



MEMO

DATE: FOR THE MAY 16, 2019 ENVIRONMENTAL PROGRAMS COMMITTEE MEETING

TO: THE ENVIRONMENTAL PROGRAMS COMMITTEE

FROM: NESTOR DELGADO, ASSISTANT PLANNER / SUSTAINABILITY COORDINATOR

SUBJECT: ITEM 4C: IMPLEMENTATION OF CLIMATE ACTION PLAN PRIORITIZED GREENHOUSE GAS REDUCTION (GHG) REDUCTION MEASURES

RECOMMENDATION

Review, comment and discuss implementation efforts for the top two Greenhouse Gas (GHG) reduction measures, as approved by the City Council.

BACKGROUND

In January 2017, the City Council approved a prioritized list of identified Greenhouse Gas (GHG) reduction measures from the Town's Climate Action Plan. Specifically, the Council approved a list identifying 16 of the 25 adopted GHG reduction measures as prioritized for more immediate implementation, as recommended by the EPC. The 16 prioritized measures will enable the Town to reach 78.37% of the targeted GHG reduction levels by 2020 and 81.80% by 2030. The remaining 9 measures that were not prioritized were acknowledged as still pertinent to effectively reduce the Town's carbon footprint, however were recommended to be addressed at a later time. These 16 prioritized measures are listed within Attachment 1.

At the September 17, 2018 meeting, the EPC discussed a series of recommendations on how to implement the top 2 prioritized GHG reduction measures; (1) residential energy and (2) green building. During this meeting, the Committee requested staff to update the Town's Sustainability website with free, online carbon footprint calculators for residents to use and to meet with the educational and promotional materials Ad-hoc Subcommittee to further discuss the drafting of such materials specific to the Town of Atherton.

During the March 20, 2019 meeting, City Council asked the EPC to evaluate the Climate Action Plan on an annual basis and provide an update on program and policy recommendations for the adopted GHG reduction measures.

ANALYSIS

Green Building Educational Materials

In February 2018, the EPC appointed an Ad-Hoc Subcommittee of Council Member Lewis and Committee Member Joseph to further discuss the creation of educational and promotional materials on different sustainability features to raise community awareness. At that time, there was also discussion related to the idea of creating a “master” brochure with an overview of sustainability resources such as home energy efficiency or water conservation strategies. Previous discussions by the EPC included the idea of having themes for sustainable brochures according to the seasons, such as releasing a brochure regarding storm water management during rainy season, water conservation during dry months, or a home energy efficiency brochure during the summer months. Additional discussion including updating the Town’s website to share such information.

The Ad-Hoc Subcommittee met with staff to begin these discussions and review some sustainability materials and resources publically available in other places for applicability and relevancy to Atherton. This work then got paused as the Committee focused their subsequent times and energies on preparing the for the Town’s 2018 Earth Day Event.

At the September 17, 2018 EPC meeting, staff provided a summary of some (possible) relevant sustainability materials currently available online and/or distributed by other jurisdictions that were preliminarily evaluated by the Ad-Hoc Subcommittee back in February 2018. For reference, these materials are listed below.

- ✓ **City of Palo Alto “Green Living Resources” brochure:**
<https://www.cityofpaloalto.org/gov/depts/utl/residents/resrebate/smartenergy/default.asp>
- ✓ **City of San Mateo brochure:**
<https://cityofsanmateo.org/DocumentCenter/View/2921/informational-brochure-on-green-building?bidId=>
- ✓ **Recycle works, Designing and Building A New Home:**
<http://old.recycleworks.org/greenbuilding/designing.html>
- ✓ **List of Specific Businesses/Organizations providing green building products during deconstruction and construction, Town of Portola Valley:** <http://www.portolavalley.net/sustainability/resources-for-everyone/green-building-deconstruction>

Staff met with the Ad-Hoc Subcommittee again during fall 2019 and discussed drafting an informational trifold brochure regarding sustainable living in the home. This brochure could be similar in formatting to the one created by the City of San Mateo for Green Building. (<https://cityofsanmateo.org/DocumentCenter/View/2921/informational-brochure-on-green-building?bidId>). The Subcommittee and staff discussed content for the brochure, yet work on the topic was again paused due to planning efforts for the Town’s 2019 Earth Day event. The Committee may wish to direct staff and/or the Ad-Hoc Subcommittee to continue efforts on working towards creating a draft trifold informational brochure.

Other Efforts

During the September 17, 2018 EPC meeting, the staff presented a series of online research tools used by other jurisdictions that allow residents to calculate their household carbon footprint. The Committee requested staff to update the Town's sustainability website with two of the tools presented, which are listed below. Staff has now updated the Atherton Sustainability website to include the tools.

- **Carbon Footprint:** This free online tool offered by Carbon Footprint calculates your household's carbon footprint based on the energy used on: electricity, natural gas, heating oil, coal, LPG, propane, and wood pellets. The tool also allows you to input data regarding travel and modes of transport. Once all the data is input, the tool provides a comparison of your carbon footprint to the country average and the world target. <https://calculator.carbonfootprint.com/calculator.aspx?tab=2>
- **Global Footprint Network:** This free online tool asks the user scaled questions regarding their food consumption, homes, transportation, and energy use to provide a detailed analysis of carbon footprint. The tool also provides a "solutions" tab with suggestions and ideas on how our carbon footprint can be reduced through food consumption, population, mobility, and home energy use. Portola Valley has this tool linked on their website. <http://www.footprintcalculator.org/>

Next Steps

The EPC might wish to discuss if the current Ad-Hoc Subcommittee is able to continue efforts in working to complete a draft informational trifold brochure and other associated public outreach and marketing efforts. The Committee may also wish to discuss any other tools/ideas, beyond the trifold brochure creation, that may be considered in attempting to implement the top 2 prioritized GHG reduction measures: (1) residential energy (2) green building. Once the Committee has determined that discussion on potential efforts and programs to implement these top 2 GHG reduction measures, then discussion on the third and fourth prioritized GHG reduction measures, (3) Community Choice Aggregation and (4) the Bicycle and Pedestrian Master Plan should be scheduled for discussion at a subsequent, regularly scheduled EPC meeting.

ATTACHMENTS

1. Approved, prioritized GHG Reduction Measures
2. Informational Brochures on Green Buildings

ITEM 4B, ATTACHMENT 1
List and Description of Approved Prioritized CAP Measures

Priority #	Measure Topic Area	GHG Reduction Measure(s) *	Total 2020 GHG Emissions Avoided (MT C0²e)	% of total 2020 proposed GHG Emissions Avoided	Total 2030 GHG Emissions Avoided (MT C0²e)	% of total 2030 proposed GHG Emissions Avoided
1	Residential Energy	<ul style="list-style-type: none"> • EC2: Incorporate available Energy Upgrade programs and similar rebates 	291	5.52%	458	6.57%
2	Green Building	<ul style="list-style-type: none"> • EC1: Voluntary residential green building ordinance for new construction • EC4: Voluntary commercial green building ordinance for new construction and major additions • EM4: Energy efficiency in municipal buildings 	193	3.66%	154	2.21%
3	Community Choice Aggregation	<ul style="list-style-type: none"> • EC6: Community Choice Aggregation 	2,065	39.15%	3,380	48.51%
4	Bicycle and Pedestrian Master Plan	<ul style="list-style-type: none"> • TRC1: Implement the Town's Bicycle and Pedestrian Master Plan faster to create a walkable/ bikable street landscape • TRC2: Fund and Implement Bicycle Master Plan priorities and make having safe routes to school a Town priority 	352	6.67%	360	5.17%

5	Waste Management	<ul style="list-style-type: none"> • WC1: Set higher community waste diversion goals • WC2: Require Commercial recycling through mandatory ordinance • WC3: Promotion of recycling/ diversion of yard waste • WM1: Create Sustainable Vendor Policy for Public Events • WM2: Environmentally preferred purchasing policy-waste reduction • WM3: Approach a zero waste policy in government operations 	1,110	21.04%	1,169	16.78%
6	Water Conservation	<ul style="list-style-type: none"> • WTRC1: Water conservation incentives • WTRC2: Water conservation ordinance • WTRC3: Voluntary water conservation programs 	123	2.33%	178	2.55%
		TOTAL	4,134	78.37%	5,699	81.80%
<i>*Measure Codes: EC (Energy Community), EM (Energy Municipal), TRC (Transportation), WC (Waste Community), WM (Waste Municipal), WTRC (Waste Community)</i>						

EVERYDAY TIPS TO BE GREEN AND REDUCE YOUR CO₂ EMISSIONS

Replace a regular incandescent light bulb with a compact fluorescent light bulb - CFLs use 60% less energy than regular light bulbs.

Clean or replace filters on your furnace and air conditioner – Cleaning a dirty air filter can save 350 pounds of carbon dioxide a year.

Use less hot water – It takes a lot of energy to heat water. You can save 500 pounds of carbon dioxide a year if you wash your clothes in cold or warm water.

Be sure you're recycling at home – You can save 2,400 pounds of carbon dioxide a year by recycling half the waste your household generates.

Buy recycled products – It takes 70-90% less energy to make recycled paper and it prevents the loss of forests worldwide.

Reduce the number of miles you drive by walking, biking, carpooling, or taking mass transit to work – Avoiding 10 minutes of driving every week would eliminate about 500 pounds of carbon dioxide a year.

Keep your car tuned up – Regular maintenance improves fuel efficiency and reduces emissions.

Buy locally grown and produced food – The average meal travels 1,200 miles from the farm to your plate. Buying locally will save fuel and keep money in your community.

Purchase Energy Star appliances – Replacing a refrigerator bought in 1990 with a new Energy Star qualified model will save enough energy to light the average household for nearly four months.

Turn off electronic devices you're not using– Simply turning off your television, stereo, computer, when you're not using them will save thousands of pounds of carbon dioxide a year.

(Extracted from www.climatecrisis.net)



Community Development Department

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What can **GREEN**
do for **YOU?**



The City of San Mateo

AN
INFORMATIONAL GUIDE
TO CLIMATE REDUCTION
AND
SUSTAINABILITY

THE ISSUE

The built environment is responsible for about half of the City's CO₂ emissions, the primary use of water and natural resources and 22% of the waste stream. Therefore, programs that address the current housing stock are essential to spur a significant reduction in energy or water use.

Greenhouse gases (GHG) trap heat in the atmosphere and cause the planet to warm. The City of San Mateo recognizes the importance of actively participating in reducing city impacts on the environment as well as the climate. The City is an active partner with Sustainable Silicon Valley and recently pledged to help reach their regional goal of 20% less CO₂ emissions by 2010 based on 1990 levels.

GREEN BUILDING

(Extracted from Project: Live Green www.projectlivegreen.com)

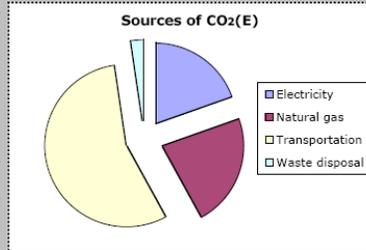
Green building practices promote the construction of buildings that are healthier for the occupants and healthier for the environment. Sustainable or "green" building practices can reduce the tremendous impact that building design, construction and maintenance have on both people and the environment.

IMPACTS-

- environmentally effective use of building materials
- lower electric and water utility costs
- enhanced physical and emotional health,
- increased productivity
- long-term economic returns
- reduced environmental impact

SAN MATEO'S CARBON FOOTPRINT-

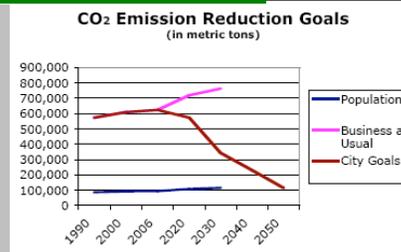
The community-scale footprint includes the CO₂ generated from all residences and businesses in the City of San Mateo and all traffic that drives on roads in the city. The largest source of CO₂ is transportation (55%), followed by the built environment (42%) and waste disposal (3%).



SAN MATEO'S CO₂ EMISSION REDUCTION GOALS-

Reduce greenhouse gas emissions each year, beginning with 2009 emissions being less than the 2006 baseline and then exceed the 2020 state target (emissions at 1990 level in 2020) and meet the 2050 state target (emissions at 80% below 1990 level). State emission targets are defined by AB-32, the Global Warming Solutions Act of 2006.

Year	Population	Business as Usual	City Goals
1990	86,870	573,332	573,332
2000	92,482	610,370	610,370
2006	94,700	625,009	625,009
2020	109,300	721,367	573,332
2030	115,800	764,267	343,999
2040			229,333
2050			114,666



USING A GREEN APPROACH TO CITY FACILITIES & OPERATIONS-

The City adopted a policy that new City facilities will be as sustainable as possible. The new Main Library and the new Police Station will have the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Silver certification.

The Council adopted a green purchasing policy.

- Under the policy, the City purchases green items such as:
- copy paper (white and color) that contains 35% Post-Consumer Content
 - file folders that contain between 30-95% Post-Consumer Waste
 - paper towels and toilet paper that contain 100% Post-Consumer Waste
- The City is one of only a few cities in the County to have a dedicated recycling coordinator on staff, who helps reduce waste in the community.
 - The City has continually upgraded and retrofitted its buildings.
 - The Waste Water Treatment Plant is routinely checked for energy reduction opportunities, the traffic lights were converted to LED, and lighting and heating system audits are done regularly.
 - The City has been using biodiesel in its diesel equipment, including fire engines, for over four years now and purchases the Toyota Prius and other hybrids for its fleet.

A GREEN APPROACH TO DEVELOPMENT-

Two large developments incorporate substantial sustainability features: a) Bay Meadows Specific Plan Amendment, proposes mixed-use and transit-oriented development features that lend to a pedestrian & bicycle-friendly environment; b) Transportation Corridor Plan, created 2 transit-oriented development zones.

The City uses the San Mateo Countywide Sustainable Buildings Checklist to promote sustainable development when discussing potential projects with applicants.