



Memorandum

TO: TRANSPORTATION AND
ENVIRONMENT COMMITTEE

FROM: Kerrie Romanow

**SUBJECT: CLIMATE SMART SAN JOSE
PLAN SEMI-ANNUAL UPDATE**

DATE: April 14, 2021

Approved

Date

04/20/21

RECOMMENDATION

Accept this update on Climate Smart San José activities and cross-reference to the full Council consideration at the May 18, 2021 City Council meeting.

OUTCOME

Provide a semi-annual update to the City Council on key activities completed and underway to implement Climate Smart San José.

EXECUTIVE SUMMARY

The Climate Smart San José plan (“Climate Smart”) was approved by the City Council in February 2018 and includes goals and milestones that align with the 2016 Paris Agreement, designed to prevent global temperatures from rising by more than 2°C. Climate Smart is focused on achieving greenhouse gas (GHG) reductions in three primary categories: energy, water, and mobility. This update report is the sixth since Climate Smart approval and highlights the many areas of progress achieved since the last report in Fall 2020. It also includes the City of San José 2019 Inventory of Community Greenhouse Gas Emissions.

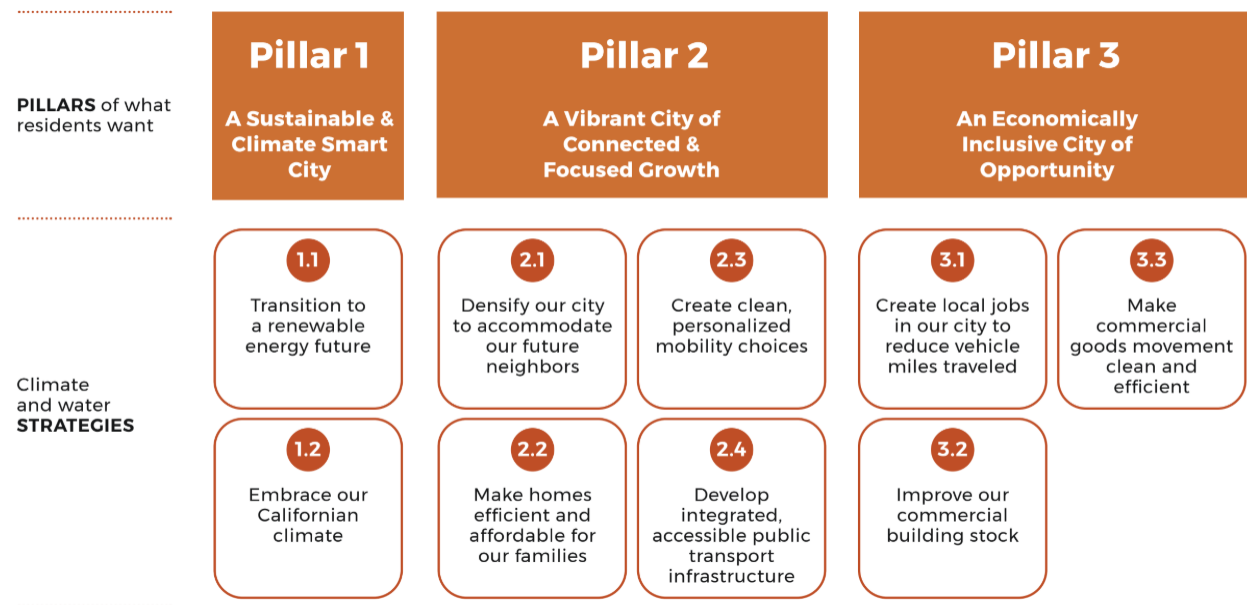
Climate change continues unabated, even as the City’s focus is overwhelmingly occupied by the COVID-19 pandemic. Despite this backdrop, and even acknowledging the temporary reduction in vehicle-related emissions due to residents sheltering-in-place, significant work towards shifting our transportation modes away from single occupancy vehicles is underway. Combined with the City’s leading-edge building electrification ordinances and programs, the City’s efforts to combat climate change continue to progress towards our Climate Smart goals.

BACKGROUND

Climate challenges directly affect the quality of life of all residents in San José. San José has suffered disruptive flooding events, degraded air quality from massive wildfires, and record-breaking extreme heat events in the last years. Now, in addition to the response needed to address the significant, long-term threat of climate change, San José faces the urgent and immediate impacts of the COVID-19 pandemic. The two crises have many parallels, including their global nature, health impacts, and disproportionate impacts on low-income residents and residents of color, and the City's climate objectives should be identified as pathways towards creating a healthier city that is more resilient in the aftermath of a crisis like the COVID-19 outbreak.

Adopted in February 2018, Climate Smart is a data-driven plan with specific goals to reduce community-wide GHGs through measures organized in three pillars with nine associated strategies, as depicted in Figure 1.

Figure 1: Climate Smart San José Framework



A technical working group and executive steering committee, consisting of various City departments under the leadership of the Environmental Services Department (ESD), coordinate the City's climate action efforts. The technical working group meets monthly and the steering committee meets quarterly to develop opportunities for departments to work together, as well as to identify areas that require broad coordination and/or alignment on fundamental policy decisions related to the implementation of Climate Smart.

In February 2019, City Council approved the City's scope of work in its American Cities Climate Challenge (ACCC) memorandum of understanding, which included an ACCC support package of in-kind services valued at \$2.5 million over a two-year period supporting Climate Smart initiatives and concluding in June 2021.

ANALYSIS

During the COVID-19 pandemic, staff members from multiple City departments have continued to find innovative ways to engage the community and partners to support Climate Smart objectives and to implement climate action outreach and education, programs, and policies.

Climate Smart Community Outreach and Education Activities

During the past reporting period (September 2020 through March 2021), City staff conducted the following outreach and educational activities:

- **Events and Workshops:**
 - **Climate Smart Champion Awards:** Staff awarded the 2nd annual Climate Smart Champion Awards to recognize six individuals and organizations for outstanding efforts in 2020 that align with Climate Smart goals.
 - **Community-based Organization (CBO) Cocreation Meetings:** Staff completed six meetings with partners, Building Electrification Initiative, Veggielution, ICAN and Upright Consulting, to co-create the community engagement plan and discuss community priorities as well as building electrification opportunities for the City's forthcoming Building Electrification Roadmap.
 - **Presentations:** Staff presented to the following:
 - Metropolitan Washington Council of Governments Built Environment and Energy Advisory Committee on San José's building electrification efforts and initiatives
 - Moreland West Neighborhood Association on Climate Smart and the Climate Smart Challenge platform
- **Marketing and Outreach:**
 - ***The Switch Is On Campaign:*** In collaboration with other local and regional government agencies, electricity providers, and the Building Decarbonization Coalition (BDC), the City of San José is participating in *The Switch Is On* campaign, designed to educate consumers about the benefits of using electric appliances in their homes and encourage the adoption of home electrification technologies. The campaign provides participating partners with access to *The Switch Is On* website (www.switchison.org) and a suite of creative assets for marketing purposes. BDC developed a multi-lingual website and ad collateral, including digital advertisements and videos, with input from partner agencies. City staff began marketing the campaign in December 2020 and will conclude in May 2021. Activities have included placing ads on social media, radio stations and on streaming services, working with a handful of micro-influencers to create short videos using an induction cooktop or stove and encouraging residents to try cooking with induction.

- **Climate Smart Challenge:** Staff continued to promote the City's Climate Smart Challenge platform (<https://climatesmartsjchallenge.org/>), reaching the City's goal of at least 500 participants by the end of 2020. The City partnered with Mothers Out Front and the City's California Climate Action Corp Fellow to enroll and engage participants. This has included 21 webinars, six given in Spanish and three given in Vietnamese, conducted to promote the platform and its use. As of March 31, 2021, there are 532 participants in the program. Participants have completed more than 465 climate actions that have resulted in more than \$37,000 saved, 108 tons of CO₂ reduction and 152,156 gallons of water saved.
- **Electric Vehicle (EV) Promotion:** Staff continued to refine and improve San José Clean Energy's (SJCE) *Electric Vehicles* webpage (<https://sanjosecleanenergy.org/ev/>) as information and the EV market evolves, including adding information regarding fleet electrification opportunities for fleet operators.
- **Bay Area SunShares:** A current group buy program, Bay Area SunShares, offers discounts on solar and battery storage through selected solar providers for residents living in the nine Bay Area counties. Through 2020, SJCE supplemented SunShares' outreach which led to an increase in rooftop solar and/or battery storage contracts signed and installed in San José, from 10 during previous efforts to 18 during the most recent cycle. SJCE promoted the program through social media, SJCE's website, and targeted mailers and emails to residents living in predicted PG&E power shutoff areas.
- **Social Media:** Staff deployed social media campaigns and shared more than 15 posts on ESD's and SJCE's Facebook, Instagram, and Twitter platforms to highlight program successes and campaigns for Climate Smart Champion Awards, ACEEE City Clean Energy Scorecard ranking, Carbon Disclosure Project "A List" ranking, Climate Smart Challenge, and Building Performance Leaders (BPL) program.

City staff will continue to focus efforts on digital campaigns such as use of webinars, social media, and targeted email communication until in-person social gatherings are risk-free. Key outreach activities planned for the near future include launching an influencer induction cooking video mini campaign and Climate Smart and SJCE's continued engagement activities including promotion of the Climate Smart Challenge platform.

Climate Smart Program and Policy Activities

The following are key programmatic and policy initiatives arranged by the plan's core pillars and are representative of the extensive and commendable actions that various City departments are taking to bring the near- and long-term Climate Smart goals to a reality:

Climate Smart Pillar 1: A Sustainable & Climate Smart City

San José Clean Energy

SJCE initiated service in September 2018 to municipal accounts and expanded in February 2019 to serve most residents and businesses. SJCE now serves more than 345,000 customers in the City of San José and is the largest single-jurisdiction community choice aggregation (CCA)

program in operation in the United States with a peak demand served of approximately one gigawatt (GW). SJCE's default GreenSource service is 40 percent renewable and up to 92 percent carbon-free, and its TotalGreen service is 100 percent renewable. More than 1,200 residential and commercial customers have upgraded to TotalGreen. Customers opting out of the program for full PG&E service represent about two percent of the customers who have been enrolled.

After paying off start-up costs and building an operational reserve, SJCE can reinvest operational surpluses back into the community through lower rates and local programs that further reduce GHG emissions and promote equity. Over the past two years, SJCE has conducted trilingual focus groups, surveys, presentations, interviews, and workshops with residents, businesses, the Community Advisory Commission, other CCAs, the City Council, and industry experts to get feedback on potential programs and develop a programs roadmap. Through this process, SJCE has identified the following programmatic focus areas: building electrification, energy efficiency, vehicle electrification, program-specific rates, resiliency, and distributed energy resources. The City Council voted to accept SJCE's programs roadmap on March 9, 2021. The presentation included a proposed program selection framework, as well as potential near-term and future programs once operational reserve target levels are reached.

It will take several years for SJCE to build a sufficient operating reserve, with a goal of having 120 days of operating expenses by 2023. CCA entities such as SJCE face significant regulatory challenges and risks, including: increasing investor-owned utility above-market costs; expansion of direct access, which could reduce the number of commercial customers served by SJCE; and central buyer initiatives that would limit SJCE's procurement autonomy and ability to control costs. These challenges could delay SJCE's ability to fund a sufficient operating reserve and the funding of customer programs. In the meantime, SJCE proposed to pursue three near-term programs that leverage external money from state-level agencies. These programs include Energy Efficiency programs funded through the California Public Utilities Commission (CPUC)-administered Public Purpose Program charge, the CPUC-administered Disadvantaged Community Green Tariff program, and the California Electric Vehicle Infrastructure Project (CALeVIP). These three programs are discussed in more detail below.

SJCE is continuing to work to improve SJCE's overall portfolio mix to prioritize development of new renewable and battery storage resources as the most impactful way to meet the Climate Smart Pillar 1 goals and transition to a renewable energy future. In order to make more meaningful emissions reductions, SJCE recommends prioritizing long-term procurement of renewable resources and focusing on electrification incentives.

One GW Solar City

SJCE is focused on supporting the Climate Smart bold campaign of becoming the world's first city to install one GW of solar by 2040 with three parallel initiatives.

1. Promote existing programs available to San José residents
2. Provide education and support to San José residents on home solar systems

3. Develop programs for SJCE customers

SJCE Programs

Energy Efficiency Funding

On March 9, 2021, the City Council voted to allow SJCE to apply to the CPUC to Elect to Administer energy efficiency funding from the Public Purpose Program Charge on customer bills. SJCE will submit its application in April 2021. Should its application be accepted by the CPUC, SJCE can launch energy efficiency programs in early 2022. SJCE expects to receive approximately \$1.7 million for three years, for a total of \$5.1 million. Staff has identified two programs that meet CPUC requirements: a discount program for energy-efficient electric appliances geared towards moderate-income single-family households and a discount program Heating, Ventilation, and Air Conditioning (HVAC) systems and components for small businesses and schools.

Community Solar Program Funding for Disadvantaged Communities (DACs):

As part of its suite of programs focusing on expanding solar in DACs, the CPUC has created a community solar program for residents in DACs, the DAC-Green Tariff program. The program helps to provide discounts of up to 20 percent to low-income residents living in DACs. The program's aim is also to allow low-income residents who do not own their home and thus do not qualify for the DAC-Single-family Affordable Solar Homes program to gain access to community solar. SJCE's application to the CPUC to administer this program was approved in March 2021 and SJCE aims to launch the program in San José in 2022.

Municipal Facilities

Voter approval of Measure T (Disaster Preparedness, Public Safety and Infrastructure Bond) in November 2018 is allowing the Departments of Transportation (DOT) and Public Works (DPW) to implement additional conversions of the City's remaining outdoor lighting inventory to LEDs. Under an agreement with PG&E, the City's remaining streetlight inventory of 37,000 lights will be completely converted by 2022. All City park and trail lighting will be converted by 2024. LED lighting and controls upgrades will capture additional energy savings and GHG reductions.

City Hall participated in the BPL Program, discussed in more detail below, completing lighting retrofits, construction for a HVAC upgrade project, and a behavior change campaign for employees at home. DPW staff continues to upgrade to more efficient equipment in its Deferred Maintenance Infrastructure Backlog (DMIB) programs and to incorporate zero net carbon (ZNC) technologies in new City facility design, such as Fire Station No. 37 and No. 20. New construction is also evaluated for battery backup-ready systems to support the City's resiliency goals. DPW staff have engaged with a consultant to aid the City in exploring microgrid locations and possibilities at City facilities. The consultant is looking at facilities without backup generators or sufficient generation for critical loads, in particular and aiding in prioritization activities.

Staff continues to explore technology with vendor entities and research grant and financing opportunities. In addition to pursuing opportunities such as these, a comprehensive strategy and accompanying funding mechanism are needed to implement a holistic program for the entire portfolio as well as traditional efficiency measures.

Municipal Solar Installations

The City's current municipal solar portfolio spans 37 sites with a total generation capacity of 6.5 megawatts of clean energy. The last substantial increase to this portfolio occurred in fiscal year 2016-2017. There is a current need for funding to install monitoring at the seven arrays owned by the City and to implement the solar analyses at municipal facilities included in the City Action Plan in Climate Smart San José.

Climate Smart Pillar 2: A Vibrant City of Connected & Focused Growth

Building Electrification Reach Code

In September 2019, City Council approved a building reach code for all new construction which encourages all-electric buildings and requires increased electric vehicle charging infrastructure and solar-readiness. In October 2019, Council approved a natural gas prohibition ordinance affecting low-rise residential buildings and a municipal all-electric building policy. In December 2020, City Council approved an updated natural gas infrastructure prohibition, effective August 1, 2021, which extended the prohibition to all new construction buildings (with limited exceptions and exemptions).

City staff, in partnership with the Association for Energy Affordability, continues to provide technical assistance to project teams who are interested or are in the process of developing an all-electric building. To date, staff has worked with project teams to address issues including energy modeling compliance, heat pump water heater design and optimization, and using solar thermal versus solar photovoltaic to meet Title 24 compliance.

Transportation Access and Mobility Plan

The San José Access & Mobility Plan (<https://www.sanjoseca.gov/your-government/departments-offices/transportation/planning-policies/san-jos-access-and-mobility-plan>) will lay out a set of strategies to bring the bold transportation goals of Envision 2040 San José General Plan and Climate Smart San José to life. The Plan is developing projects and policies that make progress on goals like increased walking, biking, and transit use, decreased auto dependence, increased safety, and making our streets designed around people, not cars.

The Plan is being developed in three phases that will ultimately shape how DOT is structured, the workflow it uses to prioritize projects, and what projects are recommended to be included in the five-year Capital Improvement Program. Staff completed Phase 1 under the direction of a cross-departmental and cross-institutional steering committee. In this phase, staff brought together the wide-ranging City transportation policy goals into a set of Transportation Directives, including a set of draft Key Performance Indicators (KPIs) that will drive the development of strategies and analytics in Phases 2 and 3.

Staff is currently working with a world class team to develop Phase 2 and 3 of the Plan. With the help of CBOs and the public, the team has developed a clear set of goals and KPIs. Currently the team is engaging the public and transportation professionals from around the region, as well as transportation planning efforts from around the world to develop the list of strategies and major projects to deliver on the City's ambitious goals for transportation.

Access and Mobility Plan Goals

Goal		Description
Less Driving		Have more travel choices so trips can be made without driving
Access for All		Increase transportation education, affordability, options and use of driving alternatives, especially in historically underserved communities
Enjoyable Transportation		Make getting around pleasant, easy, reliable and appealing
Transportation Safety		Maintain and make improvements to the bike, walk, and transit system to support Vision Zero, prioritizing the personal security of the most vulnerable populations first
Clean the Air		Reduce pollution from cars and trucks
20-Minute Neighborhoods		Create great places so it is easy to run errands and get to schools and parks without a car
Connected Neighborhoods		Make it easy to get between neighborhoods and to major destinations by foot, bike, bus, rail, and other shared options
Moving the Economy		Provide access to diverse jobs by sustainable modes, support goods to market, and support job growth in San Jose.
Plan for the Future		Use the newest ideas to keep the transportation system modern, fair, and effective

ACCESS AND MOBILITY PLAN TIMELINE



Bikeway and Street Safety Improvements

In October 2020, City Council adopted the new, citywide Better Bike Plan 2025. This plan sets a higher standard for bike facilities in the City calling for 250 miles of existing bike lanes

upgraded to protected lanes, 100 miles of new protected bike lanes, and 100 miles of new bike boulevards. This follows on the heels of the successful implementation of the 400+ miles proposed in the prior 2009 Bike Plan. DOT leverages its annual pavement maintenance program to install bikeways and pedestrian safety measures on City-owned streets. There are currently 408 miles of on-street bike infrastructure in the city, with the majority of the City's bikeways being painted lanes that run alongside travel lanes. However, DOT increasingly utilizes "quick-build" materials to create protected bike lanes, which encourage people of all ages and abilities to bike more. This targeted approach helps the City progress towards its mode shift goal of 15 percent of trips made by bike in 2040.

Increasing High Density Housing

The City continues to implement major strategies and goals of the Envision San José 2040 General Plan to facilitate high density housing in identified growth areas. The General Plan Four-Year Review project schedule has been impacted due to the COVID-19 pandemic, and City Council is now anticipated to consider the policy recommendations that would facilitate higher density housing in areas near transit and/or other services in late summer 2021. Additionally, preparation of urban village plans for the Berryessa BART Urban Village and the North 1st Street Local Transit Village are underway and are anticipated to be considered by City Council for adoption in summer 2021 for Berryessa BART and Fall 2021 for North 1st Street.

Parking Management and Pricing

The City is reevaluating its car parking and transportation demand management (TDM) policies to advance the Climate Smart plan, ACCC, and Envision San José 2040 General Plan transportation and land use goals. This effort has been ongoing since mid-2019.

The parking policy update benefits from a broad range of community and stakeholder input. Public engagement is ongoing and expected to continue into summer of 2021. City staff is currently working with SPUR (focusing on the downtown) and Greenbelt Alliance (assisting with the rest of the city) on public engagement efforts. Along with Greenbelt Alliance, City staff has presented before a number of existing community groups (such as the District 6 Leadership Group and the Si Se Puede Collective), with a focus on educating the public on the rationale for considering changes to the City's parking policies. The engagement effort has been modified significantly due to the COVID-19 pandemic and staff has moved to alternative strategies that allow continued outreach through several online webinars and focus groups. As part of the outreach and education process, SPUR and Greenbelt Alliance hosted online forums, including "What Happens When You Eliminate Parking?", held by SPUR on May 21, 2020, "Parking Reform for Climate Smart Cities," held by Greenbelt Alliance on June 4, 2020, "Implementing Successful Value Driven Transportation Pricing," held by SPUR on October 19, 2020 and "From Transit to Tipoff: Solving the Transportation Challenges of Large Venues," held by SPUR on February 25, 2021. Staff will continue to work with SPUR and Greenbelt Alliance to coordinate additional forums in the next few months to ensure robust public engagement.

In addition to community and stakeholder input, staff is currently researching potential policy options with support from a consultant, Nelson Nygaard, as part of the ACCC. The focus of

research is best practices in parking and TDM measures for new development. Staff has been working on developing a model ordinance and policy that draws from lessons learned in a number of other municipalities, including San Francisco. Staff anticipates hosting a City Council Special Study Session on Parking and TDM in August 2021 with an updated ordinance and policy revisions expected to go to City Council a few months later.

Electric Mobility Roadmap

On January 14, 2020, the City Council accepted San José Electric Mobility Roadmap, a two-year plan to accelerate the electrification of transportation in the city. The Roadmap's action items grouped into four categories: 1) electric vehicle charging infrastructure, 2) fleet, 3) personally owned vehicles, and 4) shared mobility. On February 2, 2021, staff provided an update to Council on the San José Electric Mobility Roadmap activities. Due to efforts by various parties, the City is making great strides to fill infrastructure gaps identified in the Roadmap. The DPW is working with PG&E to install EV chargers at City facilities through its participation in the Electric Vehicle Charge Network program (see more details below). The Silicon Valley CALeVIP program will also expand the City's charging network (more details below). And, Electrify America, a subsidiary of Volkswagen, has three active clusters of electric vehicle chargers in the City: Bank of America Financial Center on Bernal Road, the Plaza Shopping Center and Princeton Plaza Mall. All sites offer three fast chargers and one Level 2 charger. The company has indicated that it plans to install more charging clusters in other locations in San José in the next year and a half, although details on those projects have not yet been made public.

In addition, DPW is revising the Green Fleet Policy and Vehicle Replacement Policy to enhance the conversion of the remaining City fleet to electric vehicles with "electrification first" in mind for vehicle replacements that are readily available or emerging in the marketplace. DOT is working with ACCC to design the regulatory framework for an e-one-way shared vehicle program. DOT and SJCE developed Drive Electric San José, an electric vehicle public outreach and limited-time dealership discount program, to increase the number of people driving electric vehicles.

Electric Vehicle Charging Network Program

In December 2020, the Council approved agreements for the City to participate in the Electric Vehicle Charging Network program. To date, PG&E and their contractor, Cupertino Electric, have completed the installation of 122 total charging ports distributed across four City facilities: Happy Hollow Park and Zoo (40 ports), Police E-Lot employee parking lot (42 ports), Mabury Service Yard (20 ports), and the South Service Yard (20 ports). The chargers will be available for use by the City's fleet and its employees. The new chargers are essential to the City's continued conversion of its fleet to alternate fueled vehicles.

DriveForward EV Financial Assistance Program

To help low- and moderate-income residents buy a new or used EV, the City of San José has partnered with Peninsula Family Service on its DriveForward EV Financial Assistance Program (www.sanjosecleanenergy.org/drive-electric/#financing). Together, the agencies hosted a total

of three 90-minute virtual workshops, two of which were in September (hosted in Spanish) and October 2020 (hosted in English and Vietnamese). Free one-on-one financial counseling by phone or Zoom was also available for individuals unable to attend the workshops. Participants learned how to leverage \$5,000 - \$9,500 in additional state incentives for a down payment on an electric vehicle, where to find affordable vehicle loans, how to take advantage of state and federal rebates, and useful tips for potential EV owners. In addition, participants learned about Peninsula Family Service's programs and resources for financial empowerment outside of purchasing an electric vehicle. Financial education topics include credit, budgeting, and money management. These are invaluable resources that can help our community members facing job insecurity and financial hardship, as well as anyone looking to improve their financial education.

One-Way Vehicle Sharing

As Council directed when it accepted the San José Electric Mobility Roadmap, staff has developed draft terms and conditions for allowing one-way vehicle (car and/or moped) sharing services in the city. The conditions address shared vehicles parking in residential permit zones and include a potential fee structure that incentivizes electric vehicles. It also requires service providers to offer discounted memberships to individuals at or below 200 percent of the federal poverty level; includes communities of concern in their home zone; and provides outreach and marketing materials in Spanish and Vietnamese, and to tenants in multi-family housing. Due to COVID-19, the City was unable to complete its community engagement efforts and report back to Council by June 2020, as originally planned. The ordinance will likely be heard by Council in May 2021.

Between early May and mid-September 2020, the City made presentations about the proposed shared vehicle terms and conditions to 13 neighborhood/advocacy groups. The groups were in neighborhoods within or immediately outside the initial service area proposed by Revel, an electric shared moped service. That company had expressed interest in expanding to San José in Fall 2020 (due to low usage in some of its more suburban sites during the pandemic, the company later backed off on that timeline). A total of 97 people attended those meetings. The presentations included information about one-way car and moped sharing services, the value of such services, and the rules the City was considering governing the operation of such services. The City answered questions and sought input from attendees on the proposal.

Ride-Hailing Electrification

Staff is working with Forth, one of the ACCC technical advisors, to identify ways the City can encourage more ride-hailing drivers, such as Uber and Lyft, to switch from gas-powered vehicles to electric ones. In November 2020, Forth and the City convened its second Transportation Network Company (TNC) Electrification Working Group meeting. TNC is the CPUC's term for companies such as Uber and Lyft that use mobile apps to enable people to pay for individual and shared rides provided by drivers who use their own vehicles. The working group was comprised of EV charging companies, TNC and food-delivery companies, public agencies (i.e. California Air Resources Board, Santa Clara Valley Transportation Authority, Bay Area Air Quality Management District, Metropolitan Transportation Commission), San Francisco International Airport (SFO) staff, and the International Council on Clean Transportation. The intent was to

identify specific areas where the participating organizations could work together to advance common goals to accelerate TNC electrification. The discussions identified two discrete initiatives that Forth is working with the City on during through the ACCC's June 2021 end date. Forth is working with Norman Y. Mineta San José International Airport staff to assist it in developing a request for proposals for EV chargers, possibly in coordination with a similar effort by SFO. Forth is also working with the City on a TNC EV ambassador program, funding EV TNC drivers to share their enthusiasm for and experience with driving an EV for their work with other TNC drivers via social media.

California Electric Vehicle Infrastructure Project

On December 16, 2020, SJCE launched CALeVIP as part of a joint project with Peninsula Clean Energy, Silicon Valley Clean Energy, City of Palo Alto Utilities, and Silicon Valley Power. CALeVIP is a California Energy Commission (CEC) co-funded rebate program for Level 2 and Direct Current Fast Charging infrastructure. The CEC has contributed \$10 million while SJCE contributed \$4 million to the total pool of \$14 million rebate funds for the City of San José. The program is being administered by the Center for Sustainable Energy (CSE). Rebates can go to projects located at workplaces, multi-unit dwellings, public agencies, shopping centers, and other locations for public charging. Funds were reserved within a matter of hours, with at least 25 percent being allocated to installations in low-income communities and DACs, and there are additional incentives for installations in those areas. CSE is currently reviewing applications.

Climate Smart Pillar 3: An Economically Inclusive City of Opportunity

Building Energy & Water Performance Ordinance

On December 11, 2018, San José City Council approved the Energy and Water Building Performance Ordinance (BPO) as the first ordinance passed to address Climate Smart goals. Long-term benefits of the ordinance include lowering GHGs from existing buildings, reduced long-term energy and water costs for building owners and tenants, improved public health, and increased demand for local jobs in sustainability and energy efficiency. Through a phased-in implementation schedule, the BPO requires that property owners of large commercial and multi-family properties 20,000 square feet (sf) in size and above to benchmark these properties' energy and water use and report this to the City annually, using the US EPA ENERGYSTAR Portfolio Manager® (ESPM) platform. Starting in 2020, owners are also required to submit a reporting fee concurrently with their benchmarking report. This fee, set at \$150 in 2020 and 2021, funds program implementation and may be adjusted annually based on program cost recovery. The BPO builds on existing state law (CA Assembly Bill 802) that established a statewide building energy use benchmarking program for buildings 50,000 sf in size and larger. Compliance with San José's BPO relieves building owners from reporting to the state.

In 2021, the BPO's third reporting year covers 2,265 commercial or multi-family buildings and 43 municipal buildings. The reporting deadline returned to the ordinance's regular annual deadline of May 1. On March 30, 2021, City Council approved extending the onset of Beyond Benchmarking requirements by two years to commence May 1, 2023. This extension addresses

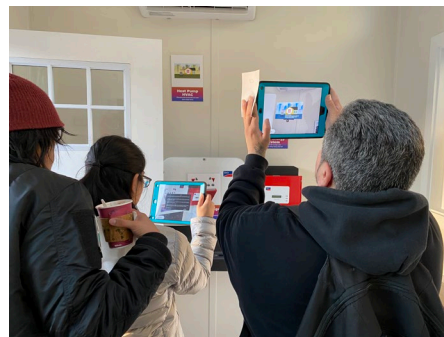
building vacancies and/or irregular energy usage patterns caused by the COVID-19 pandemic that are expected to create data quality for the 2020 and 2021 reporting years that will be insufficient for determining and recommending performance pathways.

Building Performance Leaders Pilot

From November 2019 through December 2020, the City piloted a voluntary benchmarking and building efficiency program called the BPL that guided six organizations from various building sectors in taking actions. The BPL's participants included Adobe, Evergreen Valley High School, Mineta San José International Airport, San José City Hall, San José State University, and 488 Almaden – altogether 23 buildings totaling three (3) million sf of infrastructure. The group completed several projects such as lighting retrofits, boiler replacements, economizer replacements, HVAC upgrades, and Uninterruptible Power Supply system replacements. BPL organizations participated in voluntary benchmarking, training, and networking events and utilized the Climate Smart Challenge platform, engaging 300 community members, to support GHG reduction actions among participants and their employees as part of employee engagement campaigns. High performers could be recognized through “badges” on the Climate Smart Challenge platform by hitting different GHG reduction targets, announcements in the organization's email and/or newsletter, or raffles. In January 2021, City staff hosted a virtual end-of-program event to recognize participants and celebrate their achievement of lowering their buildings' GHG emissions by 24 percent collectively.

Zero Net Carbon Demonstration Project

The ZNC building demonstration project (“ZNC demo”) is on-hold for community events since March 2020 due to COVID-19. In preparation for future events, staff completed an augmented reality (AR) component for residents to better understand the energy and carbon savings associated with upgrading to the technologies featured in the ZNC demo. The AR application allows residents to use a smartphone application that superimposes trivia questions, images, videos, and other computer-generated objects onto the technologies featured in



the ZNC demo. For events that cannot physically accommodate the ZNC demo, a virtual reality (VR) app was created for users to explore a virtual ZNC home with a similar user experience as the AR component. The VR app is accessible to anyone with an Oculus Go-headset and the AR application is accessible through the Apple and Google stores.

Heat Pump Water Heater Rebate Program

Electrify San José (www.sjenvironment.org/electrifysanjose), a residential heat pump water heater rebate program, has been active since July 2019. With funding available from the Bay Area Air Quality Management District (BAAQMD) Climate Protection Grant, the program provides rebates of up to \$4,500 to households who upgrade from a natural gas water heater to an electric heat pump water heater. Low-income households currently enrolled in the California

Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA) programs are eligible for additional rebate amounts of up to \$6,000. The program currently has \$45,000 in reserved rebates and has paid out over \$228,000 to customers since the program launched in July 2019. As of March 31, 2021, 63 projects have been completed with 11 additional installations expected by the end of June 2021. BAAQMD is extending the City's grant term through July 31, 2021 to allow more time for rebate distribution and project completion due to third-party and COVID-19 delays. The program is fully subscribed with a waitlist for new applicants.

Building Electrification Roadmap Co-Creation

With technical support from the Building Electrification Initiative and Upright Consulting through the ACCC, the City is developing a Building Electrification Roadmap in collaboration with two local CBOs: ICAN - International Children Assistance Network, (which works with the Vietnamese community in San José) and Veggielution (which works primarily with the Latinx community in San José). Representatives from these two groups are serving as "Community Co-Creation Consultants" and are compensated for their time using funding from the ACCC and the City's Rapid Response Grant from the Urban Sustainability Directors Network (USDN). The Roadmap will contain policies and programs that the City can implement to support equitable residential building electrification in San José. City staff are using this Roadmap as an opportunity to pursue deeper partnerships with local CBOs and to co-create a new and more effective community engagement and community ownership model. Completion of the Roadmap is expected in late 2021.

Climate Smart Resources and Performance Tracking

Equity and Climate Action Fellows

With funding from the USDN and the Energy Foundation, San José was selected as one of seven cities to host a USDN Equity, Diversity, and Inclusion (EDI) fellow. From September 2020 through January 2021, the EDI fellow looked at how City staff can apply an equity lens to Climate Smart San José initiatives and improve community engagement practices. The EDI fellow focused on three research areas: taking an inventory of equity best practices, assessing existing community engagement initiatives, and developing a climate equity narrative. The EDI fellow produced a final report and presented his research and recommendations to City staff. The report identified ways in which City staff can build trust and foster better relationships with disadvantaged communities in San José. The top three recommendations included in the presentation were to: 1) listen to the community first, 2) focus on building relationships, especially with communities of color, and 3) develop a citywide understanding of equity.

The Climate Smart team also currently has the support of three California Climate Action Corps fellows. San José was one of five cities included in the initial pilot stage of this program, running from January to August 2021. The three Climate Action fellows are working on strengthening Climate Smart community engagement and data management. Climate Smart staff has applied for two additional fellows for the next cycle, which will run from September 2021 to August 2022.

City Climate Smart Staffing

San José's Climate Advisor, housed in ESD and funded by the National Resources Defense Council, will help to facilitate Climate Smart ACCC initiatives through June 2021. Term-limited staff support for Climate Smart and ACCC initiatives within ESD, DOT, and the Planning, Building and Code Enforcement Department are funded through the end of FY 2020-2021 and ongoing funding is being requested for FY 2021-2022. Maintaining City staffing support will be critical to fully leverage the momentum gained on Climate Smart objectives through the City's participation in the ACCC program.

External Funding

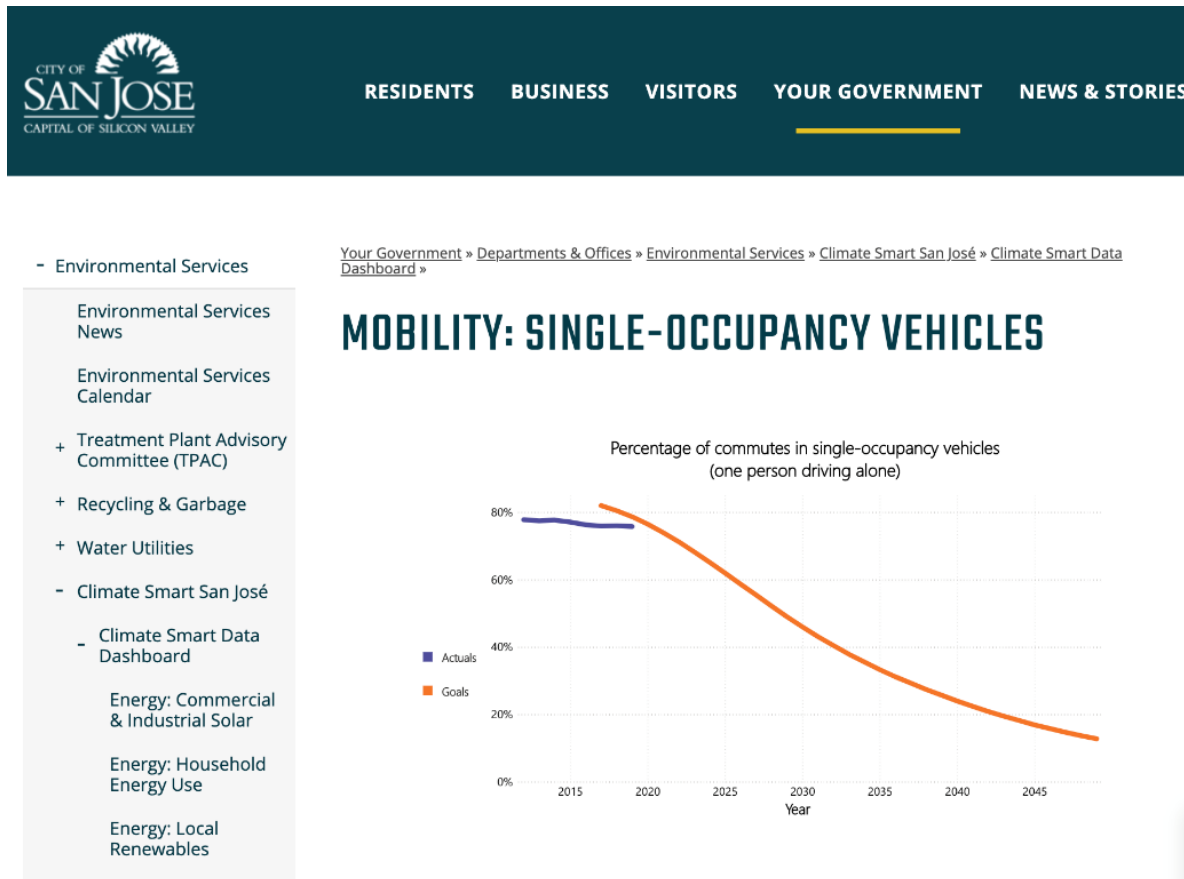
While focusing on the delivery of quality work products under current grants, City staff continues to closely track and discuss, as part of the Climate Smart technical working group meetings, available grant opportunities to ensure coordinated and timely grant applications. In addition, staff continues to leverage and promote available external resources that align with Climate Smart goals to reduce staff time and programmatic costs.

Climate Smart Data Dashboard

Development of the Climate Smart Data Dashboard (<https://www.sanjoseca.gov/your-government/departments-offices/environmental-services/climate-smart-san-jos/climate-smart-data-dashboard>) has continued since the last Climate Smart update to Council, with City staff completing the following major updates:

- (1) Migrating to the City website from the separate website previously hosted by ProspectSV;
- (2) Adding two additional metrics, Single-Occupancy Vehicles (Figure 2) and Commercial & Industrial Solar;
- (3) Updating the Community-wide Emissions page with the results of the 2019 community-wide GHG inventory; and
- (4) Updating Metrics with 2019 data.

Figure 2. The new Single-Occupancy Vehicles metric on the Climate Smart Data Dashboard



Staff has developed a strategy for adding data on the remaining Climate Smart metrics to the dashboard and are in the process of implementing that strategy as quickly as possible given capacity constraints.

2019 Inventory of Community-wide Greenhouse Gas Emissions

Staff has recently completed the 2019 community-wide GHG inventory (see Attachment A). Figure 3 provides a breakdown of 2019 community-wide emissions by sector. The largest contributor is the transportation sector, which comprises 51 percent of total emissions. The next largest contributor is the buildings sector (primarily electricity and natural gas usage), comprising 34 percent of total emissions. A breakdown of the 2019 inventory by sector and subsector is provided in Table 1, along with the percent decrease in each sector and subsector since 2017. The full inventory report provides a detailed profile of emissions in 2019 - key information for guiding future reduction efforts. Staff also added a summary of the inventory results to the Climate Smart Data Dashboard.

Figure 3. 2019 San José community greenhouse gas emissions by sector.

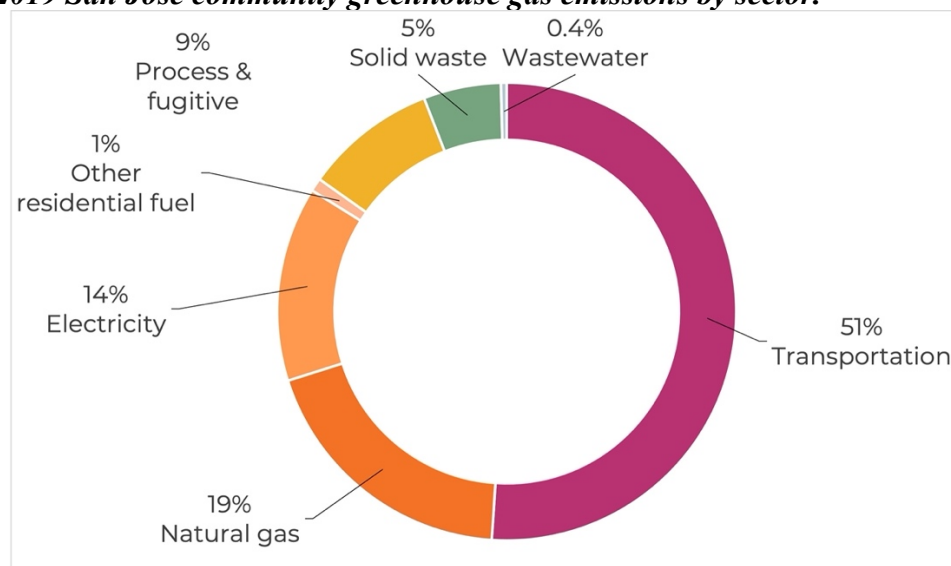


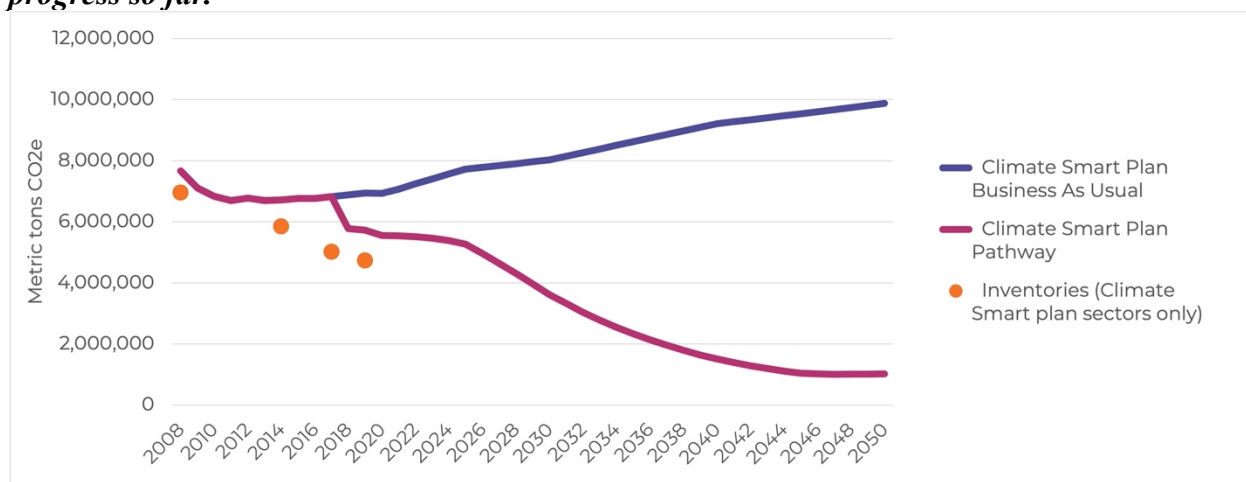
Table 1. 2019 community greenhouse gas emissions in San José and change since the previous inventory year (2017).

Emission Sector and Subsector	2019 Emissions (MT CO ₂ e)	Percent change from 2017
Transportation	2,795,791	- 9%
On-road vehicles	2,463,769	- 10%
Off-road vehicles	161,865	- 1%
Aviation – non-local flights	135,343	+ 11%
Buses and paratransit	15,066	- 12%
Freight rail	11,539	+ 33%
Commuter rail	3,878	- 4%
Aviation – local flights	3,810	- 16%
Light rail	521	- 55%
Buildings	1,850,231	+ 2%
Natural Gas	1,045,209	+ 6%
Electricity	753,963	- 4%
Other Residential Fuels	51,059	+ 8%
Process and Fugitive	510,579	- 1%
Fugitive HFCs and PFCs	464,753	- 1%
Fugitive Natural Gas	42,088	+ 1%
Fugitive SF ₆	3,738	- 25%
Solid Waste	298,733	- 8%
Residential	86,771	- 11%
Commercial	60,583	+4%

<i>Construction & Demolition/ Other</i>	151,379	-10%
Wastewater Treatment	22,285	- 2%
Total Emissions	5,477,619	- 5%
Forests and trees	-65,465	+ 5%
Net Emissions	5,412,154	- 5%

The Climate Smart plan lays out a pathway for emissions reduction until 2050 that is based on the goals in the Paris Agreement and in California Executive Order S-03-05. The pathway goal for 2019 is 5,727,275 metric tons of carbon dioxide equivalent (MT CO₂e). San José 2019 emissions from only the sectors considered in the Climate Smart plan are 979,516 MT CO₂e lower than the Climate Smart pathway goal. Figure 4 provides a comparison between the Climate Smart emissions reduction pathway and San José emissions reduction progress so far.

Figure 4 Climate Smart emissions reduction pathway and San José emissions reduction progress so far.



While San José is in alignment with its Climate Smart goals, the pace of emissions reductions will need to increase in the next five years to stay in line with future goals.

External Reporting

Climate Smart staff is responsible for annual reporting to the American Council for an Energy Efficient Economy (ACEEE), CDP (formerly the Carbon Disclosure Project), the EPA Green Power Partnership, the Global Covenant of Mayors (GCoM), and Shining Cities. Since the last Climate Smart update, the 2021 report has been submitted to ACEEE with final rankings estimated to be released in Autumn 2021.

In 2020, San José was one of 88 global cities recognized as a climate leader through inclusion on CDP's A List. CDP, an environmental impact non-profit, recognizes efforts in climate action

and transparency. San José received credit for robust climate change strategies and tracking and progress in reducing GHG emissions. San José was also awarded all available badges by GCoM (<https://www.globalcovenantofmayors.org/cities/san-jose-ca/>), recognizing the City's work on climate mitigation and adaptation through Climate Smart. Finally, San José was ranked ninth out of 100 cities assessed by ACEEE in the 2020 City Clean Energy Scorecard (<https://www.aceee.org/local-policy/city-scorecard>). This is the first time that San José has been in the ACEEE city scorecard top ten.

New Climate Smart Elements

Climate Smart Natural and Working Lands Element

In July 2019, the City executed a MOU, including a cost sharing agreement, with the Santa Clara Valley Open Space Authority (OSA) to evaluate how natural and working land (NWLs) could contribute to meeting Climate Smart GHG emissions reduction goals. Staff awarded a \$160,000 contract for consulting services to Cascadia Partners, LLC in January 2020. Cascadia developed a spatially derived tool (i.e. modeling platform) and methodologies in coordination with the NWL interdepartmental Project Management Team, consisting of key OSA, City, and Cascadia team members, and the Technical Advisory Committee, consisting of 30 NWL technical experts from local and statewide agencies.

In March 2021, the City received a draft NWL Technical Report which evaluates how various NWL land use changes and enhancements, such as carbon farming and urban forestry, may impact San José's net GHG emissions profile, GHG reduction targets, and provide co-benefits. Remaining NWL work includes finalizing the technical report and incorporating the findings as a Climate Smart NWL element which, pending the approval of additional NWL funding in the FY 2021-2022 budget, will include cost and equity analysis of NWL measures similar to the measures currently included in Climate Smart.

Climate Smart Zero Waste Element

The 2019-2020 Adopted Operating Budget added a one-time non-personal/equipment funding of \$500,000 in the Integrated Waste Management Fund for consultant services to develop a new Zero Waste element for Climate Smart San José plan and to revise the Zero Waste Strategic Plan. This effort was combined to form what will be the Climate Smart Zero Waste Element (ZWE), which will account for the City's net GHG emissions resulting from the solid waste sector, assess and reevaluate the prioritization of the City's zero waste strategies, and address critical solid waste management challenges. Staff awarded a contract to Abbe & Associates LLC in January 2020. Development of the ZWE has been delayed due to challenges caused by the COVID-19 pandemic and the anticipated completion date for the ZWE is Summer 2021.

CONCLUSION

Progress on a multitude of Climate Smart objectives, as evidenced by this report, continues to be significant, despite the limitations imposed by the COVID-19 pandemic. The City has adopted significant policy with its extension of the Natural Gas Infrastructure Prohibition Ordinance to all building types. Critical attention to the City's transportation-related emissions sector, the City's largest GHG contributor, is well underway and will maximize the potential of electrification, automation, remote work, and shared mobility to achieve the City's environmental and transportation goals. The intersection of climate work and equity present a strong opportunity to help our communities most adversely affected by climate change transition to a clean energy economy and enjoy the public health benefits that come from moving away from fossil fuels.

EVALUATION AND FOLLOW-UP

Staff will provide progress updates to Transportation and Environment Committee and City Council on Climate Smart San José activities on a semi-annual basis.

CLIMATE SMART SAN JOSE

The recommendation in this memo aligns with one or more Climate Smart San José energy, water, or mobility goals.

PUBLIC OUTREACH

This memorandum will be posted on the City's website for the May 3, 2021 T&E Agenda as well as on the May 18, 2021 City Council's Agenda website.

COORDINATION

This memorandum has been coordinated with the City Attorney's Office, the Department of Transportation, Department of Community Energy, Housing Department, Department of Public Works, the Office of Economic Development, and the Planning, Building and Code Enforcement Department.

COMMISSION RECOMMENDATION/INPUT

No commission recommendation or input is associated with this action.

FISCAL/POLICY ALIGNMENT

Climate Smart San José activities align with the Climate Smart San José strategies and the City's Envision 2040 General Plan approved by City Council.

CEQA

Not a Project, File No. PP17-009, Staff Reports, Assessments, Annual Reports, and Informational Memos that involve no approvals of any City action.

/s/
KERRIE ROMANOW
Director, Environmental Services

For questions, please contact Julie Benabente, Interim Deputy Director, at (408) 975-2537.

Attachments:

A - City of San José 2019 Inventory of Community-wide Greenhouse Gas Emissions