, mixed-use development to help abate the housing crisis and transportation emissions.

Ü Maximize biodiversity and stewardship of flora, fauna, and air, soil, and water resources

Ü Reduce environmental impacts of our actions

- Increase beneficial environmental impact of our actions. (+ 1 similar comment)
- This is not a S.M.A.R.T. goal --what impact are you looking at for reducing environmental impact of our actions?

Ü Increase tree canopy to 40% city-wide coverage by 2030

- Prioritize native species for tree canopy, incentivize removal of invasive species, and increase pollinator-friendly plants. (+ 8 similar comments)
- This is an excellent goal that should be prioritized because of the multiple benefits that trees provide: shade, carbon sequestration, habitat for birds and invertebrates, beauty, and higher property values. (+ 3 similar comments)
- The tree canopy could include fruit trees to add resiliency to the foodshed and can be harvested for food banks, food insecure residents or neighbors, and schools for cooking and environmental courses. (+ 1 similar comment)
- If funding needs to be prioritized, increasing tree canopy should be the highest priority of proposed actions within this area because trees have such a beneficial impact on GHG reduction.
- This goal conflicts with Key Action #6 of ensuring no net tree canopy loss. It has to be clear that tree canopy equity shall be achieved by increasing canopy cover in lesser canopied neighborhoods.
- Consider a public/private/non-profit incentive for native plant and food growing gardens.
- Make sure that tree planting and maintenance is part of the design for all new developments.
- Focus on tree canopies that minimize damage to objects (e.g. vehicles) below them. And bear in mind the impact on photovoltaic generation equipment.

Ü Expand the designation of pesticide-free parks and city facilities

- Move towards 100% pesticide-free Palo Alto.

Natural Environment: Suggestions for New Goals

- Help support a market for sustainable wood (FSC certified) and thereby protect forests and reduce reliance on concrete and steel.
- Switch away from all fossil fuel-based gardening equipment by 2030.
- Maintain and protect the health of existing trees in addition to increasing the number of trees.
- Increase education programs for adults and children to teach the roles trees and other parts of the natural environment play in climate-change mitigation and human health and how individual decisions in plant selection and care, and water and chemical use, affect our natural environment.

Natural Environment: Potential Key Actions to explore further

(These potential Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Potential Key Action
4	1. Explore programs and policies that use Palo Alto's public and private natural capital (e.g., canopy, soils, watersheds) to provide local carbon offsets and other environmental benefits
8	2. Evaluate and modify plant palette selection to maximize biodiversity and soil health to adapt to the changing climate, and incorporate buffers for existing natural ecosystems
4	3. Coordinate implementation of the Urban Forest Master Plan and Parks Master Plan to create pathways to parks and encourage appreciation of natural ecosystems
3	4. Explore expanding the requirements of the Water Efficient Landscape Ordinance (WELO) to further the S/CAP Goals
3	5. Implement the Green Stormwater Infrastructure plan
4	6. Ensure No Net Tree Canopy Loss
3	7. Develop methods to allow for both solar panels and trees
2	8. Reduce the toxicity and the total amount of pesticides used in the city
6	9. Ensure the protection of our ecosystem through the plan review and permitting process
8	10. Restore degraded areas and channelized creeks and create wildlife corridors

Natural Environment: Feedback on Potential Key Actions

- Need more specifics on canopy, which we want to maximize to increase CO2 absorption and provide heat protection for people and habitat for animals. Simple things might include sizable trees in all dog parks and school yards. Do away with "shade structures" and use trees instead.
 - Consider more trees in the Baylands and some of the meadow-like areas in Foothills Park, consistent with those ecosystems.
 - Encourage development with FSC wood and without concrete/steel.
 - Is Palo Alto's golf course consistent with the city's sustainability goals? Can we turn it into a much more usable, sustainable ecosystem that will also support wildlife?
 - Is a city airport consistent with our goals?
 - Add Key Performance Indicators: 1) Tree canopy cover should be assessed locally rather than city-wide. The S/CAP should explain how canopy coverage will be assessed and how often; 2) Inclusion of tree protection, planting, and maintenance plans in all property development plans approved by the city; 3) Dedication of sufficient resources to ensure an effective Urban Forestry program and developer compliance with tree protection, planting, and maintenance plans.
1. Explore programs and policies that use Palo Alto's public and private natural capital (e.g., canopy, soils, watersheds) to provide local carbon offsets and other environmental benefits
 - Focusing on tree canopy for health and environmental benefits is more important than carbon offsets. (+ 1 similar comment)

- Do not specify local carbon offsets. The end goal is net gains in permanent carbon sequestration and environmental benefits. In GHG trading markets, carbon sequestration policies need to ensure that sequestration is additional to what would have occurred in the normal course of business.
 - Explain to the public what you mean by carbon offsets. That practice needs to be explained and examples provided of how this is occurring already in practice.
2. Evaluate and modify plant palette selection to maximize biodiversity and soil health to adapt to the changing climate, and incorporate buffers for existing natural ecosystems
 - Maximizing biodiversity is not clear, should focus on native plants, and eradication of invasive, non-native species (+ 1 similar comment)
 3. Coordinate implementation of the Urban Forest Master Plan and Parks Master Plan to create pathways to parks and encourage appreciation of natural ecosystems
 - Reword as “Ensure that all city-sponsored sustainability-related committees, guide documents, and departments are synchronized. Coordinate boards, commissions, and subcommittees and their functional review; the Comprehensive Plan, S/CAP, Urban Forest Master Plan, city tree ordinances, zoning ordinances, municipal code, parks master plan, and fire management plan; and all department projects and functions to increase synergies and decrease inconsistencies.”
 - Edit: Coordinate implementation of the Urban Forest Master Plan, Parks Master Plan, and Sustainable Green Streets Network to create pathways to parks, safe active transportation connected network, Safe Routes to School, and to encourage appreciation of natural ecosystems.
 4. Explore expanding the requirements of the Water Efficient Landscape Ordinance (WELo) to further the S/CAP Goals
 - Reword as “Require climate-appropriate, drought-tolerant species in public and private plantings. Expand the requirements of the Water Efficient Landscape Ordinance (WELo) to further the S/CAP goals.” Add to the Water area as well, thereby linking the Water and Natural Environment areas.
 - Add: Explore expanding the requirements of the Water Efficient Landscape Ordinance (WELo) to further the S/CAP goals and to reduce wastewater going to sewage treatment by 30% (using diversion of washing machine water and tub/shower water)
 - No - this is too much paperwork. You should simplify this approach and have examples in the City of low water gardens. A low water garden should be a requirement for each new home build.
 5. Implement the Green Stormwater Infrastructure plan
 6. Ensure No Net Tree Canopy Loss
 - See Goal #4 above. Specific actions for each neighborhood should be developed such that no neighborhoods lose tree canopy cover. Neighborhoods that have less than 40% canopy cover should have annual tree-planting plans, with progress reported annually.
 - Ensuring no net tree canopy loss seems inconsistent with the previous goal of increasing canopy by 40%. Also, how is canopy loss defined?"
 7. Develop methods to allow for both solar panels and trees

- Develop smart policy for the placement of solar panels. Batch solar panels in local solar farms. Don't allow the needless loss of natural environment for solar panels. (+ 1 similar comment)

8. Reduce the toxicity and the total amount of pesticides used in the city

- Add: "including by planting species that are well-suited for the local environment."
- All parks should be pesticide free. Pesticides damage our groundwater and other environments.
- Should also be concerned with eliminating herbicides as well as pesticides

9. Ensure the protection of our ecosystem through the plan review and permitting process

- Reword as "Ensure the comprehensive protection of our ecosystems through improved and clear development review criteria, consistent with the Landscape and Tree Technical Manual. Ensure tree planting and maintenance are an integral part of the approval process for all new residential and business developments in the city. Monitor and enforce compliance with approved plans."

10. Restore degraded areas and channelized creeks and create wildlife corridors

- Reword as "Incentivize public and private landowners to restore degraded areas of land and channelized creeks, and to create wildlife corridors."
- This is very important. Lose the concrete in channelized creeks. Restore natural environment. Add many treelined, natural environment walk/bikeways in Palo Alto.

Natural Environment Suggestions for New Key Actions

- Ensure access to open space or a park within a 10-minute walk for every resident.
- Implement a Sustainable Green Streets network throughout the City that prioritizes implementing green stormwater infrastructure as the backbone of an integrated network for a connected active transportation master plan and green ecology network.
- Protect the natural environment outside Palo Alto. When we fail to provide housing for the people who work in our community, we promote sprawl and the destruction of natural resources elsewhere. Urban infill needs to be part of Palo Alto's plan.
- Expand urban gardening amenities and incentivize commercial/industrial clients (e.g, companies big enough for cafeterias) to grow some of their food on site.
- Create programs to incentivize eating lower on the food chain (less meat and dairy, emphasis on local/organic produce).
- Maintain buffer areas along creeks and restore natural floodplain where possible

Natural Environment: General Feedback

- Properly protecting, managing, and increasing our urban tree canopy, as outlined in the Urban Forestry Master Plan, offers very high bang-for-the-buck value in reducing our overall GHG emissions. Ensure that the Urban Forestry Master Plan is properly evaluated and considered a critical component of the S/CAP, rather than as a separate plan. (+ 2 similar comments)
- Partner with leading organizations in conservation. (+ 1 similar comment)

- Increase the responsibility and visibility of the Palo Alto Youth Council, empowering youth to contribute to the planning process and raising awareness for the teen community.
- Support school and other public garden spaces.
- Increase the usage of programs and policies that utilize public and private natural capital, offering a sustainable alternative to the purchase of natural gas carbon offsets.
- Ensure that our urban forest stays protected by strengthening protections for trees and expanding the list of protected trees and tree sizes. Trees are often overlooked as a sustainability asset.
- Educate about and incentivize a Homegrown National Park.
- Expand designation of parks to make them ecology "patches" by introducing rich native high-value habitat that supports multiple species. Include retaining leaf litter to improve soils.
- Designate Zero Waste Parks
- Create a full-time staff position dedicated to researching and writing grants for sustainability projects. The Urban Forest and Parks Master Plans include a range of unfunded projects which will significantly benefit sustainability goals if implemented.
- Create a resource list for Integrated Pest Management in contrast to pesticides and proactively market that material through CPAU bill inserts and by contacting condominium associations. Include information on proper disposal of hazardous materials, including pesticides.
- Increase the speed of under-grounding electric and communication lines. This is important such that trees are not butchered to clear lines.
- Soil provides many benefits including retaining and storing stormwater, yet we discard it when building underground or cover it with pavement. No Net Soil Loss.

Zero Waste

Goals

- Ü Divert 95% of waste from landfills by 2030, and ultimately achieve zero waste
- Ü Implement short- and medium-term initiatives identified in the 2018 Zero Waste Plan

Zero Waste: Feedback on Goals

- Palo Alto is on the cutting edge of Zero Waste goals. Great job! (+ 3 similar comments)
- The City needs to educate residents about the lifecycle of ALL goods that are consumed. Many residents are happy because their recycling bins are full -- that's not success!
- Ü Divert 95% of waste from landfills by 2030, and ultimately achieve zero waste
 - Supporting waste-to-energy deployment locally would not only help with this goal, it would help with energy reliability. (+ 1 similar comment)
 - We need city laws that require all packaging to come in either recyclable or compostable packages. And the containers should be much easier to read. (+ 1 similar comment)
 - Since both food and material waste contributes significantly to the climate crisis, Council should prioritize the 95% waste diversion goal for 2030.
 - In learning from the State's mistakes in passing and implementing SB 1383 (2016), we need to give thought to 1) where organic waste is diverted to; 2) who is responsible for collection and

management of diverted organics; and 3) what is ultimately done with diverted organic wastes which will naturally produce methane.

- Educate residents about the benefits of composting.
- Zero is a low number. This feels like something that must be undertaken at the federal level, at the least, in order to make much progress.

U Implement short- and medium-term initiatives identified in the 2018 Zero Waste Plan

Zero Waste: Key Actions to explore further

(These Key Actions do not represent all the work that the City is doing or will be doing related to climate change and sustainability. These are the actions we will be prioritizing. They are numbered to make it easier to refer to specific Actions. They are NOT numbered based on priority.)

# of Votes	Key Actions
7	1. Expand the Deconstruction and Construction Materials Management Ordinance
5	2. Eliminate single-use disposable cups and containers by expanding the Disposable Foodware Ordinance
9	3. Require food waste prevention and edible food recovery measures for commercial food generators
4	4. Promote residential food waste reduction
4	5. Incentivize the use of reusable diapers
5	6. Champion waste prevention, reduction, reusables, and the sharing economy

Zero Waste: Feedback on Key Actions

- Coordination with nearby cities will help prevent leakage.
1. Expand the Deconstruction and Construction Materials Management Ordinance
 - Great Key Action that should be expanded as much as possible. It makes a huge difference in the waste stream. (+ 1 similar comment)
 - Discourage demolition of beautiful old architecture to build monstrosities.
 - This Key Action should be taken after full consultation with construction professionals.
 2. Eliminate single-use disposable cups and containers by expanding the Disposable Foodware Ordinance
 - Eliminate plastic as much as possible, starting with awareness about how much plastic each household uses and tosses into the recycling bin.
 - Eliminate single-use water bottles. Implement San Francisco’s policy - No sports teams and construction crews can bring non-reusable water bottles to parks or construction sites.
 - A lot of companies bring food from other cities that might not have such ZW goals. How should the city provide incentives/punishments to guide these businesses?
 3. Require food waste prevention and edible food recovery measures for commercial food generators
 - This has large GHG reductions, with many co-benefits for participants. (+ 1 similar comment)

- On food waste, it would be great to get as much as possible of the edible food to food banks or other places where it can be used directly instead of composting. (+ 1 similar comment)
4. Promote residential food waste reduction
 - This has large GHG reduction potential.
 - Teach this at school so kids and then their families understand how much waste occurs in the city.
 5. Incentivize the use of reusable diapers
 - This Key Action is really important. Publicize diaper services.
 - How much better are diapers that are washed with bleach over non-reusable diapers?
 - Will this Key Action include adult diapers? We may have more adults in diapers than babies.
 - This feels a bit big-brother-y. This can be done, but be careful to not force people to do this.
 6. Champion waste prevention, reduction, reusables, and the sharing economy
 - Need to educate the public, including students, better about how much waste is produced and how it should be properly sorted. (+ 1 similar comment)
 - Promote Sustainable supply chain management at city and businesses with examples and educational support. (+ 1 similar comment)
 - Encourage keeping clothing for a long time, not so many fashion changes.

Zero Waste: Suggestions for New Key Actions

- Manage street and other public trees throughout their entire lifecycle by creating or partnering with an urban wood reuse program.

Zero Waste: General Feedback

- Include educational initiatives in short-term plans, and broaden goals to reach businesses and schools, including partnering with local non-profits and PAUSD, and integrating appropriate messaging into City summer camp programming (+ 3 similar comments).
- Influence packaging and work with nearby cities. (+ 2 similar comments)
- Work on local food. Incentivize commercial clients to start food gardens on site. Expand urban gardening amenities. Increase victory gardens and fruit trees. (+ 2 similar comments)
- Work with restaurants, stores, and residents to minimize food waste. (+ 1 similar comment)
- Promote composting by businesses and multifamily housing dwellers within Palo Alto.
- Require all City catering to be vegetarian or vegan.
- Measurable objectives need to be designed for the goals and proposed actions in this section.
- There's really good technology for anaerobic digestion of solid waste and it's conversion to fuel.
- Consider billing of residential waste pickup by actual pickups. This would be an incentive to reduce waste.
- Try a good neighbor policy where you put your containers next to your neighbors. This makes for fewer stops and faster pickups for all.
- Identify and publicize "cradle to grave" products and encourage citizens to buy these.