



DATE: March 24, 2015

AGENDA ITEM # 12

TO: City Council
FROM: Zachary Dahl, Senior Planner
SUBJECT: Climate Action Plan Annual Report

RECOMMENDATION:

- A. Receive annual report on Climate Action Plan implementation
 - B. Consider amending the Climate Action Plan to include Community Choice Aggregation as an emission reduction measure
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SUMMARY:

Estimated Fiscal Impact:

Amount: None

Budgeted: Not applicable

Public Hearing Notice: Not applicable

Previous Council Consideration: December 10, 2013 and November 25, 2014

CEQA Status: Not applicable

Attachments:

1. 2014 Climate Action Plan Annual Report

BACKGROUND

On December 10, 2013, the City Council adopted the Los Altos Climate Action Plan (CAP) with a target of reducing the community's greenhouse gas emissions (GHG) by at least 15% by 2020. As part of the CAP, in order to monitor and report progress toward achieving the reduction target, an annual report to the Environmental Commission and City Council is required. A copy of the CAP is available at City Hall or on the City's website at: <http://www.losaltosca.gov/community/page/master-plans-and-studies>

On November 25, 2014, a brief mid-year update on the CAP implementation was presented to the City Council. The Council accepted the report and no action was taken.

DISCUSSION

Implementation Summary

In order to ensure that the City is successful in implementing the GHG emissions reduction measures, the CAP included an implementation program. This includes identifying key City staff responsible for implementing each measure and preparation of an annual progress report for review and consideration by the Environmental Commission and City Council. This is the first annual report since the CAP was adopted.

To achieve its emission reduction target of at least 15%, the City will need to realize a reduction of at least -12,230 MTCO₂e by 2020. For reference, GHG emissions are measured in metric tons of carbon dioxide equivalents (MTCO₂e). The CAP was approved with measures that could achieve a potential reduction of -15,640 MTCO₂e (a 17% reduction). This allows for flexibility if not all measures can be fully achieved and could result in the City exceeding its reduction target.

Overall, the City has made good progress in evaluating and implementing the 44 GHG emissions reduction measures contained in the CAP. Thus far, 19 measures have been implemented, resulting in emission reductions of up to -4,440 MTCO₂e by 2020; 18 measures are in the process of being implemented, anticipating emission reductions of up to -7,140 MTCO₂e by 2020; six measures will be implemented in future years, anticipating a reduction of up to -4,030 MTCO₂e when implemented; and only one measure (support a local bike-share program), which would have reduced -30 MTCO₂e, has been deemed not feasible. Based on the measures that have been implemented, the City is already one-third of the way toward meeting the 15% reduction target. By the end of 2015, the City could be over two-thirds of the way toward achieving its target. For the purposes of this report, the term "implemented" means that one or more programs are in effect to support a measure and it is on track to achieve its anticipated emission reductions.

Emission Reduction Measures

The GHG emission reduction measures are grouped into five focus areas:

Focus Area	Potential Emissions Reductions by 2020 (MTCO _{2e})	Focus Area Percentage of Total Reductions
1. Transportation	-7,760	50%
2. Energy	-5,740	37%
3. Resource Conservation	-1,310	8%
4. Green Community	-20	<1%
5. Municipal Operations	-810	5%
Total	-15,640	100%

Within each focus area, specific measures were identified to help achieve the desired reduction target. This report provides a summary of how each measure is being implemented, its status, the staff time and resources necessary to implement and a recommendation for how the measure will be managed moving forward. When a measure is identified as “supportive,” that means that it is supporting the emissions reductions of other CAP measures but does not result in specific emissions reductions by itself. A detailed evaluation of each measure is included in Attachment 1.

Environmental Commission

A draft version of this report was presented to the Environmental Commission at its regular meeting on March 9, 2015. At the meeting, the Commission raised concerns that the report was overly optimistic about the progress that had been made on implementing the CAP, requested more specific data about how the emissions reductions for each measure were being calculated and tracked, and questioned the use of the term “implemented” to describe the status of some of the measures.

In response to the Commission’s comments, the statuses of some of measures have been clarified, an executive summary table has been added to the annual report and a definition for what “implemented” means within the CAP context is included above. Overall, the report is an accurate representation of the implementation status of the CAP. With regard to requesting more data related to calculating emissions reductions and other metric specifics for each measure, staff’s primary focus is to plan for and implement the reduction measures in the CAP. By providing a higher level of detail pertaining to calculating emissions reductions (beyond what was done in the CAP) and other metric specifics for each measure for future annual reports, additional resources will be required to accomplish this.

Community Choice Aggregation

At the Council’s March 10, 2015 study session, information regarding procurement of renewable energy through Community Choice Aggregation (CCA) was presented. The Council was requested to provide direction on several items, including if the Council desired

to amend the CAP to add participation in a CCA as a new emission reduction measure. At the study session, the Council directed staff to submit an energy load data request to PG&E; this has been done. Additionally, the Council asked the Environmental Commission to further investigate CCA business models and specific goals to be achieved for the City through CCA alternatives.

At this time, Council is requested to provide direction regarding the matter of amending the CAP to include participation in a CCA. If the Council provides such direction, staff intends to retain PMC, the firm that worked with the City to prepare the CAP, to develop and evaluate the new CAP measure.

FISCAL IMPACT

The CAP was developed with a goal of incorporating the measures into the existing departmental workloads and avoiding the need to hire additional staff to implement it. For many of the measures, little or no additional staff time is required for implementation. However, other measures require a significant amount of resources to research, develop and implement. By the end of 2015, it is estimated that staff will have spent between 245 and 315 hours during the first two years on CAP-related programs that would not otherwise have been part of their workload. Moving forward, there is a potential that departments will need to shift priorities to ensure that the CAP measures are implemented expeditiously.

PUBLIC CONTACT

The draft Council report and the 2014 Climate Action Plan Annual Progress Report were reviewed by the Environmental Commission at a publicly noticed meeting on March 9, 2015.

Posting of the meeting agenda serves as notice to the general public.

CLIMATE ACTION PLAN 2014 ANNUAL PROGRESS REPORT

MEASURE	GHG REDUCTIONS	STATUS
1.1 Improve Non-Motorized Transportation		
A. Construct Bikeways	-2,580	In Progress
B. Implement Pedestrian Master Plan	-860	In Progress
C. School Commute Alternatives	-10	In Progress
D. Implement Safe Routes to Schools	-130	Implemented
E. Complete Streets and Traffic Calming	-860	Implemented
F. Local Bike-Share Program	-30	Not Feasible
1.2 Expand Transit and Commute Options		
A. Improve/Expand local mass transit service	-1,050	In Progress
B. Commuter benefits Program	-80	Implemented
C. School Bus Program	-550	In Progress
1.3 Alternative-Fuel Vehicle Infrastructure		
A. Install EV charging stations in public parking lots	-40	Implemented
B. EV charging stations in private developments	-1,100	Implemented
C. Require EV pre-wiring for new residential development	-330	In Progress
D. Require EV charging stations in larger developments	-140	In Progress
2.1 Promote Energy Conservation		
A. Energy conservation for outdoor amenities	-530	In Progress
B. Energy conservation in large homes	-90	In Progress
2.2 Increase Energy Efficiency		
A. Support energy efficiency financing	-2,410	Future Implementation
B. Encourage Energy efficient appliances and equipment	-750	Implemented
C. Energy efficiency outreach for renter households	-20	In Progress
D. Energy self-audit checklist	-180	In Progress
E. Net-zero electricity standards for new construction	-510	In Progress
2.3 Increase Renewable Energy		
A. Reduce cost for PV installations	-1,250	Future Implementation
B. Outreach for renewable energy rebates	Supportive	Future Implementation
3.1 Reduce and Divert Waste		
A. Expand food waste diversion programs	-950	Implemented
B. Plastic bag ban	Supportive	Implemented
C. Construction materials recycling and reuse	-160	Implemented
D. EPS Ban	Supportive	Implemented
3.2 Conserve Water		
A. Enforce water efficient landscape ordinance	-180	Implemented
3.3 Use Carbon-Efficient Construction Equipment		
A. Construction equipment BMPs	-20	Implemented
4.1 Sustain a Green Infrastructure and Sequester Carbon		
A. Manage stormwater with green infrastructure	Supportive	Implemented
B. Increase shade trees	-20	Implemented

MEASURE	GHG REDUCTIONS	STATUS
5.1 Operate Efficient Government Facilities		
A. City facility energy upgrades	-120	Future Implementation
B. Install renewable energy generation on City facilities	-250	Future Implementation
C. Upgrade City maintained street and park lighting	-30	In Progress
D. Digital records keeping system	Supportive	In Progress
5.2 Reduce City Vehicle Fuel Consumption		
A. Maintain fleet vehicle fuel efficiency	-20	Implemented
B. Non-motorized transportation for City employees	-40	Implemented
C. Replace City fleet vehicles	-90	In Progress
5.3 Support Sustainable Employee Travel		
A. Employee commute alternatives	-10	Implemented
B. Reduce employee commute trips	-20	Implemented
C. Employee carpooling program	-10	In Progress
D. Flexible employee hours	-60	Implemented
5.4 Purchase Responsibly		
A. Environmentally preferable purchasing policy	Supportive	In Progress
B. Participate in regional group purchase programs	Supportive	Future Implementation
C. Zero-waste for City facilities and events	-160	In Progress

1.1 IMPROVE NON-MOTORIZED TRANSPORTATION

A. Construct all bikeways and implement all programs identified in the 2012 Bicycle Transportation Plan.

Infrastructure improvements identified in the Bicycle Transportation Plan are being implemented through the City’s Capital Improvement Program (CIP). Some infrastructure projects, such as the Covington Class I pathway and Miramonte Class I pathway, require extensive outreach during the early design process before they can be scheduled and constructed.

Potential GHG Emissions Reductions by 2020: -2,580 MTCO₂e

Lead Staff and Department: Cedric Novenario, Public Works/Transportation

Status: In progress. Minor infrastructure improvements such as striping and signage are implemented through the City’s Annual Street Striping project. This annual project is typically constructed during the summer months. Major improvements will require outside funding such as grants or CIP appropriations to fund their construction.

Staff Time/Budget: Staff applies for applicable grants as they become available. Staff time will also be required for the design and construction administration of the improvements.

Recommendation: Council should prioritize CIP projects that construct bikeways and implement programs outlined in the Bicycle Transportation Plan. Specifically, bikeways that support routes to school should be prioritized.

B. Develop and fully implement a pedestrian master plan with specific focus on local vehicle trip reduction.

Preparation of a pedestrian master plan (PMP) for the City was initiated in July of 2013 and Alta Planning and Design was retained to assist staff in preparation of the plan.

Potential GHG Emissions Reductions by 2020: -860 MTCO₂e

Lead Staff and Department: Cedric Novenario, Public Works/Transportation

Status: In progress. A revised draft of the PMP was reviewed by the Bicycle and Pedestrian Advisory Commission on February 25, 2015. A City Council Study Session is planned for March 24, 2015 for the Council to provide comments on the plan. In late spring of 2015, staff plans to bring the final draft to Council for approval.

Staff Time/Budget: Preparation of the PMP has already been budgeted via a CIP that was budgeted in FY 2011/12. Additional staff time and budgeting will be required to implement the plan.

Recommendation: Approve the PMP and prioritize CIP projects that implement projects and programs outlined in the PMP. Specifically, pathways that support routes to school should be prioritized.

C. Support a rotating car-free day program at local schools and as part of other local events to raise awareness about school commute alternatives.

A meeting with Los Altos School District (LASD) is scheduled for early 2015 to discuss this measure. The School District plans to participate in a “Walk and Bike to School” day and the City will support the campaign with marketing and involvement on the day of the event. In addition, parents from various school sites are dropping off students daily at a point away from the school such as a local park and students then walk the remainder of the way to school. This activity may have a potential neighborhood traffic impact by increasing traffic around parks or popular drop-off spots. Staff will also be reaching out to Montclair Elementary and other private schools within the City to discuss this measure.

Potential GHG Emissions Reductions by 2020: -10 MTCO₂e

Lead Staff and Departments: Manuel Hernandez, Recreation and Community Services; Office of the City Manager/Economic Development

Status: In progress. The daily spot drop-off at parks with students walking to school is currently in effect. The Walk and Bike to School Day is scheduled for October 8, 2015.

Staff Time/Budget: Two to four hours of staff time to provide outreach, media and electronic press releases to promote the October 8, 2015 Walk and Bike to School Day. Two hours of staff time would be necessary for outreach for each additional event.

Recommendation: If the event is successful, consideration can be given to increasing the Walk and Bike to School program to a quarterly activity with consent of the School District. The City’s Recreation and Community Services Department can partner with the School District to support this activity and provide public outreach and education. Increasing the frequency of these events will result in the City exceeding its emissions reduction target for this measure.

D. Continue to pursue and implement Safe Routes to School projects.

Revised Suggested Routes to School Maps are included in the Pedestrian Master Plan. Staff applies for all applicable grants to fund school route-related infrastructure as they are identified. Support letters from the school or School District are typically required as part of the application process.

Over the past three years, the following projects that support Safe Routes to Schools have been completed:

- Portola Sidewalk Improvements – Serves both Santa Rita Elementary School and Egan
- Homestead Intersection Improvements – Class I Pathway – serves both school communities in Los Altos and Cupertino
- Raised Crosswalk on Almond/Gordon – Los Altos High School
- Crosswalk Improvements at Miramonte/Berry Avenue – Loyola School
- Rancho ADA sidewalk Improvements – Loyola School

Other projects that support Safe Routes to Schools are currently under consideration or in design.

Potential GHG Emissions Reductions by 2020: -130 MTCO₂e

Lead Staff and Department: Cedric Novenario, Public Works/Transportation

Status: Implemented and ongoing. There are not any Safe Routes to School projects currently scheduled.

Staff Time/Budget: Implementation of Safe Routes to School projects are already budgeted and no additional staff time is required to implement this measure.

Recommendation: Council should prioritize CIP projects that support or implement Safe Routes to Schools projects.

E. Continue to implement the City's Complete Streets policy and traffic calming plans and projects.

Findings of the Springer Traffic Calming outreach, along with the Bicycle and Pedestrian Advisory Commission comments will be presented to the Planning and Transportation Commission in the first half of 2015. These findings will subsequently be reported to the Council for project direction. There are some neighborhoods inquiring about constructing projects identified in the Neighborhood Traffic Management Plan (NTMP), but no requests have been submitted yet and nothing has been scheduled. It should also be noted that all capital projects and private developments that include improvements within a public street right-of-way are required to be consistent with the City's Complete Streets policy.

Potential GHG Emissions Reductions by 2020: -860 MTCO₂e

Lead Staff and Department: Cedric Novenario, Public Works/Transportation

Status: Implemented and ongoing. However, the scheduling of specific projects for design and construction is dependent on direction and funding from Council.

Staff Time/Budget: The Springer Traffic Calming project will cost \$611,250 (2011 dollars) if all the features in the Traffic Calming Master Plan are included.

Recommendation: Continue to implement this measure.

F. Support a local bike-share program.

After extensive research on progress made in other jurisdictions, there is little evidence that this is a feasible or results-oriented program even in the best of circumstances where mass transit is adjacent to a downtown or a commercial area. In Los Altos, there are no mass transit services to leverage or encourage potential riders to use a bike-share program. The cost of the bike-share program rental fees would not encourage a rider to use a rented bike for recreational purposes, nor is it intended for that purpose. No suitability of features could be found to warrant establishment of a bike-share program in Los Altos.

Potential GHG Emissions Reductions by 2020: -30 MTCO₂e

Lead Staff and Departments: Manuel Hernandez, Recreation and Community Services; Office of the City Manager/Economic Development

Status: Not feasible at this time.

Staff Time/Budget: None.

Recommendation: Due to lack of feasibility, no further staff time is recommended to be spent toward implementation of this measure.

1.2 EXPAND TRANSIT AND COMMUTE OPTIONS

A. Continue to work with the Santa Clara Valley Transportation Authority to seek opportunities to expand local service to improve connectivity to regional transit options.

Staff represents the City on the Valley Transportation Authority (VTA) Technical Advisory Committee. Currently, the City is coordinating with VTA to improve pedestrian amenities at and around existing mass transit stops. However, in order to fully realize the GHG emission reductions outlined in the CAP for this measure, a larger project, such as Bus Rapid Transit (BRT) along El Camino Real, or an additional transit route that serves the community, would need to be implemented. At this point, staff is monitoring the development of the BRT plan and will be providing updates to Council as needed.

Potential GHG Emissions Reductions by 2020: -1,050 MTCO₂e

Lead Staff and Department: Cedric Novenario, Public Works/Transportation

Status: In progress. However, there are no specific projects currently identified that are ready to move forward.

Staff Time/Budget: None.

Recommendation: Continue to implement this measure.

B. Require new projects and new businesses with more than 50 employees to comply with Bay Area Air Quality Management District's Regulation 14, Rule 1 (The Bay Area Commuter Benefits Program).

The Bay Area Commuter Benefits Program was developed by BAAQMD to help to reduce air pollution and traffic congestion by decreasing single-occupant vehicle commute trips to Bay Area worksites, while providing tax savings for employees and employers. The program requires employers with over 50 employees to provide at least one of the following options:

1. Pre-Tax Benefit: Allow employees to exclude their transit or vanpooling expenses from taxable income, up to \$130 per month.

2. Employer-Provided Subsidy: Provide a subsidy to reduce or cover employees' monthly transit or vanpool costs, up to \$75 per month.
3. Employer-Provided Transit: Provide a free or low-cost transit service for employees, such as a bus, shuttle or vanpool service.
4. Alternative Commuter Benefit: Provide an alternative commuter benefit that is as effective in reducing single-occupancy commute trips as Options 1, 2 or 3

Additional information about the program can be found on BAAQMD's website: <http://www.baaqmd.gov/Divisions/Planning-and-Research/Commuter-Benefits-Program.aspx>

In order to implement this measure, Planning and Finance staff will provide information about the program to new businesses during business license application approval. For projects that go through a public review process (design review, use permit, etc.), a condition of approval will be included. The City will also do outreach to existing businesses with over 50 employees and local business groups (Chamber of Commerce, LAVA, etc). While not required, businesses with fewer than 50 employees will still be encouraged participate and provide alternative commute options to their employees. The City implemented its commuter benefits program in October of 2014.

Potential GHG Emissions Reductions by 2020: -80 MTCO₂e

Lead Staff and Department: Zachary Dahl, Community Development/Planning

Status: Implemented. During the first half of 2015, staff will conduct outreach to existing businesses.

Staff Time/Budget: Some additional staff time is required during the business license approval process and additional staff time and budget will be required to do outreach to existing businesses.

Recommendation: Continue to implement this measure.

C. Encourage partnerships to develop and implement school bus programs that reduce school-related commutes.

A meeting with Los Altos School District (LASD) staff is scheduled for early 2015 to discuss this measure. A focus of the meeting will be to discuss a pilot collaborative program with the City and the School District to transport students who cross major traffic intersections, thereby aiding in the safety of students and decreasing private vehicle transport by parents of students to school. An example route could be van or bus pickup of students north of El Camino Real who travel south on El Monte to Covington School or other schools. Vans could be utilized during down-time of student transport to shuttle seniors needing transport assistance. A potential private/public partnership between the School District and local non-profits could be developed to offset costs.

Beyond GHG emissions reductions, benefits of a bus program can include: 1) Safety of students; 2) Decrease in private vehicles transporting students; 3) Benefit of providing senior transport; and 4) opportunity for public/private partnerships.

Potential GHG Emissions Reductions by 2020: -550 MTCO₂e

Lead Staff and Department: Office of the City Manager

Status: In progress. Next step will be to agendize this item for discussion at a future City/LASD meeting.

Staff Time/Budget: It will be costly and time intensive to plan and implement this measure.

Recommendation: Move forward and continue to discuss feasibility with the School District.

1.3 PROVIDE ALTERNATIVE-FUEL VEHICLE INFRASTRUCTURE

A. Continue to identify funding resources, locations, and existing station performance to support installing additional Electric Vehicle (EV) charging stations in public parking lots.

In 2013, the City worked with ChargePoint, Inc., an EV charging stations and networks company, and the United States Department of Energy to participate in a program which offers free EV charging stations to municipalities. Under the terms of the program, the City received three dual-headed charging stations. The EV charging stations were installed and became operational in April 2013. One is located in the parking lot adjacent to the History Museum, Bus Barn and Library, and the other two are located in the Plaza 3 public parking lot. These charging stations are monitored to track usage and demand. At this point, these six charging points appear to be adequate to serve the Downtown public parking lots since they are not yet at capacity. However, there may be opportunities to install charging stations at other public facilities around the City. Staff will continue to track potential funding or grant opportunities for the installation of additional charging stations in public facility parking lots City-wide.

Potential GHG Emissions Reductions by 2020: -40 MTCO₂e

Lead Staff and Department: James Walgren, Community Development/Planning

Status: Implemented and ongoing.

Staff Time/Budget: None necessary at this time.

Recommendation: Continue to implement this measure.

B. Encourage alternative-fuel vehicle charging stations in existing private development.

In FY 2014, permits for 30 EV charging stations were issued for existing properties and developments around the City. In addition, many of the new developments in the City (including 100 First Street, 467 First Street, 400 Main Street, 86 Third Street,) have included pre-wiring and/or EV charging stations in their parking garages.

For all new development applications, as well as major tenant improvements and remodels, the City encourages the owners and/or applicants to include pre-wiring and/or EV charging stations. The City is also collaborating with the State and private industry to facilitate the development of a hydrogen fueling station in Los Altos.

Potential GHG Emissions Reductions by 2020: -1,100 MTCO₂e

Lead Staff and Department: Zachary Dahl, Community Development/Planning

Status: Implemented and ongoing.

Staff Time/Budget: Minimal additional staff time to implement.

Recommendation: Continue to implement this measure.

C. Amend the Green Building Ordinance to include electric vehicle (EV) pre-wiring requirements and encourage EV charging installations in residential development.

The availability of alternative fuel infrastructure, such as EV charging stations, and requirements ensuring that new development is equipped to provide for such infrastructure in the future will substantially increase the likelihood of EV adoption and ownership. Amending the Green Building Ordinance to include EV pre-wiring requirements will ensure that all new single-family houses,

along with major remodels/additions, are designed to accommodate EVs and will reduce the cost for a future owner desiring to purchase this type of vehicle.

Potential GHG Emissions Reductions by 2020: -330 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kirk Ballard, Community Development/Building

Status: In progress. Building Ordinance amendments are planned for Council review in the first half of 2015.

Staff Time/Budget: 10-15 hours of staff time will be necessary to process the ordinance amendments plus some additional staff time annually to implement and enforce.

Recommendation: Adopt the Building Ordinance amendments.

D. Amend the Green Building Ordinance to require EV charging stations in nonresidential projects 10,000 square feet or greater and encourage EV charging stations in projects under 10,000 square feet.

Along with the two previous measures in this section, this measure ensures that all types of buildings and developments in Los Altos are equipped with EV infrastructure. In this case, requiring that all new larger commercial and multiple-family projects have at least one EV charging station will ensure that EV owners are not limited when living, shopping and working in Los Altos.

Potential GHG Emissions Reductions by 2020: -140 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kirk Ballard, Community Development/Building

Status: In progress. Building Ordinance amendments are planned for Council review in the first half of 2015.

Time/Budget: 10-15 hours of staff time will be necessary to process the ordinance amendments plus some additional staff time annually to implement and enforce.

Recommendation: Adopt the Building Ordinance amendments.

2.1 PROMOTE ENERGY CONSERVATION

A. Provide outreach and educational materials for energy conservation and renewable energy programs targeted at outdoor amenities (e.g., lighting, swimming pools, hot tubs).

While there are State-mandated energy requirements that most outdoor amenities must comply with, there are opportunities to increase the energy efficiency of these outdoor amenities. The goal of these educational materials will be to provide property owners and contractors with information such as how to maximize energy efficiency and potential rebates and/or money saving opportunities (if any are available). In the future, the City could amend the Building Ordinance to require that all outdoor fixtures are high efficacy. This would result in the City exceeding its emissions reduction target for this measure.

Potential GHG Emissions Reductions by 2020: -530 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kirk Ballard, Community Development/Building

Status: In progress. Educational materials will be prepared and made available to the public by the end of 2015.

Staff Time/Budget: 10-15 hours of staff time to prepare educational materials, plus some additional staff time annually for outreach and education.

Recommendation: Continue to implement this measure.

B. Provide outreach and education to support existing programs that conserve energy in large homes.

Large single-family houses generally use more energy per square-foot and are less efficient than smaller houses. The goal of this measure is to link owners of large houses with appropriate programs that can help focus energy conservation and efficiency upgrades to be most effective. While there is not a uniform definition of what constitutes a large house, staff would consider any house with over 4,500 square feet of habitable space to fall into this category.

An example of a program that staff could have provided outreach and education for under this measure was the High Energy Homes Project by Acterra. However, this program has been completed and is no longer offered. Staff is not currently aware of any other programs that focus on energy conservation in large homes, but research on this topic will continue

Potential GHG Emissions Reductions by 2020: -90 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kirk Ballard, Community Development/Building

Status: In progress. Educational materials will be prepared and made available to the public as programs are identified.

Staff Time/Budget: 5-15 hours of staff time to prepare educational materials, plus some additional staff time annually for outreach and education.

Recommendation: Continue to implement this measure.

2.2 INCREASE ENERGY EFFICIENCY

A. Ensure city residents are eligible to participate in and actively promote and support energy efficiency financing for residential and commercial properties.

Staff is not aware of any current programs that require City action in order to ensure eligibility to participate. Legislation and programs related to this measure are being monitored, and appropriate steps will be taken when an opportunity arises.

Lead Staff and Departments: Zachary Dahl, Community Development/Planning

Potential GHG Emissions Reductions by 2020: -2,410 MTCO₂e

Status: Future implementation. Staff is not aware of any energy efficiency financing opportunities that require City action at this time.

Time/Budget: None at this time.

Recommendation: Continue to implement this measure.

B. Continue to encourage the installation of energy-efficient indoor and outdoor appliances and equipment (e.g., pool pumps, washer, dryer, HVAC).

The State's Green Building Regulations and Energy Code require the installation of energy-efficient appliances and equipment. All permits that involve new construction or the replacement of appliances and equipment are subject to these regulations.

Potential GHG Emissions Reductions by 2020: -750 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Office of the City Manager

Status: Implemented.

Time/Budget: These practices are already implemented; no additional staff time is required.

Recommendation: Continue to implement this measure.

C. Develop energy efficiency outreach and education programs for renter-occupied households.

The majority of housing units in Los Altos are single-family and most are owner-occupied. However, there are a number of renter-occupied apartments and rental units around the City. For these units, tenants would benefit from the lower energy bills that come from improving the structure's energy efficiency. Improvements like weather stripping and high-efficiency light bulbs are examples of things that a renter can do to improve energy efficiency in their unit without investing a significant amount of money in a property that they do not own.

Potential GHG Emissions Reductions by 2020: -20 MTCO₂e

Lead Staff and Department: Zachary Dahl, Community Development/Planning

Status: In progress. Educational materials will be prepared and made available to the public by the end of 2015.

Staff Time/Budget: 15-20 hours of staff time to prepare educational materials, plus some additional staff time annually for outreach and education. There is an opportunity for the Environmental Commission or an outside organization to help City staff with outreach and education to renter-occupied households.

Recommendation: Continue to implement this measure.

D. Develop an energy self-audit checklist and work with community partners to distribute to prospective property owners and other interested parties and to provide technical assistance.

The goal of this measure is to give prospective property buyers information regarding the energy usage of the building/property they are about to purchase. While it would not be a mandatory requirement when selling a property, the City would encourage sellers and their agents to provide this information as part of the transaction. Buyers could use this information to focus upgrades that would reduce their energy bills and improve efficiency.

Potential GHG Emissions Reductions by 2020: -180 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Office of the City Manager

Status: In progress. An energy self-audit checklist will be prepared and made available to the public by the end of 2015.

Time/Budget: 15-25 hours of staff time to prepare the energy self-audit checklist, plus additional staff time for outreach to the business and real estate community. There is an opportunity for the Environmental Commission or an outside organization to help staff with outreach and education.

Recommendation: Continue to implement this measure.

E. Adopt net-zero electricity building standards for new residential and nonresidential construction with exceptions for parcels with limited solar access and other physical constraints.

The State of California is in the process of revising building code requirements with a goal of requiring new residential construction to be zero net energy by 2020 and new commercial buildings to be zero net energy by 2030. This will be achieved through a mix of building regulations and financial incentives. This goal of zero net energy incorporates all energy usage (electricity, natural gas, etc). This measure is seeking a net-zero standard for electricity usage only. In anticipation of these pending building code changes, staff is in the process of evaluating adoption of net-zero electricity building standards. To achieve this net-zero electrical usage standard, all new houses would need to include a rooftop photovoltaic system that is sized to offset the anticipated electrical usage of the house. This requirement will require a significant expenditure up front on the part of property owners and developers. However, many new houses already include rooftop photovoltaic systems and these systems will pay for themselves over time. Therefore, staff supports moving forward with the adoption of a net-zero electricity building standard for new single-family residential construction.

For new commercial and multi-family buildings, requiring a net-zero electricity standard could be very challenging and not achievable through photovoltaic systems alone. Therefore, staff will continue to evaluate the issue, but does not recommend adopting a net-zero electricity standard for new commercial and multi-family buildings at this time.

Potential GHG Emissions Reductions by 2020: -510 MTCO₂e

Lead Staff and Departments: Zachary Dahl Community Development/Planning; Kirk Ballard, Community Development/Building

Status: In progress. Building Ordinance amendments are planned for Council review in the first half of 2015.

Time/Budget: 25-35 hours of staff time will be necessary to draft and process the ordinance amendments plus some additional staff time annually to implement and enforce.

Recommendation: Adopt the Building Ordinance amendments.

2.3 INCREASE RENEWABLE ENERGY

- A. Participate in regional partnerships and power purchase agreements to provide reduced-cost PV systems to residents and businesses.**
- B. Create and distribute outreach materials connecting residents and building owners to state, PG&E, and other rebate programs.**

The City has not yet identified any new regional partnerships or power purchase agreements that could provide reduced-cost PV systems to residents and businesses. Staff will evaluate feasibility if/when opportunities arise.

Potential GHG Emissions Reductions by 2020: -1,250 MTCO₂e (combo for both measures)

Lead Staff and Department: Susanna Chan, Public Works

Status: Not yet implemented.

Staff Time/Budget: To be determined.

Recommendation: None at this time.

3.1 REDUCE AND DIVERT WASTE

A. Maintain and seek opportunities to expand food waste diversion programs.

Continue efforts with Mission Trail Waste Systems (MTWS) for food waste collection at City/Chamber/LAVA events such as the Art & Wine Festival. Staff is also continuing to work with MTWS to identify other activities to expand food waste diversion for commercial and residential users.

Single-family customers receive an organic bin with their regular service. Staff is discussing providing an organic bin multiple-family services with MTWS, but there are challenges due to space constraints for additional containers and odor issues. For events, both recycling and organics bins can be requested.

Potential GHG Emissions Reductions by 2020: -950 MTCO₂e

Lead Staff and Departments: Chris Lamm, Public Works/Engineering; Office of the City Manager

Status: Implemented and ongoing. The ability to compost food waste is already available for most residents. At this point, it is more about outreach to get citizens to use the service and understand the benefits.

Time/Budget: One to four hours of staff time per week.

Recommendation: Continue to partner with MTWS to implement this measure.

B. Adopt a plastic bag ban and encourage the use of reusable bags.

Since the implementation of Reusable Bag Ordinance No. 2013-390 on July 4, 2013, there has been a significant increase in the number of shoppers using reusable bags or hand-carrying small items at grocery and retail stores. Additionally, the City reviews and categorizes the type of trash collected in the City's trash capture device and no single-use plastic bags have been present in the last year. It has been determined by City of Los Altos and several neighboring jurisdictions that the minimum charge of \$0.10 per bag is adequately serving its intended purposes of reducing litter and waste. On November 25, 2014, the City Council adopted Ordinance 2014-404 which eliminated the automatic increase of the minimum charge of \$0.25 per reusable bag and required that the minimum cost per reusable bag remain at \$0.10 per bag. Ordinance 2014-404 became effective on January 1, 2015 and is aligned with State law. City staff sent out a mailer to the retail businesses in January 2015 and contacted the Chamber of Commerce and LAVA prior to and after the ordinance went into effect.

A meeting with Los Altos School District (LASD) is scheduled for early 2015 and this measure will be a discussion topic. Specifically, the discussion will focus on methods to involve students and

parents regarding the issue and how to educate students and parents to refrain from use of plastic bags and reinforce the use of reusable bags.

Potential GHG Emissions Reductions by 2020: supportive

Lead Staff and Departments: Aida Fairman, Public Works/Engineering; Office of the City Manager/Economic Development

Status: Implemented.

Staff Time/Budget: Budgeted.

Recommendation: Continue outreach efforts.

C. Continue to require recycling and reuse of building materials.

The State's Green Building Regulations require that a minimum of 50% of the nonhazardous construction and demolition waste shall be recycled and/or salvaged for reuse. All building permits specify that compliance is required. Based on reports from Mission Trail Waste Systems (MTWS), approximately 75% of the nonhazardous construction and demolition waste that they are collecting is being recycled and/or reused. Staff will continue to work with MTWS to explore ways to further increase the amount of construction waste that is recycled and/or reused. Based on the high percentage of construction waste that is currently being recycled and reused, the City will be exceeding its emissions reduction target for this measure.

Potential GHG Emissions Reductions by 2020: -160 MTCO₂e

Lead Staff and Departments: Chris Lamm, Public Works/Engineering; Kirk Ballard, Community Development/Building

Status: Implemented and ongoing.

Staff Time/Budget: These practices are already implemented; no additional staff time is required.

Recommendation: Continue to implement this measure.

D. Adopt and enforce an expanded polystyrene (EPS) ban.

On January 28, 2014, the Los Altos City Council adopted Ordinance No. 2014-397, which prohibits the use of expanded or extruded polystyrene (EPS) foam food containers in the City of Los Altos. The Ordinance also restricts the sale of EPS coolers or ice chests which are not wholly encapsulated or encased within a more durable material. The EPS ban ordinance went into effect on July 4, 2014. Violations are reported to the City and follow-up visits are performed by staff as necessary.

Members of the Environmental Commission visited food services establishments to discuss the EPS ban with proprietors and to determine their concerns or issues that an EPS ban presented. Proprietors were very compliant to the EPS ban. Information on EPS products was discussed and made available to food service vendors through outreach by Economic Development and Engineering staff. Environmental Commissioners provided assistance in these activities as directed by staff.

Potential GHG Emissions Reductions by 2020: supportive

Lead Staff and Departments: Aida Fairman, Public Works/Engineering; Office of the City Manager/Economic Development

Status: Implemented.

Staff Time/Budget: Budgeted.

Recommendation: Continue outreach and enforcement efforts.

3.2 CONSERVE WATER

A. Continue to support implementation of the 2010 UWMP through enforcement of the Water Efficient Landscape Ordinance (LAMC 12.36) and distribution of greywater/rainwater harvesting guides.

The City originally adopted a Water Efficient Landscape Ordinance in 1992. In 2010, it was updated to be consistent with the State's model ordinance. Commercial and multiple-family projects, and developer initiated single-family projects that exceed 2,500 square feet of new landscape area are subject to the regulations. Single-family projects initiated by the homeowner that exceed 5,000 square feet of new landscape area are also subject to the regulations. For applicable projects, a condition of approval is added during Planning review and certification is required prior to finaling of the project. Installation of drought tolerant/low-water-usage landscaping for all projects is encouraged.

Preparation of a handout with resources for drought tolerant/low water usage landscaping and a greywater/rainwater harvesting guide is planned in 2015. This information will be available on the City's website and at the Planning and Building counter at City Hall.

Potential GHG Emissions Reductions by 2020: -180 MTCO₂e

Lead Staff and Department: Zachary Dahl, Community Development/Planning

Status: Implemented, with handouts available to the public by summer of 2015.

Staff Time/Budget: 5-10 hours of staff time to prepare informational handouts.

Recommendation: Continue to implement this measure.

3.3 USE CARBON-EFFICIENT CONSTRUCTION EQUIPMENT

A. Encourage compliance with Bay Area Air Quality Management District's construction equipment best practices through outreach and education.

The Bay Area Air Quality Management District's Air Quality Guidelines, which were updated in May of 2012, include recommended best management practices (BMPs) for project sites in order to reduce air quality impacts and greenhouse gas emissions during construction. This information is provided to all large projects (commercial and multiple-family development) when demolition and building permits are issued and the project required to comply with the standard BMPs and encouraged to comply with the enhanced BMPs.

Potential GHG Emissions Reductions by 2020: -20 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kirk Ballard, Community Development/Building

Status: Implemented and ongoing.

Staff Time/Budget: Three hours of staff time to prepare the informational handout. Approximately 5-10 hours annually for outreach and education to contractors, property owners, etc.

Recommendation: Continue to implement this measure.

4.1 SUSTAIN A GREEN INFRASTRUCTURE SYSTEM AND SEQUESTER CARBON

A. Continue to manage stormwater runoff with green infrastructure such as bioswales and other Low-Impact Development (LID) strategies.

All new development and City projects are required to install stormwater infrastructure that incorporates LID measures.

Potential GHG Emissions Reductions by 2020: Supportive

Lead Staff and Department: Chris Lamm, Public Works/Engineering

Schedule: Implemented and ongoing.

Staff Time/Budget: Minimal additional staff time to implement.

Recommendation: Continue to implement this measure.

B. Adopt a policy that increases the number of shade trees planted in the community on private and public property.

The planting of new trees is currently required with approval of most tree removal permits and single-family development projects (new houses and major remodel/additions). The City's Tree Protection Regulations and Design Review findings support the planting of new trees and landscaping as part of project approval.

Maintenance staff currently does a once-a-year street tree planting. The planting list is made up of locations where trees have been removed because of various issues. Residents are also encouraged to obtain a no-fee permit for street tree planting if they would like to plant one on their own. The City's Shoulder Paving Policy requires that property owners who want to modify the street shoulder in front of their property, and who do not already have front yard trees, plant one or two trees on the private property side of the street shoulder.

Maintenance staff is currently looking at adopting a memorial tree planting policy. This would give residents a way of remembering loved ones with the planting of new trees on public property/right-of-way. However, guidelines on species and tree placement will need to be developed before the policy can go into effect.

Overall, the City's existing policies and codes support the planting of new shade trees and a shade tree planting policy does not appear necessary at this time.

Potential GHG Emissions Reductions by 2020: -20 MTCO₂e

Lead Staff and Departments: Zachary Dahl, Community Development/Planning; Kishor Prasad, Public Works/Maintenance

Status: Implemented.

Staff Time/Budget: These practices are already implemented by staff; no additional staff time is required.

Recommendation: Continue implementing this measure.

5.1 OPERATE EFFICIENT GOVERNMENT FACILITIES

A. Audit appropriate City facilities and conduct comprehensive energy efficiency upgrades, including installing energy-efficient lighting, appliances, and heating, ventilation, and air conditioning systems.

A City-wide energy audit has not been done recently; however, a review of potential efficiency opportunities for City Hall was recently accomplished as part of the Heating and Ventilation System Repair project. Variable speed fans, a new boiler, and more efficient condenser units are being selected that will reduce electricity consumption at City Hall. Lights and appliances are replaced with energy efficient options whenever possible. Every effort is also made to look at how energy is better used to maximize efficiency, ensuring that operating time clocks/limits are accurately set and servicing/preventive maintenance of equipment takes place at the correct intervals to minimize breakdowns.

Potential GHG Emissions Reductions by 2020: -120 MTCO₂e

Lead Staff and Departments: Cedric Novenario, Public Works/Engineering; Kishor Prasad, Public Works/Maintenance

Status: Not yet implemented.

Staff Time/Budget: Incorporated into existing facilities budget.

Recommendation: Prioritize CIP projects that include energy efficiency upgrades.

B. Install 1 megawatt (MW) of renewable energy (e.g., photovoltaic panels) on City facilities.

This measure will be evaluated as part of the Community Center redevelopment.

Potential GHG Emissions Reductions by 2020: -250 MTCO₂e

Lead Staff and Department: Susanna Chan, Public Works

Status: Not yet implemented.

Staff Time/Budget: To be determined.

Recommendation: Include renewable energy generation as part of Community Center Master Plan

C. Continue upgrading street and park lighting to light-emitting diode (LED) lights, as appropriate.

Engineering is investigating a retrofit of the downtown lights that would change them to LED. If there is a reasonable payback, a project will be developed for Council consideration.

Potential GHG Emissions Reductions by 2020: -30 MTCO₂e

Lead Staff and Departments: Cedric Novenario, Public Works/Engineering; Kishor Prasad, Public Works/Maintenance

Status: In progress.

Staff Time/Budget: To be determined.

Recommendation: Continue implementing this measure.

D. Develop and maintain a digital record-keeping system.

The Council approved a CIP project to develop a digital records-keeping system for FY 2014/15. This is an internal project, but there may be opportunities for volunteers once the project is underway.

Potential GHG Emissions Reductions by 2020: Supportive

Lead Staff and Department: Jon Maginot, Office of the City Manager

Status: In progress. Development of a scope for the project is anticipated to begin in spring of 2015.

Staff Time/Budget: The Council has already appropriated funds for the project. The exact amount of staff time necessary to develop and implement is unknown at this time.

Recommendation: Continue pursuing this CIP project.

5.2 REDUCE CITY VEHICLE FUEL CONSUMPTION

A. Continue to maintain fleet efficiency through proper maintenance, and identify additional opportunities to increase fuel efficiency.

Servicing of the fleet is tracked via spread sheets and the City's fueling system. Vehicle operators are reminded by the Fleet Manager on the maintenance schedule; if they have surpassed the servicing date then they are also reminded by the fueling system when they fuel up. Keeping the vehicle in good working order (tire pressures, clean engine air filter, etc.) and ensuring proper servicing along with proper driving habits equals improved fuel economy and cost savings.

Potential GHG Emissions Reductions by 2020: -20 MTCO₂e

Lead Staff and Department: Kishor Prasad, Public Works/Maintenance

Status: Implemented and ongoing.

Staff Time/Budget: These practices are already implemented by staff; no additional staff time is required.

Recommendation: Continue to implement measure.

B. Encourage City employees to use non-motorized transportation, such as walking or bicycling, when conducting off-site City business (e.g., for trips up to a quarter or a half mile).

City staff currently walks to conduct City business when within a reasonable distance. A bike pool program is currently being evaluated to determine whether it will encourage additional use of non-motorized transportation.

Potential GHG Emissions Reductions by 2020: -40 MTCO₂e

Lead Staff and Department: Kim Juran-Karageorgiou, Administrative Services/Human Resources

Status: Implemented and ongoing.

Staff Time/Budget: None

Recommendation: Continue to implement measure.

C. Purchase fuel efficient, hybrid, or alternative-fuel vehicles when replacing City fleet vehicles.

The City is currently analyzing whether leasing alternative-fuel vehicles is more cost effective than purchasing.

Potential GHG Emissions Reductions by 2020: -90 MTCO₂e

Lead Staff and Departments: Kim Juran-Karageorgiou, Administrative Services/Finance; Kishor Prasad, Public Works/Maintenance

Status: In progress. It is anticipated that new fuel efficient vehicles will replace some of the existing pool vehicles by the end of the fiscal year.

Staff Time/Budget: Staff is still in the evaluation phase of this process and will make a recommendation in the next month. The budget will vary depending on the recommended course of action.

Recommendation: Continue to research options and provide recommendation to move forward in the next month.

5.3 SUPPORT SUSTAINABLE EMPLOYEE TRAVEL

A. Provide information to City staff about commute alternatives to single-occupant vehicles, including materials that identify available transit and alternative transportation routes.

The City of Los Altos is now offering a Commuter Benefit Program to its full-time employees. This benefit program allows employees to exclude commuting costs incurred for transit passes or vanpool charges from taxable wages. This plan was introduced in October of 2014.

Potential GHG Emissions Reductions by 2020: -10 MTCO₂e

Lead Staff and Departments: Debinique Watts-Blackburn, Administrative Services/Human Resources

Status: Implemented.

Staff Time/Budget: 16-24 hours

Recommendation: Continue to implement.

B. Establish alternative work schedule or telecommuting options for City staff to reduce daily commute trips.

City staff are allowed to work flexible schedules that reduce commute trips when it can be accommodated without impact to City operations and services to the public.

Potential GHG Emissions Reductions by 2020: -20 MTCO₂e

Lead Staff and Department: Debinique Watts-Blackburn, Administrative Services/Human Resources

Status: Implemented.

Staff Time/Budget: Minimal additional staff time required to implement.

Recommendation: Continue to implement measure.

C. Create a staff carpooling program.

A staff carpool program is currently under development.

Potential GHG Emissions Reductions by 2020: -10 MTCO₂e

Lead Staff and Department: Kim Juran-Karageorgiou, Administrative Services/Human Resources

Status: In progress. Anticipated to be implemented in the first half of 2015.

Staff Time/Budget: 16-24 hours

Recommendation: Continue to implement measure.

D. Evaluate flexible employee schedules that allow for reduced commute miles traveled while maintaining City hours of operation.

City staff members are allowed to work flexible schedules that reduce commute trips when it can be accommodated without impact to City operations and services to the public.

Potential GHG Emissions Reductions by 2020: -60 MTCO₂e

Lead Staff and Departments: Debinique Watts-Blackburn, Administrative Services/Human Resources

Status: Implemented.

Staff Time/Budget: Minimal additional staff time required to implement.

Recommendation: Continue to implement measure.

5.4 PURCHASE RESPONSIBLY

A. Develop an environmentally preferable purchasing policy.

Environmentally responsible purchasing guidelines will be incorporated as appropriate with an upcoming update of the City's purchasing policy.

Potential GHG Emissions Reductions by 2020: Supportive

Lead Staff and Departments: Kim Juran-Karageorgiou, Administrative Services/Finance

Status: In progress. It is anticipated that the purchasing guidelines will be updated by summer of 2015.

Staff Time/Budget: Minimal additional staff time required to implement

Recommendation: Continue to implement this measure.

B. Participate in appropriate regional group purchase programs as they are developed.

Staff takes advantage of State-wide purchasing contracts and also works closely with neighboring cities to identify partnership opportunities when feasible. There are not any programs or partnerships that the City could participate in at this time.

Potential GHG Emissions Reductions by 2020: supportive

Lead Staff and Departments: Kim Juran-Karageorgiou, Administrative Services/Finance

Status: Not Implemented. There are not currently any regional group purchase programs that the City is participating in.

Staff Time/Budget: Minimal additional staff time required to implement.

Recommendation: Continue to implement measure.

C. Adopt a policy for City facilities and City-sponsored events with a goal of zero-waste.

Staff is now working on creating a waste management policy for the City's public facilities that targets zero-waste. The waste management contract with Mission Trail Waste Systems and the janitorial contract with Excel are currently being reviewed to ensure those scopes of services are factored into the policy. City-sponsored events currently target zero waste through the efforts of staff and Mission Trail Waste Systems.

Potential GHG Emissions Reductions by 2020: -160 MTCO₂e

Lead Departments: J Logan, Office of the City Manager; Manuel Hernandez, Recreation and Community Services

Status: In progress. Contract reviews and policy creation completed by April of 2015. Zero waste program for City facilities in place by May of 2015.

Staff Time/Budget: 10 hours of staff time for policy preparation work and supply ordering; 4 hours of staff time and up to \$1,900 for recycling container installation/recycling container purchase.

Recommendation: Continue discussions with Mission Trail to see what indoor recycling containers are available at no cost to the City.