

Environmental Quality Commission



REGULAR MEETING AGENDA

Date: 10/16/2019
Time: 6:00 p.m.
City Hall – “Downtown” Conference Room
701 Laurel St., Menlo Park, CA 94025

A. Call To Order

B. Roll Call – Gaillard, Kabat, London, Martin, Payne, Price, Turley

C. Public Comment

Under “Public Comment,” the public may address the Commission on any subject not listed on the agenda. Each speaker may address the Commission once under Public Comment for a limit of three minutes. The Commission cannot act on items not listed on the agenda and, therefore, the Commission cannot respond to non-agenda issues brought up under Public Comment other than to provide general information.

D. Regular Business

- D1. Review and discuss subcommittee’s climate action plan memorandum and consider a recommendation to City Council for developing a climate action plan 2.0 ([Attachment](#))
- D2. Approve the September 18, 2019 Environmental Quality Commission meetings minutes ([Attachment](#))

E. Reports and Announcements

- E1. Commission reports and announcements
- E2. Staff update and announcements
- E3. Future agenda items

F. Adjournment

At every Regular Meeting of the Commission, in addition to the Public Comment period where the public shall have the right to address the Commission on any matters of public interest not listed on the agenda, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during the Commission’s consideration of the item.

At every Special Meeting of the Commission, members of the public have the right to directly address the Commission on any item listed on the agenda at a time designated by the Chair, either before or during consideration of the item.

For appeal hearings, appellant and applicant shall each have 10 minutes for presentations.

If you challenge any of the items listed on this agenda in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City of Menlo Park at, or prior to, the public hearing.

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MEMORANDUM

Date: 10/16/2019

To: Environmental Quality Commission

From: Climate Action Plan subcommittee

Re: Review and discuss subcommittee's climate action plan memorandum and consider a recommendation to City Council for developing a climate action plan 2.0

The Environmental Quality Commission (EQC) climate action plan (CAP) subcommittee continues its work on its portion of a new CAP for Menlo Park. We strive to work as quickly and as thoroughly as possible, acknowledging the urgency of the problem we seek to address.

In the latest phase of our work, we have reviewed CAPs from 11 other North American cities, some close to home and others further afield, but almost all at the cutting edge of climate change mitigation and adaptation. We have also considered best practices for climate action, proposed by relevant research organizations such as the Rocky Mountain Institute (www.rmi.org) and ICLEI (www.iclei.org).

Based on that research and an initial assessment of the specific climate-related risks faced by Menlo Park, we have begun to hone in on those targets and strategies that would be best suited for Menlo Park to adopt. The subcommittee is now prepared to propose both greenhouse gas emissions targets and underlying climate strategies for the EQC's consideration.

This memo includes:

- An overview of key findings
- Proposed greenhouse gas (GHG) reduction targets
- Ten high-level strategies to support GHG targets
- Potential obstacles
- Co-benefits of recommended strategies
- Proposed next steps

Key findings

- Many cities in California drafted their first climate action plans in 2007-2009 and have updated their plans roughly every 5 years since.
- Many cities in California are now on their second or third update.
- As warnings from scientists become more dire, especially recently, cities have made **significant changes** to their climate action plans, **deepening** their commitments to reduce greenhouse gas emissions.
- Most climate action plans now include specific plans for **adapting** to climate change, in addition to ongoing efforts to **mitigate** climate change through greenhouse gas reduction. Adaption includes preparing cities for: sea level rise, drought, wildfires, extreme weather events, power outages and more.
- Most cities with climate action plans are now setting a date by which they will achieve "net zero" carbon emissions, which is the point at which greenhouse gas emissions (minus new carbon sinks) for the entire city equals zero. Many cities and states in the US define "carbon neutrality" to be 80 percent greenhouse gas reductions, relative to 1990 levels.

- Some “low hanging fruit” actions, like converting traffic lights to LEDs and promoting energy efficiency through rebates, have been exhausted and cities now face more challenging tasks.
- The next steps required for significant greenhouse gas reductions require more money, more direct action by residents and significantly more political will.
- While these next steps will be a “heavy lift” for cities, collaborating with key stakeholders (e.g., Peninsula Clean Energy) whose interests are aligned with ours offers Menlo Park the potential for significant cost savings and reduction in programmatic burden.
- In general, climate action plans have become much more public-facing documents: less dense, less technical, easier to read and more aspirational, as they require much more public buy-in to implement.

Framing the climate action plan

- While a growing percentage of Americans (roughly 70 percent) report that they are concerned about climate change, most have not yet accepted that in order for us to meet our Paris Climate Accord commitments and keep global temperature rise below 2°C. We must **quickly transition away from burning fossil fuels**. The question is no longer **if** we will stop burning fossil fuels but **when and how**. It is time for the public to start grappling with that truth, so that they can prepare to act.
- The **good news** is that we have **all** of the technology we need to eliminate 90 percent of fossil fuel consumption, today. This is a fact that most Americans do not understand, in large part because entrenched interests have sought to confuse the public, so that they can maintain their subsidies and profits. It is time for leaders to confidently declare that we do not need to wait for a future solution to climate change. The technology solutions are here. They are affordable. All that remains is for us to **act**.
- The **sooner** we act, the more time we buy ourselves to adapt to the significant climate changes coming our way. Coming changes in climate will affect every aspect of our lives and no one will be immune. As an example, sea level rise is expected to flood significant portions of Menlo Park’s Belle Haven neighborhood as soon as the 2060s. While not all of us live in Belle Haven, all of us will be impacted by the suffering of our neighbors and the eventual flooding of the approach to the Dumbarton Bridge. As a city, we may have to choose between building expensive sea walls to protect homes and infrastructure, and watching whole neighborhoods be engulfed by water. Even if we choose to build sea walls or levees, we must accept that levees are not fool proof. They can be breached with catastrophic consequences, such as those witnessed during Hurricane Katrina in New Orleans.
- The more deeply and swiftly we make reductions to our carbon emissions, the more **time** we give for other cities around the country to realize what is possible and to follow our lead. As we have seen recently with the adoption of bold Reach Codes by cities following us, like San Jose, **leadership matters**. Our bold action can **catalyze** action by larger cities. Broader collective action in turn increases the chances that climate catastrophe will be averted, or at least reduced. Although none of this is guaranteed, taking bold action may in fact be our only real chance of averting the dire consequences of climate change and so we believe that it is a goal worth pursuing with all of our might.
- Every day we wait to enact change, we increase the costs that will most certainly be paid later, either by us or our children. While the next steps required to fight climate change will seem expensive and daunting to many citizens, on the order of \$30,000 per household to retrofit buildings and switch cars, those costs and efforts must be weighed

against the billions of dollars that will certainly be lost in the value of private property or spent on adaptation efforts in Menlo Park if we don't act.

- Menlo Park enjoys a relatively privileged position among US cities, being located in a hot-bed of technical innovation and in one of the **top 10 wealthiest counties** in the nation. Given those advantages, we must ask ourselves: If we can't muster the motivation to aggressively tackle climate change, who else can we expect to do so?

Greenhouse gas emissions targets

2013 – Greenhouse gas emissions estimates from the City's last climate action plan update

- In 2013, Menlo Park estimated its greenhouse gas emissions to be **360,247 tons** of CO₂e (carbon dioxide equivalents) per year, broken down as follows:
 - o **40 percent** from fossil fuels used in **transportation**, which includes a mix of passenger cars and trucks of various duty types: light-, medium- and heavy-duty
 - o **39 percent** from burning fossil fuels for heat and electricity in **commercial buildings** (includes "Direct Access" utility customers that buy from third party energy companies)
 - o **16 percent** from burning fossil fuels for heat and electricity in **residences**
 - o **4 percent** from off-gassing methane in Bedwell Park, the site of the city's former **landfill**
 - o **1 percent** from **solid waste** management
- That translates to **approximately 11 tons of CO₂ per resident per year**
- Excluded from the city's 2013 greenhouse gas inventory are:
 - o Embodied CO₂ emissions from **construction materials** in buildings, significant especially for concrete and steel
 - o Embodied CO₂ emissions from the **goods and services** purchased by businesses and residences, which includes the manufacture of the goods as well as the shipping of those goods to customers
 - o Emissions associated with **water and sewer treatment**
 - o Emissions associated with **air travel** by residents
 - o Emissions associated with the **agriculture and livestock** that becomes food for residents
 - o Emissions associated with upstream activities related to producing natural gas and gasoline (though these are naturally reduced whenever we reduce the use of the fuels)

2019 – Greenhouse gas emissions today

- The City's exact carbon emissions today are not known. City staff is preparing to complete a new greenhouse gas inventory and will provide a date by which that inventory will be available.
- A rough estimate of Menlo Park's greenhouse gas emissions (using categories similar to the 2013 estimate) suggest that the City's emissions may have decreased by as much as 100,000 tons, primarily due to the switch from PG&E to Peninsula Clean Energy for our electricity supply.

2030 —Greenhouse gas emissions target

- The State of California has set the following targets:

- **40 percent** reduction in greenhouse gas emissions (relative to 1990) by **2030**
 - **80 percent** reduction in greenhouse gas emissions by **2050**
- California's targets roughly align with those set out by the Intergovernmental Panel on Climate Change (IPCC) in its 2018 report. The IPCC states that these reductions are what is **required** to have approximately 50 percent chance of keeping global temperatures below 1.5°C.
- The IPCC's more recent 2019 report states that certain effects of climate change are happening faster than predicted, even in its 2018 report, and so it is possible, or even likely, that California's targets will prove to be too weak to keep global temperatures below 1.5°C.
- If the City wishes to lead other cities in mitigating climate change, it should adopt a Climate Action Plan so bold that, if all cities adopted it, would solve climate change
- **Given the likely lag time between our own actions and the actions of cities that choose to follow us, the CAP subcommittee recommends that Menlo Park adopt a target of 90 percent CO₂e reduction by 2030 from 2005 levels, with the remaining 10 percent of CO₂e sequestered by direct carbon sinks**

Recommended Strategies

- #1 100 percent carbon-free electricity
- #2 Completely electrify all existing buildings in the City, starting with City facilities as a learning example
- #3 Reduce vehicles miles traveled (VMT) in Menlo Park and promote active transportation
- #4 Electrify vehicles: passenger cars, medium- and heavy-duty trucks, construction vehicles
- #5 Eliminate carbon emissions from construction
- #6 Electrify all municipal buildings and fleet vehicles
- #7 Eliminate emissions related to waste and catalyze a circular economy
- #8 Prepare the City for the adverse impacts of climate change through adaptation and resiliency measures
- #9 Sequester residual carbon emissions through direct carbon sinks
- #10 Avoid installing new appliances or infrastructure that will need to be abandoned or removed due to climate change
- #11 Establish robust and frequent reporting on the City's greenhouse gas emissions

Rationale for strategies

- Affordable carbon-free electricity forms the foundation of all other efforts to reduce the City's carbon emissions, including vehicle electrification and electrification of home heating. Fortunately, the City has a strong partner in Peninsula Clean Energy, which has independently committed to achieving 100 percent carbon-free electricity for all customers in San Mateo County by 2021.
- Reducing VMT in the City will reduce carbon emissions and simultaneously **reduce traffic congestion**, which consistently ranks as one of residents' top complaints in Menlo Park
- By swiftly electrifying its own buildings and vehicle fleet, the City will set an example and create learning opportunities for City staff and policy makers, as they prepare to ask residents and business to follow suit. Any lessons learned can be incorporated into effective City policies.

- We should anticipate that burning natural gas in buildings will eventually be banned. That is inherent in our stated goal of eliminating the burning of fossil fuels, in order to achieve carbon neutrality.
- In Northern California, as PG&E customers convert their gas heating appliances to electric, natural gas will become increasingly cost prohibitive, as PG&E attempts to recover costs for maintaining its gas pipelines from fewer and fewer customers.
- Therefore, continuing to allow residents and businesses to install gas appliances is a set-up for failure, waste and economic hardship, in a future that few members of the public can imagine today.
- In order to follow the IPCC's "model pathway" for avoiding the worst impacts of climate collapse, we must immediately begin reducing emissions with strategies that are: **rapid, far reaching, and unprecedented**. In other words, we must radically shorten the transition time to 90 percent emissions reductions.
- We must come to understand that the times of slow and gentle transition have now ended.

Potential obstacles

- **Cost.** Every effort should be made to ensure that any strategy implemented by the City is done in the most cost effective way possible. Members of the CAP subcommittee are working diligently to come up with creative solutions for funding the suggested strategies. It is clear that many of the strategies could be made significantly more affordable through collaboration with partners such as: Peninsula Clean Energy, San Mateo County, other cities, local employers, appliance manufacturers and local community colleges. As an example, one potential obstacle to converting large numbers of gas furnaces to heat pumps within a short period of time is a shortage of skilled labor. To address this issue, the CAP subcommittee is exploring the possibility of partnering with Peninsula Clean Energy and local community colleges to develop training programs for heat pump installers. It is further possible that the programmatic burden of any related rebate programs could be shouldered by Peninsula Clean Energy, which stands to benefit from expanded home electrification. Even more savings may be achieved by negotiating bulk discounts on purchases of desired appliances, such as heat pumps. Every cost reduction measure will be explored and maximized.
- **Resistance to change.** Change is difficult and often the obstacles are more psychological than physical. Even when someone is presented with compelling information to support change, they may hesitate at the idea. After all, the old way of doing things is familiar and known. Any new policies considered by the City that require change on the part of residents should be accompanied by effective education and media campaigns, which convey information but also address psychological resistance to change. The City's proximity to Stanford offers rich opportunities for relevant academics and thought leaders to instruct residents and business owners on the science and economics behind key climate change mitigation strategies. Those policies that are anticipated to be most difficult for residents to adopt should be carefully designed and supported by effective programs, such as rebates and incentives.
- **Pressure from entrenched interests.** The City should anticipate that entrenched interests such as fossil fuel companies and developers may apply significant pressure to halt proposed changes. There is a natural reaction to a situation that potentially threatens their profit margins. However, given that the property and safety of our residents is directly threatened by climate change, concerns for the profitability of entrenched interests must take a back seat. Climate change mitigation is worth pursuing with all of our might.

- **Opposition from a vocal minority.** While it is likely that vast majority of Menlo Park residents share the concern of about 70 percent of Americans, who say they feel concerned about climate change, City officials may still face opposition from a vocal, but perhaps ill-informed, minority on the issue. Some of that opposition may be addressed through effective information campaigns and education programs, such as expert talks by respected academics. However, we should recognize that the issue of climate change has unfortunately moved from that of national bi-partisan concern in the 1990s to one that is now colored by both bitter partisan politics and the influence of powerful entrenched interests. Partisan messages have been crafted to stoke visceral fear and opposition to change in a way that makes some groups difficult to reach, even with the best information. While City officials should anticipate these visceral, emotional responses to some of the change proposed, and while every measure should be taken to minimize the chances of such opposition, some may simply be unavoidable. As some of the co-benefits of addressing climate change, such as improved air quality, become apparent, opposition is likely to recede.
- **Limited staff resources and time.** Adopting the proposed strategies will require additional headcount, both in a coordinating functions, but also dispersed throughout the City's existing departments. For example, strategies such as significantly reduce VMT and working with employers to install EV charging stations for employees may require new headcount in the City's transportation department. Wherever possible, collaboration with outside entities should be used to minimize the City's ongoing programmatic burden, recognizing that some additional headcount cannot be avoided.

Co-Benefits of proposed strategies

Enacting the 11 proposed strategies will have significant positive co-benefits that include:

- **Traffic congestion will be reduced**, through efforts to reduce VMT
- **Outdoor air quality** throughout the City **will improve** significantly, due to elimination of gas vehicles in favor of electric
- **Residents' health could improve** through increased active transportation, such as walking and biking
- **Indoor air quality** will be significantly **improved** by eliminating the burning of fossil fuels in homes
- Risk of gas **pipeline explosions**, like that which occurred in San Bruno, will be completely **eliminated**
- Retrofitting heating equipment in existing buildings will **boost the local economy** and **create new jobs**, which can eventually be exported to other cities around the country as they electrify their building stock
- Collaborating with local employers to build EV charging infrastructure in their parking lots will encourage daytime charging, which in turn **lowers the State's carbon emissions** by shifting electrical load to daytime hours when renewable electricity is plentiful and cheap
- Reducing waste and catalyzing a circular economy will **extend the life of the City's landfill**, which **saves residents money**
- Resiliency measures, such as installing solar plus storage on homes and municipal buildings, will provide **peace of mind** to residents who fear the effects of power blackouts and other climate-related events
- Residents will receive **peace of mind**, knowing that the City has a plan to address climate change
- Public **costs** of gas pipeline maintenance will eventually be completely **eliminated**

- Efforts to improve pedestrian and biking infrastructure will **increase the City's village feel**, steering it away from the prospect of ever increasing sprawl and traffic congestion, and **returning it to its small-town roots**
- If the City is able to identify nearby opportunities for carbon sinks, such as reforestation projects on Peninsula Open Space Trust (POST)-owned land, residents could be afforded **opportunities to enjoy those reforested lands** with the knowledge that their City's commitment to climate change mitigation created those opportunities

Next steps

- Request that the City Council place climate action on their 2020 work plan
- Complete a greenhouse gas inventory for Menlo Park
- Budget for additional staff resources in 2020
- Create an FAQ on the economics and carbon reduction potential of electrifying home space and water heating and post on the City's website
- Organize meetings between City leaders and key stakeholders, e.g., Peninsula Clean Energy, to assess degree of alignment and interest in collaborating on key strategies
- Meet with key staff and commissions in the City to brief them on the climate action plan and gather their input
- Estimate costs associated with each key strategy proposed above
- Present greenhouse gas reduction targets to City Council for approval
- Present draft of climate action plan to city staff by December 1
- Begin implementation of critical CAP strategies, as soon as high-level framework is approved by City Council
- Create a plan for answering residents' questions about Reach Codes and other climate change mitigation measures on social media
- Come up with a plan for proactively informing property owners in Belle Haven that their property is at risk
- Meet with POST to explore the possibility of investing in carbon sinks (e.g., new forest) on nearby land that they own



REGULAR MEETING MINUTES - DRAFT

Date: 9/18/2019
Time: 6:00 p.m.
City Hall – “Downtown” Conference Room
701 Laurel St., Menlo Park, CA 94025

Environmental Quality Commissioner Deb Martin participated by phone from:
350 Rocky Run Pkwy
Wilmington, DE 19803

A. Call To Order

Chair Price called the meeting to order at 6:06 p.m.

B. Roll Call

Present: Gaillard, Kabat, Martin, Payne, Price, Turley
Absent: London
Staff: Sustainability Specialist Joanna Chen and Sustainability Manager Rebecca Lucky

C. Public Comment

- Betsy Nash spoke in support of the reach code options.
- Alexander Van Dyh expressed concerns about the noise generated by gas powered leaf blowers and requested information regarding the ordinance appeal process.

D. Regular Business

D1. Recommend proposed changes to the heritage tree ordinance to the City Council

Sustainability Manager Rebecca Lucky made a presentation (Attachment).

- Catherine Martineau spoke in support of the ordinance but expressed concern on the need to have a community dialogue around the appropriateness of redwood trees in an urban canopy, the tree disparity across Menlo Park and advocated that the next step for the city is to develop an urban forest master plan.
- Peter Edmonds expressed concerns about the city arborist's responsibilities, staff report 19-011-EQC, Planning Commission draft minutes from August 12, 2019 and tree valuations (Attachment).
- Scott Marshall spoke in support of the ordinance and provided suggestions to bring awareness to the public about the updated ordinance.

ACTION: Motion and second (Gaillard/Turley) to recommend proposed changes to the heritage tree ordinance to the City Council, with the following additions, passed (6-0-1, London absent):

- Ordinance:

- For tree removals related to development, final occupancy shall not be granted until evidence or inspection of replacement tree(s) has been completed.
- Administrative guidelines:
 - For a permit or an appeal, the permit applicant may be required to pay for additional costs to process the permit/appeal that can include, but is not limited to:
 - Third party peer review of alternatives
 - Third party analysis of further alternatives
 - If an appeal is filed, the schematic design alternatives originally submitted may require additional and complete analysis that will be paid for by the permit applicant.
 - The city reserves the right to hire a third party review of alternatives that will be paid for by the permit applicant.
 - Include a public review/approval of changes to the administrative guidelines, such as an appointed body or City Council.
- Implementation ideas:
 - Include “heritage tree city” on real estate signs to signal to potential buyers that the City has tree values and protections.
 - Open access to when heritage tree permits/appeals are filed on the website.
- General:
 - The Environmental Quality Commission recognizes that the heritage tree ordinance is only one tool for protecting and growing the urban forest, and that there are many other tools and policies that could further enhance the urban canopy. The Commissioners recommend that the City Council consider developing an urban forest master plan after adopting updates to the heritage tree ordinance. In particular, the urban forest master plan can start by focusing on collecting current canopy coverage information for the entire city, address community values around redwood trees and their changing future in this geographic area, address canopy inequities across the community, and understand the impacts of other city policies on the urban forest.

The Environmental Quality Commission took a recess at 8:00 p.m.

The Environmental Quality Commission reconvened at 8:08 p.m.

- D2. Review and discuss subcommittee’s climate action plan situation analysis and request for input memorandum

Commissioner Gaillard, Kabat and Payne made a presentation (Attachment).

- Lynne Bramlett expressed support and interest in the climate action plan situation analysis and provided resources to help update the climate action plan (Attachment).

Item D2 continued to October 16.

- D3. Discuss the Environmental Quality Commission’s quarterly report to the City Council

Chair Ryann Price made a presentation (Attachment).

ACTION: Motion and second (Gaillard/Kabat) to approve the Environmental Quality Commission's quarterly report to City Council, passed (6-0-1, London absent).

- D4. Approve the September 18, 2019 Environmental Quality Commission meetings minutes

Vice Chair James Payne introduced the item.

ACTION: Motion and second (Gaillard/Turley) to approve September 18, 2019 Environmental Quality Commission meetings minutes, passed (5-1-1, Martin abstained, London absent).

E. Reports and Announcements

- E1. Commission reports and announcements

- E2. Staff update and announcements

Sustainability Specialist Joanna Chen announced the cancellation of the November and December Environmental Quality Commission meetings and tentatively scheduled a special meeting on December 11.

- E3. Future agenda items

None.

F. Adjournment

Chair Price adjourned the meeting at 9:25 p.m.

Joanna Chen, Sustainability Specialist