

Table 1. GHG Emissions Reduction Actions for the Transportation Sector

CARP Actions	GHG Emissions Reduction (MTCO2e)	Timeframe	Responsible Entities	Progress Made	Next Steps
<u>Legend</u> : ✓ = complete	ted; $\mathbf{A} = 1$ -year	expected completion;	<b>B</b> = 2-5 year expected c	ompletion; <b>C</b> = 5+ expected of	completion
T1. Reduce commute vehicle miles traveled (VMT). Encourage employees and employers to reduce commute trips by telecommuting. In addition, implement a combination of programs that encourage telecommuting and land use decisions that increase work-live and mixed zoning.	<u>2030</u> : 2,968	Ongoing	<ul> <li>Planning, Building and Transportation</li> <li>Economic Development</li> <li>Information Technology</li> </ul>	<ul> <li>City Council approved changes to Work Live ordinance to facilitate this type of development. First application to take advantage of new rules received January 2020.</li> <li>City leadership developed a telework policy for most employees to follow during shelter-in-place orders.</li> </ul>	<ul> <li>General Plan Update to establish citywide policy to facilitate mixed use zoning.</li> <li>Encourage Alameda workplaces to continue beneficial teleworking after shelter-in-place orders are lifted.</li> </ul>
T2. Build additional bike lanes. Construct an additional 10.44 miles of bike lanes on top of bikeway projects already planned in the TCP and ATP.	<u>2030</u> : 962	Ongoing	<ul><li>Planning, Building and Transportation</li><li>Public Works</li></ul>	<ul> <li>Built 1 mile of new bikeways (segments on Santa Clara Ave and Main Street).</li> <li>Active Transportation Plan (ATP) planning process launched August 2019.</li> <li>Additional bike lanes will be identified as part of ATP.</li> </ul>	<ul> <li>ATP anticipated completion date is Nov/Dec 2020.</li> <li>Additional bikeways to be constructed in 2020, as feasible, including Pacific (Main to 4<sup>th</sup> St).</li> </ul>
T3. Traffic signal synchronization. By 2030, improve synchronized timing of 25 traffic lights to improve traffic flow by slowing vehicle speeds and reducing idling.	<u>2030</u> : 779	В	■ Public Works	<ul><li>Finished Park Street corridor project.</li><li>Hired Traffic Engineer.</li><li>Solicited consultant for</li></ul>	Adopted 2019-2021 budget includes upgrades to 10 signal cabinets and controllers.

				Citywide Traffic Study.	Implement signal synchronization projects.
T4. Expand EasyPass program. Provide 5,000 additional passes by 2030. This adds on to TCP Project #4, which also aims for 5,000 passes, for a total of 10,000 new passes by 2030.	<u>2030</u> : 339	Ongoing	<ul> <li>City Council</li> <li>AC Transit</li> <li>Planning, Building and Transportation</li> <li>Public Works</li> </ul>	<ul> <li>The Alameda         <ul> <li>Transportation</li> <li>Management</li> <li>Association (TMA)</li> <li>provided existing tenant employees in Alameda</li> <li>Point with free bus passes.</li> </ul> </li> <li>The City and Alameda         Housing Authority         <ul> <li>(AHA) established a partnership for qualifying residents to obtain free bus passes at their facilities.</li> </ul> </li> <li>In July 2019, the City Council approved a new hotel at the Park Street/Clement Avenue intersection, which is required to purchase EasyPasses for their employees.</li> </ul>	<ul> <li>Coordinating with AHA and the Alameda TMA to allow for AHA to obtain bulk rate bus passes from Alameda TMA.</li> <li>Coordinating with Alameda Landing and Alameda Point to expand EasyPasses for residents and employees in these developments.</li> <li>City staff recommends increasing the number of EasyPasses for AHA and expanding to Jack Capon Villa residents and Mastick Senior Center members.</li> </ul>
<b>T5. Ban gas-powered leaf blowers.</b> Ban gas-powered leaf blowers in the City of Alameda.	<u>2030</u> : 76	A	<ul><li>Planning, Building and Transportation</li></ul>	<ul> <li>Ordinance drafted September 2019.</li> <li>Recreation and Parks Department converted all leaf blowers to electric.</li> </ul>	■ TBD
T6:1 Continue to support regional GHG emissions reduction goals and	Unquantified	Ongoing	Planning, Building	Pending	■ TBD

<sup>&</sup>lt;sup>1</sup> GHG reduction actions have been renamed so that the unquantified actions called "supplemental actions" in the CARP are numbered in the same manner as the quantified actions. T6-T8 were referred to as unnumbered supplemental actions in the CARP.

the Regional Sustainable Communities Strategy: Plan Bay Area by planning for and approving higher-density residential and mixed use residential projects on sites in Alameda identified in the Regional Plan, General Plan and Housing Element, and Municipal Code for higher-density, transit-oriented development.			and Transportation  City Council		
T7: Investigate the use of goats to maintain public landscapes instead of fossil fuel-powered lawn and garden equipment.	Unquantified	В	<ul><li>Public Works</li><li>Recreation and Parks</li></ul>	None at this time.	Conduct outreach to agencies whose permits would be required to undertake pilot program.
T8: Consider a rebate program for residents purchasing bicycles. This will be further considered in the forthcoming Active Transportation Plan (ATP).	Unquantified	A	<ul><li>Planning, Building and Transportation</li></ul>	ATP process started.	Will be considered as a new program in the ATP.
T9: Increase availability of EV charging stations citywide.	<u>2030</u> : 8,209	Ongoing	<ul><li>Planning, Building and Transportation</li><li>Public Works</li></ul>	<ul> <li>Level 2 charging installation at Seaplane Lagoon Ferry Terminal in progress. Pilot for EV charging in City parking lots in progress.</li> <li>AMP rebated the city's Public Works department for its EV charging installations at City Hall West and in the city's public parking garage.</li> <li>AMP worked with Electrify America on the installation of 12 public DC-fast chargers in the Target parking lot.</li> </ul>	<ul> <li>Revisit possible vendors for City parking lot pilot.</li> <li>Pending installation of 10 public level 2 chargers at the new ferry terminal, AMP will provide more than \$30,000 in rebates to Public Works.</li> </ul>

T10: Promote purchase of LEVs and	<u>2030</u> : 6,125	В	■ AMP	■ In early 2020, AMP will	AMP will continue to
<b>ZEVs.</b> Implement communications and outreach activities to promote the acquisition of light-duty EVs. AMP participation is subject to PUB approval.			City Manager Office	launch a rebate for used EVs, available to all utility customers with higher rebates for qualified low-income customers.	offer free EV workshops during 2020 within the limits of public health regulations on in- person gatherings.
				AMP will also launch a rebate for electric forklifts for our commercial customers.	
				AMP staff gave a presentation on EV adoption to the Transportation Awareness Committee in August and to the Transportation Commission in November.	
				AMP partnered with the Downtown Alameda Business Association to dedicate a section of the island's annual car show to EVs.	
				<ul> <li>AMP offered three free public workshops in 2019 for Alamedans to learn about EVs.</li> </ul>	
				AMP promoted EVs throughout the year in its customer newsletter, bill inserts, newspaper ads, social media campaigns, etc.	
				<ul> <li>Alamedans continue to purchase EVs at an increasing rate as</li> </ul>	

				shown below with the charger permits issued by the City's Permit Center:  2017: 15 residential 2018: 72 residential and 2 commercial 2019 (1st 11 months): 92 residential and 5 commercial	
T11: Continue programs to encourage new EV purchases.  Encourage EV ownership by promoting a manufacturer's suggested retail price rebate. Also, emphasize continuation of programs from AMP, subject to PUB approval, to provide electricity rate discounts and rebates to residential and non-residential customers who purchase a Level 2 EV charging station.	<u>2030</u> : 5,314	Ongoing	<ul> <li>AMP</li> <li>City Manager Office</li> </ul>	<ul> <li>AMP increased its cash amounts for level 2 EV charger rebates.     Residential chargers increased to \$800 from \$500, while non-residential chargers increased to \$5,000 from \$3,000.     Additionally, the rebates can now be applied toward electric upgrades and permitting as well as the charger itself.</li> <li>AMP and city's Permitting Department worked together to streamline the EV charger permitting and rebate process.</li> <li>AMP promoted a Drive Clean Bay Area program that provides pre-negotiated discount pricing on EVs.</li> </ul>	Pending Board approval, AMP will offer a Time of Use (TOU) rate to EV customers beginning in 2020.

				<ul> <li>AMP promoted a         Nissan Leaf rebate         available through         AMP's participation in         the American Public         Power Association.</li> </ul>	
T12: Continue to encourage businesses to install EV charging stations. Implement communications and outreach activities to encourage workplaces and businesses to install EV charging systems	<u>2030</u> : 691	Ongoing	<ul> <li>AMP</li> <li>Planning, Building and Transportation</li> <li>Economic Development</li> </ul>	<ul> <li>The City passed an ordinance to streamline the EV charger permit process with an ordinance and EV charger permit checklists.</li> <li>AMP staff gave a presentation on EV adoption to the Chamber of Commerce in November.</li> <li>AMP promoted EVs through numerous communications to its commercial customers and provided EVs presentations to local business associations throughout the year.</li> </ul>	AMP will continue to promote EV charging to local businesses and provide on-site consultation services. Provision of on-site services is subject to public health restrictions related to COVID-19.
T13: Electrify City's fleet. Convert the light-duty portion of the City's vehicle fleet to EVs and right-size the fleet.	<u>2030</u> : 145	В	■ Public Works	<ul> <li>Adopted vehicle replacement policy prioritizing EV purchases.</li> </ul>	Purchase hybrid light duty police patrol vehicles.

Table 2. GHG Emissions Reduction Actions for Energy Use in Buildings

CARP Actions	GHG Emissions Reduction (MTCO2e)	Timeframe	Responsible Entities	Progress Made	Next Steps
E1. Fuel switch in existing buildings. Convert natural gas consumption to electricity use in residential and commercial buildings.	2030: 7,836	Ongoing	<ul><li>Planning, Building and Transportation</li><li>AMP</li></ul>	<ul> <li>Monitoring systems         established for tracking         extent of fuel switching.</li> <li>Rebate programs         increased.</li> <li>Preliminary investigation         of requirement-based         approaches initiated.</li> </ul>	<ul> <li>Conduct assessment of challenges and potential solutions to fuel switching in existing residential and commercial buildings.</li> </ul>
<b>E2.</b> Electrification of new residential construction. Prepare ordinances requiring all new residential construction to be 100% electric-powered with no gas hookups.	<u>2030</u> : 1,887	A	<ul><li>City Council</li><li>Planning Board</li><li>Planning, Building and Transportation</li></ul>	Resolution directing staff to seek all-electric development on Cityowned lands passed November 2019.	Conduct stakeholder outreach and legal analysis in order to assess viability and timing of citywide requirement for allelectric residential construction.
E3. Programs to encourage fuel switching in certain appliances. Encourage the PUB to continue implementing AMP rebate programs encouraging residential customers to install ENERGY STAR-labeled electric clothes dryers and electric heat pump water heaters.	2030: 447	Ongoing	■ AMP	AMP continues to offer rebates for HPWHs and electric clothes dryers.	<ul> <li>AMP will evaluate the potential for an increase to the cash amount of its rebate for HPWHs in early 2020.</li> <li>AMP will continue to evaluate other rebates to encourage fuel switching.</li> </ul>
E4. Green roof installations on new developments at Alameda Point. Require at least 10% of roof areas on new development in Alameda Point to be installed as green roofs.	<u>2030</u> : 6	<b>√</b>	<ul><li>Base Reuse</li><li>Planning, Building and Transportation</li></ul>	Already required per City's RWQB permit.	Action complete.

E5:² Promote distributed generation (rooftop solar)	Unquantified	Ongoing	■ AMP	<ul> <li>AMP offered free workshops in August and September for Alamedans to learn how solar works, financing and incentives, and steps toward getting solar.</li> <li>AMP is finalizing an environmental study of the Doolittle landfill area in preparation for the installation of a 2.1 MW solar array.</li> <li>AMP has entered into negotiations with a site to host a potential community solar array.</li> </ul>	<ul> <li>AMP will continue to offer free solar workshops in 2020, within public health advisories on in-person gatherings.</li> <li>In 2020, the Doolittle solar project will go before a Zoning Administrator Hearing to seek acceptance of the environmental study as well as approval of a use permit.</li> <li>AMP will continue negotiations for the community solar site and begin building the community solar program, pending all required approvals.</li> </ul>
E6: Draft zoning code amendment to facilitate reduction in energy use by exempting energy-efficient windows and doors from the design review process.	Unquantified	<b>√</b>	<ul><li>Planning, Building and Transportation</li></ul>	<ul> <li>City Council approved revisions to Design Review ordinance in 2019.</li> </ul>	Action complete.

<sup>&</sup>lt;sup>2</sup> GHG reduction actions have been renamed so that the unquantified actions called "supplemental actions" in the CARP are numbered in the same manner as the quantified actions. E5 and E6 were referred to as unnumbered supplemental actions in the CARP.

Table 3. GHG Emissions Reduction Actions for Carbon Sequestration

CARP Actions	GHG Emissions Reduction (MTCO2e)	Timeframe	Responsible Entities	Progress Made	Next Steps				
<u>Legend</u> : <b>✓ =</b> complete	<u>Legend</u> : ✓ = completed; A = 1-year expected completion; B = 2-5 year expected completion; C = 5+ expected completion								
S1. Apply compost to Alameda parks and open spaces.	<u>2030</u> : 5,560	В	<ul><li>Recreation and Parks</li><li>Public Works</li></ul>	Preliminary assessment of feasibility initiated between ARPD, PW, and Stopwaste.	Develop scope of work and identify staffing and funding resources to conduct feasibility study.				
S2. Further develop urban forest. Plant 3,500 additional trees in Alameda by 2030, adding 1,500 trees to the existing commitment of adding 2,000 trees.	<u>2030</u> : 356	Ongoing	<ul><li>Public Works</li><li>Recreation and Parks</li></ul>	<ul> <li>Scope of work underway for Master Tree Plan Update.</li> <li>Implementing community tree planting initiative for Earth Day 2020.</li> </ul>	Launch Master Tree Plan Update by July 1, 2020, and complete plan by June 30, 2021.				
S3: <sup>3</sup> Encourage urban farming and Climate Victory Gardens as a means of sequestration and resiliency (e.g., create rooftop and vertical gardens, convert vacant lots to community gardens).	Unquantified	В	<ul> <li>Planning, Building and Transportation</li> <li>Recreation and Parks</li> <li>City Manager's Office</li> </ul>	Initiated discussions with Alameda Backyard Growers to consider assisting with an interim community garden at Sweeney Park.	Partner with Alameda Backyard Growers and other community organizations to identify needs and opportunities.				
S4: Support and fund the vision of coastal dune, grassland, and wetland marsh habitat enhancement and creation at Alameda Point to support sea level rise adaptation and carbon sequestration, among other benefits such as wildlife habitat creation.	Unquantified	С	<ul> <li>Base Reuse</li> <li>Planning, Building and Transportation</li> <li>Recreation and Parks</li> <li>Public Works</li> <li>East Bay Regional Park District</li> </ul>	Finish Memorandum of Understanding with East Bay Regional Park District for Northwest Territories for Council approval February 2020.	■ TBD				

<sup>&</sup>lt;sup>3</sup> GHG reduction actions have been renamed so that the unquantified actions called "supplemental actions" in the CARP are numbered in the same manner as the quantified actions. S3 and S4 were referred to as unnumbered supplemental actions in the CARP.

Table 4. Climate Adaptation and Resilience Actions

CARP Actions	Adaptation sector	Timeframe	Responsible Entities	Progress Made	Next Steps			
<u>Legend</u> : ✓ = completed; A = ongoing or 1-year expected completion; B = 2-5 year expected completion; C = 5+ expected completion								
Update Alameda Point Master Infrastructure Plan for consistency with the CARP.	Sea level rise	A	<ul><li>Public Works</li><li>Base Reuse</li></ul>	Update in process.	Update completion expected spring 2020.			
Develop shovel-ready shoreline project at Veteran's Court seawall.	Sea level rise	A	Public Works	<ul><li>Preliminary designs complete.</li><li>Application for grant funding submitted.</li></ul>	Secure grant funding and complete project design.			
Conduct study on sea level rise impacts on water table in Alameda and potential contaminant mobilization.	Sea level rise	A	<ul><li>Public Works</li><li>Base Reuse</li></ul>	Study underway with contractor.	Study completion expected spring 2020.			
Continue working with Alameda County on community outreach during weather and hazard-related emergencies.	Heat, cold, air quality, flooding	Ongoing	<ul><li>Fire</li><li>City Manager's Office</li></ul>	The City of Alameda in partnership with Alameda County Office of Emergency Services (OES) uses AC Alert as the County-wide mass notification system to alert community members of weather related issues, as well as posting to social media, and the city website.	Encourage the public to opt-in to AC Alert and follow the City on social media.			
Raise stormwater fees to implement Storm Drain Master Plan.	Sea level rise and storm-driven flooding	<b>√</b>	<ul><li>Public Works</li><li>City Manager's Office</li></ul>	Successful ballot of property owners for new fee in Nov 2019.	Submit June 2020 budget amendment consistent with new fee's fee study.			
Finalize, approve, and begin implementing Green Infrastructure Plan.	Flooding, heat, air quality	А	<ul><li>Public Works</li><li>Anyone else?</li></ul>	<ul><li>Plan submitted to Water Board in Sept 2019.</li></ul>	Incorporate Water Board's feedback.			

Continue water conservation programs and drought-resistant landscaping programs.	Drought	Ongoing	■ EBMUD ■ Public Works?	None	■ None
Voters consider an infrastructure bond to include resilience and GHG reduction projects.	Sea level rise and flooding	A	<ul><li>Public Works</li><li>City Manager's Office</li></ul>	City Council considering Nov 2020 revenue measures, including bond.	Seek placement of revenue measure.
Adopt and implement an Environmental Emergency Annex to the Emergency Operations Plan.	Heat, cold, air quality, flooding	A	■ Fire	<ul> <li>Environmental Emergency Plan Annex draft is in development.</li> </ul>	Draft plan will be sent to the team for comment and added as an Annex to the Basic Emergency Operation Plan (EOP) once approved by the team.
Adopt and implement new air quality / smoke response protocols for City staff and employees.	Air quality	A	<ul><li>Human Resources</li><li>City Manager's Office</li></ul>	Policy has been completed and is compliant with new CalOSHA regulation on protecting workers from hazards associated with wildfire smoke.	Provide training on new policy to all employees as required by CalOSHA.
Fill critical information gaps related to shoreline condition and jurisdiction to create additional shovel-ready adaptation work.	Sea level rise	В	■ Public Works	None	■ None
Design and permit shovel-ready adaptation projects at areas of location-based priority flooding	Sea level rise	В	■ Public Works	Partial funding of Vet's Ct project.	Mailed letter to Caltrans     re: Doolittle and Northern     Shoreline projects.