COUNCIL REPORT

CITY OF MOUNTAIN VIEW

DATE: April 24, 2018

CATEGORY: New Business

DEPT.: Community Development

TITLE: **Adopt 2015 Community Greenhouse Gas Emissions Inventory and Recommended Actions**

RECOMMENDATION

Approve the Council Environmental Sustainability Committee's recommendations to adopt the 2015 community greenhouse gas emissions inventory and provide direction on the recommended actions to address the emissions gap. Staff recommends financial considerations be made as part of the budget process, starting with the Narrative Budget on May 1.

BACKGROUND

The Council Environmental Sustainability Committee (CESC) met on March 15, 2018 to review the 2015 community greenhouse gas (GHG) emissions inventory and staff-recommended next step actions, as detailed in the CESC memo (Attachment 1).[1] Draft minutes for this meeting, including relevant motions, are shown in Attachment 2.

ANALYSIS

Between 2005 and 2015, absolute communitywide GHG emissions increased 9.1 percent, from 704,054[2] to 768,365 metric tons of carbon dioxide equivalent (MT CO_2e[3]). For 2015, the Council established a goal of 10 percent below 2005 levels. In 2015, the community generated 768,365 MT CO_2e in five sectors: energy, transportation, waste, water, and off-road mobile sources (construction and lawn and garden equipment). ***This level of***

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[1] The memo in Attachment 1 contains slight revisions to the version presented to the CESC on March 15, 2018, due to updated solid waste and wastewater data uncovered after publishing the memo.

[2] The 2005 baseline emissions, 704,054 MT CO_2e, reflect an adjustment to the original 2005 emissions level, based on new data and methods applied in the 2015 inventory. The 2012 inventory was also adjusted.

[3] CO_2e, or carbon dioxide (CO_2) equivalent, describes how much global warming a given type and amount of GHG (e.g., carbon dioxide, methane, nitrous oxide, ozone) may cause, using the functionally equivalent amount or concentration of CO_2 as the reference.

emissions was higher than Mountain View's 2015 emissions target by 134,717 MT CO_2e, or 21.3 percent.

The most significant sources of 2015 emissions were transportation (59.5 percent) and energy use (32.9 percent), accounting for more than 92 percent of emissions. Emissions from energy use decreased nearly 15 percent between 2005 and 2015, and water and waste emissions also went down by 38 percent and 53 percent, respectively. But these emissions reductions could not keep pace with steadily rising transportation emissions, which increased by 22 percent between 2005 and 2015.

CESC Comments

- Need to elevate sustainability within City operations, and have it at a cross-functional level such that there is more coordination and a sustainability voice at the table each time.

- Need to increase funding for staff and program resources.

    a. Accept the Environmental Sustainability Task Force 2 (ESTF-2) recommendation for an additional $750,000 for Environmental Sustainability staff and programs.

- Sustainability has been a Council major goal several times in the last 10 years and we are falling short.

- Should do annual GHG inventories, assuming we have more staff. Maybe do annually for five years and then reevaluate.

- Proceed with the four staff-recommended actions to address the GHG emissions gap.

Public Comments

- The City needs to think about sustainability differently, elevating it and integrating it across all departments.

- The City has picked much of the low-hanging fruit since ESTF-1 and now needs to go big.

- ESTF-2 recommends that the City: (1) hire a Chief Sustainability Officer (CSO), reporting to the City Manager; (2) add three additional full-time permanent sustainability staff (one of whom is the CSO); and (3) increase the Sustainability budget for Fiscal Year 2018-19 by $750,000, with approximately $500,000 to $550,000 of that for additional staff and the rest for programs and consultants (*supported by 10 speakers*).

- Need to conduct a GHG inventory on an annual basis; if you do not measure it, you cannot manage it (*mentioned by multiple speakers*).

- Sustainability staffing in Mountain View falls short when compared to neighboring cities.

- The Mountain View community is passionate about sustainability, and they want to be more involved in what the City is doing. The public is clearly asking for this, so we need to significantly increase outreach.

- Sunnyvale has elevated the importance of sustainability, making climate action planning a priority across departments, and is seeing the positive impacts of this as departments work together to tackle the big challenges. Palo Alto, Berkeley, and San Jose have CSOs.

- Sixty percent (60%) of our community emissions are from transportation, and two-thirds of transportation trips are noncommute. The City needs: (1) a greater quantity and persistence of outreach around alternative transportation options; and (2) transportation demand management requirements as specified in Environmental Sustainability Action Plan 3.

- To make real progress, the City should focus on projects that leverage regional collaboration, such as it did with Silicon Valley Clean Energy. This will take more staff.

- The City should address that it has competing absolute and per-capita reduction targets.

- I am going through the permitting process to electrify my house, and there seems to be a lack of City staff and coordination between other departments and sustainability. There was no information or incentives for heat pumps.

DISCUSSION

Environmental Sustainability Action Plan 3

Mountain View's current sustainability plan, Environmental Sustainability Action Plan 3 (ESAP-3), was developed based on the actions recommended in the City's community Climate Protection Roadmap (CPR) and Municipal Operations Climate Action Plan (MOCAP), and covers Fiscal Years 2016-17 through 2018-19. Of the 37 actions in ESAP-3, 30 are in Fiscal Years 2016-17 and 2017-18; 80 percent of those 30 actions have been started, and 37 percent have been completed. However, 20 percent have not been started, and others have been delayed the substantial staff time required to conduct the analysis, public process, other tasks associated with the new Environmental Sustainability Task Force 2, and work on other items not on the action plan. More information on ESAP-3, including a status of the actions, is included in Attachment 3.

Environmental Sustainability Task Force 2

The Environmental Sustainability Task Force 2, a Council advisory body of 29 appointed community members who live or work in Mountain View, has been meeting since September 2017. They will continue to meet through June 2018, with the purpose of helping the City meet its climate goals by: (1) evaluating whether current City sustainability plans and goals should be modified based on new technologies and processes for addressing climate change; and (2) extending the capacity of Environmental Sustainability staff (through June 2018) in the areas of residential and business outreach and regional collaboration. ESTF-2 will recommend specific actions to reduce community greenhouse gas emissions, particularly from the transportation sector. These actions will be ranked and prioritized for 2020, 2025, and 2030.

Efforts to Reduce Transportation-Related GHG Emissions

The City's Community Development and Public Works Departments each have significant efforts under way that will contribute to reducing transportation-related GHG emissions. Examples include the North Bayshore Precise Plan, a model of sustainable development, and planned infrastructure improvements on Shoreline Boulevard. In addition, as described above, a nine-month-long Environmental Sustainability Task Force 2 is assisting staff by evaluating current and planned emissions reduction efforts and recommending appropriate changes in order for the City to more likely meet its 2020, 2025, and 2030 emissions reduction targets. The Public Works and Community Development Departments' efforts are described in Attachment 5 to the March 15, 2018 CESC memo, "2015 Community Greenhouse Gas Emissions Inventory."

Collaboration with Google

Starting in May, and concluding in September, the City will collaborate with Google to advance Mountain View's environmental sustainability efforts. Through their "Civic Leadership" program, Google will provide up to four employee volunteers to work with City staff to: (1) review the City's greenhouse gas emissions inventory and reporting processes and provide recommendations on available tools, processes, and best practices to increase efficiency; and (2) identify the sustainability-related interests and concerns of different community groups (e.g. residents, businesses, students, elected officials, etc.) in order to develop the most effective messaging and outreach strategies to engage these groups to improve sustainability. These engagement strategies will focus on community behavior beyond reducing greenhouse gas emissions.

RECOMMENDED ACTIONS TO ADDRESS THE EMISSIONS GAP

In light of the Council Major Goals for Fiscal Year 2017 to Fiscal Year 2019 related to sustainability[4] and transportation,[5] and with the City behind in achieving its 2015 greenhouse gas emissions reduction target, staff recommends the following near-term actions to help address the gap between projected 2020 emissions and the City's 2020 emissions reduction target.

Reducing GHG emissions significantly will be difficult, particularly given the City's auto-oriented built environment, but this challenge is not unique to Mountain View. The following actions would require assistance from staff outside of Environmental Sustainability in different departments, but would establish a framework for bringing greater visibility to communitywide emissions and for revising our plan to reduce these emissions over time.

1. **Transportation GHG Analysis.** As part of developing a "Comprehensive Modal Plan," staff will include GHG emissions reductions as one of the factors considered in prioritizing corridors for infrastructure improvements and services. The evaluation of GHG emissions will be based on known effectiveness of different types of transportation improvements, strategies, and services.

[4] Promote environmental sustainability with measurable outcomes.

[5] Develop and implement comprehensive and coordinated transportation strategies to achieve mobility, connectivity, and safety for people of all ages.

2. **ESTF-2 Recommendations Analysis.** Review and conduct a cost-benefit analysis of the Environmental Sustainability Task Force 2 recommendations.

3. **ESAP-4 Development.** Based on an analysis of the Environmental Sustainability Task Force 2 recommendations, create Environmental Sustainability Action Plan 4 (ESAP-4) for Fiscal Years 2019 through 2022, prioritizing those measures with the most cost-effective greenhouse gas emissions reduction potential. Should there be ESTF-2 recommendations that staff believes are appropriate to begin in Fiscal Year 2018-19, staff will return to the Committee with proposed revisions to ESAP-3.

4. **More Frequent GHG Inventories.** The City has been conducting community greenhouse gas emissions inventories every three to five years. Based on current staffing levels, staff recommends completing these inventories every two years, but with the option of extending that to three years on a case-by-case basis due to staffing constraints or changes in technology or other societal factors where delaying a year would be favorable. This increased frequency of inventories would enable the City to more closely track its progress against the emissions reduction targets and, as needed, adjust its sustainability programs/projects.

FISCAL IMPACT

The cost of conducting the 2015 community greenhouse gas emissions inventory was approximately $20,000, excluding staff time. This included additional expenses associated with adjusting our 2005 and 2012 emissions, as described in Attachment 3. Looking forward, if greenhouse gas emissions inventories are conducted more frequently, this cost would be incurred each time. Any future programs or actions in ESAP-4 will be brought to the City Council for funding.

ALTERNATIVES

Modify the recommended actions to address the emissions gap.

1. Do not adopt the 2015 community greenhouse gas emissions.

2. Provide other direction.

PUBLIC NOTICING

Agenda posting and e-mails sent to community members interested in environmental sustainability.

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816-04-24-18CR-E

Attachments:
1. March 15, 2018 CESC Memo and Attachments: 2015 Community Greenhouse Gas Emissions Inventory
2. March 15, 2018 Draft CESC Minutes
3. March 15, 2018 CESC Memo and Attachment: Environmental Sustainability Action Plan 3 Status Update