CITY OF PALO ALTO

2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 1: Overview

cityofpaloalto.org/sustainabilityplan

March 31, 2020

Community Workshop #1

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- Goal
  - Obtain community input on our 2020 Sustainability and Climate Action Plan (S/CAP) potential Goals and Key Actions

- Assumptions
  - Climate Change is urgent, and action is needed now
  - We will consider all community input
    - Received to-date
    - Provided today
    - Received in the future

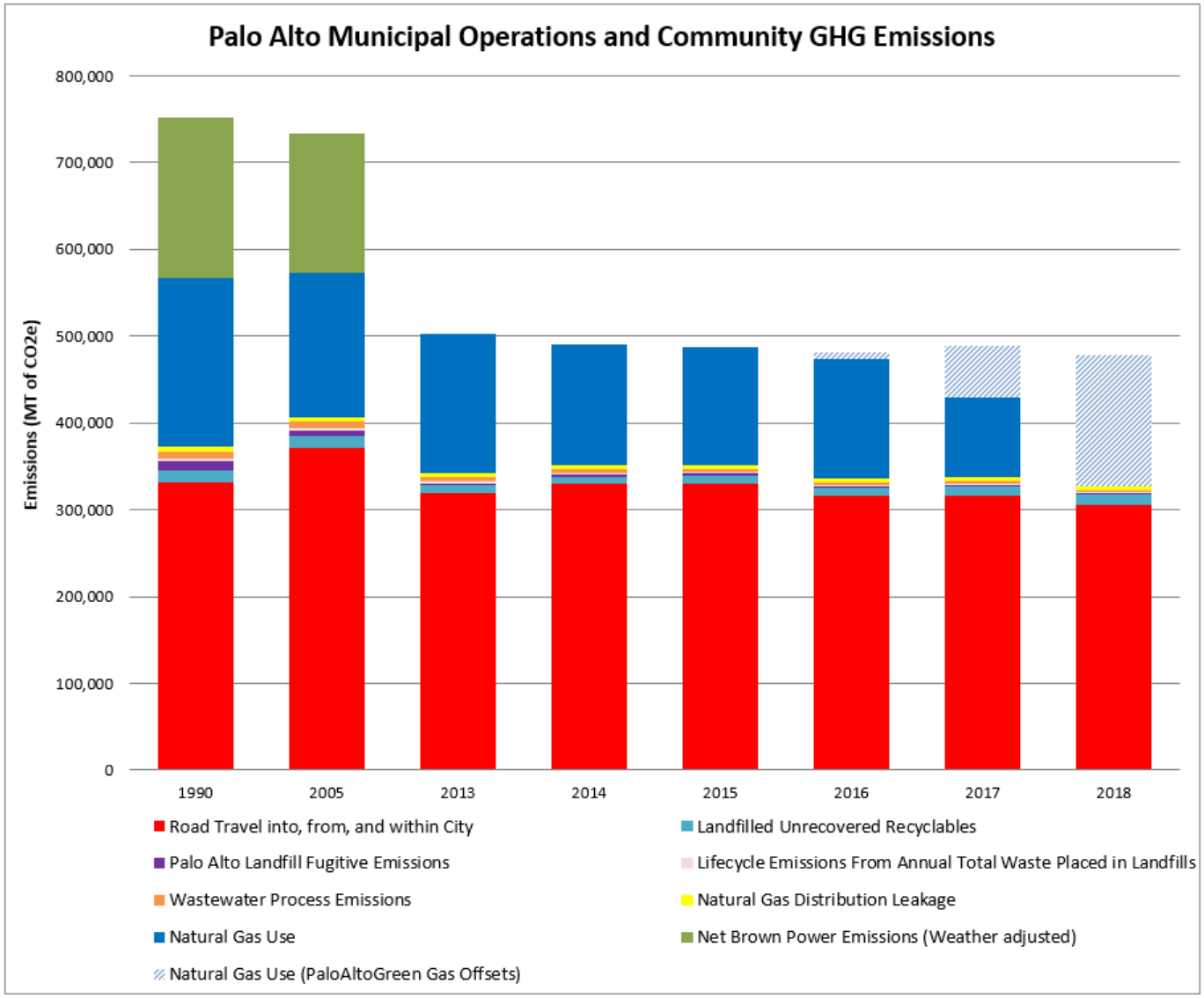
Why Do We Need to Take Action?

- Cities consume 73% of the world's energy and emit 75% of the greenhouse gases (while occupying only 5% of total land mass)
- Reducing emissions, using fewer resources, and implementing nature-based solutions can improve the quality of life in communities
- Land use, buildings, and transportation are largely controlled at the local level
- Cities can make infrastructure more sustainable, including waste, water, sewage, public and personal transit, and parks and public spaces

Palo Alto's Sustainability Planning

- Established its first Climate Protection Plan in 2007
- Current Sustainability and Climate Action Plan (S/CAP) is made up of three components:
  1. 80 x 30 Goal
  2. Sustainability and Climate Action Plan Framework
  3. 2018-2020 Sustainability Implementation Plan (SIP)

GHG Emissions Down ~56.5% from 1990 baseline



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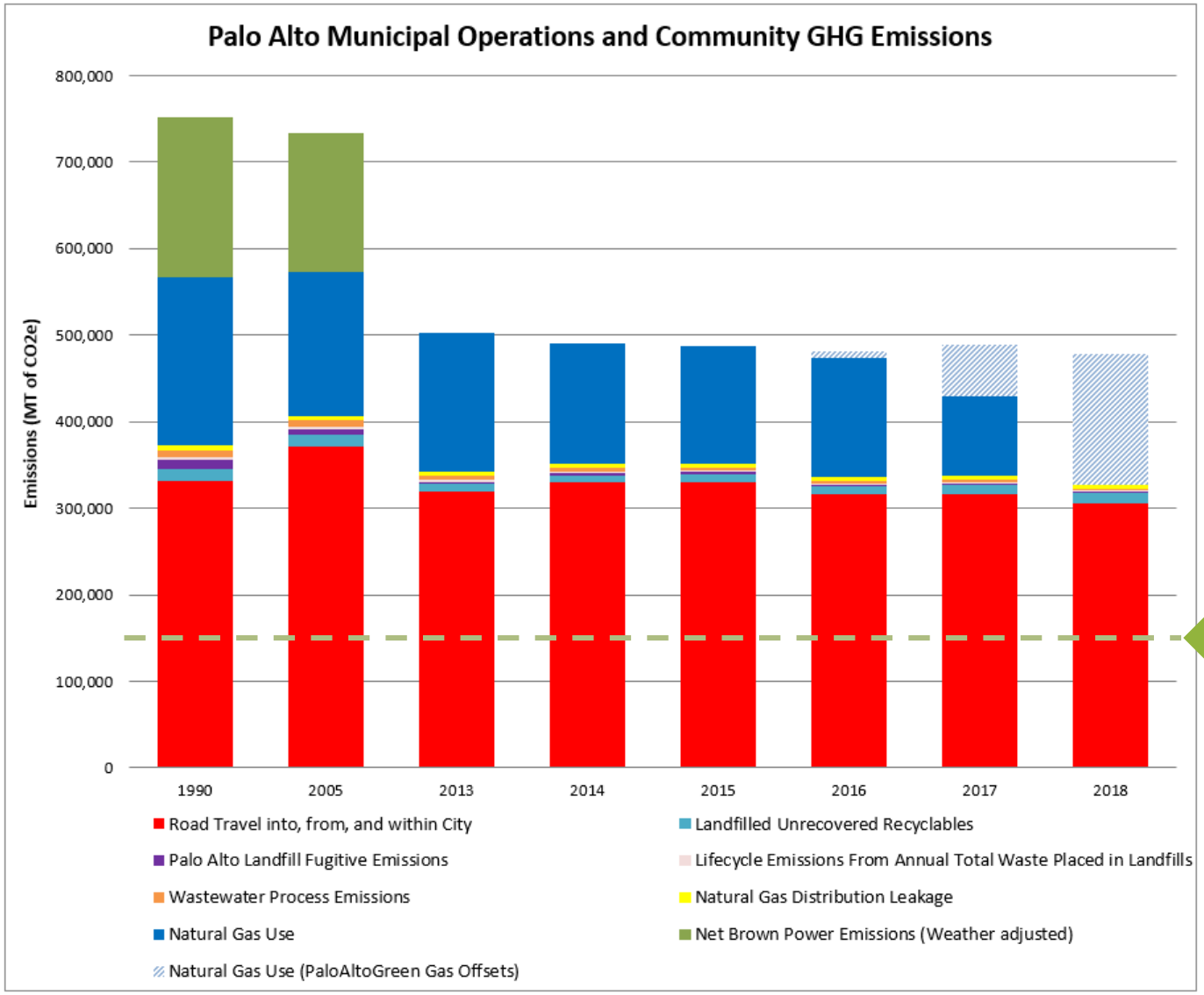
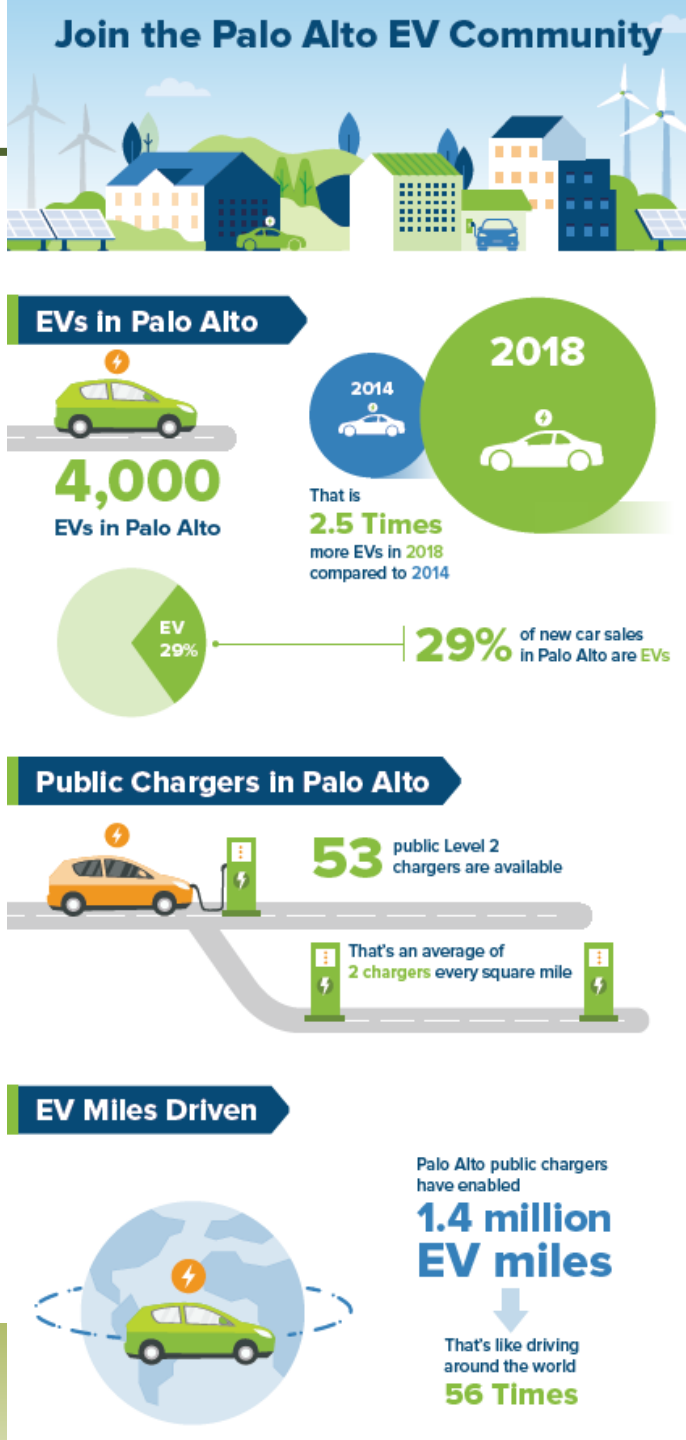


Recent Accomplishments

- Out of 850 Cities, Palo Alto is closest to reaching its greenhouse gas reduction goal
- Sustainability and Climate Change a 2019 and 2020 Council Priority
- Historic partnership with Valley Water, includes a local advanced treatment facility for recycled water
- Eliminated gas incineration of sewage sludge
- Added new electric vehicles to City fleet
- Adopted new all-electric building requirements
- Adopted Urban Forest Plan 2nd Edition, Feb 2019
- Adopted Sea Level Rise Adaptation Policy, Mar 2019
- Adopted Green Stormwater Infrastructure Plan, May 2019
- Approved Deconstruction and Foodware Reduction Ordinances



Why we need a 2020 S/CAP Update

- Need updated greenhouse gas emissions analyses
- Further study to identify the highest beneficial impact actions to take
- 2016 Sustainability and Climate Action Plan Framework provided direction and goals through 2020
- 2018 – 2020 SIP provides a workplan only through 2020
- One stand-alone document
- Need a California Environmental Quality Act (CEQA) - reviewed Sustainability and Climate Action Plan

Proposed Areas for the 2020 S/CAP

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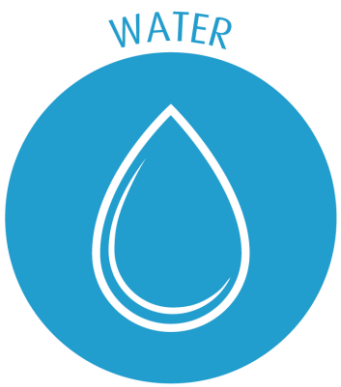

2020 S/CAP Update Proposed Process

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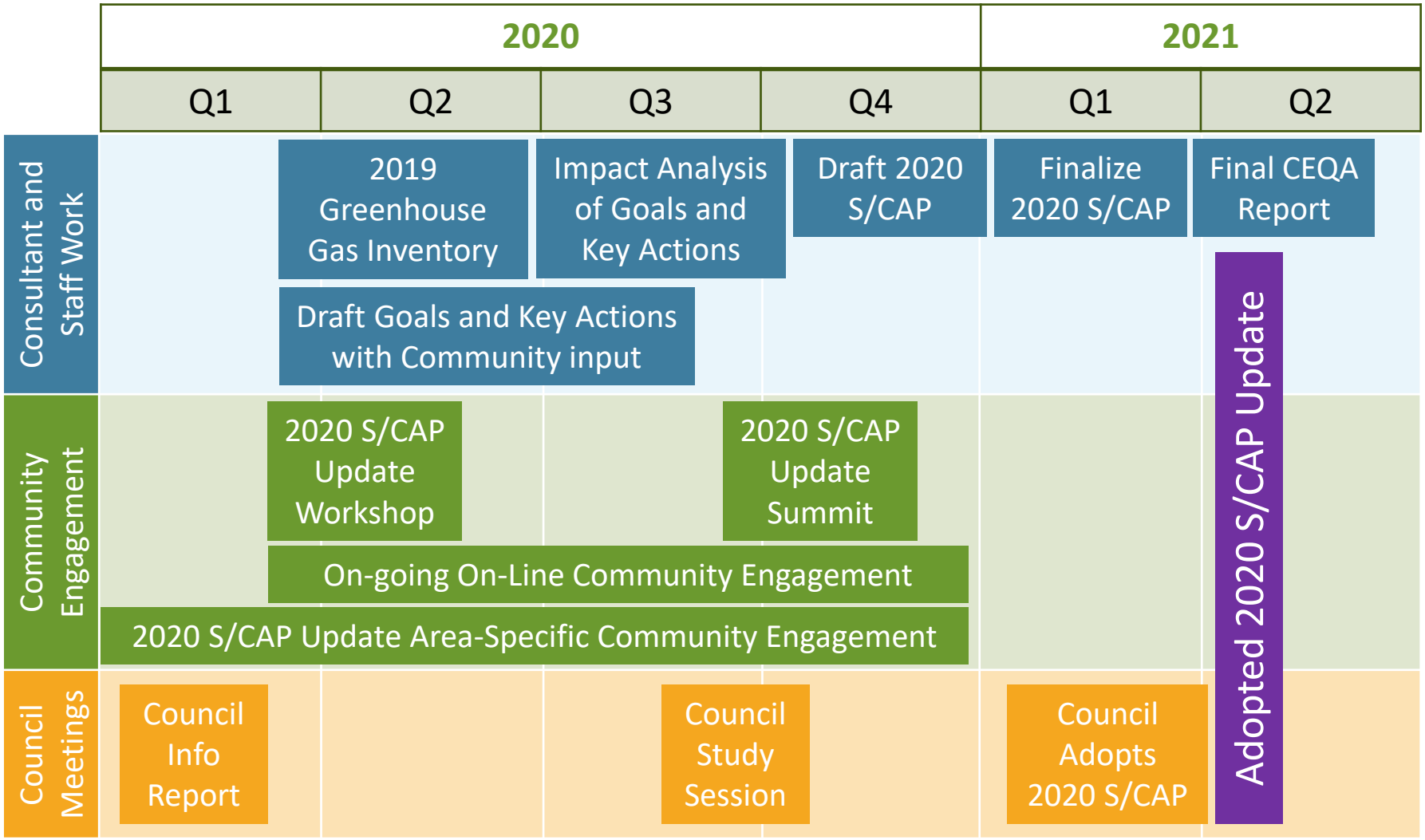

2020 S/CAP Update Summary of AECOM Tasks

1. Create Citywide GHG Emissions Inventories for 2019, 2020, 2021
2. Calculate Transportation-related Emissions
    a. Develop a Vehicle Miles Traveled (VMT) methodology
    b. Develop CEQA thresholds using new VMT methodology
3. Business as Usual Forecast
4. Greenhouse Gas Emissions Reductions and Sustainability Benefits Impact Analysis
5. Community Engagement
6. Prepare Appropriate Environmental Documents

Thank you!


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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 2: Energy

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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: Potential Key Actions

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1. Meet or exceed City Council-adopted energy efficiency targets
2. Explore electrification of city-owned facilities with the 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)
4. Increase awareness and adoption of efficient electric alternatives to gas appliances and all-electric buildings through community engagement
5. Implement an all-electric utility rate
6. Explore opportunities to increase energy resilience (e.g. energy storage, microgrids)
7. Explore the impact of building decarbonization on City's gas utility and develop mitigation strategies
8. Continue to purchase carbon offsets to match natural gas emissions as a transitional measure. Evaluate potential local offset purchases

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 3: Mobility

Mobility: Potential Goals

- Increase active transportation mode share to 25% for local work trips by 2030
- 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
- Implement Complete Streets and build out the Bicycle and Pedestrian Transportation Plan

Mobility: Potential Key Actions

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1. Fund the Transportation Management Association (TMA) with the goal of reducing Single-Occupancy Vehicle commute trips downtown by 30%
2. Make transit investments that significantly enhance coverage, service quality, frequency, speed and/or access
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
4. Adopt Transportation Demand Ordinance per Comprehensive Plan Policy
5. Increase the number of City Employees utilizing commute benefits
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
7. Enhance traffic signals to improve traffic flow and reduce idling and associated greenhouse gas emissions
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)

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 4: Electric Vehicles

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Electric Vehicles: Potential Goals

- 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
- Target to facilitate 50% of vehicles owned by low income households to be EVs by 2030
- 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
- Expand the number of EVs in the City's fleet as the EV fleet market evolves

Electric Vehicles: Potential Key Actions

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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
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. 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
4. By 2022, develop a strategic plan to encourage charging of inbound EVs within Palo Alto
5. Continue to electrify municipal fleet as opportunities arise, and by 2021 develop a comprehensive fleet electrification workplan and associated EV charging needs

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 5: Water

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Water: Potential Goals

- Reduce per capita water use compared to 2019
- Increase the percentage of recycled water used (volume of recycled water/recycled water filter capacity) by 10% in 2022 compared to 2019
- Reduce the total dissolved solids by 50% compared to 2019 base year
- 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: Potential Key Actions

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

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 6: Climate Adaptation and Sea Level Rise

Sea Level Rise: Potential Goals

- 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

Sea Level Rise: Potential Key Actions

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1. Begin Sea Level Rise Vulnerability and Risk Assessment in Spring 2020 (includes related groundwater impacts)

2. Develop a multi-year Sea Level Rise Adaptation Plan and community engagement strategy.

3. Council consideration of regional levee alignment projects

4. Alignment with existing local and regional efforts that address sea level rise

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 7: Natural Environment

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Natural Environment: Potential Goals

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

Natural Environment: Potential Key Actions

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
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
3. Coordinate implementation of the Urban Forest Master Plan and Parks Master Plan to create pathways to parks and encourage appreciation of natural ecosystems
4. Explore expanding the requirements of the Water Efficient Landscape Ordinance (WELO) to further the S/CAP Goals
5. Implement the Green Stormwater Infrastructure plan
6. Ensure No Net Tree Canopy Loss
7. Develop methods to allow for both solar panels and trees
8. Reduce the toxicity and the total amount of pesticides used in the city
9. Ensure the protection of our ecosystem through the plan review and permitting process
10. Restore degraded areas and channelized creeks and create wildlife corridors

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2020 Sustainability and Climate Action Plan

Community Workshop #1
Part 8: Zero Waste

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Zero Waste: Goals

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

The *2018 Zero Waste Plan* is available at www.cityofpaloalto.org/ZWPlan

Zero Waste: Key Actions

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

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