City of Mountain View Sustainability Program

Strategic Pathways Through 2030

Prepared for:

City of Mountain View
City Manager's Office
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CADMUS

CITY OF MOUNTAIN VIEW

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City of Mountain View staff enthusiastically contributed their insights throughout the development of the assessment and plan, attending two half-day workshops, participating in interviews, drafting a staff vision statement, and providing information to support the concurrent development of the Fourth Environmental Sustainability Action Plan (ESAP-4).

Staff in the City Manager's Office and the Sustainability Office provided guidance, opportunities for community input, and timely information about the rapidly evolving sustainability context in Mountain View.

The volunteers who worked tirelessly to produce the second Environmental Sustainability Task Force (ESTF-2) Recommendations in 2018 invested over 10,000 hours of labor to explore numerous possible sustainability actions and strategies for the City to consider. When ESTF-2 concluded, the team had highlighted 36 recommendations in 5 priority areas. City staff vetted these recommendations and the calculations and assumptions that supported them, finding the vast majority of them to be worthy of further consideration.

In recognition of the ESTF-2 recommendations, we have included references to where our strategies and actions overlap with or borrow from ESTF-2 throughout this document. Appendix A shows a summary of all the strategies and actions included in the strategic plan and which ones were sourced or adapted from ESTF-2.

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Acronyms

ABAG: Association of Bay Area Governments
ACM: Assistant City Manager
BARC: Bay Area Regional Collaborative
BAYCAN: Bay Area Climate Adaptation Network
CAP: Climate Action Plan
CBSM: community-based social marketing
CIP: Capital Improvement Plan
CMO: City Manager's Office
CSRO: Chief Sustainability and Resilience Officer
ESAP-4: Fourth Environmental Sustainability Action Plan
ESTF-2: Second Environmental Sustainability Task Force
EV: electric vehicle
EVITP: EV Infrastructure Training Program
GHG: greenhouse gas
GRF: green revolving loan fund
IPCC: International Panel on Climate Change
LHMP: Local Hazard Mitigation Plan
MCS: United States Mid-Century Strategy
MTC: Metropolitan Transportation Commission
PPP: public private partnership
SVCE: Silicon Valley Clean Energy
TDM: transportation demand management
TMA: Transportation Management Association
VMT: vehicle miles traveled
VTA: Santa Clara Valley Transportation Authority

Executive Summary

Mountain View has built an impressive legacy of forward-looking policy and programs oriented around protecting a sustainable quality of life for the community. And the actions the City has taken **have not yet resulted in the outcomes that staff and community members so strongly desire**. In recognition of this disconnect, Mountain View is embarking on a journey to thoroughly embed sustainability in its operational ethos. Noting the urgency of climate change, this strategic planning project presents the City with a choice: to what degree to continue incremental progress versus scaling up and reorienting programs in pursuit of an ambitious sustainability vision.

City staff have articulated a vision of regenerative sustainability that will protect and restore our climate, water, air, soil, and wildlife habitat in support of community well-being, inclusive of people from all life-stages and backgrounds. The City cannot achieve these outcomes alone, and substantial collaboration with the local community and the region will be necessary to move the needle.

This report builds on the results of an Environmental Sustainability Program Assessment to define three "levels of response" to climate change and sustainability that will strongly position Mountain View to achieve an ambitious sustainability vision, building on the City's most important assets. We have characterized these levels as "Foundational," "Advanced," and "Innovative." These levels are rooted in our understanding of (1) the changes that would be required to achieve a sustainable Mountain View, (2) the City's current organizational capacities and constraints, and (3) the strategies employed by some of the most effective municipal sustainability programs in the United States. In our program assessment, we identified the most promising sectors in which to develop solutions based on the degree of progress Mountain View has already achieved and on the overall magnitude of the emissions reductions possible in these sectors. The results prescribe a focus on reducing the volume of traffic, adopting cleaner vehicles and fuels, and adopting building decarbonization strategies that focus on electrification.

Which Level of Response Is Most Appropriate for Mountain View?

Foundational: Generally characterized by incremental action and mitigating future increases in environmental impacts

Advanced: Mainstream sustainability and resilience, with substantial progress reducing emissions and waste

Innovative: Holistic, aggressive, adaptable, and performance-based programs rapidly accelerate progress with strongly equitable approaches and outcomes. Sustainability and resilience are fully institutionalized in all activities

Mountain View, with its knowledgeable staff, supportive stakeholders, effective planning processes, and committed local collaborators, has the potential to transform itself by focusing on **four key levers of impact,** shown in Figure 1, corresponding to: (1) what the City can do internally, (2) what it can accomplish by mobilizing the local community, (3) what it can accomplish via regional coordination, and (4) how it manages growth sustainably.

Priority sustainability topics were identified by staff, the ESTF-2, and "benchmark" cities that were researched to compare against Mountain View. These topics included mitigating greenhouse gas (GHG) emissions; developing resilience to stressors and hazards (including those exacerbated by climate change); preserving and regenerating healthy local ecosystems; reducing and eliminating waste; maintaining an equitable, clean, and safe transportation system; addressing affordability, including people from all life stages and backgrounds; and building an equitable, connected, and vibrant community, all while maintaining economic and fiscal sustainability. The staff's sustainability vision, presented within this strategic plan, demonstrates a commitment to a holistic approach to sustainability governance that is rooted in systems thinking. Achieving this vision of sustainability will require strong and effective action in the sectors of transportation and land use, buildings, water resources, waste management, and ecosystem protection.

Figure 1. Our Four Levers of Impact for Sustainability

Mountain View has already achieved great successes through its sustainability efforts. And, while the barriers to getting on track for its goal of an 80 percent GHG reduction by 2050 are substantial (particularly when faced with the pressures of a growing residential population and workforce), the goal is achievable if the City aggressively applies a range of strategies in each sector. Table 1 shows the amount of investment needed for each of the levels of response, ranging from just under 7 new staff members at the Foundational level to just under 19 new members at the Innovative level. These staff investments will not only help achieve a sustainable future in Mountain View, but they also provide valuable co-benefits for community members throughout the city, including safer and more effective transportation systems, better community parks and amenities, improvements to the building stock, and enhanced community connectivity.

Regardless of the level of response selected by the City Council, this plan envisions a nimble sustainability program located within the CMO supported by engaged departments resourced with the staff and expertise necessary to implement ambitious programs and policies. Mountain View is at the beginning of a process of systems change that integrates sustainability throughout the City's operations and decision making. As staff embarks on implementing these process improvements, programs, and policies, they will discover new approaches, models, or ideas that can accelerate Mountain View's sustainability progress. Encouraging a culture of innovation, allowing this plan to be a living, adaptable framework, and providing

staff with the capacity and resources needed to enable creative problem solving will be essential for reducing GHG emissions, improving the quality of life, and meeting staff's ambitious sustainability vision.

Table 1. The Three Levels of Response and Their Expected Outcomes

	Transportation		Land Use		Waste
	Buildings		Water		Parks and Ecosystems

	Core Sust. Office Staff Additions (cumulative)	Dept. Staff Additions (cumulative)	Outcomes	
Foundational	2.5 FTE (one of which is a temporary fellow)	4.25 FTE		Personal vehicle travel grows, congestion moderately worsens, overall emissions flat because of improvements in efficiency and electric vehicles (EVs)
				New construction is held to high standards; efficiency improvements are not likely enough to mitigate the increase in emissions from substantial community growth
				City land use principles from the 2012 General Plan are successfully applied in current and future change areas, resulting in land use that is mixed and flexible, transit-oriented, and supportive of community health, a strong economy, and great urban design
				Progress continues with leak detection, drive-by meter readings, preventative maintenance, and reuse
				Waste per capita decreases, but is offset by increase in residents and employees
				Tree cover reaches 22.7 percent, the established goal; City continues to find opportunities to make parks more drought resilient via native and adapted species
Advanced	4.5 FTE (one of which is a temporary fellow)	11.25 FTE (3 of which are limited term)		Measurable reduction in congestion and emissions; mobility as a service and high quality multimodal options enable lower car ownership
				All new construction is zero net energy; overall emissions substantially reduced due to significant progress in electrification

	Core Sust. Office Staff Additions (cumulative)	Dept. Staff Additions (cumulative)	Outcomes	
				City land use principles from the 2012 General Plan shape land use community-wide, not just in change areas
				Substantial expansion of water recycling and conservation makes the City more drought-resilient; water efficiency keeps costs low
				Waste is routinely and cost-effectively repurposed for its highest value reuse; expanded food donation and composting participation; waste is minimized
				Increased quantity and quality of parks provides recreation and habitat; drought-resilient parks
Innovative	6.5 FTE (one of which is a temporary fellow)	12.25 FTE (4 of which are limited term)		Substantial improvement in congestion and emissions; world class multi-modal transportation system equitably meets the needs of the entire community
				Substantial emissions reductions; high performance on electrification, efficiency, local renewable energy growth, district energy; low cost burden of energy particularly for disadvantaged and low-income groups
				All land use and development decisions are made with broad consideration of potential resulting systems impacts inside and outside of Mountain View, applying best practices and using best available evidence
				Substantial expansion of water recycling and conservation makes the City more drought-resilient; water efficiency keeps costs low; quality of recycled water increases, enabling widespread use
				City achieves its zero waste goal; all major community members are substantial contributors to this success
				Increased quantity and quality of parks provides habitat and recreation; drought-resilient parks; ability to assess tree canopy vacancies and ecological risk

Motivation

Climate Change Context

To set the context for this strategic plan, a brief overview of the urgency of the climate change challenge is provided here. Climate change poses an existential threat to human society and the ecosystems upon which we depend, a threat that is well-documented in the scientific community and that is acutely understood and felt by numerous community members across a broad cross section of the Mountain View community. Furthermore, the harms of climate change are expected to be disproportionately burdened upon vulnerable and disadvantaged members of the community.

Human-induced climate change is already impacting many organisms, ecosystems, and human systems. The International Panel on Climate Change (IPCC)[1] projects that global warming of 1.5°C above pre-industrial temperatures poses significant risks to the health of many systems which humans depend on – with the magnitude of the risk increasing significantly with an additional half degree of warming. These risks include increased frequency and intensity of heat waves and droughts, sea level rise, and local species extinction.

The past five years (2014-2018) have been the five warmest years on record[2], measured by the Earth's average surface temperature. Scientists have directly attributed extended heat waves and drought to this warming trend in many parts of the world. In California, the impacts of climate change are playing out in the form of sea level rise along the coast, an extended and more severe wildfire season[3], and record low snowpack leading to groundwater overdraft on a regular basis. These impacts are expected to grow more severe regardless of emissions reductions in the near term[4].

A variety of actors are mobilizing at the international, national, and local level to take action to combat the threat of climate change. The Paris Agreement, brokered in 2015, went into effect the following year, and while U.S. involvement in the Agreement is currently uncertain, states and local jurisdictions have been committing to strong actions to mitigate their climate change pollution and adapt to climate impacts.

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[1] https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter3_Low_Res.pdf

[2] https://www.nytimes.com/interactive/2019/02/06/climate/fourth-hottest-year.html

[3] In April 2019, the Governor's Strike Force on Wildfires and Climate Change released a report calling for a dramatic expansion of wildfire prevention, response, and resilience efforts, as well as a renewal of the state's commitment to mitigating climate change, noting that 15 of the 20 most devastating wildfires in California history had occurred since the year 2000. https://www.gov.ca.gov/wp-content/uploads/2019/04/Wildfires-and-Climate-Change-California%E2%80%99s-Energy-Future.pdf

[4] https://news.berkeley.edu/2018/08/27/uc-berkeley-leads-new-assessment-of-bay-area-climate-impacts/

Joining the "We Are Still In" declaration[5] is an example of coordinated action on the part of many local jurisdictions, as well as businesses and higher education institutions. The declaration is intended to signal to the international community that key American stakeholders are still committed to emission reductions. Mountain View is a signatory to the declaration, along with 45 businesses in the area. At the state level, California has established a goal of achieving carbon neutrality by 2045[6], after which the state would produce net negative emissions. The state has also passed into law SB100 updating the California Renewables Portfolio Standard Program to require 100% of the state's electricity supply to be from renewables or other zero-carbon sources by 2045.[7]

Cities are very large sources of GHG emissions, but produce lower per capita emissions compared to rural and suburban communities[8]. As such, ensuring that cities adapt to changing climate conditions and remain livable communities is essential. Continuing to reduce cities' emissions will be critical to meeting any national or international reduction target, however on its own it is not enough. Climate change mitigation actions from cities must be matched by efforts at various scales (regional, state, federal, and international) to be effective in averting the worst impacts of climate change.

Achieving a significant milestone, such as an 80% reduction in emissions below 2005 levels by mid-century, will require tremendous action at all levels of government and across the entire U.S. economy. The United States Mid-Century Strategy (MCS)[9] for deep decarbonization broadly outlines areas for action that would contribute to this goal. Even with all these actions, the strategy requires some source of negative emissions, either through land sinks or advanced carbon capture technologies (which are still not feasible for deployment at a large scale).

In light of these challenges, investing in climate change resilience and adaptation is critical for the sustainability of Mountain View and communities across the country. Strategically aligning those efforts with climate change mitigation actions in a way that reinforces each goal is important for serving both current and future residents of Mountain View and communities like it. Mountain View has worked toward this objective with the North Bayshore Precise Plan which includes guidelines for an array of sustainability actions, as well as considerations for adaptation- such as prioritizing development further from the Bay. The City has also undertaken a sea level rise study[10] and has begun to develop a reserve

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[5] https://www.wearestillin.com/about

[6] https://www.gov.ca.gov/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf

[7] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100

[8] http://siteresources.worldbank.org/INTUWM/Resources/340232-1205330656272/4768406-1291309208465/PartIII.pdf

[9] https://unfccc.int/files/focus/long-term_strategies/application/pdf/mid_century_strategy_report-final_red.pdf

[10] https://www.mountainview.gov/depts/comdev/sustain/climate_change/adaptation.asp

fund to address this threat[11], which the City expects will particularly impact residents of the Shoreline Community, along with many others who are adjacent to the San Francisco Bay.

Communities across the Bay Area are also taking action to address sea level rise and other adaptation challenges. Regional partnerships and initiatives have arisen[12] to improve coordination among communities; some of these include the Bay Area Regional Collaborative (BARC), Association of Bay Area Governments (ABAG) Resilience Program, and the Metropolitan Transportation Commission (MTC) Climate Change Program.

To address the many challenges posed by climate change, the City must think about sustainability from the perspective of regenerating environmental quality, habitat conservation, social equity, and the resilience of human society, all while maintaining a sustainable economic system. These considerations comprise a broad framing of sustainability, providing an opportunity for all departments and all members of the community to contribute to solutions.

[11] In the FY2018-19 budget, a Sea Level Rise Reserve was established at $3 million, (and recommended to be funded at $3 million annually, for 10 years). Funds to accumulate for projects identified in the Shoreline Sea Level Rise Study. From 2018-2019 adopted budget: https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=27498

[12] https://www.adaptingtorisingtides.org/project/resilient-resilience-partnerships/

Background and Process

This report is designed to support the City Council in determining how best to contribute to City of Mountain View, regional, state, federal, and international goals and initiatives on climate change and societal sustainability. The culmination of a multi-year research and engagement process conducted by staff, volunteers, consultants, and city leadership has resulted in the development of three levels of response that the Council will deliberate.

The levels of response outlined in this report have been crafted to respond to Cadmus' understanding of the sustainability context in Mountain View, including the City's staff visions, goals, current and future challenges, and ongoing demonstration of commitment. The first phase of the Cadmus study was to conduct an Environmental Sustainability Program Assessment, which determined strengths and gaps toward the attainment of City sustainability goals, and which then developed eight top recommendations for extending the city's sustainability impact. This assessment included:

1) a review of the City's official existing programs, plans, and documents, as well as a review of the ESTF-2 recommendations,
2) a review of 10 benchmark cities' sustainability programs, including interviews of the leaders of those offices on their governance, office staffing, organization, and strategic insights on funding, financing, success factors, and design elements,
3) interviews of 16 Mountain View staff members,
4) input from staff through two large half-day staff workshops, and
5) meetings with external stakeholders such as ESTF-2 leaders.

Summary of Program Assessment Findings

The program assessment found that the City of Mountain View has a mature sustainability program with a history of significant accomplishments related to both community-wide and municipal sustainability. Nonetheless, the City is falling far behind on its core climate change goal and is facing strong headwinds that are constraining progress toward achieving staff visions of regenerative and triple bottom line sustainability that restore and regenerate environmental quality, enhance social equity, and maintain economic sustainability.

Program Assets and Constraints

As noted above, Mountain View has logged substantial accomplishments such as the leadership it displayed in the formation of Silicon Valley Clean Energy (SVCE), the substantial successes of its Energy Upgrade Mountain View program and its water conservation programs (which helped thousands of households each), the attainment of awards for its multi-modal transportation investments such as the Transit Center and the Bicycle Friendly City designation, innovative and advanced water systems

improvements such as the recycled water program, and substantial waste diversion progress leading toward the City's Zero Waste goal.

The sustainability program's accomplishments are supported by the following assets:

- Knowledgeable staff, both in the sustainability office and the operating departments
- Strongly supportive internal and external stakeholders with significant desire for action, including Council adoption of sustainability as a major goal, community support from ESTF-2 and other groups, committed local businesses, and engaged City department leadership
- Supportive planning processes, including the three-year ESAP cycles and investment in sustainable improvements through the Capital Improvement Plan (CIP) process
- A strong local economy and city fiscal condition
- Existing and potential collaborators including neighboring jurisdictions, businesses, and regional organizations

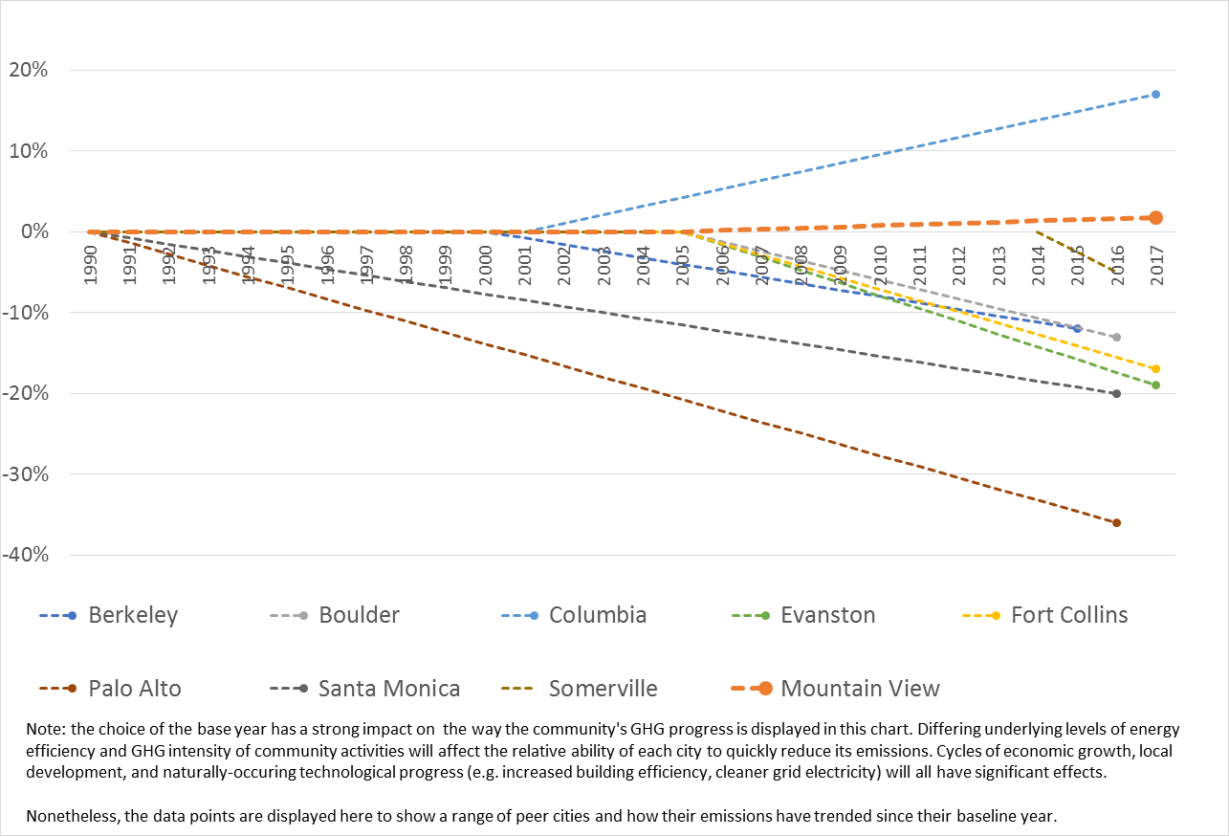
The following constraints make progress more challenging:

- Competing organizational priorities and staffing limitations
- Rapid community growth
- Lack of departmental reporting on and ownership of sustainability outcomes
- Lack of cross-departmental sustainability coordination

Program Gaps and Areas of Focus

A notable shortcoming of efforts to date is that GHG emissions have been increasing in Mountain View since its baseline year of 2005. The City is not on track to reduce emissions by 80 percent relative to 2005 by 2050. In the 2017 Inventory, despite a 70 to 75 percent decrease in non-direct access electricity emissions, the total inventory of GHG emissions has increased by 2.5 percent over this period. Transportation emissions from light duty passenger vehicles have increased by 24 percent, making the transportation sector now responsible for over 60 percent of total community emissions. Mountain View's progress, relative to the benchmark cities reviewed, is shown in Figure 2 below. The benchmark cities also experienced significant population and job growth, and with one exception, none of the benchmark cities have reported rises in emissions since their base year. Mountain View needs a clear vision, innovative solutions, and strong collaborations to counteract the effects of a growing residential population and workforce, otherwise it stands little chance of achieving its GHG reduction goals.

Figure 2. Historical Emissions Change in Mountain View and Benchmark Cities Versus Their Base Years[13]



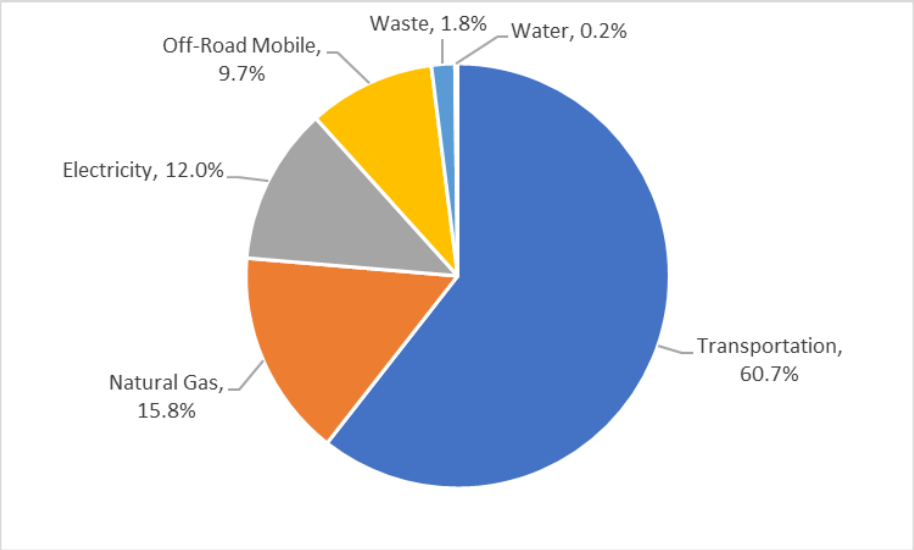
Note: the choice of the base year has a strong impact on the way the community's GHG progress is displayed in this chart. Differing underlying levels of energy efficiency and GHG intensity of community activities will affect the relative ability of each city to quickly reduce its emissions. Cycles of economic growth, local development, and naturally-occuring technological progress (e.g. increased building efficiency, cleaner grid electricity) will all have significant effects.

Nonetheless, the data points are displayed here to show a range of peer cities and how their emissions have trended since their baseline year.

As shown in **Figure 3**, which we generated from the City's preliminary 2017 GHG inventory numbers, the primary sectors that contribute to community GHG emissions in Mountain View are transportation and natural gas (primarily for heating). Electricity emissions are poised to drop substantially in the next inventory, since the 2017 inventory represents a partial year of SVCE's carbon-free electricity (starting April 2017), and future years will be entirely supplied by SVCE for those customers who do not opt out or purchase Direct Access electricity. Looking at transportation and natural gas, opportunities to reduce emissions can be broken into the technology side (i.e. vehicle fuels and efficiency and appliance fuels and efficiency) and the demand side (i.e. usage and behavior). The primary focus for sustainability strategies should be reducing the number of vehicle miles traveled, improving the efficiency of vehicles and carbon-intensity of fuels, and decarbonizing buildings by replacing natural gas consumption with carbon-free electricity.

[13] Note that two of the benchmark cities are not displayed here because their most recent inventories only report *municipal* emissions, not community-wide emissions.

Figure 3. Preliminary Emissions by Sector in the 2017 Mountain View GHG Inventory



The City has a varying degree of control and influence over the emissions from these sources, and different levers may be appropriate accordingly. Therefore, collaboration with outside actors such as other levels of government, the private sector, and the community as a whole will be paramount.

Top 8 Recommendations of the Environmental Sustainability Program Assessment

Given the gap between the City's GHG goals and its current trajectory, the City should consider both changes in approach and an increase in the level of effort invested. The following recommendations were developed from the assessment:

- Articulate a shared vision for sustainability, to guide the scope and priorities of a sustainability strategic plan.
- Elevate and make explicit the importance of sustainability to enable staff to treat sustainability actions as a priority. There is no clear pathway to reduce GHG emissions to meet the City's goal without expanded effort.
- Identify metrics for sustainability progress that are aligned with department missions, develop a tracking plan, and set targets for each metric. These could include citywide mode share targets, targets for reducing Vehicle Miles Traveled (VMT), EV adoption, adoption of efficient electrified heating, and other performance indicators.
- Identify and provide internal (e.g., staffing) and external (e.g., grants and technical assistance) resources necessary to accelerate progress.
- Increase cross-functional collaboration on the key sectors of transportation and heating.
- Develop a strategic transportation sustainability master plan to create a unified vision for decarbonizing the sector.
- Create capacity for learning and innovation, enabling ideas to be tested and celebrating successes.
- Pursue regional collaborations to scale solutions, particularly in transportation, with strategies to address the jobs/housing imbalance and facilitate transit-oriented development.

Mountain View's Sustainability Program Structure and Role

As the City of Mountain View seeks to leverage these opportunities and address these gaps, it has assessed its current sustainability program to determine the best organizational structure for accomplishing its climate commitments. This includes considering the location, size, and role of its sustainability office and its staff, as well as the amount of sustainability-related staffing and expertise in other departments.

In past years, Mountain View's sustainability program has been located in Public Works and in Community Development, but it was moved to the CMO on a trial basis after the second Environmental Sustainability Task Force (ESTF-2) argued strongly for a Chief Sustainability Officer who would report to the City Manager.

Staff currently includes 2.75 full-time positions: a Sustainability Coordinator and two Environmental Sustainability Analysts, focused on technical analysis and outreach, respectively, one of which is 0.75 FTE. This staff is responsible for informing the City's overarching sustainability strategy, and some of its major functions include:

- Stakeholder-driven development of the three-year ESAPs,
- Tracking best practices nationally and gathering lessons learned from peer cities,
- Managing sustainability-related collaborations with regional entities, neighboring cities, and companies operating in Mountain View,
- GHG inventorying,
- Renewable energy analysis and development, and
- Community engagement across a broad range of environmental topics.

City Benchmarking Findings - Sustainability Offices

The location and size of sustainability offices have often been determined by two major factors within a city: (1) the vision for the appropriate role of sustainability staff relative to other department staff; and (2) the level of desire of each department to work more closely with or absorb sustainability staff into their departments. Assessment of these factors have typically led offices to be placed within the CMO, in departments such as Public Works, Planning, or Development, or as stand-alone offices within city government. Wherever the office is located, staff in sustainability offices tend to take on a range of implementation, collaboration, consultation, and strategic planning roles. The appropriate balance of these tasks is often dependent on the individual city's context, but smaller sustainability offices tend to be in CMOs and tend to have a greater chance of success when given stronger emphasis on strategic planning and coordination. Tasking these smaller centralized sustainability offices with substantial implementation responsibilities can quickly overwhelm sustainability staff resources and divert attention from other core office roles, as well as silo the office and its programs from the departments executing similar functions.

In addition to the Sustainability Office staff, Mountain View staff across departments are working to achieve sustainable outcomes, through the Mountain View Green Building Code, through the creation of SVCE, and by encouraging alternative transportation modes. Energy efficiency, waste reduction, water conservation, and transportation are handled by other staff, although to varying degrees Sustainability Office staff lend information and expertise to support the departments responsible for these other functions. The City's departmental leadership and staff have shown eagerness to take on greater sustainability challenges, and

they have indicated that more active collaboration, clearer prioritization, and expanded capacity is necessary for them to accelerate this work and achieve better outcomes.

The central location of Mountain View's Sustainability Office in the CMO makes it well positioned to support more active collaboration and clearer prioritization. The office can lead inter-departmental collaboration, conduct city-wide strategic planning, and aggregate metrics on cross-department goals given the purview the CMO has over all city operations. Situated in the CMO, sustainability staff can also utilize their significant expertise in sustainable practices, policies, and programs to support departments as they consider the strategic decisions necessary to make sustainability a core part of what they do. Meanwhile, expansion of staff capacity in city departments that are implementing building, transportation, energy, and waste policies would enable them to directly integrate sustainability into their planning, programs, and operations. This expansion of sustainability capabilities at the departmental level can begin to mainstream the sustainable practices necessary to achieve significant emissions reductions. Embedding this sustainability ethos in day-to-day decision making, planning, and implementation in each department will require collaborations across departments that encourage changing outdated practices, adopting new approaches, and taking calculated risks that lead to learning and growth. This will require strategic support from the highest levels of Mountain View's city government.

It is important to note that Mountain View is not alone in their efforts to assess their program. As cities across the country scale their sustainability programs to meet increasingly urgent and ambitious goals, many are reexamining their approaches to structuring sustainability responsibilities. Sustainability leaders recognize that addressing global climate change requires embedding sustainable practices in all city government departments, processes, and actions, meaning the scale of the work required far surpasses the purview of any one individual office or its staff. An oft-cited tongue in cheek "goal" of sustainability practitioners is to put themselves out of a job. The rationale is simple – if they are successful in helping their peers across city government embed sustainability considerations into all major functions and decision points, the need for a sustainability office will gradually disappear.

City of Mountain View's Sustainability Vision

Following the presentation of the Environmental Sustainability Program Assessment, the CMO convened a working group of department heads and staff from across the organization in a series of conversations to discuss what a sustainable Mountain View meant to them, what work they were doing toward this end, and what more they would aspire to do. These conversations were characterized by great enthusiasm, thoughtfulness and dedication to the well-being of the Mountain View community. The outcome of these was instrumental to the refinement of the strategic pathways outlined later in this report and will be a valuable resource for the creation of future ESAPs, project and initiative methodologies, and policy formulation. It is summarized here.

Staff Vision

The City of Mountain View works collaboratively and innovatively across internal departments and with residents, businesses, and governmental partners to create and sustain a connected and vibrant community that uses natural resources wisely, protects and enjoys the benefits of healthy local ecosystems, fosters sufficient economic resources and opportunities to provide a foundation for community well-being, and includes people from all life-stages and backgrounds in the activity and success of the community.

Staff's Guiding Values and Principles for Sustainability

VALUES

We commit to this vision because we value:

- Environmental sustainability
- Resiliency
- Adaptability
- Innovation
- Inclusivity
- Diversity
- Equity and fairness

PRINCIPLES

We inform the way we pursue our vision and values by:

- Thinking boldly
- Thinking holistically (using systems-thinking)
- Being proactive (where possible preventing rather than mitigating problems)
- Being collaborative (working together across City departments and across the region with inter-governmental, community and private sector partners)
- Maintaining fiscal sustainability

Staff's Core Focus Areas

To achieve our sustainability vision, we are developing and implementing strategies in the following areas:

- Climate change mitigation
- Climate adaptation
- Natural resource/habitat preservation/regeneration
- Waste reduction and elimination
- Circular economy
- Community building/engagement
- Transportation mobility/accessibility/safety
- Affordability (housing and transportation)
- Economic development
- Smart growth/land use planning
- Smart city technology deployment

Four Levers of Impact

We have structured this plan around four levers which are designed to be comprehensive of the key ways in which the City of Mountain View can directly act or influence stakeholders to improve sustainability outcomes. These include: (1) utilizing Mountain View's internal sphere of control, and governance to ensure the City is leading by example and organized in a manner that mainstreams sustainability; (2) ensuring active collaboration with and mobilization of the community to address sustainability; (3) expanding beyond Mountain View's geographic boundaries to ensure that regional solutions are developed for regional challenges; and (4) managing growth in a way that reflects the priorities of the Mountain View community. Each of these is described in more detail below.

Lever 1: Integrate Sustainability Across City Government

Given the nature of climate change and environmental impacts, it is essential that the responsibility for sustainability be shared across all city departments. While city staff are eager to take on this responsibility, many feel capacity constrained or are unsure of the level of priority sustainability should take among their day-to-day responsibilities. The City must **elevate the importance of sustainability and provide necessary funding and staff resources** to ensure its sustainability commitments are met. This includes fostering opportunities for inter-department collaboration and supporting staff with necessary resources to implement the City's sustainability vision. Additionally, it is important for the City to lead by example by **adopting cutting-edge sustainability practices in their own internal facility upgrades and operations.** This will ensure the City is living up to its commitments as it asks others to take on additional responsibility. Finally, to ensure the City can manage its sustainability commitments, it is essential that the City **track and report on sustainability metrics across city programs and departments.** This will share the responsibility for emissions reductions with the agencies most directly responsible for the decisions that impact their increase or decline, while also providing a more accurate picture of where Mountain View is in its contributions to abating global climate change and addressing other key community priorities.

Lever 2: Mobilize the Local Community in Sustainability Action

Mountain View has an active and engaged population that is eager to see progress on sustainability. Community engagement should be a core component of the City's work. Within the scope of community engagement, there must be careful attention to both gathering input from the community to inform planning and investment in crafting programs that affect and mobilize the community. This includes **engaging residents from across Mountain View's neighborhoods and demographic and socioeconomic groups during development of sustainability policies and programs with the goal of improving quality of life,** as well as **engaging small businesses, large employers, and non-profits to determine shared priorities and collaborate on implementing sustainable solutions.** As part of this work, it will be important for Mountain View to **develop and implement a communications strategy that celebrates successes and acknowledges collaborators** and accelerate progress by **developing direct outreach and education programs aimed at encouraging sustainable behaviors for residents, workers, visitors, and property owners.** In addition to soft measures to mobilize the community, **developing the buy-in to impose new sustainability requirements on owners of existing properties in the city** and **developing**

options that facilitate and enable sustainable behaviors and purchase decisions by the community will be critical components of the City's program.

Lever 3: Partner Regionally to Enhance Connectivity and Impact

Many of the challenges Mountain View faces are regional in nature. Energy, transportation, waste and housing affordability have impacts beyond the City's boundaries and cannot be solved by one city acting alone. The City should start by **finding alignment with peer governments and establishing a clear understanding of roles, responsibilities, and appropriate frameworks and metrics for tracking regional progress** and it should continue to **share resources, data, information, and funding widely in support of implementing regional projects** that address shared challenges such as congestion, climate vulnerability, and energy supply. Taking collective action, as the City has done with the SVCE initiative for instance, can help achieve economies of scale and wider impacts that cannot be achieved by acting alone.

Lever 4: Manage Inclusive, Sustainable Community Growth

Mountain View is experiencing a period of significant growth that will impact the fabric of the community for generations to come. It is important that this growth be managed deliberately to ensure it aligns with community visions and needs, and to ensure that quality of life for all stakeholders is accounted for. The City should **pursue transportation solutions that decrease emissions and increase quality of life for all residents** and **pursue building sector solutions to decrease emissions.** These strategies should be pursued in a way that aligns with the community's values of sustainability, place-making, equity, and neighborhood character.

Learning and Adapting Across All Four Levers

Utilizing these levers to achieve sustainability outcomes will undoubtedly involve an ongoing learning process for the City of Mountain View. This plan includes recommended key actions the City can take to achieve objectives in each of these areas. These have been sourced from previous planning efforts (such as ESTF-2 and current city plans), as well as from input from staff and ideas from benchmark cities. Each lever has an important role to play in ensuring continued progress towards the City's aims. That said, it is equally critical to treat these recommendations as *the beginning of a process of systems change that integrates sustainability into all the City's operations and decision-making* in the long-term. As the staff embarks on implementing these process improvements, programs, and policies, they may discover new approaches, models, or ideas that can accelerate Mountain View's sustainability progress. Allowing the staff the creativity and freedom to seek solutions that reduce emissions and improve quality of life will be essential. Additionally, the City may wish to develop more advanced analysis of the GHG reduction potential and other environmental and social benefits to be derived from these actions in order to prioritize where to place additional resources in the near-, medium-, and long-term.

Levels of Response

For each lever of impact, this strategic plan presents three options that represent differing "levels of response" that could be pursued by the City. The levels are generally characterized as follows.

Table 2. Characterization of types of strategies at each level of response

Foundational	• Continue and refine successful programs already in place • Develop clear alignment on visions of sustainable growth and sustainability broadly • Increase actions to mitigate the direct environmental impacts of city operations • Put structures in place to lay the pathway for later advanced and innovative levels of response • Identify and raise awareness about the co-benefits of sustainability activities with health, equity, finance, etc. and ways to mainstream sustainability into decisions • Put policies in place and criteria to begin mainstreaming sustainability, including involving the sustainability office early in major decisions
Advanced	• Mainstream sustainability and resilience in city departments with strong statement of prioritization and by freeing staff capacity to focus on it • Invest in strategic hires to develop and implement advanced strategies • Invest in training for change management and sustainability/resilience integration • Increasingly aggressive actions tackling the most challenging sectors • Significant effort invested in public private partnership (PPP) development and regional collaborations
Innovative	• High level of public commitment, reporting, and accountability • Aggressive, adaptable, and performance-based actions across all sectors with increased staff capacity and programmatic funding as necessary • Regional, collaborative partnerships with substantial results • Very strong equity results of sustainability programs • Behavioral and organizational change management practices are in place • Truly mainstreaming sustainability and resilience – sustainability and resilience are thoroughly institutionalized and high priority in any decision made

It is important to note that we do not define Foundational as the most basic level of response to the challenges of climate change and other sustainability impacts. There are many jurisdictions, in fact most across the country, that do not achieve the Foundational level. Nor does the term foundational define the starting point of where the City is today. Rather it is a next step to build on the good work the City has already done. It should also be noted that the City has already undertaken a number of actions that are considered Advanced or Innovative.

Sectors in Which the Levers of Impact Are Applied

Within this plan, we have developed strategies and actions within each lever of impact. Many of these strategies map naturally to six sectors that have substantial impact on the ability of Mountain View to achieve sustainability goals. These sectors are defined in Table 3.

Table 3. Sector Descriptions

Sector	Icon	Description
Transportation		Movement of goods and people in support of activities caused by and related to Mountain View residents and workers. It is the largest component of the City's GHG inventory.
Buildings		Buildings in the city. The focus is on the energy and resource consumption of the new and existing building stock. Between electricity and natural gas consumption, buildings are responsible for the second largest component of the City's GHG inventory.
Land Use		The disposition of land within the city, guided by the City's land use planning principles as laid out in the General Plan and the precise plans for change areas
Water		This sector includes both demand for water and the treatment of wastewater. It is important for its impact on ecosystems and on the City's resilience, and it also contributes to the GHG inventory.
Waste		This sector addresses the City's consumption of and disposal of physical resources. It is important from the perspective of the upstream impacts of consumption and downstream impacts. It also contributes to the GHG inventory.
Parks and Ecosystems		This sector includes the City's management of its parks and undeveloped land resources. The City's impact on local ecosystems and habitat is also included.

Table 4 describes our expectations for outcomes in each sector at each possible level of response that the City could pursue.

Table 4. The Three Levels of Response and Their Expected Outcomes

		Outcomes
Foundational		Personal vehicle travel grows, congestion moderately worsens, overall emissions flat because of improvements in efficiency and EVs
		New construction is held to high standards; efficiency improvements are not likely enough to mitigate the increase in emissions from substantial community growth
		City land use principles from the 2012 General Plan are successfully applied in current and future change areas, resulting in land use that is mixed and flexible, transit-oriented, and supportive of community health, a strong economy, and great urban design
		Progress continues with leak detection, drive-by meter readings, preventative maintenance, and reuse
		Waste per capita decreases, but is offset by increase in residents and employees
		Tree cover reaches 22.7 percent, the established goal; City continues to find opportunities to make parks more drought-resilient via native and adapted species
Advanced		Measurable reduction in congestion and emissions; mobility as a service and high quality multimodal options enable lower car ownership
		All new construction is zero net energy; overall emissions substantially reduced because of significant progress in electrification
		City land use principles from the 2012 General Plan shape land use community-wide, not just in change areas
		Substantial expansion of water recycling and conservation makes the City more drought-resilient; water efficiency keeps costs low
		Waste is routinely and cost-effectively repurposed for its highest value reuse; expanded food donation and composting participation; waste is minimized
		Increased quantity and quality of parks provides recreation and habitat; drought resilient parks
Innovative		Substantial improvement in congestion and emissions; world class multi-modal transportation system equitably meets the needs of the entire community
		Substantial emissions reductions; high performance on electrification, efficiency, local renewable energy growth, district energy; low cost burden of energy particularly for disadvantaged and low-income groups
		All land use and development decisions are made with broad consideration of potential resulting systems impacts inside and outside of Mountain View, applying best practices and using best available evidence

		Outcomes
		Substantial expansion of water recycling and conservation makes the City more drought-resilient; water efficiency keeps costs low; quality of recycled water increases, enabling widespread use
		City achieves its zero waste goal; all major community members are substantial contributors to this success
		Increased quantity and quality of parks provides habitat and recreation; drought resilient parks; ability to assess tree canopy vacancies and ecological risk

Lever #1: Integrate Sustainability and Resilience Across City Government

Overview

The City can have a substantial positive impact by leading by example and by conducting its operations and policy-making with constant attention to sustainability. However, strong governance is needed to thoroughly institutionalize sustainability across departments.

Our assessment is that city staff (who are overwhelmingly supportive of sustainability action) need appropriate support, structure, and resources to more thoroughly integrate sustainability into their day-to-day operations. If sustainability were thoroughly integrated throughout city government, the City's sustainability vision would be a set of guiding principles that leadership and staff would internalize and intuitively rely on for decision-making. This would enable systems thinking that results in collaborations that amplify the City's ability to achieve measurable sustainable outcomes.

Mountain View's City Council goals for FY2017–2019 include, "Promote environmental sustainability with a focus on measurable outcomes." Despite this stated objective, city staff interviewees indicate that it is unclear what level of prioritization they should give sustainability initiatives relative to their other responsibilities. They cite a lack of mandate to more fully integrate sustainability into their programs and processes, particularly given the capacity constraints faced by their staff. These constraints make it challenging to advance the numerous actions identified in the ESAPs, which are not currently formally integrated into departmental workplans. Many of these actions also require cross-departmental collaboration, but there is not currently a structure through which to engage in this work.

While Mountain View tracks its GHG emissions, the City does not require departments to track other key sustainability metrics. These other sustainability metrics are sometimes better aligned with departments' other priorities (e.g., measuring VMT as a metric that contributes to sustainability and also reduces congestion). The sustainability office is responsible for summarizing progress on numerous actions for ESAP updates, which can create an administrative burden that takes focus away from other sustainability office functions. Lever #1 is composed of strategies that address opportunities within the City's direct sphere of control.

Strategies

The following strategies support Lever #1 and are broken into three levels of response: "Foundational," "Advanced," and "Innovative." The strategies described for Lever #1 relate primarily to governance, organizational techniques to manage and monitor success, and striving for high levels of sustainability in internal operations.

Strategy 1.1: Elevate and Make Explicit the Importance of Sustainability and Provide Necessary Staff and Funding Resources

Our review indicates that many staff do not have clear prioritization guidance for sustainability projects to help them justify devoting additional energy to new initiatives or learning and operationalizing new, more sustainable ways of conducting current responsibilities. This observation applies to managers and department heads, to varying degrees depending on the department and the job function. Therefore, a central strategy in the sustainability strategic plan should be to elevate and make explicit the importance of sustainability in city operations.

Actions, policies, and structures that support the elevation and prioritization of sustainability in Mountain View are described below.

Foundational

Creating a sustainability vision is a critical foundational step to elevate sustainability in priority**.** This vision can provide a common understanding of what sustainability means in Mountain View, why it is critical to the community, how staff should pursue it, what values and principles should be upheld, and whose responsibility it is. This vision statement should articulate a vision for the future that the staff strives towards while implementing this strategic plan. In February 2019, department leads gathered to establish a shared vision for sustainability, which reads as follows:

> ***City of Mountain View Sustainability Vision:*** *"The City of Mountain View works collaboratively and innovatively across internal departments and with residents, businesses, and governmental partners to create and sustain a connected and vibrant community that uses natural resources wisely, protects and enjoys the benefits of healthy local ecosystems, fosters sufficient economic resources and opportunities to provide a foundation for community well-being, and includes people from all life-stages and backgrounds in the activity and success of the community."*

With an understanding of the staff's visions in place, the City could initiate a public process that refines this vision, by including community input and workshops with the Council. Once it is final, it is important that the City publicly release and begin planning the implementation of the vision in a transparent manner. Cadmus recommends that the CMO use a wide variety of communications channels to broadcast the newly refined sustainability vision to amplify its impact.

Example Initial Priorities for the Interdepartmental Sustainability Committee:

- Refining sustainability vision
- Engaging in the ESAP process
- Determining budget requests for staff and resources to make plans actionable
- Pursuing key partnerships to accelerate transportation and affordable housing priorities

Another foundational action is to **establish an interdepartmental sustainability governance committee**. Given that the City's vision for sustainability encompasses all major departments, and the steps in this strategic plan span their expertise and responsibilities, it is critical that leadership of all major departments be involved in this interdepartmental governance to allow for improved communication, collaboration, accountability, and integration of sustainability measures and actions across the City. This committee would also provide a forum for departments to openly and regularly discuss competing priorities, resources, challenges, and emerging opportunities. It should meet at least quarterly to ensure communication remains consistent and decisions are made considering sustainability across the city departments.

Assuming the leader of the sustainability office actively participates in these meetings and the meetings are frequent enough to bring up the most important efforts and initiatives, this committee would have the benefit of integrating the sustainability office into major planning and decision-making for the City early on in any new initiative. This would help the City view new initiatives broadly and holistically for both their direct impacts and their systems effects. Ideally, the committee will be able to draw connections between sustainability and the City's other priorities, and thereby institutionalize sustainability into decision-making.

To develop and implement a strategic plan, it is important to have a clear understanding of whether the capabilities available are sufficient to attain the vision and goals of the organization. A foundational action is to **assess such capabilities on an ongoing basis**. This document provides a snapshot of the sustainability needs and capabilities in Mountain View city government *at the current time*. However, as technologies evolve, growth conditions change, staff gains expertise, and staff turns over, it will be important to routinely revisit the City's ability to perform the actions that are needed to maintain sufficiently rapid progress to meet its sustainability goals. The ideal frequency for reevaluating staff capabilities is dependent on how well the City is performing against its goals. These routine evaluations should involve external benchmarking and third-party opinions, as well as self-assessments from staff and departments. The City should be prepared to fill capabilities gaps both through strategic hires that offer topical expertise the City needs and through training and professional development opportunities for existing staff.

Advanced

In order to reach an advanced level of response, the City (1) needs a strategic change management professional to lead its sustainability efforts, (2) needs to provide adequate staff resources within each department to integrate sustainability and resilience work, including both staffing and discretionary funding for pilots, and (3) needs to develop a clear understanding of climate risks and opportunities.

Strategic change management is a critical component of building an advanced sustainability operation. The role that oversees sustainability should be filled by an individual who has an excellent grasp on the methods and strategies to mobilize entire communities to address daunting challenges holistically. In

particular, this individual should expertly frame sustainability as a value to everyone in the community and find ways to make sustainability progress complementary to progress on other critical City objectives. In order to do so, this individual must understand the major levers available to address climate change and environmental impact mitigation, all-hazards resilience and preparedness, and extending the benefits of sustainability action to all constituents to maximize social equity in program design and outcomes. This officer must be supported by staff within the departments and within CMO that can enable him or her to focus on strategic matters together with other city leadership. Cadmus recommends that this role be encompassed in **a Chief Sustainability and Resilience Officer (CSRO) position.** The City can leverage frameworks from the Urban Sustainability Directors Network, 100 Resilient Cities, and other thought-leading organizations to design this position. This position would be in the CMO and would oversee the environmental sustainability office.

To ensure all agencies are able to contribute to the City's sustainability vision, it will be important to **allocate resources to integrate sustainability and resilience into department work, including appropriate staffing levels and discretionary funding for pilot projects.** The allocation of resources to sustainability efforts should be responsive to the areas that have the highest emissions reduction benefits and benefits that promote social equity. Our assessment of the four areas that had the highest potential in this regard includes reducing travel demand, reducing the emissions-intensity of transportation, efficiency in building heating, and electrification of building heating. More details on programs that could be implemented to address these sectors will be provided in Lever #2, which focuses on mobilizing the community to reduce emissions.[14] Generally speaking, the staff resources needed to address these areas of opportunity are likely best positioned in the departments as opposed to within the sustainability office because they require substantial specialized subject matter expertise.

In determining resource allocation strategies, it's important to note that resources can be internal to city government (e.g., more program budgets, more staff hires) or external (e.g., pursuing grants, receiving technical assistance, hiring consultants, or leveraging initiatives led by local businesses and organizations). In addition to providing staffing resources, funding for pilot projects can help departments discover and optimize sustainable solutions to existing challenges. Pilot funding could be provided through a revolving loan fund or a discretionary budget that could be competitively allocated to the departments. Without appropriate capacity and funding, staff will not have the ability to innovate, nor will they have time to design their pilot programs to optimize organizational learning, which is a key contributor to future effectiveness. Finally, it's important to note that the implementation of new programs, tracking progress, and participation in sustainability committees and working groups will require time investments from

[14] Since the vast majority of emissions in Mountain View are from the community, not municipal operations, substantial outreach is needed requiring a significant time investment. More rapid action to incent active and shared modes of transportation through changes to the streetscape is critical at this time of rapid growth and change to the physical landscape of the City. The expertise and capacity for implementing these actions is needed across many functions in the City, and key departments have noted significant capacity constraints associated with fulfilling their core duties, making the pursuit of new and innovative actions for sustainability difficult to prioritize.

regular staff. This investment may need to be accounted for by lightening workloads and expectations elsewhere.

In addition to adding these resources for pursuing sustainability, an advanced level of response would also include **incorporating resilience into the shared sustainability vision and approach**. In particular, the interdepartmental sustainability committee referenced above should include representatives focused on resilience. This allows for considerations of climate risks, adaptation, and broader community resilience when sustainability actions and other decisions related to growth, regional transportation, building codes and standards, and so on, are made.

Innovative

In order to build an organizational culture that prioritizes sustainability and provides the appropriate resources to advance sustainability at an innovative level, a **sustainability and resilience lens would be integrated into hiring for positions at a managerial level and above, and sustainability would be incorporated into performance expectations where relevant.** This action serves to reinforce the City's stated prioritization of broad, holistic sustainability, and also provides an expectation that staff will collaborate and invest their energy and expertise into solving the City's sustainability challenges.

In addition, an innovative level of response would **formally integrate regenerative and triple bottom line sustainability impact analysis into any major decision made within departments and mainstream sustainability and resilience actions across all city plans, policies, standards, actions, and investments.** One way in which this could be implemented would be to require departments to be accountable to a "sustainability and resilience checklist" that would require them to research the broader implications of the plan, policy, or action they are considering, and the sustainability impacts of all viable alternatives.

A truly innovative approach to sustainability would adopt the concept of *regenerative* sustainability, which focuses on enabling social and ecological systems to maintain a healthy state and continue to regenerate, in the hopes of leaving a future social and ecological system that is not only uncompromised but also improved.[15] This is a shift in the paradigm from aiming to "do less harm" toward aiming to "do good" by reinvesting in people and ecosystems.[16] Furthermore, a truly innovative approach would aim to be regenerative across all three pillars of triple bottom line sustainability, in particular ensuring that social equity is enhanced. This approach can positively reinforce community support for the sustainability program because it ties environmental sustainability to other community priorities such as economic sustainability and social equity.

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[15] http://www.eurestore.eu/wp-content/uploads/2018/04/Sustainability-Restorative-to-Regenerative.pdf

[16] Defining sustainability broadly so that it achieves social equity and economic vibrancy is an important way to ensure that support for sustainability initiatives is reinforced and strengthened over time, as the benefits are broadly shared.

Strategy 1.2: Adopt Sustainability Practices in Internal Facilities Upgrades and Operations

Our review indicates that there has been substantial progress in adopting sustainable policies and technologies in city operations but that there are significant opportunities remaining.

Foundational

Mountain View would first need to establish reliable funding mechanisms for implementing projects. In addition to the funding in the capital improvement program (CIP) budget carve out, Mountain View would develop a green revolving loan fund (GRF) for city facility projects that save money by saving resources. Since the efficiency projects funded by GRFs often have desirable internal rates of return, the development of such a fund could be considered an investment rather than an expenditure. The Finance Department would need to study options including how to seed the fund (e.g., via a bond issue, setting aside existing reserves), what policies to put in place (e.g., which departments are eligible to draw from it, what criteria to evaluate potential projects with), and what sort of oversight, governance, and measurement and verification should be developed.[17]

Next the City would pursue comprehensive energy auditing, efficiency upgrades, and electrification opportunities for its own facilities. It would evaluate solar and solar water heating opportunities across its portfolio of facilities and land. This would include facilities that the City leases to third parties. The City would also finalize its policies that set ambitious standards for its own facilities, such as attaining LEED Gold and implementing retrocommissioning or continuous commissioning for any major energy-consuming facilities. For the vehicle fleet, the City would study opportunities for electrification (and other low carbon fuel usage). It could coordinate with the Climate Mayors initiative to conduct the analysis for EV opportunities. In parallel to its own fleet efforts, the City would study the best locations to provide EV charging at public facilities, both to facilitate charging for city employees who use EVs and to facilitate charging for visitors to these facilities. This would require a review of the current EV charging incentives and grant programs available from external parties (e.g., PG&E, BAAQMD), an assessment of the costs of procurement, installation, and electrical work, and the development of the appropriate policies for access and payment at each location.

From an operations perspective, the actions the City could take in its facilities are too numerous to outline here, but include energy optimization best practices in buildings, implementing sustainable procurement policies, hosting only "green" events or "zero waste" events, fuel-saving fleet policies (such as GPS optimization and telematics monitoring), optimizing its water utility operations to address leaks and help customers conserve, and a wide variety of other functions such as sustainable landscaping, tree planting, and other sustainable park operations. For all its major facilities, the City would implement practices that

[17] The Sustainable Endowments Institute has developed a useful GRF implementation guide here: http://greenbillion.org/wp-content/uploads/2013/01/GRF_Implementation_Guide.pdf

could qualify it for a high rating on the LEED for Existing Buildings: Operations and Maintenance rating scale.

Finally, much like the local companies that offer transportation demand management (TDM) programs and services to their employees, the City of Mountain View would continue its own internal TDM programs to help city employees commute sustainably. These include a transit stipend, a bicycle stipend, a carpool program, and telecommuting and alternative schedule options that reduce the number of commute trips that employees must make. In addition to these commute programs and policies, the City's homebuyer assistance program aims to help employees live closer to their workplace in the City by providing housing loans for purchases in Mountain View or within a 10-mile radius.

Advanced

Many of the actions that would be pursued at the Advanced level for internal city facilities are similar to those at the Foundational level, except with more stringent thresholds. For instance, Mountain View would develop more advanced requirements for new city facilities including a building electrification policy to require all-electric construction and a policy to require cost-benefit analysis of pursuing LEED **Platinum.**

The City would also invest additional resources to more aggressively reduce city employee single occupant vehicle commuting (e.g., through incentives, tools for transit planning and payment, parking feebates). As mentioned above, the City has tried an employee homebuyer assistance program to encourage employees to live within the community and therefore close to city offices, but utilization has been low due to the current housing market. However, at the Advanced level, the City would revise its program to provide more substantial assistance and increase program utilization.

The City would make a commitment to electrifying its own vehicle fleet and adopting other low carbon alternatives, aligned with its vehicle replacement schedule. This could involve the creation of an official Clean Fleets Policy and Implementation Plan that would assess the most sustainable option for each vehicle and the appropriate timeline for replacement. The plan could also involve identifying opportunities to pilot emerging vehicle technologies.

For enhanced resilience, Mountain View would conduct a climate risk and opportunity assessment and update the Local Hazard Mitigation Plan (LHMP). Mountain View adopted its LHMP in 2012 as an annex of the Santa Clara County Local Hazard Mitigation Plan.[18] Santa Clara County updated its plan in 2017[19] and included specific references to climate risks, including heat waves, decreased water supply, sea level rise, and more. Figure 4 shows the summary of climate change hazards outlined in the County's plan. The City could update its LHMP with an analysis of the expected impacts of climate change with a focus on:

1) Adaptive capacity of the City's business functions, operations, capabilities, and assets; and

[18] http://resilience.abag.ca.gov/wp-content/documents/2010LHMP/MountainView-Annex-2011.pdf

[19] https://www.sccgov.org/sites/oes/partners/Documents/Local-Hazard-Mitigation-Plan-LHMP-Vol-1.pdf

2) Marginalized and underrepresented populations in the City, particularly with a view toward disruption of access to city-level services.

In response to this assessment, the City would prioritize areas of most significance and highest vulnerability and identify the opportunities and strategies for enhanced resilience for the frontline communities in the face of climate change and extreme weather. The City could also leverage information from Google and LinkedIn, which are both required to report their climate-related risks through their SEC 10-k filings, so as not to reinvent the wheel and so as to free up time to focus on the important factors of adaptive capacity of city stakeholders and marginalized populations.

Figure 4. Primary and Secondary Climate Change Impacts Foreseen in the Santa Clara LHMP

Primary Impact	Secondary Impact	Example Human and Natural System Impacts
Increased temperature	Heat wave	• Increased frequency of illness and death • Increased stress on mechanical systems, such as HVAC systems
Increased temperature and changes in precipitation	Changed seasonal patterns	• Reduced agricultural productivity • Reduced tourism
Increased temperature and/or reduced precipitation	Drought	• Reduced agricultural productivity • Decreased water supply
	Reduced Snowpack	• Decreased water supply • Reduced tourism
Sea level rise	Permanent inundation of previously dry land	• Loss of assets and tax base • Loss of coastal habitat
	Larger area impacted by extreme high tide Increased coastal erosion	• More people and structures impacted by storms • Loss of assets and tax base
	Saltwater intrusion into freshwater systems	• Decreased water supply • Ecosystem disruption
Changes in wind patterns	Increased extreme events, including severe storms and fires	• More frequent disruption to systems resulting from severe storms
Ocean acidification		• Decreased biodiversity in marine ecosystems

Adapted and expanded from California Adaptation Planning Guide: Planning for Adaptive Communities

Innovative

Mountain View would **require** all of its new city facilities to achieve LEED Platinum, and would adopt practices in its larger existing facilities that would qualify them for LEED Platinum for LEED for Existing Buildings: Operations and Maintenance. Since there are many more existing buildings than there will be newly constructed city facilities, the administrative burden of filing for LEED formally for all of them would not be worth the investment, but a self-inventory of the practices would be highly valuable. Additionally, the City would reduce embodied carbon in building materials, as recommended by ESTF-2 Recommendation BN-6 (embodied carbon is the amount of carbon that is required to manufacture and transport materials used for buildings). The implementation of a framework to look at embodied carbon would require a significant research effort and it will be important to align Mountain View's efforts with those of the State of California, which has addressed the issue in the Buy Clean California Act, which will

require the State to determine the global warming potential of each building material that could be used in construction.[20]

Strategy 1.3: Track And Report On Sustainability Metrics Across City Programs And Departments

As noted in the Environmental Sustainability Program Assessment, the City of Mountain View has high-level sustainability targets (e.g., GHG reductions and waste diversion), but no comprehensive plan for tracking metrics that contribute to the attainment of the high-level GHG reduction targets (e.g., community-wide mode share and vehicle miles traveled targets, EV adoption, building decarbonization). Once metrics and associated targets are agreed upon, departments could be given responsibility for managing progress with defined frequencies for collecting and reporting data.

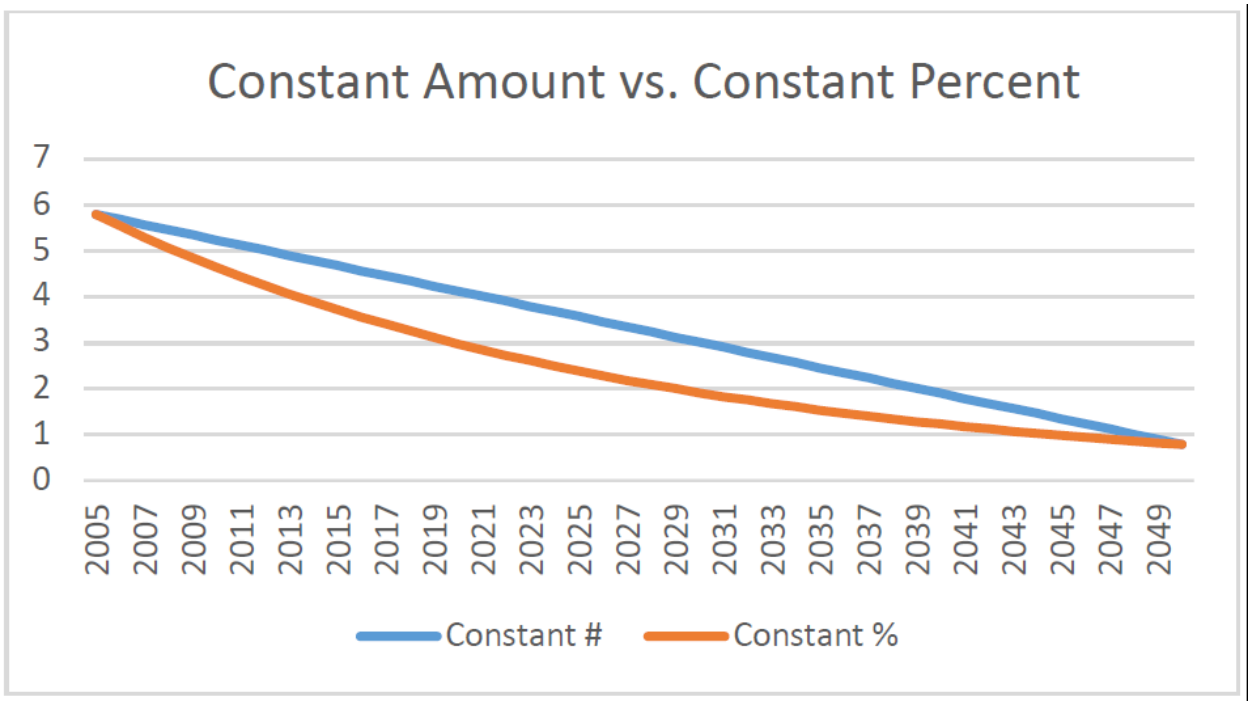
Foundational

Mountain View would **continue to refine its Environmental Sustainability Action Planning (ESAP) process** and **identify metrics for sustainability and resilience progress that are aligned with department missions**. Due to the clear roles and responsibilities, the CMO could hold the departments accountable not only for ESAP actions, but also for progress on the sustainability metrics that are defined through this process. The metrics and tracking plan would likely be developed by the leadership-level environmental sustainability committee formed as part of Strategy 1.1, and responsibility for implementation and tracking progress would be assigned to a manager-level cross-departmental working group, which could be coordinated by the sustainability office to ensure that the working group members connect across departments and hear of emerging best practices in and beyond the City. Sustainability office oversight could also provide assurance that the working group focused early on integration of triple bottom line approaches and the intersection of climate mitigation and adaptation and resilience. One of the most critical actions will be to set **annual** GHG targets that will put the City on a path to achieving its 2050 GHG goal. At the Foundational level, there would not be any consequences to missing the annual GHG target, but calculating our emissions inventory every year, and assessing progress against what will be required to meet the 2050 goal will increase the City's ability to manage its progress toward that goal and ultimately achieve it. ESTF-2 provides several suggestions for how to set these annual targets. The first decision the City must make is whether to focus on an absolute GHG target or to normalize its GHG emissions to account for population (ESTF-2 recommends normalizing based on "service population," which is the sum of Mountain View residents plus workers). A second decision to make is how fast the annual targets should decrease. Since in the early years of a sustainability program there may be more "low-hanging fruit," or actions that can quickly and relatively inexpensively reduce emissions, it could be argued that the annual GHG targets should not be a simple linear extrapolation between the present time and the goal year, but rather reductions in the early years should be larger than in the later years. Faster reduction in the early years also reduces the total amount of carbon emitted into the atmosphere. On the other hand, future improvements in technology may make emissions reductions continue to become more cost effective,

[20] https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=201720180AB262

and there may be step changes associated with when low carbon technologies reach cost parity with higher carbon technologies (e.g., when EVs become as cheap as gasoline cars, when heat pumps offer a more compelling value proposition). ESTF-2 recommends a rate slightly faster than linear, using a "constant percent" reduction per year approach, as a way of setting annual targets, as shown in Figure 5.

Figure 5. An Illustration of the Type of Target Recommended by ESTF-2



Source: ESTF-2 Recommendations Report

In addition to tracking GHG or GHG per service population, the City could also explore tracking other metrics of environmental impacts and mitigation such as community-wide VMT and VMT per service population, EV adoption market share, heat pump adoption market share, reduction in gasoline and diesel consumption, reduction in natural gas consumption, and other mitigation-related metrics listed in **Error! Reference source not found.**.

Adaptation and resilience metrics could include whether climate impacts have been integrated into hazard mitigation and land use planning, whether funding for preparedness activities has been allocated, and whether action has been implemented ahead of the risks occurring. These metrics should take into account adaptation and preparedness for both acute shocks (such as flooding, extreme heat, wildfire, and indirect wildfire impacts such as smoke and air quality) and chronic stressors (such as sea level rise, higher temperatures, changing precipitation patterns, and drought). Additional metrics could be established around the level and quality of response to disasters and recovery time, and others listed in Table 5**Error! Reference source not found.**.

Table 5. Example Potential Metrics and Whether They Are Tracked by the City of Mountain View

Category	Metric	Degree of Control over Outcome	Form of Tracking by Mountain View	Mountain View Goal Determined
Overall GHG Emissions	Community-wide GHG emissions	Influence	Active	Yes (80% by 2050 relative to 2005)
	GHG emissions from municipal operations	Control	Active	Yes (80% by 2050 relative to 2005)
Air Quality	Local criteria air pollutant levels (e.g., NOx, SOx, PM, ozone, and more)	Weak influence	By other agencies[21]	Not apparent in our review
Environmental Quality	Trees—Number, species diversity, and canopy cover	Control	Active	Yes (increase canopy to 22.7% by planting 11,000 trees)
	Acres of open space	Control	Active	Yes (3.00 acres of open space per 1,000 residents)
Transportation	VMT	Weak influence	Through GHG inventory process	Not apparent in our review
	Single-occupancy vehicle mode share	Influence	Active	Yes, in North Bayshore (45%)
	Transit ridership mode share	Weak influence	Active	Yes, in North Bayshore (35%)
	Ridesharing mode share	Weak influence	Active	Yes, in North Bayshore (10%)
	Active transportation mode share	Influence	Active	Yes, in North Bayshore (10%)
	Trip reduction (for entities required to submit TDM plans)	Weak influence	By other agencies	Goals vary by entity
	EV market share	Weak influence	By other agencies	Not apparent in our review
	City fleet fuel consumption and emissions	Control	Active	Recommended by MOCAP[22], but not clear if implemented
Buildings	Community building energy use	Influence	Through GHG inventory process	Not apparent in our review

[21] In addition to Federal air quality standards maintained by the EPA, California Air Resources Board maintains a series of maps of nonattainment areas for the California standards, and Mountain View is in nonattainment areas for several of them. https://www.arb.ca.gov/desig/adm/adm.htm

[22] Mountain View's Municipal Operations Climate Action Plan

Category	Metric	Degree of Control over Outcome	Form of Tracking by Mountain View	Mountain View Goal Determined
	Market share of thermal electrification technologies (e.g., heat pumps)	Influence	Not apparent in our review	Not apparent in our review
	City facility energy consumption and emissions	Control	Active	Not apparent in our review
Water	Community-wide potable water usage	Influence	Active	Not apparent in our review
	City facilities potable water usage	Control	No	Not apparent in our review
	Water quality	Influence	Active	Yes (by EPA and Water Board)
Waste	Landfill diversion rate	Influence	Active	Yes (90% diversion by 2020)
	City operations diversion rate	Control	Not apparent in our review	Recommended by MOCAP, but not clear if implemented
Climate Resilience[23]	Percent of community protected from sea level rise	Control	Not part of our review	Not part of our review[24]
	Percent of critical facilities served by resilient microgrids	Control	Not part of our review	Not part of our review
	Degree of preparedness for wildfire and/or wildfire indirect impacts	Control	Not part of our review	Not part of our review
	Degree of preparedness for flood and stormwater control	Control	Not part of our review	Not part of our review
	Level and quality of response to disasters, recovery time	Control	Not part of our review	Not part of our review
Social Sustainability [25]	Measures of protection of disadvantaged populations: Households displaced, quantity of affordable housing, and affordability	Influence	Not part of our review	Not part of our review

[23] Although adaptation and resilience are not the major focus of this assessment, a large number of worthy metrics have been assembled by NAACP.

[24] From review of the most recent CIP, it is apparent Mountain View is taking action on sea level rise protection, but it is unclear how progress will be measured.

[25] Social sustainability and equity are also not the major focus of this report, but for more worthy metrics, Cadmus's primer on Equitable Clean Energy Program Design provides some suggestions (see its Table 2), in addition to the NAACP report referenced in the footnote above. Santa Monica's sustainability data portal includes additional suggestions.

Advanced

An Advanced approach would start by incorporating an assessment of the impact of any major proposed project or policy on the metrics defined by the manager-level working group, and integrating this assessment into all staff reports. This would ensure that staff are giving adequate attention to the priority metrics in every major decision. However, this would only be feasible if the list of metrics to be analyzed were relatively short and the appropriate technical knowledge and resources were made available. For many proposed projects and policies, the actual impacts may be difficult to predict, and a range of likely outcomes may be bracketed instead.

In addition, the City would **create an online climate dashboard to publicly release information about City sustainability performance.** Building from the effort of identifying and tracking key metrics, this would hold the City accountable to an external audience and increase the level of attention and scrutiny on the City's efforts. Additionally, as part of the City's metric development processes, the City would consider developing and tracking metrics specifically to measure the success of the land use strategies that are critical not only to Mountain View's sustainability goals, but also to quality of life and equity in the City. This could include the jobs-housing balance, minutes to cross the city, or a livability index. While these are not always included in sustainability metrics as historically defined, they are key elements for Mountain View since they reduce congestion, help residents stay in place, and ensure the city grows in a way that benefits all.

Innovative

The City would **develop a methodology for estimating equity impacts of sustainable and resilient actions.** For example, this might include measuring how actions decrease displacement risk and help avoid "spillover" effects of increased commute time and associated GHGs in surrounding communities. During the assessment phase of this project, city staff indicated that housing is rapidly becoming less and less affordable and that lower income residents are being displaced. Service sector employees and other low earners fill vital functions in the community, and their displacement is not only contributing to longer commutes but also causing a direct increase in the residential emissions portfolio of more affordable cities in the region. Properly accounting for the way that Mountain View's growth is impacting the region could help encourage the development of equitable policies within and between cities and encourage regional collaborations that promote more sustainable ways of living. Responses to these spillover effects could include direct actions to increase the supply of affordable housing units, the development of a regional carbon fund, reviewing emissions progress on a regional basis, or other solutions to be determined. Given the complexity of these issues, developing this type of methodology would likely require partnering with urban planning and equity-focused organizations, as well as neighboring communities. Additional discussion of regional accounting for sustainability impacts is provided in the strategies in Lever #3.

In addition to creating this new methodology for equity impacts, the City could manage their emissions budget through a streamlined emissions bank and carbon offsets (as recommended in ESTF-2 Recommendation M-1) or create a consumption-based inventory (as recommended in ESTF-2 Recommendation W-16). An emissions bank and offsets would be an important bridge for the City to offset their impact in the near-term while policies described in this strategic plan create the desired

emissions reductions. If implemented, an emissions bank would signal a fundamental switch in the way the City views its GHG impact, beginning to look at managing the cumulative amount of future emissions rather than hitting a specific target. A consumption-based inventory would be another major shift in how the City views its impact, and would provide a more comprehensive picture of the way goods and services are utilized by residents and business in Mountain View, providing a more comprehensive picture of its overall emissions. This could help engage stakeholders beyond the City in considering how they can contribute to the community's overall reduction goals.

Lever #1: Integrate Sustainability and Resilience Across City Government. Summary of Strategies and Possible Actions

Table 6. Possible Actions at the Foundational, Advanced, and Innovative Levels for Lever #1

Strategy	Foundational	Advanced	Innovative
Strategy 1.1: Elevate and Make Explicit the Importance of Sustainability and Provide Necessary Staff and Funding Resources	Publicly release and implement a shared vision for sustainability.	Incorporate resilience into the shared vision for sustainability and ensure that resilience is addressed by the interdepartmental committee.	Mainstream sustainability and resilience actions across all city plans, policies, standards, investments to enable regenerative sustainability and all-hazards resilience and identify funding and investment opportunities.
	Conduct capabilities assessments on an ongoing basis to determine needs for additional expertise, through new hires or capacity, or training and professional development opportunities for existing staff.	Allocate resources to integrate sustainability and resilience into department work, including appropriate staffing levels and discretionary funding for pilot projects.	Allocate additional resources as appropriate and integrate a sustainability and resilience lens into hiring decisions for positions at a managerial level and above, and incorporate sustainability into performance expectations where relevant.
	Establish an interdepartmental sustainability governance committee at a leadership level to support implementation of the Strategic Sustainability Plan, cross-departmental decision-making, and accountability.	Create/add a Chief Sustainability and Resilience Officer (CSRO) position in the CMO at the appropriate level.	Formally integrate regenerative and triple bottom line sustainability impact analysis into any major decision made within departments.

Strategy	Foundational	Advanced	Innovative
Strategy 1.2: Adopt Sustainability Practices in Internal Facilities Upgrades and Operations	Implement a revolving loan fund for city facility sustainability projects.	Conduct a climate risk and opportunity assessment and update the LHMP (risk assessment would cover all sectors, for instance (1) resilience of transportation systems to power outages as the community increasingly depends on EVs, (2) water stress risks for parks and natural ecosystems and the building sector, (3) flood risk to the building sector and transportation sector, and (4) the impact of climate risks and ongoing hazards to disadvantaged populations).	
	Implement comprehensive efficiency upgrades, electrification, and energy generation across city facilities (including solar, solar hot water, and other technologies as appropriate).	Develop more advanced requirements for new city facilities and major renovations, including a building electrification policy to require all-electric construction and a policy to require assessment of cost-benefit of LEED Platinum.	Require LEED Platinum in new City facilities and major renovations.
	Finalize policies for LEED Gold attainment and building retro-commissioning at city facilities.	Invest additional resources to more aggressively reduce city employee single occupant vehicle commuting (e.g., through incentives, tools for transit planning and payment, parking feebates, etc.).	Reduce embodied carbon in building materials for new City facilities.
	Continue to assess opportunities for city fleet electrification (and adoption of other low carbon fuels) spanning light duty vehicles to shuttles to heavier equipment.	Make a commitment to electrifying city fleet aligned with vehicle replacement schedule	
	Implement sustainable operational practices in buildings, fleet, materials conservation/zero waste events, water operations and leak reduction, park maintenance, and other city functions (including tree and turf replacement plans, tree canopy goals, etc.).		
	Expand EV infrastructure in public facilities.		
	Continue current programs to support city employees in sustainable commute options.		

Strategy	Foundational	Advanced	Innovative
Strategy 1.3: Track and Report on Sustainability Metrics Across City Programs and Departments	Assign a manager-level working group to support implementation of the ESAP and identify metrics for sustainability and resilience progress that are aligned with department missions, develop a tracking plan, set targets for each metric, and report frequently on progress.	Assess the impact of projects and policies on the metrics identified by the working group in all staff reports.	Develop a methodology for estimating regional equity impacts of sustainable and resilient actions, including avoided "spillover" effects of displacement.
	Set annual GHG targets after analyzing pros and cons of both absolute and normalized measures (e.g., GHG per service population). Set an aggressive schedule to achieve the City's long-term goals (e.g., constant percent decrease per year or better).	Create a climate dashboard and communicate progress to the public on a regular basis.	Manage Mountain View's emissions budget through streamlined inventory and emissions bank/offsets.
	Continue regular sustainability planning (e.g., through the ESAP process) with prioritized, actionable steps that have clear roles and responsibilities.	Develop and track metrics to measure success of sustainable land use strategies (e.g., jobs-housing balance, minutes to cross city, livability index).	Conduct a consumption-based GHG inventory.
	Analyze transportation projects for GHG emissions.		

Staffing and Cost Implications of Lever #1 Strategies

Tables 7 to 12 provide preliminary assessments of the rough magnitude of staff time requirements for Lever #1 strategies at each level of response. As noted in the table below, some of these staff roles would support multiple levers. To refine these estimates, a more complete list of actions will be needed, along with a clear understanding of the phasing, prioritization, and approach to each action. This should be done through the development of an inclusive implementation plan with cross-departmental involvement. Implementation plans are the next step to a high-level strategic plan, laying out the activities, schedules, and costs that are required to achieve the objectives of the strategic plan.

Impacts on existing staff workloads are roughly quantified here in order to flag any potential capacity constraints. It is readily apparent that these staff do not generally have substantial excess capacity. Therefore, creative approaches will be required, such as relieving these staff of other duties and leveraging consultant and external support where possible.

Foundational

Table 7. New Staff Roles to Support Foundational Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Facility Sustainability Projects Manager (in Public Works)	• Coordinate a comprehensive energy audit process and rank projects for implementation • Review opportunities for solar and solar hot water • Initiate retrocommissioning for top energy consuming facilities • Assist with implementation of sustainable operations and maintenance	Manager	100% FTE		N/A
Facilities Maintenance Worker (in Public Works)	• Provide capacity to support the installation and maintenance of sustainability measures	Entry level	100% FTE		N/A
CivicSpark or EDF Climate Corps Fellow (in core sust. office)	• Assist with short-term projects as assigned	Entry level	100% FTE	TBD	TBD
		Total:	3 FTE		

Table 8. Existing Staff: Significant Workload Impacts from Foundational Actions

Title	Actions Supported	Additional Capacity Needed
Selected Department Heads	Join the interdepartmental sustainability governance committee	5% FTE each, ongoing
Selected Managers in Each Department	Join the manager-level working group to support implementation of the ESAP and suggest metrics and targets to the governance committee	5% FTE each, ongoing
Finance	Advise on creation of revolving loan fund, set process in place to manage it	Small effort, short term
CMO	Oversee the revolving fund on an ongoing basis	5% FTE, ongoing
Facilities/Fleet Manager	Oversee the new facility sustainability projects manager Commission a fleet study for vehicle replacement and efficiency	10% FTE, ongoing
Sustainability Coordinator	Assist assistant city manager (ACM) with the organization of the governance committee and lead the manager-level working group, in the absence of a CSRO	10–20% FTE, ongoing

Advanced

Table 9. New Staff Roles to Support Advanced Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
CSRO (in Core Sustainability Office)	• Within 1.1—Collaborate with ACM to lead governance committee; provide expertise on equity, resilience, and sustainability; assist with the policies mainstreaming sustainability • Within 1.2—Oversee climate risk and resilience assessment • Within 1.3—Oversee ESAP process, oversee metric development process, oversee strategy revision as needed • Additional activities to support the other lever, see the master staff list in Table 32 for full description of activities	Manager or director, as appropriate	100% FTE	Cross-sectoral	All levers
		Total	1 FTE		

Table 10. Existing Staff: Significant Workload Impacts from Advanced Actions

Title	Actions Supported	Additional Capacity Needed
Selected Midlevel Staff in Each Department	• Increase rate of pursuing pilot projects to make operations more sustainable in a core focus area of the department	5–10% FTE, each
Facilities Manager	• Contribute information to support the evaluation of a requirement for new city facilities to be LEED Platinum	5% FTE, short term
Transportation Policy Team	• Research on how to more aggressively reduce city employee single occupant vehicle commuting	10% FTE

Innovative

Table 11. New Staff Roles to Support Innovative Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Climate Risks and Resilience Manager (in Core Sustainability Office)	• Within 1.2—Advising departments on resilience within their sectors (transportation, water stress, flood, buildings) • Additional activities to support the other levers, see the master staff list in Table 33 for full description of activities	Manager	100% FTE		All levers
		Total	1 FTE		

Table 12. Existing Staff: Significant Workload Impacts from Innovative Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	• Oversight of annual consumption-based GHG inventory • Managing and accounting for the emissions budget and "banking"	Moderate and cyclical
Sustainability Analyst	• Completion of analytical tasks to support inventory and emissions budget activities	Substantial and cyclical

Additional Nonstaffing Financial Commitments

Even though an implementation plan with a conclusive list of activities has not yet been developed, the following types of costs can be expected if the strategic plan were to be implemented at each level.

Foundational	Advanced	Innovative
Increase in energy conservation and sustainable facilities budget (likely offset by ongoing operational savings)	Cost premiums (if any) triggered by building electrification requirement	Cost premiums (if any) triggered by requirement to build city facilities at LEED Platinum and to operate facilities at a standard equivalent to LEED for Existing Buildings
Cost of accelerated replacement of gasoline-powered fleet vehicles (may be offset by fuel savings from vehicle replacement and operational efficiency strategies)		Cost premiums (if any) if the City uses lower embodied carbon materials in new construction
Cost of installing EV charging at city facilities beyond any grant funding		
Cost premiums (if any) triggered by requirement to build city facilities at LEED Gold		
Cost premiums (if any) triggered by zero waste or other operational requirements		
Identification of financial resources to set aside for the Green Revolving Fund		
Consultant services to analyze GHG emission impacts of major transportation projects		

Lever #2: Mobilize the Local Community in Sustainability and Resilience Action

Overview

The City of Mountain View has a long track record of working collaboratively with its local community, and there are large groups of strongly invested constituents that want to be involved in Mountain View's sustainability future. City operations, which are directly affected by actions in Lever #1, contribute **less than 2 percent** to overall community GHG emissions.[26] As such, a strong emphasis on engaging and mobilizing residents, workers, businesses, and other organizations to increase the sustainability of existing buildings and existing activities in the City is critical to Mountain View's success. This includes engagement to gather input and engage in community-driven problem solving as well as city actions that will mobilize the community (e.g., providing incentives or requirements for behavior change, and developing programs that educate stakeholders and enable or facilitate sustainable behaviors). Each of these types of actions could be done by the City alone or, more likely, in partnership with others such as nonprofits, small businesses, and large employers.

Notable recent actions to mobilize the community include:

1) The City Council vote to establish ESTF-2, and the subsequent enormous undertaking in which dozens of participants collectively volunteered thousands of hours researching and analyzing potential changes to the City's sustainability plans and goals,

2) The success of Energy Upgrade Mountain View from 2011 to 2014, which engaged over 2,000 households, which on average decreased their electricity use by 6 percent and natural gas use by 16 percent,

3) Ongoing water conservation engagement, including free classes, free personal home visits on irrigation efficiency, and the distribution of thousands of water-saving devices and rebates for thousands of water-efficient appliances such as clothes washers and low-flow toilets, and

4) The original ESTF in 2008, with 65 participants developing nearly 90 recommendations that provided the foundation for the City's sustainability program.

Strategies

The following strategies support Lever #2 and are broken into three levels of response: Foundational, Advanced, and Innovative. These strategies span both input from the community and actions that the City

[26] Comparison of Mountain View 2010 city operations emissions with 2012 community-wide emissions from the Municipal Operations Climate Action Plan and the Climate Protection Roadmap, respectively.

can take to mobilize the community, ranging from imposing requirements, to conducting outreach and education, to developing sustainable options and services for community members.

Strategy 2.1: Engage Residents from Across Mountain View's Neighborhoods and Demographic and Socioeconomic Groups During Development of Policies and Programs to Promote Sustainability and Quality of Life

Since the actions and activities of residents are critical to the achievement of GHG reductions in the City, residents must be fully bought in to the sustainability vision and the policies and programs that support it. This buy-in is most likely if ideas are sourced from the community, and if the City incorporates the needs and desires of the community across all of its sustainability actions. It is also most likely if sustainability policies are designed to also improve quality of life for all residents.

Foundational

At a Foundational level, community engagement should take into account all major populations in the City to ensure that they are consulted and have an opportunity to shape city programs and policies. This would include ensuring that community meetings that relate to sustainability are accessible to nonnative English speakers, perhaps through collaboration with the City's Multilingual Community Outreach Program, since a substantial proportion of the community may be better able to engage in Spanish, Chinese, or Russian according to language statistics provided in the Census Bureau American Community Survey. Not only should sustainability engagement address language barriers, but it should also use a wide variety of methods to connect with populations that do not normally have strong representation, such as by providing childcare for families while they attend events, by consulting community-based organizations that serve underrepresented populations on how best to solicit input, and by visiting neighborhoods and locations where these populations convene through techniques such as pop-up/mobile town halls, listening tours, and other mechanisms. Since transit-oriented development, the jobs/housing balance, and mixed use development have such a strong impact on sustainability, engagement of residents should include frequent pulse checks on community feelings toward growth and quality of life. If a more substantial number of constituents begin to resist growth or the development of new housing, it may be more difficult to achieve the emissions reductions that would come from the colocation of housing and jobs.

Advanced

At a more Advanced level, community engagement would develop lasting partnerships with community-based organizations that serve disadvantaged residents, enlisting them to substantial and ongoing agenda setting and co-creation of solutions. This form of engagement will ensure that all residents have the chance to feel heard and that they have organizations looking out for their interests as agendas are formed for upcoming community discussions. This could include the development of a coalition of local

organizations similar to the Berkeley Climate Action Coalition, which includes nonprofits, neighborhood groups, faith-based organizations, schools, businesses, major institutions, and more.[27]

To encourage robust idea-generation from the community, at this level of response the City would also host annual events that aim to recognize the most innovative community-sourced ideas, an action that will be further described under Strategy 2.3. To provide a buzz around the event, the recognition could be tied to micro-grants, and winners could be announced at the event.

Innovative

An Innovative approach to engaging residents would include the development of a formal stakeholder engagement framework and policy that incorporates input across all groups and allows for cross-pollination of ideas. This framework would be used for every major planning endeavor related to sustainability and would be customized based on the degree of impact of the topic on specific groups of residents. For topics that would have the most impact on groups of residents, engagement would be more heavily collaborative, while for topics with lower impact the engagement can be more aligned with informing them and/or consulting them. This model is demonstrated well in the City of Boulder's Engagement Strategic Framework,[28] as shown in Figure 6 and Figure 7.

City of Boulder Engagement Strategic Framework

The City of Boulder has a centralized community engagement office that has adopted an Engagement Strategic Framework to ensure that the City's public processes are effective and responsive to the community. This framework clearly articulates Boulder's principles and values for engagement, strategies for success, and nine steps for good engagement. Successful engagement is measured with indicators such as the level of clarity, process satisfaction, development of respectful relationships, and transparency on how input will be used.

[27] https://ecologycenter.org/climatecoalition/

[28] https://www-static.bouldercolorado.gov/docs/11-13-17_Framework-1-201711301119.pdf

Figure 6. City of Boulder Engagement Spectrum

INCREASING IMPACT ON THE DECISION

	INFORM	CONSULT	INVOLVE	COLLABORATE
PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding a problem, alternatives, opportunities and/or solutions.	To obtain public feedback on public analysis, alternatives and/or decisions.	To work directly with the public throughout a process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and identification of a preferred solution.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge your concerns and aspirations, and share feedback on how public input influenced the decision. We will seek your feedback on drafts and proposals.	We will work with you to ensure that your concerns and aspirations are reflected in any alternatives and share feedback on how the public input influenced the decision.	We will work together with you to formulate solutions and to incorporate your advice and recommendations into the decisions to the maximum extent possible.

Adapted from ©IAP2 International Federation 2014.

Figure 7. City of Boulder Engagement Process

Strategy 2.2: Engage Small Businesses, Large Employers, and Nonprofits to Determine Shared Priorities and Collaborate on Implementing Sustainable Actions

The nonresidential sector is a substantial contributor to Mountain View's overall GHG inventory, at roughly 19 percent from such facilities according to the preliminary 2017 inventory. Employers and businesses also generate a substantial percentage of travel demand and the majority of transportation emissions. Therefore, engagement of these organizations is especially important. These organizations also could benefit substantially from a reduction in wasted travel time, for their logistics and for employee well-being and satisfaction, so many of them are likely to be motivated to participate. When it comes to congestion, transportation emissions, and housing affordability, these organizations (particularly large technology companies) have been described as the causes, the victims, and the most promising potential generators of solutions.

Foundational

At a Foundational level, this engagement process would include a periodic process to gather input and ideas from the biggest employers in Mountain View on the sustainability topics that are most salient to their operations and their continued success, including transportation and affordability. At this level, the engagement would be primarily informational and confined to organizations that have sustainability staff or facilities staff who are particularly interested in sustainability. It could come in the format of individual outreach to a select number of employers, or quarterly meetings and discussions with a larger group of employers collectively via their sustainability representatives.

Advanced

At the Advanced level, a formal group of businesses, institutions, and civic representatives based in Mountain View (or with a heavy presence there) would be established to advise the business community on sustainability solutions and motivate each other to take on increasingly ambitious commitments, as well as sharing the results of pilot projects within their organizations. This could be modeled after an organization like the Boston Green Ribbon Commission, which is composed of leaders of Boston's largest property-owning businesses and institutions, and which advises the City on its Climate Action Plan (CAP) implementation, aligns its initiatives and assets to support the City's CAP, and practices and promotes best practices.[29] Santa Monica's Sustainability Business Council is another good model. It focuses on sharing sustainability ideas between businesses via mechanisms like monthly meetings that showcase new initiatives, regular tours of sustainable businesses, and their "Sustainable Quality Awards."[30]

[29] https://www.greenribboncommission.org/story/purpose/

[30] http://smchamber.com/environmental-affairs/

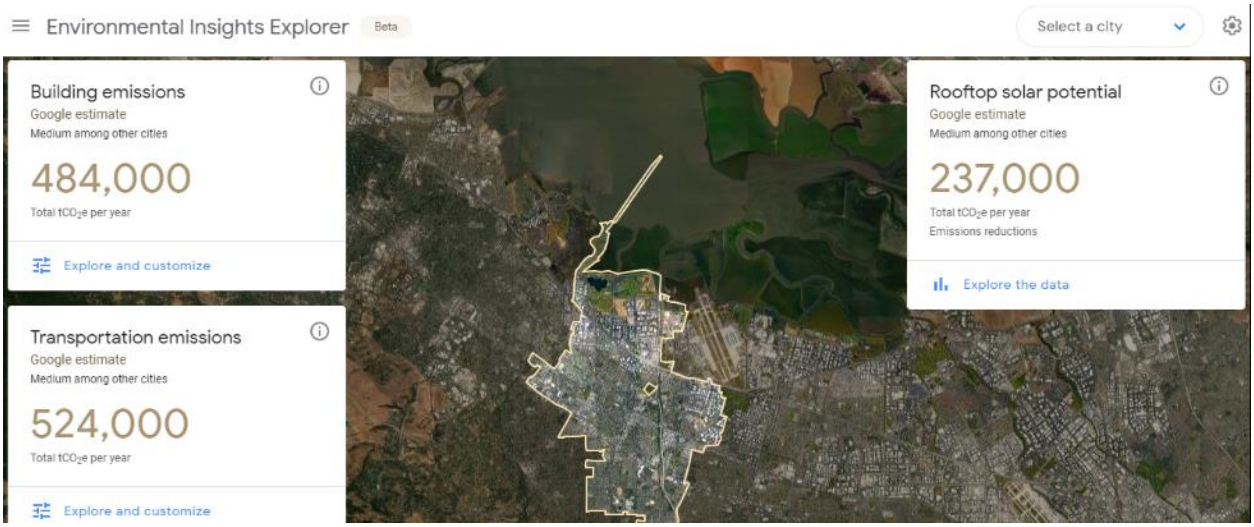
Innovative

An Innovative approach would include extending the formal stakeholder engagement process developed for residents to also include a wide spectrum of businesses and organizations in the City. This could include a regular update schedule and forum for feedback on Measure P spending (the new business license tax), allowing employers to indicate which projects are most likely to make a significant difference to alleviate congestion and transportation emissions from their employees and to indicate which, if any, projects they would be interested in providing additional cost share for. The policy would make clear in what circumstances which business and organization stakeholders would be informed, consulted, involved, or engaged in an extensive collaborative process.

At this level, the City would also integrate sustainability partnerships into the Economic Development department's strategies for business engagement and retention. One such effort could be to publicize the data collected from any building energy use disclosure ordinance the City may pass (see Strategy 2.5 for more discussion of such programs)—this action would help businesses understand the potential costs of electric, gas, and water associated with any facility where they are considering establishing a tenancy. Other such actions could include adopting a policy to patronize local businesses for their sustainable products and technologies (such as by purchasing food for city events from local caterers and restaurants that offer the most sustainable food choices, or by adopting software and tools created by local technology companies). The City could help generate awareness of these new sustainable products, and could host contests, competitions, and hackathons to generate new sustainability ideas that would enhance local business success by bringing down energy costs and providing sustainable services. Leveraging these companies' knowledge and data could also help the City to assess its impacts and/or plan and develop appropriate policies. The Google Environmental Insights Explorer, shown in Figure 8, is an example of how such partnerships could benefit the City.

Another action aligned with small business sustainability engagement and retention could be to develop a community-wide revolving loan fund that would make it easier for small businesses to implement conservation projects. This would go beyond the municipal-focused revolving fund suggested as part of Strategy 1.2 and need not necessarily be seeded with city funds or even administered by the City—rather once the success of the City's municipal sustainability revolving fund was demonstrated, the City could provide technical assistance to help the chamber of commerce or a newly created business sustainability group replicate the fund community-wide.

Figure 8. Screenshot of Google's Environmental Insights Explorer, an Online Analytical Emissions and Energy Tool Currently Under Development that Is Using Mountain View as One of Its Pilot Cities[31]



Strategy 2.3: Develop and Implement a Communications Strategy that Celebrates Successes and Acknowledges Collaborators

This strategy aims to build momentum by creating a buzz about sustainability progress that is being made by the City and its collaborators. The investment of effort in this strategy is relatively minor, but it can pay big dividends by (1) motivating staff and stakeholders to achieve the next sustainability success and increasing morale through recognition of accomplishments, (2) winning over internal skeptics with concrete data, (3) generating civic pride and political capital to continue prioritizing sustainability activities, (4) spreading ideas to other organizations in the community for replication, (5) stimulating ideas from potential collaborators who hear about the City's actions, (6) motivating residents to participate in the City's broader sustainability movement, and (7) helping make future efforts easier to fund, including potentially creating a more compelling narrative to support future grant applications.

Foundational

At the Foundational level, the City would use its most effective internal and external communications channels to broadcast the most notable achievements to all major groups of constituents in the community. The City would assess the tools at its disposal such as internal CMO communications, newsletters, project highlights at departmental and cross-departmental meetings, information tables at street fairs, Earth Day celebrations, and more. The sustainability issue of "The View" in early 2019 is a great example of such an activity. Through these communications channels, the City could communicate not only the success it is proud of and the successes of local businesses and employers, but also the

[31] GHG numbers presented in this graphic are only placeholders since the tool is still under development.

challenges the City is still grappling with, as an invitation to community members to bring forth new ideas. The tone of communications should be hopeful and inspiring, with a clear communication of urgency. If done in an honest, transparent, and straightforward manner, there should be no substantial risk that the communications would come across as "self-promotion" or "greenwashing."

Advanced

At the Advanced level, the City would add activities that help other groups in the community communicate their successes and create a local peer learning ecosystem. For instance, a peer learning group of property managers could be convened monthly or quarterly in which the sustainability office could recruit one member of the peer group to give a short presentation on a recent initiative and share what they learned and how they would implement the initiative if they were to do it over again. Another activity could be the creation of a "Green Tip of the Month" for supply chain, facilities operations, capital improvements, TDM programs, green lease practices, or other sustainability topics, using examples sourced from the community.

To create even more community excitement, the City could work with a local business group like the Mountain View Central Business Association to sponsor or host annual sustainability awards that would give leading community organizations a platform to showcase their biggest achievements, through a Sustainability and Resilience Innovation Challenge, or similar event. Examples of such programs include the Santa Monica Sustainable Quality Awards, NYC Mayor's Carbon Challenge, Harvard Green Carpet Awards, and the Boston Green Ribbon Commission awards, among others. In addition to the awards recognizing past performance, these annual events would include an open competition for new ideas to be funded (e.g., through micro-grants to residents and community organizations, as described in Strategy 2.1), which could happen either from an open call for applications or events such as hackathons or datathons.

Innovative

No additional actions are currently suggested at the Innovative level for this strategy.

Strategy 2.4: Develop Direct Outreach and Education Programs Aimed at Encouraging Sustainable Behaviors for Residents, Workers, Visitors, and Property Owners

In addition to the engagement and communications strategies described in Strategies 2.1 through 2.3, the City needs a direct outreach program, in which it would provide education to community members on the most important actions they can take, whether they be residents, workers, visitors, or property owners. Techniques such as community-based social marketing (CBSM) have been shown to have substantial impacts on behavior, and simply providing additional exposure to new sustainable technologies is a low-cost way to ensure that constituents gain knowledge about their options. Many partners can be leveraged to multiply the impact of these campaigns.

Foundational

To start, the City needs to map out the universe of changes that its constituents could make to support the City's sustainability efforts and critically assess whether educational campaigns will have substantial positive impacts on behaviors and purchases. This study should cover all major sectors, including transportation, electricity, heating, water, waste, and ecological protection. Three to five high priority areas could then be selected for implementation of education campaigns initially. The list of campaigns would be refined periodically based on their success or failure and the evolution of sustainability priorities. This could include EV adoption, building electrification, waste reduction, and water conservation. Interactive informational fairs could be hosted where constituents would get a chance to try the technology firsthand (e.g., through EV Ride and Drives[32] and building decarbonization expos[33]). In addition to stand-alone events, this level of response would also include selecting community events, street fairs, and other highly attended activities to educate the population about waste reduction, recycling, energy and water conservation, and other topics.

The Foundational level would also include the promotion of tools to help households assess their environmental impact and develop and act on plans to reduce it. A myriad of carbon calculators is available online, and ESTF-2's recommendation O2B provides detailed recommendations for which tools may be most useful, including the Community Climate Solutions tool.

At this level, the City would also work with SVCE and other interested parties to develop a knowledge database for residents and businesses that compiles information about heat pump technologies (for space heating, water heating, clothes drying), electric ovens and induction stoves, intelligent home energy controls, EVs, and more. As suggested in ESTF-2 Recommendation M10, this tool could include information on current and upcoming models, building codes, permit processes, and how to use the technologies most effectively, among other topics. Broad outreach from a wide range of partners will increase the effectiveness of this tool.

Finally, the City would increase awareness of opportunities to participate in building energy efficiency programs through targeted outreach (as recommended in ESTF-2 Recommendation BE4). Using its outreach channels, the City could increase publicity about incentive programs offered by entities like Silicon Valley Clean Energy, Silicon Valley Energy Watch, BayREN, and others. Given the number of

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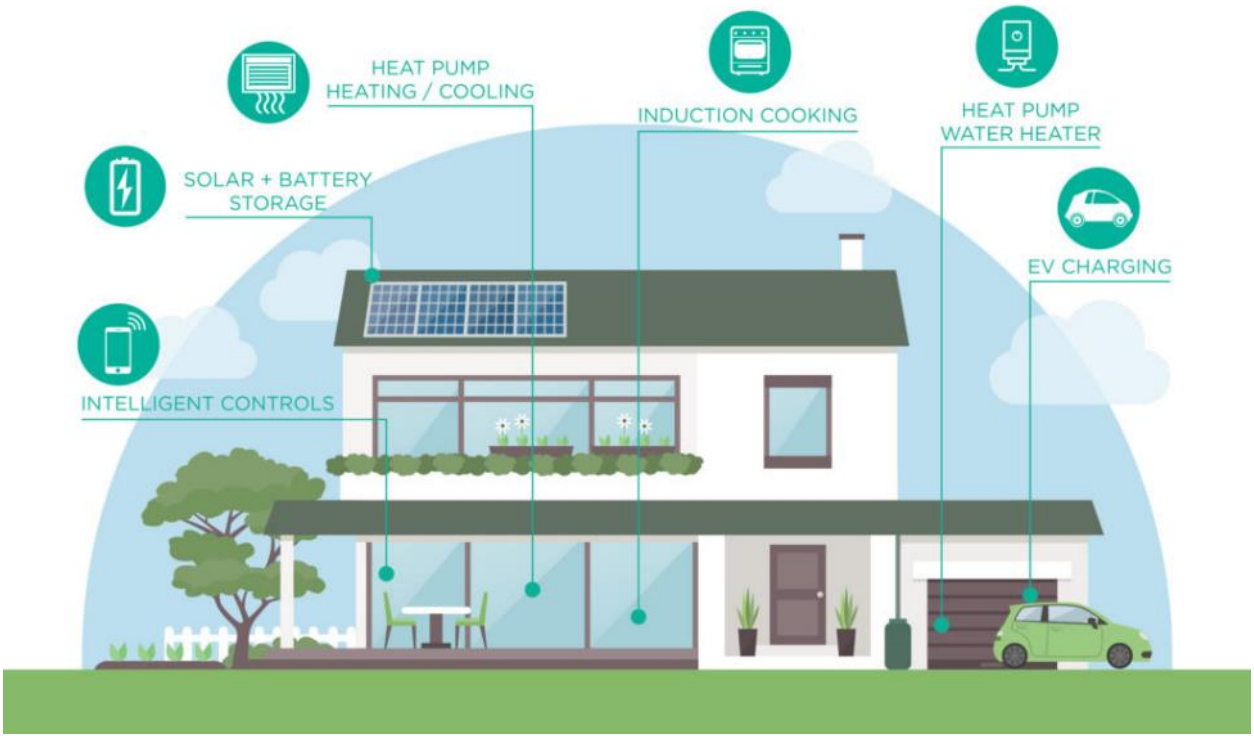
[32] Providing test drives and opportunities for interested community members to ask questions of current EV owners has been a strategy employed in hundreds of cities since 2011. In 2018 alone, there were over 320 such events. For a recent example, Acterra's event in Palo Alto for 2018 National Drive Electric Week offered over 520 EV test drives in 11 models of EVs: https://driveelectricweek.org/event.php?eventid=1205

[33] These could be sponsored or hosted by local utility partners such as SVCE and PG&E and provide an opportunity for local contractors to showcase their capabilities, vendors to show the newest products, and for community members to describe their experience in decarbonizing their own homes. See the East Bay Electrification Expo 2019 for an example: https://ecologycenter.org/events/east-bay-electrification-expo-fight-climate-change-in-a-clean-energy-home/

participants in Energy Upgrade Mountain View, it is readily apparent that the City has a strong network for outreach. The City could track the percentage of buildings that have undergone energy retrofits over time, and potentially the energy savings as well.

Figure 9. SVCE's All-Electric Home Concept



Advanced

The Advanced level would include not just regular events and informational resources, but also sophisticated efforts that both enable constituents to develop new habits and actively help them through the process of sustainable changes and investments.

Actions would include developing sophisticated community-based social marketing campaigns covering all major relevant activities, and leveraging time-tested strategies to develop new social norms.[34] Throughout program design, it will be important to distinguish between conscious and unconscious behaviors, pick the right messages and messengers for each audience, and design ways to normalize the desired sustainability behavior such that people feel they are sticking out by not adopting the desired actions. An example is promoting "Green Mondays" or other campaigns for more sustainable food

[34] Suggested resources include Doug Mackenzie-Mohr's CBSM Guidebook, Futerra's New Rules: New Game, and the psychology of behavior change literature that has grown out of Icek Ajzen's "Theory of Planned Behavior."

consumption with less meat, as recommended in ESTF-2 recommendation W2. Another example is social marketing on sustainable landscaping, lawn replacement with low-water need vegetation, reduction or elimination of pesticides and fertilizers, and adoption of electric or manual landscape equipment, as recommended in ESTF recommendation W12. Neighborhood-sponsored programs such as Cool Block, as in ESTF-2 recommendation O2B, would fall within this level of effort.

Building from the light awareness-building efforts envisioned under the bundle of Foundational actions, a more structured property owner technical assistance program could be created at this level, either through staff in the Building Division or the Sustainability Office. As demand necessitates and pending adequate staff, this would include assistance for landlords to navigate the permitting process and find and apply for important rebates, discounts, and grant opportunities offered by all levels of government and private sources. A lower investment alternative would be to refer property owners to the SVCE Customer Resource Center and to provide relevant information on the City's Sustainability Office website. It would not get into the nuances of evaluating the fit of specific technologies for specific buildings or providing nuanced advice on energy topics such as negotiating green leases, but property owners could be referred to the knowledge database developed under the Foundational strategy bundle.

Outreach to the network of contractors that operate in the City would also be undertaken—in particular, increasing the number of contractors that can install high performance sustainable appliances such as heat pumps (both for water heating and space heating) would be valuable for property owners. One such campaign could be to encourage local contractors to get trained and certified. Numerous regional and state designations and training programs could be promoted, such as the EV Infrastructure Training Program (EVITP) training for electrical contractors, future qualified vendor opportunities with PG&E's EV programs, the HERS rater designation, American Society of Heating, Refrigerating and Air-Conditioning Engineers trainings and certifications on skill sets such as commissioning, building energy modeling, energy auditing, and more. Connecting local contractors with these information sources and programs could increase their ability to meet customer demand for sustainable products.

Innovative

At the Innovative level, the City would provide substantially more resources for broader community education, including landlords and property owners. Technical assistance would be expanded from the Advanced level, and could also cover educating landlords and tenants on green leases, a topic suggested in ESTF-2 Recommendation BE4. In particular, if tenants knew their green lease options, they could push their property owners to offer arrangements that would enable cost-effective energy savings projects.[35] Landlords could modernize their facilities and achieve sustainability objectives too. Education for small developers on how to use the best available technologies, how to cost them out, and other decision support to satisfy increasingly strict energy reach codes would also be implemented at this level. The

[35] For a resource library on green lease case studies: http://www.greenleaselibrary.com/lease-forms-case-studies/

property owner forums developed under Strategy 2.2 could be leveraged to assess barriers to deployment and to identify solutions that would enable them to adopt a wider range of sustainable technologies.

Additionally, at this level, the CBSM described at the Advanced level would be scaled up, and the City would recruit community ambassadors and/or organizations to implement intensive long-term campaigns and competitions in every sector of the population and every major type of organization in the City, from single family neighborhoods, to multifamily housing communities, to employment centers, to business districts, to precise plan locations. The City could potentially pay organizations to implement these campaigns and establish strong measurement and verification protocols to set up the contracts under a pay for success model or a similar performance-based approach.

Strategy 2.5: Develop the Buy-in to Impose New Sustainability Requirements on Owners of Existing Properties and Businesses in the City

Existing buildings are currently and will continue to be responsible for the vast majority of emissions in the City. A portfolio of actions aimed at electrification, deep energy efficiency, and meeting energy needs locally (e.g., solar PV and solar hot water) will be needed, and the outreach and education described under Strategy 2.4 will only go so far within the existing building stock. Furthermore, codes and standards only primarily touch new construction and major renovations, leaving the vast majority of the building stock unaddressed.[36] Strategy 2.5 focuses on collaboratively developing a framework for sustainability requirements to address the segments of the market that may be slower to respond to education and outreach approaches. The property owner community may have resources and ideas that can enhance the City's approach to setting these requirements, so their early input will be important.

Foundational

A Foundational approach to addressing building decarbonization and other sustainability improvements in the existing building stock through large property owners would involve convening a stakeholder forum of these stakeholders to map out shared interests and best practices that could be shared between property owners. It would involve getting these entities to take on voluntary commitments that would lead to significant energy savings and emissions reductions. The engagement done to support the development of voluntary commitments could be paired with the educational efforts of Strategy 2.4, which would help these property owners take advantage of existing energy efficiency and sustainability programs and incentives from entities like PG&E, Silicon Valley Energy Watch, BayREN, and others (as suggested by ESTF-2 Recommendation BE4).

[36] While the City does have the ability to impose above-code requirements (subject to cost-effectiveness determinations) for measures that require a permit in existing buildings, codes have limited reach in the existing building stock.

Advanced

At the Advanced level, the City would design a program for energy use disclosure (also suggested by ESTF-2 Recommendation BE4) that goes beyond the requirements of the state Building Energy Benchmarking Program established under Assembly Bill 802, for instance by covering buildings under 50,000 square feet.[37] Energy use disclosure could inform potential tenants about the energy costs of renting properties, and thereby create incentives for property managers to invest more heavily in reducing energy costs and emissions. At this level, the City would use the disclosure data to determine a subset of buildings that would be required or incented to act to reduce their emissions (e.g., those buildings that perform worse in terms of emissions per square foot within their building type, or buildings larger than a certain size, or buildings with total emissions above a certain amount). Requirements could include periodic energy audits, retrocommissioning or continuous commissioning, and energy and water conservation measures. Implementing an energy disclosure ordinance could take substantial staff or consultant time, which would be cyclical based on reporting timeframes.

Additional requirements that are not energy- and water-related could also be explored at this level, such as mandatory composting and recycling and a ban on single-use plastic foodware (as suggested in ESTF-2 recommendation W9). For these nonenergy actions, careful program design would be needed to determine what level of enforcement and penalties might be needed, if any. For the plasticware ban, lifecycle environmental assessment of the alternatives to banned items will be required to make sure the ban results in the adoption of replacement practices that are low impact, balancing such factors as GHG impacts, plastic pollution reduction, impacts from the production of the materials, and more.

Innovative

An Innovative level of effort would include more substantial monitoring of the reported building energy performance data and the imposition of performance-based standards for energy consumption, emissions, and water consumption. It would involve the development of an incentive or penalty system for buildings to comply. Cambridge, Massachusetts, explored possible requirements and program design elements, and its staff could be contacted to gather insights should Mountain View pursue this approach. Such a program would be complex but depending on its design it could result in revenue streams from impact fees that could be reinvested in helping these property owners achieve emissions reductions or helping pay for other sustainability actions the City is pursuing.

Strategy 2.6: Develop Options that Facilitate and Enable Sustainable Behaviors and Purchase Decisions by the Community

The City can provide significant assistance to the community by developing options and services that enable sustainable behaviors in the population and among organizations. From the expansion of the active

[37] https://www.energy.ca.gov/benchmarking/

transportation network, to providing mobility as a service and/or expanded shuttles, to reducing soft costs for adopting new technologies (e.g., permitting and zoning and process efficiencies), to implementing campaigns that bring low-cost purchase opportunities to constituents (e.g., EV group buys), the City has numerous options. In cases where outreach, incentives, and penalties, are not enough to influence behavior, these types of actions are a great fit.

Foundational

At a Foundational level, the City would clearly identify its role in filling gaps and removing barriers to sustainable behaviors for its constituents. This would include actions such as developing an EV action plan, a building decarbonization plan, and a plan to enhance the active transportation network (which Mountain View has already created with the 2015 Bicycle Transportation Plan and the forthcoming Comprehensive Modal Plan). On the EV action planning side, the City would monitor and coordinate with the SVCE Joint EV Action Planning project currently under development and plan for how best to collaborate with the initiatives that are proposed under that planning effort. On the building decarbonization side, the City would monitor state-level programs under development, particularly the incentive and technical assistance programs that are intended to arise from SB 1477, which covers low-emissions buildings and sources of heat energy, and establishes a $50 million fund for incentives for installation of "near zero emission building technologies" such as heat pumps, solar thermal, advanced energy efficiency, or solar and storage, each year through 2023. Mountain View would also track the development of SVCE's future heat pump water heater and all-electric design incentive programs, and determine what gaps remain that the City could fill through its building decarbonization plan.

In support of multimodal transportation options for constituents in Mountain View, the City would finalize its Comprehensive Modal Plan, which consolidates and integrates existing and current plans into a single framework. This planning effort presents an excellent opportunity to identify first-/last-mile improvements to encourage transit usage and reduce reliance on single occupant vehicles, among other priorities. It is assumed that the City would continue implementation of priority bicycle and pedestrian improvements from the 2015 Bicycle Transportation Plan at the same rate as during the past few years.

Once all these plans were in place, the City would have a prioritized list of actions and clearly defined roles and responsibilities inside and outside of city government. These actions may include filling additional priority gaps in the EV charging network, implementing car-share and bike-share programs, and conducting regular "group buys" and/or trade-ins for sustainable technologies, as recommended in ESTF-2's recommendation T2. Group buys have been implemented successfully in hundreds of cities for solar (generally referred to as Solarize campaigns) and in several cities for EVs. They could also be implemented for additional technologies such as EV chargers, micromobility devices, solar water heaters, battery storage, heat pumps, heat pump water heaters, and electric landscape equipment (as in ESTF-2's recommendation W12).

Advanced

At an Advanced level, the City would invest more substantial resources. This could include directly investing city or SVCE funds in rebates or incentives for constituents to purchase the sustainable

technologies listed above under Foundational, either within or outside of the context of a group buy program. It could also include developing advanced waste reduction programs such as community-wide compost pickup (as suggested by ESTF-2 recommendation W5),[38] and increasing financial incentives for customers to opt for smaller refuse bins in an effort to increase diversion rates. It could also involve community resources such as tool libraries that would stock sustainable devices for loan (such as Kill-a-Watt meters, mechanical or electric push mowers and lawn equipment) and for free (e.g., faucet aerators). The City and its library could increase the frequency with which they host "Repair Cafe" events that help community members save money and avoid throwing away fixable items.

Also at this level, the City would proactively develop PPPs that shape the rise of "new mobility services" in the City (e.g., "mobility on demand" that is electric and pooled, a sustainable shared mobility clearinghouse, and mobility subscriptions[39]). It would also work with the Mountain View Central Business Association to allocate business improvement district funds toward expanded multimodal transportation options (e.g., expansion of Mountain View community shuttle), as was done by Emeryville for the Emery-Go-Round shuttle.

Innovative

At an Innovative level, the City would invest in costlier and more impactful measures, such as funding a portion of the operational costs of "new mobility services," such as electric bike-share, scooter share, autonomous EV pooling, and more, in order to shape the way the services are offered. Although these types of services have been offered in certain neighborhoods, they are primarily limited to locations that companies expect to have a sufficiently strong business case.

This approach would require active research on the environmental and social impacts of new and emerging technologies, as well as market gaps in the provision of these services and would require devising plans for extending them as appropriate to disadvantaged segments of the population to ensure equitable access to the services. It will involve extensive work with community-based organizations to scope out the needs of such populations, including but not limited to seniors, homeless people, disabled people, people without access to smartphones and internet (or without knowledge or comfort using these tools), and many other populations. Discounted bike-share or scooter-share, community-shared assets at

[38] Note that this would primarily entail extending compost to multifamily residential buildings and conducting outreach to entice more commercial customers to opt in to the compost collection system already available to them. Compost pickup is already available and used by many constituents in Mountain View.

[39] New mobility has been defined differently in different spheres, but in this context the definition provided by the International Council on Clean Transportation in their 2017 white paper is particularly useful, defining new mobility as the convergence of new technologies and new business models in transportation. https://www.theicct.org/sites/default/files/publications/New-mobility-landscape_ICCT-white-paper_27072017_vF.pdf

affordable housing locations such as car-share, rides to medical appointments, and community shuttles focused on connecting people with opportunities would all be examples of actions within this strategy.

In addition to discounts for disadvantaged populations, other approaches would include guaranteeing revenues or offering risk sharing for companies that provide shared mobility services in locations the company may otherwise avoid because of financial risk.[40]

The City could also provide cost share for real estate developers to provide subsidized EV car-share for any development that dramatically reduces its amount of private parking below any maximum that the City may impose. Many such programs could be evaluated, though they would require careful study to ensure that they were a cost-effective use of city resources.

[40] Such as was done in Arlington, Virginia, to expand its car-share network in the mid-2000s. http://innovativemobility.org/wp-content/uploads/2015/03/Carsharing-and-Public-Parking-Best-Practices.pdf

Lever #2: Mobilize the Local Community in Sustainability and Resilience Action. Summary of Strategies and Possible Actions

Table 13. Possible Actions at the Foundational, Advanced, and Innovative Levels for Lever #2

Strategy	Foundational	Advanced	Innovative
Strategy 2.1: Engage Residents across Mountain View's Neighborhoods and Demographic Groups	Partner with community organizations to host meetings in communities across the city, particularly those not often represented through usual engagement channels.	Develop lasting partnerships with community-based organizations, enlisting them to participate in substantial and ongoing agenda setting and co-creation of solutions.	Develop a formal stakeholder engagement policy for residents that clarifies how heavily to engage with whom for major decisions (similar to that developed by the City of Boulder).
	Provide multi-lingual resources and childcare in for evening engagements.	Collaborate with community organizations or non-profits to regularly engage residents.	
	Conduct frequent community pulse checks on feelings toward sustainability and quality of life via surveys, pop-up/mobile town halls, listening tours of community meetings and hearings, and other mechanisms.		
Strategy 2.2: Engage Small Businesses, Large Employers, and Nonprofits to Determine Shared Priorities and Collaborate on Implementing Sustainable Actions	Gather input and ideas from the biggest employers in Mountain View on the sustainability topics that are most salient to their operations and their continued success, including transportation.	Develop a group of business, institutional, and civic representatives to share information on and pilot sustainability solutions in their organizations.	Establish a formal business and organization engagement policy that clarifies how heavily to engage with whom for major decisions.
			Integrate sustainability partnerships into the City's economic development strategies for small business engagement and retention, such as by publicizing energy performance and cost data on available real estate vacancies, or by becoming an early adopter of sustainability products and services offered by these businesses.

Strategy	Foundational	Advanced	Innovative
Strategy 2.3: Develop and Implement a Communications Strategy that Celebrates Successes and Acknowledges Collaborators	Strategically celebrate successes internally and externally through multiple major communications channels to foster momentum by affirming staff contributions and to motivate community supporters to be part of the City's movement.	Partner with community groups and businesses to host peer learning exchanges and informational fairs on topics of interest to their constituencies (e.g., convening large property owners to share sustainability best practices; convening employers to share TDM best practices and other best practices; convening landlords and tenants to learn about techniques to overcome split incentives).	
		Host annual events to recognize the most innovative community-sourced ideas (e.g., a Sustainability and Resilience Innovation Challenge or a hackathon). These would be tied to community micro-grants.	
Strategy 2.4: Develop Direct Outreach and Education Programs Aimed at Encouraging Sustainable Behaviors for Residents, Workers, Visitors, and Property Owners	Map out city constituents' behaviors that affect sustainability (e.g., in transportation, electricity, heating, water, waste, ecological impacts), and assess whether educational campaigns will have substantial impacts.	Develop sophisticated Community-Based Social Marketing campaigns covering major activities such as commute behavior, energy management, sustainable food, waste reduction, and more (e.g., pass a resolution supporting "Green Mondays"; reduce, reuse, and recycle campaigns; lawn replacement, sustainable landscape care that reduces fertilizers and pesticides, and electrification of landscape and garden equipment).	Recruit community ambassadors to implement intensive long-term campaigns and competitions in every major sector of the population and every major type of organization in the City.
	Host regular informational fairs such as EV Ride and Drive campaigns and building decarbonization expos.	Provide technical assistance to property owners to help them navigate the permit system for sustainable technologies, and connect them with grant opportunities.	Educate landlords on efficiency, electrification, and green leases, provide technical assistance/program management, and convene property-owner forums to explore barriers to deployment and identify solutions.

Strategy	Foundational	Advanced	Innovative
	Use community events, street fairs, and other highly attended activities to educate people about waste reduction, recycling, and energy and water conservation.	Connect contractors with information and training resources to enable them to fill customer needs for installing heat pumps, EV charging, solar, solar thermal, and more.	Provide assistance and education to small developers and contractors regarding new codes and technologies.
	Provide tools to help households reduce their environmental impact and GHGs, including carbon calculators and the ability to generate and act on a plan.		
	Work with SVCE to develop a knowledge database and conduct outreach regarding building electrification and other sustainability actions.		
	Increase participation in existing building energy efficiency programs through targeted outreach.		
Strategy 2.5: Develop Buy-in to Impose New Sustainability Requirements on Owners of Existing Properties	Convene a stakeholder forum of the largest property owners/property managers in the City to map out shared interests in the development of city programs and possible requirements to improve sustainability performance.	Require energy use disclosure by all existing buildings of a certain size, potentially making the size threshold more stringent than the state-wide disclosure requirement for buildings above 50,000ft^2. Require or incent actions (e.g., energy audits, commissioning, energy and water conservation measures) to reduce emissions from higher emitting buildings.	Require existing buildings above a certain threshold to achieve performance-based standards in energy consumption, emissions, and water consumption.
	Solicit voluntary commitments from this forum.	Impose additional requirements on businesses (e.g., mandatory composting and recycling, adopting a ban on single-use plastic foodware).	

Strategy	Foundational	Advanced	Innovative
Strategy 2.6: Develop Options that Facilitate and Enable Sustainable Behaviors and Purchase Decisions by the Community	Using community input, determine Mountain View's role in stimulating EV market advancement, for instance through an EV action plan and filling priority gaps in the EV charging network such as in multifamily and commercial buildings.	Invest city funds in rebates or incentives for sustainable technologies (e.g., EVs and chargers, micromobility devices, solar, solar water heaters, battery storage, heat pumps, and heat pump water heaters, and electric landscape equipment), within or outside the context of a group buy program.	Invest city funds in equitably providing sustainable "new mobility services" to the broadest possible user base (e.g., the City buys down the cost of offering services the market would not otherwise provide, in order to ensure equitable access to programs like bike-share, car-share for low income housing or rental populations).
	Using community input, results of SVCE's pilot incentive program, and emerging state incentive and technical assistance programs, determine Mountain View's role in stimulating building decarbonization through heat pumps, solar thermal, and other technologies.	Develop advanced waste reduction programs such as expanding compost pickup to all customers, increasing financial incentives for smaller bins and increased diversion rates, and more.	
	Continue improving the most important gaps in a multimodal transportation system in a way that is responsive to community input and prioritization.	Proactively develop PPPs that leverage private innovation and shape the rise of "new mobility services" in the City (e.g., mobility on demand that is electric and pooled, sustainable shared mobility clearinghouse, and mobility subscriptions).	
	Offer annual or regular group buy programs for sustainable technologies (e.g., EVs and chargers, micromobility devices, solar, solar water heaters, battery storage, heat pumps, and heat pump water heaters).		

Staffing and Cost Implications of Lever #2 Strategies

Tables 14 to 19 provide preliminary assessments of the rough magnitude of staff time requirements for Lever #2 strategies at each level of response. As noted in the tables, some of these staff roles would support multiple levers. To refine these estimates, a more complete list of actions will be needed, along with a clear understanding of the phasing, prioritization, and approach to each action. This should be done through the development of an inclusive implementation plan with cross-departmental involvement. Implementation plans are the next step to a high-level strategic plan, laying out the activities, schedules, and costs that are required to achieve the objectives of the strategic plan.

Impacts on existing staff workloads are roughly quantified here in order to flag any potential capacity constraints. It is readily apparent that these staff do not generally have substantial excess capacity. Therefore, creative approaches will be required, such as relieving these staff of other duties and leveraging consultant and external support where possible.

Foundational

Table 14. New Staff Roles to Support Foundational Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Sustainability Analyst (in Core Sustainability Office)	Take on information gathering duties, assist with outreach campaign planning, assist with staff outreach events, and ease the workload of the Sustainability Coordinator position to enable an increase in the level of effort the Sustainability Coordinator can invest across all six community mobilization strategies	Analyst	100% FTE	Generalist	Lever 1, Lever 4
Sustainability Admin Support (in Core Sustainability Office)	Maintain contacts databases, cover logistics for all additional campaigns listed at this level, process contracts, and so on	Admin	50% FTE	N/A	All Levers
Multilingual Community Outreach Program Staff	Implementation of 2.1 under guidance of CMO and sustainability office	Existing MCOP staff member	25% FTE	N/A	N/A
		Total	1.75 FTE		

Table 15. Existing Staff: Significant Workload Impacts from Foundational Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	• Process design for any increased resident or business engagement (2.1, 2.2, and 2.5) • Oversight of 2.3, 2.4, and 2.6	None (assuming the 1.5 new FTE enable delegating more work)
CMO Staff	• Strategy 2.1 “pulse checks”	5% FTE
Economic Development Manager	• Support for 2.2	5% FTE
Sustainability Outreach Analyst	• Implementation of 2.3—Crafting narratives in consultation with depts	10% FTE

Advanced

Table 16. New Staff Roles to Support Advanced Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Energy Programs Manager (in Core Sustainability Office or Building Division)	With the objective of rapidly accelerating the rate of electrification and clean technology implementation in the existing building stock and vehicle fleet, lead the following activities: • Within 2.2—Ongoing coordination of business peer learning group • Within 2.4—Oversee development of information resources, advise development of CBSM campaigns in the building sector Within 2.5—Work with consultants to design energy disclosure program design/implementation • Within 2.6—Implement group buy campaigns, EV action plan, and other projects	Manager	100% FTE		Lever 4
Transportation Planner (in Public Works)	Provide additional capacity to free the transportation manager and/or assistant PW director to address the following: • Within Strategy 2.5 and 4.1—Overseeing "new mobility" services, managing their concessions and contracts, and developing PPPs. Substantial research, negotiation, evaluation, and ongoing management • Within Strategy 3.2—Overseeing regional transportation collaborations, such as coordination with local cities on Santa Clara Valley Transportation Authority (VTA) and Caltrain engagement, collaborating with school district to reduce drop-off and pick-up trips, expanding and enhancing the Mountain View community shuttle, and implementing actions such as transit signal priority	Analyst	50% FTE (an additional 50% is indicated under Lever #4 to make this a full-time staff member)		Lever 3,4
Zero Waste Analyst (in Public Works)	• Implement community-wide reduce, reuse, and recycle campaigns in 2.4 • Analysis of the ways in which recycling and compost requirements could be imposed and enforced and expected impacts in 2.5 • Assess options for (and anticipated impacts of) increasing the financial incentive for households and businesses to reduce waste and increase diversion in 2.6	Analyst	100% FTE		

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Zero Waste Admin Aide (in Public Works)	• Provide support to the Public Works solid waste team • Assist with enforcement of zero waste policies such as mandatory composting and recycling and the plasticware ban in 2.5	Administrative	100% FTE		
		Total	3.5 FTE		

Table 17. Existing Staff: Significant Workload Impacts from Advanced Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	• Within 2.4—Development of CBSM campaigns of limited scope in partnership with sustainability analysts and departments	Could be substantial
Existing Solid Waste Program Staff	• Oversee analyst and administrative aide supporting advanced zero waste activities	Relatively low
Existing Public Works Water Staff	• Within 2.4—Expanded water conservation and sustainable landscaping outreach campaigns • Within 2.6—Oversee analysis of water rate changes that would incent conservation; evaluate opportunities to expand programs like the successful appliance rebates, leak detection, and conservation device giveaways	Could be substantial

Innovative

Table 18. New Staff Roles to Support Innovative Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Community Campaigns Coordinator (in Core Sustainability Office)	• Within 2.2—Support the operation of the business and organization peer group • Within 2.4—Primary oversight over CBSM campaigns in buildings, water, and waste in close coordination with the appropriate departments	Coordinator	100%	
		Total	1 FTE	

Table 19. Existing Staff: Significant Workload Impacts from Innovative Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	No change from "Advanced" except that additional outreach duties would be lightened with the hiring of the community campaigns coordinator	Could be substantial
Existing Solid Waste Program Staff	No change from "Advanced" except that additional outreach duties would be lightened with the hiring of the community campaigns coordinator	Could be substantial
Existing Public Works Water Staff	No change from "Advanced" except that additional outreach duties would be lightened with the hiring of the community campaigns coordinator	Could be substantial
Economic Development Manager	More substantial support for 2.2 (pending skillset match), including integrating sustainability into business retention strategies	10% FTE

Additional Nonstaffing Financial Commitments

Even though an implementation plan with a conclusive list of activities has not yet been developed, the following types of costs can be expected if the strategic plan were to be implemented at each level.

Foundational	Advanced	Innovative
Event/program costs (e.g., for ride and drives, sustainability fairs, etc.)	Cost share (if any) for PPPs on bringing "new mobility" to the community	Buying down the cost of providing "new mobility" services in niches not likely to be served by the private market
Capital cost of active transportation system improvements	Increased capital costs of active transportation system because of implementing more projects	Cost premium (if any) for patronizing local businesses when they provide sustainable products or tools
Web development costs for knowledge database with SVCE	Micro-grants distributed to the community	"Pay for Success" program payments for nonprofits and organizations hired to conduct CBSM campaigns
	Rebates provided by the City for constituents that invest in building electrification technologies, sustainable landscaping, electric mobility devices, or other conservation products	
	On-call consultation services to assist residents and small businesses with green building projects	

Lever #3: Partner Regionally to Enhance Connectivity and Impact

Overview

Many of the sustainability challenges that the City is grappling with are regional in nature. Multimodal transportation success is only possible at scale if the communities to and from which Mountain View residents travel also have effective, safe, comfortable, and convenient alternatives to single occupant vehicle travel. Markets for sustainable building products will become much more competitive and robust if regional demand supports more private sector investment in providing the services. Housing affordability cannot be solved without comprehensive regional solutions. And ecosystem remediation and habitat conservation are limited if surrounding cities do not also take action. Therefore, Mountain View should take into account regional impacts and the actions of regional collaborators when making decisions about sustainability investments and departmental plans. Recruiting other local leaders to also make decisions that are in the best interest of the region will be important for shared success.

Fortunately, there is substantial appetite for regional collaboration within the Bay Area, and the area has a rich ecosystem of nonprofits, local governments, environmental agencies, community groups, foundations, and other organizations that promote sustainability in myriad capacities. While this lever explores many strategies for working together with these entities, regional growth management strategies related to transportation and new building code are discussed in more detail in Lever #4: Manage Inclusive, Sustainable Community Growth.

While the regional collaborations envisioned in this strategic plan are primarily at a metropolitan scale, it may also be worth watching broader geographies of regional collaboration such as the Pacific Coast Collaborative for emerging best practices.

Strategies

The following strategies support Lever #3 and are broken into three levels of response: Foundational, Advanced, and Innovative. The strategies and actions described for Lever #3 are designed to help the City find areas of shared priority, determine how to track regional progress, and share resources and information that contribute to the implementation of projects with regional benefits.

Strategy 3.1: Find Alignment with Peer Governments and Establish a Clear Understanding of Roles, Responsibilities, and Appropriate Frameworks and Metrics for Tracking Regional Progress

Foundational

At a Foundational level, Mountain View would track peer government actions and initiate informal dialogue at multiple levels in city government. The most basic action would be to convene peer sustainability staff across neighboring local governments periodically to discuss their goals and initiatives related to sustainability and find alignment of goals and suggestions for how to track collective progress. The discussions would be nonbinding and relatively narrowly limited to sustainability staff and other key departments, rather than city-wide leadership.

Advanced

At the Advanced level, the City would work with ABAG, Santa Clara County, or other regional entities as appropriate to determine which metrics should be tracked, how they should be measured, and how local municipalities should be held accountable to their fair share of progress. Emissions are not the only environmental indicator of significance that could be tracked regionally. For instance, waste diversion, water consumption, and habitat quantity and quality are all measurable and important topics that are worthy of regional progress assessment. Solid waste processing and wastewater treatment for Mountain View are functions that are filled by multicity partnerships, which provides additional rationale for developing regional goals.[41]

Accounting for these metrics is also a conversation that will need substantial agreement and alignment if communities are to collaborate regionally. Should absolute emissions be the primary measure of success or should they be normalized to the size of the service population to account for community growth, as recommended by ESTF-2 in Recommendation M2? Should all communities in the area adopt conventional GHG inventories, or consumption-based inventories, which accounts for the life-cycle impact of Mountain View on emissions because it accounts for emissions produced elsewhere that were caused by the production of goods demanded by Mountain View?[42] The outcome of these discussions will frame the City of Mountain View and regional prioritization of activities to support sustainability goals. Agreeing to track the same metrics and report back to each other can spur friendly competition across the region and

[41] Sunnyvale Materials Recovery and Transfer Station (SMaRT Station) serves Sunnyvale, Mountain View, and Palo Alto, and increased engagement with the station and with the partner cities could lead to new ideas for improving diversion. The Palo Alto Regional Water Quality Control Plant provides recycled water to 1.8 square miles of Mountain View (in the North Bayshore Area), and the partners could convene to discuss expansion of recycled water use, quality needs, and any possible emissions reduction opportunities.

[42] The adoption of a consumption-based inventory is ESTF-2 Recommendation W16. The Bay Area Air Quality Management District commissioned a consumption-based emissions inventory for each jurisdiction in the Bay Area in 2016, establishing a precedent for looking at such metrics on a regional basis.

also highlight opportunities for regional cities to help each other achieve their common goals. A common online platform where all local governments in the area could share their information could save time by creating a template that could be used by all the participating governments.

Innovative

At an Innovative level, the regional discussions would **assign responsibility to each city in the region** to achieve its fair share of progress, through the development of a regional sustainability and resilience roadmap. This would be tracked in an accounting system to ensure that progress is being made by each city. An **example approach** would be akin to a cap and trade program, where cities that underperform their quota contribute to a regional pool of resources that would enable other cities in the region (who may be better equipped to overperform at a lower cost) to take additional action. This would require regular reporting, common measurement standards, a strong and mutually agreeable method for estimating "business as usual" emissions and appropriate quotas, and nuanced program design that accounts for existing programs such as ABAG's Regional Housing Needs Assessment and California's cap and trade program.

Whether or not a formal program could be set up, mechanisms for mutual accountability on emissions, waste, water, and habitat protection goals should be explored as part of the development of the plan. Regional resilience strategies should also be kept current to ensure the region is able to protect its most vulnerable residents from shocks and stressors that will be exacerbated by climate change.

Strategy 3.2: Share Resources, Data, Information, and Funding Widely in Support of Implementing Regional Projects

Foundational

Mountain View would continue to lead on regional energy topics, including maintaining an active dialogue with SVCE, PG&E, state regulators, and clean energy and efficiency companies. For instance, the City could lobby the California Energy Commission and/or the California Public Utilities Commission to support policies that remove barriers to solar, electrification, and energy storage. Through informed advocacy, Mountain View could work with its peer cities toward better rates for net excess local solar generation or create financial incentives for energy storage and enable higher penetration of renewable energy. Mountain View would also seek to join and leverage existing regional networks to achieve these outcomes.

Another approach Mountain View would take at this level would be to pool financial resources to co-commission studies on shared sustainability challenges, as it did by participating in the Santa Clara County Drive Net Zero EV readiness study. Such studies are more cost effective if they are shared regionally, and they may be more likely to draw important industry allies and stakeholders if they involve regional workshops and dialogues. As noted above, there will be a notable need for information sharing on building decarbonization as the SVCE and state programs (SB 1477) launch in coming years.

Advanced

An important next step at the Advanced level would be for the City to assess existing regional collaboration forums for potential gaps and devise approaches to partner and fill these gaps. While a substantial number of regional collaboration organizations and forums already exist (see Appendix B for a selected subset of these), there are many geographic levels on which regional coordination would be useful for any given topic area, ranging from coordination with immediate neighbors to Bay Area and beyond. There may also be gaps in the types of participants that are invited to coordinate regionally.

When a gap is identified, Mountain View would evaluate opportunities to create learning forums, share information, and discuss regional funding approaches and opportunities. These forums could be created for businesses, local government departments, nongovernmental organizations, foundations, and more. An additional idea that would require further study is to create an annual summit to review and track county, state, and federal sustainability actions as suggested by ESTF-2 (Recommendation O3). As conceptualized by ESTF-2, this summit would be open to a wide range of stakeholders, with a goal of exploring the pros and cons of outside legislation in sufficient depth to enable city staff to take positions on matters of importance impacting the City's sustainability goals.

Staff notes that the implementation of this recommendation would need to be done strategically in order to avoid duplication of effort with entities such as the League of California Cities, Bay Area Climate Adaptation Network (BayCAN), and others. A summit could help regional cities start the process of finding aligned advocacy priorities, which could result in them coming together to support certain legislation as appropriate, or it could be focused on helping the communities in the region learn about recently adopted legislation and how to adapt to it and leverage it. Peer learning exchanges in communities of common interest as recommended in Lever 2 could feed into this annual summit by meeting more regularly and sharing their insights on how recent and pending legislation would impact the community in areas such as transportation engineering, bicycle planning, sustainable facilities operation and maintenance, and more.

Peer Learning Groups across the Strategic Plan

This strategic plan identifies several possible forums with different participants and intents:

- **Peer learning networks** (Strategy 2.2–2.4)—Primarily local and small organizations and property owners, meeting regularly and semi-formally to share operational successes in sustainability. This group would also meet to provide input into the voluntary or mandatory performance requirements in Strategy 2.5.
- **Annual summit** (Strategy 3.2)—Broad regional participation (individuals, businesses, organizations, governments) in a process that would focus on coordinated policy learning and advocacy toward higher levels of government.
- **Sustainability and Resilience Roundtables, as appropriate** (Strategy 3.2)—Composed of large and leading organizations in the regional community, these groups could focus on resources and assets that these large organizations could leverage to support regional climate action and early identification of resilience threats and opportunities. They could also focus on topics of interest to Mountain View's immediate neighbors such as the communities that share wastewater or material recovery services or that share transportation coordination needs.

Pending a determination that there was a gap to be filled in the existing network of regional sustainability community, the City could co-lead the development of sustainability and resilience themed roundtables in the local region focused on the role of the largest and longest-term actors in the community. While entities like the Silicon Valley Leadership Group, BayCAN, and others cover broad geographies, there may be a need for collaboration within the immediate region, including a special focus on neighboring municipalities. Topics of interest may include wastewater and material recovery services, which are shared among smaller groups of cities, or local transportation coordination including shuttles and first-/last-mile transit solutions. Because of their longevity and their stake in the community through property ownership and reliance on the local workforce, these entities will have a strong interest in coordination on how they invest their considerable assets to enable future success of the region. These could include large technology companies, educational institutions, hospitals, and large nonprofits. An interesting model is the Boston Green Ribbon Commission, which advises the City of Boston on its Climate Action Plan implementation, engages the sectors from which their members come to encourage them to align their assets and initiatives to support the CAP, and by leading by example.[43]

Additionally, the City would encourage planning, land use, and transportation offices from cities across the local region to share information on planned unit development areas, VMT reduction strategies, and additional grant application ideas. Knowing the timeline and locations of development in Sunnyvale, Los Altos, Palo Alto, Santa Clara, and Cupertino, for instance, could enable better concepts for how the Mountain View community shuttle could expand its impact and could enable planners to better forecast transportation impacts and interactions between development areas in Mountain View and nearby. Similarly, the City would engage with the community to gather insights that would help them communicate community priorities for transit to VTA, Caltrain, and other agencies. In concert with neighboring municipalities, the City would seek to influence these agencies' service planning. It would also offer benefits to the agencies, such as transit signal priority, and roadway planning that optimizes bus operations. Employers could be engaged to negotiate transit pass discounts with VTA and provide first-mile/last-mile solutions through the Transportation Management Association (TMA).

Finally, the City would work with surrounding cities and regional agencies to develop fundable grant concepts proactively and seek out opportunities to apply for sustainable mobility grant funding. MTC and ABAG are important agencies to keep apprised of the plans and priorities of Mountain View and its surrounding cities.

Innovative

One of the more challenging actions Mountain View would explore would be to harmonize policies and processes for sustainable energy with its neighbors. Consistent permitting and inspection processes may make it more likely that new solar contractors, heat pump contractors, and other clean technology companies will prioritize Mountain View and its surroundings as a place to focus their outreach and education. While compliance with California's AB 2188 and AB 1236 have streamlined the process for

[43] https://www.greenribboncommission.org/story/purpose/

solar installations and EV charging in many municipalities, respectively, compliance is not uniform. It is likely that the reason Mountain View was selected as one of the early waves of priority outreach for PG&E's EV Charge Network Program could relate to its reputation for having a relatively straightforward permitting process (despite the fact that the City does not yet have an ordinance defining an expedited process in its municipal code[44]), but none of Mountain View's immediate neighbors have been selected for priority outreach. Working regionally could increase the degree to which funding is directed toward Mountain View and its surroundings and the degree to which the local installer market thrives.

One step further would be the evaluation of opportunities for regionally shared staffing and capacity building. This may not be appropriate in many circumstances, but to the extent that functions such as inspections can be shared, they can free up staff time to focus on more strategic measures.

[44] https://www.sccgov.org/sites/dnz/Documents/Task-3B-EV-Building-and-Zoning-Codes-Evaluation-and-Recommendations-Report.pdf

Lever #3: Partner Regionally to Enhance Connectivity and Impact. Summary of Strategies and Possible Actions

Table 20. Possible Actions at the Foundational, Advanced, and Innovative Levels for Lever #3

Strategy	Foundational	Advanced	Innovative
Strategy 3.1: Find Alignment with Peer Governments and Establish a Clear Understanding of Roles, Responsibilities, and Appropriate Frameworks and Metrics for Tracking Regional Progress	Initiate informal and periodic check-ins with peer local governments to discuss goals, initiatives, and opportunities.	Generate a regional sustainability and resilience metrics platform to track progress and spur friendly competition across the region.	Work with regional entities and encourage them to maintain a regional accounting system for all sustainability impacts with regular reporting, from GHG to waste to water to environmental quality and habitat protection.
			Develop, track, and regularly update an integrated regional sustainability and resilience roadmap/plan that incorporates climate change in the context of other shocks and stressors.
Strategy 3.2: Share Resources, Data, Information, and Funding Widely in Support of Implementing Regional Projects	Continue to lead on regional energy topics and maintain an active dialogue with SVCE and other regional and state entities to support sustainability progress and advocate for strong policies.	Assess existing regional collaboration forums for whether there are any critical gaps (in topic coverage, audiences/participant types, and breadth of region—e.g., some regional collaborations may make sense just with immediately neighboring cities, while others should be Bay Area–wide). For any gaps identified, determine the best approach to partner and/or share information, data, and funding opportunities, and spur innovation with businesses, governments, NGOs, foundations, and other relevant organizations.	Harmonize policies and processes across jurisdictional boundaries.

Strategy	Foundational	Advanced	Innovative
	Co-commission studies that can be used to form regional approaches to shared challenges and share lessons learned from Mountain View's own research and planning processes.	Conduct collaborative planning on new transportation solutions connecting new developments planned by neighboring cities.	Develop plans with surrounding municipalities for regional shared staffing and capacity building, where appropriate.
		Develop partnerships with organizations like VTA and employers to provide transit pass discounts, work with surrounding municipalities to create transit priority networks, collaborate with the school district to increase bus services to reduce trip needs to drop off children.	
		Partner with surrounding cities to develop and advocate funding for regional transportation and mobility solutions that are both sustainable and resilient.	
		Conduct annual summit to review and track county, state, and federal sustainability actions. Feed information from peer learning exchanges developed within the community into these regional discussions.	

Staffing and Cost Implications of Lever #3 Strategies

Tables 21 to 23 below provide preliminary assessments of the rough magnitude of staff time requirements for Lever #3 strategies at each level of response. As noted in the table below, some of these staff roles would support multiple levers. To refine these estimates, a more complete list of actions will be needed, along with a clear understanding of the phasing, prioritization, and approach to each action. This should be done through the development of an inclusive implementation plan with cross-departmental involvement. Implementation plans are the next step to a high-level strategic plan, laying out the activities, schedules, and costs that are required to achieve the objectives of the strategic plan.

Impacts on existing staff workloads are roughly quantified here in order to flag any potential capacity constraints. It is readily apparent that these staff do not generally have substantial excess capacity. Therefore, creative approaches will be required, such as relieving these staff of other duties and leveraging consultant and external support where possible.

Foundational

No new regional coordination staff is proposed at the Foundational level. However, it is expected that existing staff will increase their focus on regional collaboration as described below.

Table 21. Existing Staff: Significant Workload Impacts from Foundational Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	• Periodic check-ins with other local governments to gather ideas for coordination • Development of concepts for additional studies and coordination with Mountain View departments to ensure that these studies take a regional approach to the extent appropriate	Minimal (assuming the 1.5 new FTEs proposed under Lever #2 enable delegating work)

Advanced

No new staff are proposed at the Advanced level for Lever #3. However, the CSRO would have a strong regional focus, and the new transportation planner hired primarily under Levers #2 and #4 would contribute to Lever #3 actions.

Table 22. Existing Staff: Significant Workload Impacts from Advanced Actions

Title	Actions Supported	Additional Capacity Needed
Sustainability Coordinator	• Coordination of co-commissioned sustainability studies • Substantial assistance in the launching and maintenance of the annual summit and any roundtables that may emerge • Overseeing analysts in calculation of metrics and updates • Coordination with CSRO on design, agenda creation, and planning for annual summit	Minor (assuming the 1.5 new FTE proposed under Lever #2 enable delegating work and assuming much of the coordination that would have been required at a Foundational level is now covered by the CSRO)
Sustainability Analyst	• Analysis to support Mountain View's position on what metrics should be tracked and how ongoing analysis to compile metrics and present updates	25% initially, 10–15% ongoing
CSRO or Staff in the CMO	• Advising and strategy related to development of metrics platform and determination of targets • Recruiting peer cities' leadership to contribute to the development of the annual summit, advising on agenda, and general coordination on priority areas of collaboration	5–10%

Innovative

No new staff are proposed for Lever #3 for the Innovative level. However, the CSRO and the Climate Risks and Resilience Manager described under Lever #1 would spend a significant amount of effort working on regional sustainability and resilience collaboration.

Table 23. Existing Staff: Significant Workload Impacts from Innovative Actions

Title	Actions Supported	Additional Capacity Needed
CSRO or Staff in the CMO	• Coordination with regional cities on adjustment of targets for 3.1 • Integrated regional sustainability and resilience planning for 3.1	5–10%
Departmental Staff	• Contribute as needed to analysis and reporting on regional sustainability and resilience metrics	Low level of effort

Additional Nonstaffing Financial Commitments

Even though an implementation plan with a conclusive list of activities has not yet been developed, the following types of costs can be expected if the strategic plan were to be implemented at each level

Foundational	Advanced	Innovative
	Operational and capital funds invested (if any) in supporting regional transit collaboration (e.g., transit pass discount, software systems to manage transit signal priority, road space reallocation/reconstruction to support transit)	No additional nonstaffing costs identified from example actions in this lever at this level.
	Cost of offering services such as a regional community shuttle	
	Event organization costs for the annual summit	

Lever #4: Manage Inclusive, Sustainable Community Growth

Overview

Community growth has significant implications for environmental sustainability, social justice, economic vibrancy, and community character. Managed holistically, growth has the potential to improve opportunity, connect communities, and meet regional needs. Unmanaged growth can have devastating impacts on important outcomes such as greenhouse gas emissions, habitat preservation, affordability and availability of housing for people of all socioeconomic statuses, congestion and lost time, and sense of place and community.

The City of Mountain View has a history of proactively applying policy best practices related to growth and development. The City has managed both the type and quantity of growth (and its implications for transportation emissions), and the sustainable features of buildings that are approved. Some highlighted ways that Mountain View has proactively applied growth management include:

- Formation of the Mountain View Transportation Management Association in 2013 and the requirement for all new North Bayshore and East Whisman projects to join the association, comply with a vehicle trip cap, and develop transportation demand management plans.
- Prioritization of transit-oriented, mixed-use development that supports improving the jobs/housing balance in the City's precise plans
- Creation of a Transit Oriented Development Fund to support multi-modal transportation infrastructure
- Development of the Mountain View Green Building Code and adoption of subsequent CalGreen code requirements according to the State's triennial update cycle (including adoption of a higher tier than required for EV-ready and EV charging parking spaces, and the adoption of the dual plumbing code requirement for buildings greater than 25,000 square feet)[45]

Despite these efforts, Mountain View's emissions grew during a period of recent rapid growth. Moving forward, managing growth in a way that allows for the community to grow while emissions decline will require new and innovative solutions that align with key community priorities, including environmental sustainability, resilience, adaptability, inclusion, diversity, and social equity/fairness. Major elements of growth management that should be part of the City's strategy for this lever include the form, quantity, and types of development allowed (planning and zoning considerations), the energy and resource consumption of this new development (building codes and standards considerations), and policies and programs that affect the environmental, economic, and social equity outcomes listed above (e.g.,

[45] https://www.dgs.ca.gov/BSC/Codes/%E2%80%9C/-/media/Divisions/BSC/02-Codes/Local-Ordinances/MountainView1716and1816Green.ashx%E2%80%9D

managing transportation system impacts locally and regionally, managing the impact of growth on gentrification).

In the Bay Area context, growth challenges are shared regionally. Therefore, Mountain View should consider regional impacts when making decisions around growth and development. Recruiting other local leaders to also make decisions that are in the best interest of the region will be important for shared success. Regionally, housing needs have far outstripped the ability of governments and developers to provide adequate supply, which has led to an increasingly severe affordability problem. It is projected that the number of households in the Bay Area will increase by 17% in the next 20 years.[46] Unless strong growth management principles are applied effectively, meeting these housing needs will result in greater traffic within the region, and more emissions produced by it. These might include an improved jobs/housing balance, transit-oriented development, implementing parking maximums, and other proven strategies, many of which have been applied in the North Bayshore Precise Plan and East Whisman Precise Plan, which are projected to result in a relatively small increase in traffic for the amount of service population they add.

State legislation such as SB375 already requires regions to set emission reduction targets from passenger vehicles, as well as develop a "Sustainable Communities Strategy" (SCS). The Bay Area's SCS is included within the region's integrated long-range transportation and land use plan, "Plan Bay Area 2040."[47] While the State is requiring regions and municipalities to adopt increasingly ambitious codes – on EV-readiness, efficiency, energy production - many municipalities already go beyond those requirements, by adopting reach codes and creating innovative development regulations.

From an environmental sustainability perspective, growth in Mountain View can be beneficial if that growth replaces growth that would otherwise have occurred in a less sustainable manner (e.g., housing sprawl in other communities more distant from jobs). Therefore, managing the total quantity of growth is difficult to optimize and must be weighed with complete knowledge of the growth plans of surrounding and regional jurisdictions. Large employers and organizations in Mountain View may have some alignment with city visions for growth management, but understanding their motivations and interests is important so Mountain View can maintain control and strategic direction.

Determining the appropriate pace and dimensions of growth are key decisions for City Council and City leadership and must align with the City's vision. These limits may evolve if technology enables growth that mitigates all major adverse consequences of growth (e.g., zero net energy buildings, transportation options that reduce congestion and vehicle pollutants, development policies that address affordability, fairness, and inclusion). The following sections include recommendations on how the City could structure its efforts around this goal, and three levels of response that the City could adopt related to managing growth.

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[46] https://abag.ca.gov/planning/research/forecasts.html

[47] http://2040.planbayarea.org/what-is-plan-bay-area-2040

Strategies

The following strategies support Lever #4 and are broken into three levels of response: "foundational," "advanced," and "innovative." While growth can have impacts on a wide range of environmental metrics and outcomes, the strategies here are focused on transportation and buildings because of their outsized impact on emissions and quality of life.

Strategy 4.1: Pursue Land Use, Planning, And Transportation Solutions That Decrease Emissions And Equitably Increase Quality Of Life For All Residents

Transportation is a major driver of emissions in the City of Mountain View, as well as a significant determinant of quality of life day-to-day. The ability of residents to move easily throughout the city helps improve economic, health, and social outcomes. The City should prioritize transportation solutions that not only decrease emissions but also offer co-benefits to residents and visitors.

Foundational

Mountain View has already adopted many growth management strategies focused on travel demand reduction from single occupant vehicles. The Foundational approach would be to continue current zoning and land-use planning strategies in current and new precise plans that emphasize mixed-use, walkable neighborhoods, and transit-oriented development. Additionally, the City would develop TDM monitoring and enforcement that would ensure that the policies in place result in the desired reductions in vehicle travel. This would require careful study and program design, as well as ongoing program maintenance.

Strategies to minimize new parking and dissuade people from driving alone to destinations in the City would be a key element of the Foundational approach, including policies that set fees for parking, both in lots and on-street downtown, dealing with parking spillover into neighborhoods, and encouraging property managers and landlords to unbundle parking from rent as part of their TDM plans (see ESTF-2 Recommendation T6 for more detail).

Additionally, the City would continue the current schedule of implementing improvements to its active transportation network (see Strategy 2.6) to provide safe and low-stress options for bicycling, walking, and using other non-automobile modes. This would also include the completion of the Transit Center grade separation project. Other elements of the active transportation landscape would also be improved as part of the Foundational response, including improving the availability of bicycle parking, making wide and inviting sidewalks to encourage walking around transit, and implementing appropriate traffic signal timings that could provide a "green wave" for bicycles, scooter users, and other lower speed active transportation alternatives.

The completion of the Comprehensive Modal Plan would also be included in a Foundational response, as it was under Strategy 2.6, which is focused on providing sustainable alternatives to help the local

community reduce their emissions. Finally, the City's approach to prioritizing transportation projects would begin to use GHG emissions as a factor.

However, while these policies may prevent "worst case" increases in travel demand, it is not likely they will have more than a marginal effect on reducing travel demand from current levels. The challenge of reducing single occupant vehicle trips is inherently difficult in settings like Mountain View that didn't originally develop as dense core cities. Ultimately, carpooling, transit, active transportation, and reducing travel activity need to be more appealing than single occupant travel in order to curtail the growth in vehicle miles traveled – and this can only be achieved by a broad package of policies that (1) provide compelling alternatives and services, (2) incent the usage of desired travel modes, (3) discourage excessive single-occupant vehicle travel, and (4) adequately educate constituents about available alternatives. However, given the growth in development in coming years, even this basic level of continuing approaches that will reduce unnecessary travel demand is likely to require additional staffing, as will be described below.

Advanced

At the Advanced level, Mountain View would seek to curtail growth in single occupant vehicle travel through a portfolio of actions in collaboration with the TMA. Since the existing TDM requirements only address new development in areas subject to a Precise Plan, a substantial majority of the community is not covered by TDM. More advanced actions would include expanding TDM requirements to cover all new residential and non-residential development and developing a TDM program for existing properties. Special events TDM could be implemented to reduce traffic impacts associated with large events, both in and near Mountain View, such as at the Shoreline Amphitheater. A coordinated special events TDM plan could provide substantial co-benefits for the community in addition to reducing emissions.

The 2015 Bicycle Transportation Plan recommended 104 medium- and high-priority improvements to the street network to achieve a low-stress network for bicycle travel. Currently only 22 of these actions have been started. While at the Foundational level of effort, the rate of implementation would remain unchanged, at the Advanced level, the City would plan to complete these actions more rapidly to ensure that as growth occurs in Mountain View, new residents and workers will immediately see that Mountain View is a world class location for active transportation. Combined with restrictive parking policies and TDM requirements, this accelerated action could reduce the number of cars that are added in the City as the population grows.

The City would make additional plans for complete streets in neighborhoods outside of precise plan areas to adopt this strategy city-wide and enhance neighborhood connectivity. Complete streets, as defined by Smart Growth America, "enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.[48]" Cambridge, MA provides a good model for this action. After many

[48] https://smartgrowthamerica.org/program/national-complete-streets-coalition/publications/what-are-complete-streets/

years of implementation of bicycle network improvements, the City announced in the spring of 2019 that their policy will be for every street that is improved under its Five-Year Sidewalk and Street Reconstruction Plan, the City Manager must cause the improvements to comply with the city's bicycle plan and if the road is part of the city's "separated network" it must receive a permanent separated bicycle lane at that time.[49] Another active transportation action that would be implemented at the Advanced level is to facilitate the use of recreational trails in Mountain View for active transportation for commuters and other non-recreational travel, through a review of the Parkland Ordinance and associated policies on usage of the trails.

Another element of the Advanced approach would be to dramatically enhance and expand the Mountain View community shuttle, as proposed in ESTF-2 Recommendation T4A. This would include optimizing the routes, substantially expanding geographic coverage, offering high frequency service and wide hours of operation, and potentially implementing approaches that will help prevent it from getting stuck in congestion.

Innovative

The biggest change at the Innovative level would be that the City's transportation demand reduction strategies would be made adaptable and performance-based. This would mean that the City would create interim transportation sector targets to ensure that it is on the right path toward its overall goals. If these targets are not being met, the City would study why, forecast future risks and opportunities, and scale its investment of resources appropriately. This could include elements such as:

- congestion pricing with adjustable pricing that would be set high enough to substantially reduce total vehicle travel in North Bayshore and other areas as appropriate,
- the regulation of emissions and congestion from transportation network companies (TNCs) like Uber and Lyft, in harmony with the state legislation that will require these companies to implement plans to comply with the California Clean Miles Standard and Incentive Program (under SB 1014),
- strong incentives for multi-modal transportation,
- strong disincentives for single occupant vehicle travel, and
- a VMT and congestion reduction requirement for employers such that their TDM compliance is not simply a function of total trips generated but other considerations such as total VMT generated.[50]

Another way in which Mountain View would make its transportation demand reduction efforts adaptive would be to base the City's policies on the most recent relevant evidence from academic and applied

[49] http://cambridgema.iqm2.com/Citizens/FileOpen.aspx?Type=4&ID=5905&highlightTerms=cycling%20safety%20ordinance

[50] Total vehicle miles traveled have a more direct link to city-wide emissions and congestion.

studies of the impacts of transportation policy and land use on transportation behavior. The City could partner with local universities with expertise in transportation planning and transportation demand studies to create experimental designs that would enable the City to measure or assess the impacts of its current policies where possible. The City could also leverage best practices in transit-oriented development evaluation such as the California Department of Housing and Community Development TOD Housing Program funds point-system to provide a framework for development review and to guide the City in what to require in new development that will mitigate traffic (as proposed in ESTF-2 Recommendation BN8).

A dramatic increase in the amount of active transportation and new mobility usage will require careful attention to the usage of curb space and sidewalk space. The City would develop a comprehensive curb management policy to ensure that this expansion happens in an orderly way, which could include a large number of considerations, such as where TNCs and taxis are allowed to load and unload, whether on-street parking could be replaced with bicycle corrals or scooter storage, or even how EVs charge. This plan would be especially important with the rise of more "free floating" type shared mobility and micro mobility options – so that rather than having scooters litter the sidewalk and present tripping hazards or get in the way of wheelchairs, docks could be established where scooters and shared bikes could be neatly organized and even be charged while docked. Much remains to be determined regarding what would fit within a curb management plan.

A final action that would be implemented is an aggressive expansion of the TMA in order to provide a full suite of low-carbon transportation services for all Mountain View employees and residents. A large list of actions is available to the City to reduce traffic through the TMA, which would need to be studied and prioritized as part of this action.

Strategy 4.2: Pursue Building Sector Solutions That Decrease Emissions And Equitably Increase Quality Of Life For All Residents

The rapid pace of development in Mountain View is impacting residents and will determine what the community looks like for generations to come. To ensure growth occurs in a way that aligns with community priorities, is inclusive of all residents and businesses, and minimizes environmental impacts, it is critical that the City develop a comprehensive approach with active community input.

Foundational

Market forces are rapidly transforming Mountain View, making community engagement on how the city should develop, who benefits, who may be harmed or left out, and the implications of growth for sustainability particularly important at this time. There can be substantial sustainability and quality of life benefits associated with certain kind of growth (e.g., reduction in travel emissions, better affordability and housing fairness), and City staff have indicated that a significant portion of the Mountain View population was supportive of an approach to urbanization that allowed for denser land uses and more multi-family housing near transit and near the concentrations of technology jobs in the City. However, increased population and density may not be welcome by all, particularly as their impacts are felt in the community. **To find the sustainable balance appropriate for Mountain View, community engagement efforts are needed.** Town halls and forums about growth and development generally may serve to initiate productive dialogues that enable people to understand the tradeoffs and the overall values that the City is trying to maintain with its overall development approach. This groundwork would lay a strong foundation to help supporters or detractors make peace with the outcomes of future project-specific debates and feel like they have a say in the process.

Managing ongoing efforts and aligning next steps with these identified priorities require significant attention from the Buildings Division. As discussed in the Environmental Sustainability Program Assessment, rate of development in Mountain View is already a challenge for the Building Division, and workloads are likely to continue to expand as the large districts that are the subject of Precise Plans begin to be built out. As indicated in interviews and the city staff workshop in January, the leadership feel they are in "reactive mode" because of their volume of responsibilities. In order to be forward-looking in a manner that makes addressing sustainability challenges feasible**, the Chief Building Official and their staff need bandwidth** to critically evaluate new building code considerations, provide input into state-level conversations, and think about policies and programs that would streamline the provision of services in the future.

Expansion of staff capacity could also help the City **integrate advanced technologies that can abate emissions of the anticipated population and employment growth**. These technologies include EVs, solar hot water systems, heat pump water heaters, air source and ground source heat pumps, energy storage, cool roofs, green roofs, efficient appliances, and many more. Special attention should be given to technologies that can displace natural gas and other combustible fossil fuels. Topics such as all-electric reach code and future updates to Mountain View's Tier 2 EV reach code requirements will also require a clear understanding of the costs and benefits to various developers and stakeholders in the city, as well as what other municipalities are doing and how such requirements could be customized to the local setting. Additionally, market development and rapid diffusion of such technologies is dependent on (1) educated property owners, (2) an active ecosystem of installers and service providers, (3) a regulatory and permitting system that reduces soft costs and municipal barriers to timely and efficient project completion.

Other strategies to promote sustainable buildings in new development include updating the Green Building Code to include the most advanced reach code options possible, and ensuring zoning approaches enable key technologies, such as EV charging. Zoning approaches for EV charging could include making EV charging parking spaces count for multiple parking spaces toward any parking minimum that may be required, or by providing density bonuses for projects that exceed the required number of EV spaces.

Finally, the City would research best practices on maintaining parks and open spaces, and develop requirements for new developments that ensures that an appropriate amount of parks and open spaces are maintained equitably across all of Mountain View. This may include a revision of how parkland is defined and a revision to the fee structure, which requires a fee-in-lieu for projects that do not meet their set aside requirement to provide parkland.

Advanced

Many of the Green Building actions being considered for ESAP-4 contribute toward a vision of new buildings that are zero net energy (ZNE). At the Advanced level, pending department staff discussion of the best approach, the City would set a target date for all new development to be ZNE or more aggressively, a date to be zero net carbon (ZNC). In the interim, the City would attempt to increase the number of ZNE or ZNC developments through refinement of incentives such as density bonuses or development of new policies like climate impact fees.

The City would also try to support its ZNE ambitions by adopting a policy to encourage building decarbonization and by adopting reach code for mandatory non-residential solar PV and for all-electric construction all support this goal.[51] Other types of actions that would fit in this strategy include

[51] However, the City is limited in what it can require in reach codes based on what has been shown to be cost effective. Mandating all-electric design may not yet be feasible in areas with gas lines, which includes most of Mountain View. Cost effectiveness studies are available at http://localenergycodes.com.

implementing broader reaching EV-ready and EV charging installation requirements, establishing robust contractor education, outreach, and technical assistance efforts, and reviewing the impact of the City's current density bonus and floor area ratio (FAR) bonus programs to determine whether they are the optimal incentives for encouraging cutting edge energy practices in new development and if any adjustments should be made.

Notwithstanding the substantial focus on making sure new construction moves quickly toward ZNE standards, the City would also make sure to take significant actions toward making sure new development is also drought-resilient and resilient to climate-related water stress. This would include expansion of the recycled water system and water efficiency requirements for new construction.

Innovative

At an Innovative level, the City would commit to increasing the affordability of the housing stock without adverse impacts on City emissions budgets, resource conservation, environmental quality, or quality of life. This will be a challenging and important objective because densification can be correlated with displacement, and the rapid growth of high-paying tech sector jobs also requires a substantial amount of support from a less well-paid working population, which also has housing needs. Without aggressive requirements imposed on developers and companies, market forces will provide more luxury and market rate housing and limited low-income and affordable housing. Due to agglomeration effects and the desirability of the City as a place to do business, Mountain View currently appears to have significant ability to impose terms on new development without deterring that development from the city. However, there may be limits to the scope of exactions that the City can impose on developers. It is important that leadership in the city figure out how to make such requirements on developers not become a zero-sum game (e.g., if the City asks for a certain percentage affordable units, it may not also be able to require the full package of sustainability improvements that it may wish to require; or density bonuses for advanced sustainability features like zero net energy design may crowd out the opportunity to provide incentives for affordable housing). In accounting for the impacts of encouraging growth of affordable housing, the City should consider and value environmental sustainability benefits that offset this growth. For instance, more local affordable housing for service industry and custodial staff may reduce vehicle miles traveled.

Additionally, at Innovative, the City would increase its requirements for EV charging relative to the Advanced level, expanding installation requirements (to include actual installation of EV chargers) to all new development types, not just multi-family, and ensuring that additions or alterations trigger a requirement to pre-wire EV charging or provide it during renovation.

Finally, the City would invest resources in educating developers about resilience strategies and location-specific risks so that they can develop with optimal resilience to future climate change. The policies in place in the North Bayshore Precise Plan encourage forward thinking and include mitigating the potential consequences of sea level rise by constructing levees, upgrading stormwater facilities, and elevating buildings. Additional action would be taken to take the results of the update to the climate risk assessment of Strategy 1.2 and educate developers about the findings and the implications for their development projects.

Lever #4: Manage Inclusive, Sustainable Community Growth. Summary of Strategies and Possible Actions

Table 24. Possible Actions at the Foundational, Advanced, and Innovative Levels for Lever #4

Strategy	Foundational	Advanced	Innovative
Strategy 4.1: Pursue Land Use, Planning, And Transportation Solutions That Decrease Emissions And Equitably Increase Quality Of Life For All Residents	Continue current zoning and land-use planning strategies in current and new precise plans that emphasize mixed-use, walkable neighborhoods, and transit-oriented development to reduce unnecessary travel demand and increase the percentage of travel needs that are met by low-emitting modes.	Plan for complete streets in neighborhoods **outside** of precise plan areas and optimize for neighborhood connectivity.	Create an adaptable framework for decreasing congestion and emissions that is performance based and becomes more ambitious over time. This could include congestion pricing in North Bayshore and other areas as appropriate, studying and regulating emissions and congestion from TNCs, strong incentives for multi-modal transportation and disincentives for single occupant vehicle travel, and a VMT and congestion reduction requirement.
	Set policies that minimize new parking supply, set appropriate parking prices, and address parking spill-over. Consider mode-shift incentives and GHG impacts when establishing parking policy.	Curtail growth in single occupant vehicle travel demand through a portfolio of actions in collaboration with the TMA and using other levers under the City's control. This could be incorporated in a community-wide TDM program that would extend beyond new construction, and would also address special events TDM.	Provide a full suite of low-carbon transportation services for all Mountain View employees and residents through aggressive expansion of the TMA.
	Develop and monitor TDM policy for all new development outside precise plan areas.	Enhance and expand the Mountain View community shuttle.	Base the city's transportation demand reduction policies on the most recent relevant evidence and research, measure the impacts of current policies when possible, and adopt frameworks for development review that align with best practices (e.g., California Department of Housing and Community Development TOD Housing-Program funds point-system).

Strategy	Foundational	Advanced	Innovative
	Continue current schedule of implementation of improvements to the active transportation landscape in Mountain View (including bike parking, sidewalk improvements, signal timings, intersection improvements, protected facilities, and more).	Rapidly accelerate the rate of implementation of improvements to the active transportation landscape in Mountain View within 3-5 years to create a low stress bicycle network.	Develop a comprehensive curb management policy
	Construct grade separation at Transit Center to improve bike-ped connections.	Update the Parkland Ordinance to facilitate the use of trails for active transportation.	
	Review options for setting and enforcing **stricter** trip caps in precise plan locations.		
	Complete comprehensive modal plan, identify gaps, and prioritize strategies and transportation projects using GHG emissions as a factor.		
Strategy 4.2: Pursue Building Sector Solutions In The New Building Stock That Decrease Emissions And Equitably Increase Quality Of Life For All Residents	Integrate input from community engagement processes into Mountain View plans for growth.	Set a target date for all new development to be zero net energy (ZNE) or zero net carbon (ZNC) and in the interim incent ZNE or ZNC through density bonuses, climate impact fees, or other mechanisms.	Educate developers about resilience strategies and location-specific risks so that they can develop with optimal resilience to future climate change.
	Update the Mountain View Green Building Code.	Adopt a building decarbonization policy, and pursue opportunities to achieve all-electric building design.	Commit to increasing the affordability of the city's housing stock without adverse effects on city emissions budgets, resource consumption, environmental quality, or quality of life.
	Increase capacity in the Building Division to enable more time for strategic long-term planning related to sustainability in the building stock broadly.	Require EVSE pre-wiring in new development.	Require installation of EVSE in new development and require pre-wiring for EVSE in additions and alterations.

Strategy	Foundational	Advanced	Innovative
	Review zoning approaches to encouraging EV charging spaces, solar, storage, heat pumps, and other technologies (e.g., counting EV spaces toward parking requirements, providing development incentives like FAR bonuses and fee waivers).	Provide incentives for above-code new buildings.	
	Engage in research and learning about new and emerging technologies to develop streamlined regulatory processes for the technologies Mountain View wishes to support.	Develop reach code for solar PV in new non-residential development.	
	Review Parkland Ordinance for potential revision to definition of parkland and method of calculating fees	Make the city resilient to drought and climate-related water stress.	

Staffing and Cost Implications of Lever #4 Strategies

The tables below provide preliminary assessments of the rough magnitude of staff time requirements for Lever #4 strategies at each level of response. As noted in the table below, some of these staff roles would support multiple levers. To refine these estimates, a more complete list of actions will be needed, along with a clear understanding of the phasing, prioritization, and approach to each action. This should be done through the development of an inclusive implementation plan with cross-departmental involvement. Implementation plans are the next step to a high-level strategic plan, laying out the activities, schedules, and costs that are required to achieve the objectives of the strategic plan.

Impacts on existing staff workloads are roughly quantified here in order to flag any potential capacity constraints. It is readily apparent that these staff do not generally have substantial excess capacity. Therefore, creative approaches will be required, such as relieving these staff of other duties and leveraging consultant and external support where possible.

Foundational

Table 25. New Staff Roles to Support Foundational Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Transportation Demand Management (TDM) and Parking Demand Management Analyst (in Community Development)	• Policy evaluation and analysis, including cost-benefit of stricter trip caps, additional TMA requirements, new parking policies, parking pricing in additional neighborhoods, parking spillover impacts, mode-shift incentives • Assessing GHG impacts of proposed transportation policies • Performance of TDM compliance analysis and enforcement	Analyst	100% FTE		Lever 1
Deputy Building Code Official (in Building Division)	• Oversee the day-to-day activities of the team of engineers, plan check staff, building inspectors, technicians, and other staff, freeing leadership capacity for strategic sustainability planning	Manager	100% FTE		N/A
		Total	2 FTE		

Table 26. Existing Staff: Significant Workload Impacts From Foundational Actions

Title	Actions Supported	Additional Capacity Needed
Chief Building Official	• Update the Mountain View Green Building Code • Oversee research on new and emerging sustainable building technologies	None (assume this work is enabled by delegating ongoing operational functions to the deputy codes official)
Community Development department staff	• Oversee the new TDM Analyst to develop and monitor TDM policy for all new development (whether or not within a precise plan area).	Temporary increase in effort, could be aided by consultant
Planning staff	• Review options for imposing stricter trip caps in precise plan locations • Review best practices for parking maximums	Temporary increase in effort, could be aided by consultant

Advanced

Table 27. New Staff Roles To Support Advanced Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector	Also Supports
Active Transportation Capital Improvements Projects Team, including a project manager, traffic engineer, and construction engineer (in Public Works	• Increases project management and planning capacity available within the Transportation Engineering group to accelerate bike/ped improvements • Planning for complete streets in locations not covered by the 2015 Bicycle Transportation Plan (e.g., newly developed areas), and monitoring for emerging best practices in protected, low stress active transportation infrastructure	Manager, professional, and administrative	3 FTEs (this team may be funded for ~3 years, until network is built out)		Lever 2
Senior Planner focused on TDM Program (in Community Development)	• Development of strategic policy and program initiatives • Oversight of TDM monitoring and enforcement	Manager	100% FTE		Lever 1, 2, 3
Transportation Planner (in Public Works)	Provide additional capacity to free the Transportation Manager and/or Assistant PW director to address the following: • Within Strategy 2.5 and 4.1 - overseeing "new mobility" services, managing their concessions and contracts, and developing public private partnerships. Substantial research, negotiation, evaluation, and ongoing management • Within Strategy 3.2 – overseeing regional transportation collaborations, such as coordination with local cities on VTA and Caltrain engagement, collaborating with school district to reduce drop-off and pick-up trips, expanding and enhancing the Mountain View community shuttle, and implementing actions such as transit signal priority	Analyst	50% FTE (an additional 50% is indicated under Lever #2 to make this a full time staff member)		Lever 2,3
		Total	4.5 FTE		

Table 28. Existing Staff: Significant Workload Impacts From Advanced Actions

Title	Actions Supported	Additional Capacity Needed
Building Division staff and Planning Division staff	Coordinated cross-departmental planning for zero net energy incentives, reach codes in solar and EV, development of necessary ordinance language, adoption of code, and development of monitoring and enforcement framework	Temporary increase in effort, could be aided by consultant
Transportation planning staff	Acceleration of bicycle and pedestrian infrastructure to be completed in 3-5 years may require additional capacity from existing staff in addition to the new hires	Guide the new team on implementation

Innovative

Table 29. New Staff Roles To Support Innovative Actions

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Sustainable Transportation Policy Analyst (in Public Works)	Conduct research on new initiatives such as curb management policies, congestion pricing, regulations on TNCs, assessing transit-oriented development impacts on travel, and more.	Analyst	100% FTE	
		Total	1 FTE	

Table 30. Existing Staff: Significant Workload Impacts From Innovative Actions

Title	Actions Supported	Additional Capacity Needed	Also Supports
Staff from all departments affecting transportation systems, buildings, and land use	Coordination meetings and contribution of ideas and expertise to address interconnected issues of growth, affordability, and transportation in a comprehensive manner	5-10% for many staff throughout the organization	Lever 1 – interdepartmental governance committee
CSRO	Would convene this group, identify agenda items	10%	Lever 1 – interdepartmental governance committee

Additional Non-Staffing Financial Commitments

Even though an implementation plan with a conclusive list of activities has not yet been developed, the following types of costs can be expected if the Strategic Plan were to be implemented at each level. Since Lever #4 includes new potential revenue sources, the net non-staffing costs could be minimal.

Foundational	Advanced	Innovative
Lost revenue from fee waivers and development incentives (if any) for sustainable buildings	Operational costs of any contributions the City makes to support the TMA's mission	Increased investment level in low-carbon transportation services for the community
Capital and operational costs associated with pilot micro-mobility projects	Operational costs and vehicle acquisition costs of expanding the community shuttle (to the extent these costs aren't covered by private actors)	Congestion pricing could provide a substantial *revenue source* that could offset costs of the sustainability program
Capital costs of the bicycle and pedestrian plan improvements	Capital funding to design and construct accelerated bike infrastructure	

Overall Staffing Needs Across All Four Levers

Foundational

Suggested staff include 4.25 FTE in the departments, and 2.5 FTE in the core sustainability program, for a total of 6.75 FTE. One of these FTE would be a temporary fellow.

Table 31. Staff for Foundational

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Facility Sustainability Projects Manager (in Public Works)	• Coordinate a comprehensive energy audit process and rank projects for implementation • Review opportunities for solar and solar hot water • Initiate retro-commissioning for top energy consuming facilities • Assist with implementation of sustainable operations & maintenance	Manager	100% FTE	
Facilities Maintenance Worker (in Public Works)	• Provide capacity to support the implementation of energy and water conservation measures	Trades	100% FTE	
CivicSpark or EDF Climate Corps Fellow (in CMO or sustainability)	• Assist with short term projects as assigned	Entry-level	100% FTE	TBD
Sustainability Analyst (in core sustainability office)	• Take on information gathering duties, assist with outreach campaign planning, staff outreach events, and ease the workload of the Sustainability Coordinator position to enable an increase in the level of effort the Sustainability Coordinator can invest across all six community mobilization strategies	Analyst	100% FTE	Generalist

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Sustainability Admin Support (in core sustainability office)	• Maintain contacts databases, cover logistics for all additional campaigns listed at this level, develop web copy and newsletter content	Admin	50% FTE	N/A
TDM and Parking Demand Management Analyst (in Community Development)	• Policy evaluation and analysis, including cost-benefit of stricter trip caps, additional TMA requirements, new parking policies, parking pricing in additional neighborhoods, parking spillover impacts, mode-shift incentives • Assessing GHG impacts of proposed transportation policies • Performance of TDM compliance analysis and enforcement	Analyst	100% FTE	
Deputy codes official (in Building Division)	• Oversee the day-to-day activities of the team of engineers, plan check staff, building inspectors, technicians, and other staff, freeing leadership capacity for strategic sustainability planning	Manager	100% FTE	
Multilingual Community Outreach Program staff	• Implementation of 2.1 under guidance of CMO and Sustainability	Existing MCOP staff member	25% FTE	N/A

Advanced

Suggested staff include an additional 7 FTE in the departments, and an additional 2 FTE in the core sustainability program, for a total of 15.75 FTE. A team of 3 of these FTE would possibly be a 3-year temporary assignment to rapidly accelerate active transportation projects.

Table 32. Additional Staff for Advanced

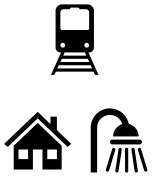
Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Chief Sustainability and Resilience Officer (in core sustainability office)	• Within 1.1 – Collaborate with ACM to lead governance committee; provide expertise on equity, resilience, and sustainability; assist with the policies mainstreaming sustainability • Within 1.2 – Oversee climate risk and resilience assessment • Within 1.3 – Oversee ESAP process, metric development process, and strategy revision as needed • Within 2.1 and 2.2 – design engagement processes • Within 3.1 – Lead regional metric development conversation and strategize on what Mountain View's commitments to the process should be • Within 3.2 – Investing substantial effort in annual summit • Within 3.2 – Launch any Sustainability and Resilience Roundtables that may be warranted • Within 4.1 and 4.2 – Provide information about lessons learned and innovations from peer cities and sustainability networks	Manager or Director, as appropriate	100% FTE	Cross-sectoral
Energy Programs Manager (in core sustainability office or Building Division)	With the objective of rapidly accelerating the rate of electrification and clean technology implementation in the existing building stock and vehicle fleet, lead the following activities: • Within 2.2 – ongoing coordination of business peer learning group • Within 2.4 – oversee development of information resources, advise development of CBSM campaigns in the building sector • Within 2.5 – work with consultants to design energy disclosure program design/implementation • Within 2.6 – implement group buy campaigns, EV action plan, and other projects	Manager	100% FTE	

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Senior Planner focused on TDM Program (in Community Development)	• Development of strategic policy and program initiatives • Oversight of TDM monitoring and enforcement	Manager	100% FTE	
Transportation Planner (in Public Works)	Provide additional capacity to free the Transportation Manager and/or Assistant PW director to address the following: • Within Strategy 2.5 and 4.1 - overseeing "new mobility" services, managing their concessions and contracts, and developing public private partnerships. Substantial research, negotiation, evaluation, and ongoing management • Within Strategy 3.2 – overseeing regional transportation collaborations, such as coordination with local cities on VTA and Caltrain engagement, collaborating with school district to reduce drop-off and pick-up trips, expanding and enhancing the Mountain View community shuttle, and implementing actions such as transit signal priority	Analyst	100% FTE	
Active Transportation Capital Improvements Projects Team, including a project manager, traffic engineer, and construction engineer (in Public Works	• Increases project management and planning capacity available within the Transportation Engineering group to accelerate bike/ped improvements • Planning for complete streets in locations not covered by the 2015 Bicycle Transportation Plan (e.g., newly developed areas), and monitoring for emerging best practices in protected, low stress active transportation infrastructure	Manager, professional, and administrative	3 FTEs (this team may be funded for ~3 years, until network is built out)	
Zero Waste Analyst (in Public Works)	• Implement community-wide reduce, reuse, and recycle campaigns in 2.4 • Analysis of the ways in which recycling and compost requirements could be imposed and enforced and expected impacts in 2.5 • Assess options for (and anticipated impacts of) increasing the financial incentive for households and businesses to reduce waste and increase diversion in 2.6	Analyst	100% FTE	
Zero Waste Admin Aide (in Public Works)	• Provide support to the Public Works solid waste team • Assist with enforcement of zero waste policies such as mandatory composting and recycling and the plasticware ban in 2.5	Administrative	100% FTE	

Innovative

Suggested staff include an additional 1 FTE in the departments, and an additional 2 FTE in the core sustainability program, for a total of 18.75 FTE. Of this total, the team of 3 under the Advanced level would possibly be a limited term, as would the CivicSpark or EDF fellow under Foundational, leaving a total of 14.75 long-term FTE additions.

Table 33. Additional Staff for Innovative

Title	Actions Supported	Level	Additional Capacity Needed	Expertise/ Sector
Climate Risks and Resilience Manager (in core sustainability office)	• Within 1.2 - Advising departments on resilience within their sectors (transportation, water stress, flood, buildings); Overseeing analysis to update the city's Local Hazard Mitigation Plan and any other resilience planning in coordination with the County • Within 2.1 - Support the CSRO by managing public engagement on resilience and equity for vulnerable populations, • Within 4.2 – Advise on climate risk and resilience considerations in the context of development and redevelopment	Manager	100% FTE	
Community Campaigns Coordinator (in core sustainability office)	• Within 2.2 – support the operation of the business and organization peer group • Within 2.4 – primary oversight over CBSM campaigns in buildings, water, and waste in close coordination with the appropriate departments	Coordinator	100% FTE	
Sustainable Transportation Policy Analyst (in Public Works)	• Conduct research on new initiatives such as curb management policies, congestion pricing, regulations on TNCs, assessing transit-oriented development impacts on travel, and more.	Analyst	100% FTE	

Overall Nonstaffing Resources Needed at Each Level

Foundational

Lever	Cost
Lever #1: Integrate Sustainability and Resilience Across City Government	Increase in energy conservation and sustainable facilities budget (likely offset by ongoing operational savings)
	Cost of accelerated replacement of gasoline-powered fleet vehicles (may be offset by fuel savings from vehicle replacement and operational efficiency strategies)
	Cost of installing EV charging at city facilities beyond any grant funding
	Cost premiums (if any) triggered by requirement to build city facilities at LEED Gold
	Cost premiums (if any) triggered by zero waste or other operational requirements
	Identification of financial resources to set aside for the Green Revolving Fund
	Consultant services to analyze GHG emissions impacts of major transportation projects
Lever 2: Mobilize the Local Community in Sustainability and Resilience Action	Event/program costs (e.g., for Ride and Drives, sustainability fairs, etc.)
	Capital cost of active transportation system improvements
	Web development costs for knowledge database with SVCE
Lever 3: Partner Regionally to Enhance Connectivity and Impact	No non-staffing costs currently expected at the Foundational level
Lever 4: Manage Inclusive, Sustainable Community Growth	Lost revenue from fee waivers and development incentives (if any) for sustainable buildings
	Capital and operational costs associated with pilot micro-mobility projects
	Capital costs of the bicycle and pedestrian plan improvements

Advanced

Lever	Cost
Lever #1: Integrate Sustainability and Resilience Across City Government	Cost premiums (if any) triggered by building electrification requirement
Lever 2: Mobilize the Local Community in Sustainability and Resilience Action	Cost share (if any) for PPPs on bringing “new mobility” to the community
	Increased capital costs of active transportation system due to implementing more projects
	Micro-grants distributed to the community
	Rebates provided by the City for constituents that invest in building electrification technologies, sustainable landscaping, electric mobility devices, or other conservation products
	On call consultation services to assist residents and small businesses with green building projects
Lever 3: Partner Regionally to Enhance Connectivity and Impact	Operational and capital funds invested (if any) in supporting regional transit collaboration (e.g., transit pass discount, software systems to manage transit signal priority, road space reallocation/reconstruction to support transit)
	Cost of offering services such as a regional community shuttle
	Event organization costs for the annual summit

Lever	Cost
Lever 4: Manage Inclusive, Sustainable Community Growth	Operational costs of any contributions the City makes to support the TMA's mission
	Operational costs and vehicle acquisition costs of expanding the community shuttle (to the extent these costs aren't covered by private actors)
	Capital funding to design and construct accelerated bike infrastructure

Innovative

Lever	Cost
Lever #1: Integrate Sustainability and Resilience Across City Government	Cost premiums (if any) triggered by requirement to build city facilities at LEED Platinum and to operate facilities at a standard equivalent to LEED Platinum for Existing Buildings
	Cost premiums (if any) if the City uses lower embodied carbon materials in new construction
Lever 2: Mobilize the Local Community in Sustainability and Resilience Action	Buying down the cost of providing "new mobility" services in niches not likely to be served by the private market
	Cost premium (if any) for patronizing local businesses when they provide sustainable products or tools
	"Pay For Success" program payments for non-profits and organizations hired to conduct CBSM campaigns
Lever 3: Partner Regionally to Enhance Connectivity and Impact	No additional non-staffing costs identified from example actions in this Lever at this level.
Lever 4: Manage Inclusive, Sustainable Community Growth	Increased investment level in low-carbon transportation services for the community
	Congestion pricing could provide a substantial *revenue source* that could offset costs of the sustainability program

Conclusion

With this Strategic Plan, Mountain View is building on its impressive legacy of forward-looking policies and programs to protect a sustainable quality of life for the community. Our review of the existing environmental sustainability program and interviews with staff across city government show that Mountain View has implemented a tremendous amount of successful sustainability initiatives and that staff have appetite to continue to excel in offering innovative sustainability solutions that will strengthen the community, contribute to regional progress, and build a sustainable future for ourselves, our children, and generations to come. These investments will be expensive, but they will also pay dividends across the community. And, actions taken today will likely be much less expensive than those taken later.

As has become increasingly apparent, the costs of inaction or delayed action are untenable, both for their local and global impacts. Climate change poses a serious threat to human society and the ecosystems upon which we depend, a threat that is well-documented in the scientific community and that is acutely understood and felt by community members across a broad cross section of the Mountain View community. As noted within this Strategic Plan, on a global basis the past five years (2014-2018) have been the five warmest years on record. Scientists have directly attributed extended heat waves and drought to this warming trend in many parts of the world. In California, the impacts of climate change are playing out in the form of sea level rise along the coast, an extended and more severe wildfire season, and record low snowpack leading to groundwater overdraft on a regular basis. These impacts are expected to grow more severe regardless of emissions reductions in the near term and will increasingly impact Mountain View.

A holistic systems thinking approach to sustainability that includes social equity and resilience will equip Mountain View to deal with the impacts of climate change and environmental stressors. Notwithstanding Mountain View's impressive record of achievements in sustainability, many cities have been approaching climate change and sustainability with equal or greater urgency relative to Mountain View. Peer cities have innovated and developed many essential programs that Mountain View can now leverage, enabling the City to reach an innovative level of performance without having to invest the same degree of research and experimentation that would otherwise be required. Other cities will leverage lessons developed in Mountain View as well.

Mountain View's investments in sustainability will benefit the entire community. A well-resourced team with the right expertise can help Mountain View achieve a sustainable future that includes not only meeting its environmental goals, but also achieving important co-benefits that align with the City Council's goals of protecting vulnerable populations, preserving the socioeconomic and cultural diversity of the community, improving the quantity, diversity, and affordability of housing, and achieving mobility, connectivity, and safety in the transportation system.

The decisions made by the City Council today will have lasting impact for generations to come.

Appendix A – Summary of Strategies Including References to ESTF-2 Recommendations

Lever 1: Integrate Sustainability and Resilience Across City Government

	Strategy 1.1: Elevate the Importance of Sustainability and Provide Necessary Staff and Funding Resources
Foundational	• Publicly release and implement a shared vision for sustainability • Establish an interdepartmental sustainability governance committee at a leadership level to support implementation of the Strategic Sustainability Plan, cross-departmental decision-making, and accountability • Conduct capabilities assessments on an ongoing basis to determine needs for additional expertise, through new hires or capacity, or training and professional development opportunities for existing staff
Advanced	• Create/add a Chief Sustainability and Resilience Officer (CSRO) position in the CMO at the appropriate level **(adapting as appropriate from ESTF-2 Rec: O1)** • Allocate resources to integrate sustainability and resilience into department work, including appropriate staffing levels and discretionary funding for pilot projects • Incorporate resilience into the shared vision for sustainability and ensure that resilience is addressed by the interdepartmental committee
Innovative	• Allocate additional resources as appropriate and integrate a sustainability and resilience lens into hiring decisions for positions at a managerial level and above, and incorporate sustainability into performance expectations where relevant • Formally integrate regenerative and triple bottom line sustainability impact analysis into any major decision made within departments • Mainstream sustainability and resilience actions across all city plans, policies, standards, actions, and investments to enable regenerative sustainability and all-hazards resilience and identify funding and investment opportunities

	Strategy 1.2: Adopt sustainability practices in internal facilities upgrades and operations
Foundational	• Implement a revolving loan fund for city facility sustainability projects • Implement comprehensive efficiency upgrades, electrification, and energy generation across city facilities (including solar, solar hot water, and other technologies as appropriate) **(adapting as appropriate from ESTF-2 Rec: BE12)** • Finalize policies for LEED Gold attainment and building retro-commissioning at city facilities • Implement sustainable *operational* practices in buildings, fleet, materials conservation/zero waste events, water operations and leak reduction, park maintenance, and other city functions (including tree and turf replacement plans, tree canopy goals, etc.) **(adapting as appropriate from ESTF-2 Rec: BT1)** • Continue to assess opportunities for city fleet electrification (and adoption of other low carbon fuels) spanning light duty vehicles to shuttles to heavier equipment • Expand EV infrastructure in public facilities • Continue current programs to support city employees in sustainable commute options

Advanced	• Conduct a climate risk and opportunity assessment and update the Local Hazard Mitigation Plan (risk assessment would cover all sectors, for instance (1) resilience of transportation systems to power outages as the community increasingly depends on EVs, (2) water stress risks for parks and natural ecosystems and the building sector, (3) flood risk to the building sector and transportation sector, and (4) the impact of climate risks and ongoing hazards to disadvantaged populations). • Develop more advanced requirements for new city facilities and major renovations, including a building electrification policy to require all-electric construction and a policy to require assessment of cost-benefit of LEED Platinum • Invest additional resources to more aggressively reduce city employee single occupant vehicle commuting (e.g., through incentives, tools for transit planning and payment, parking feebates, etc.) • Make a commitment to electrifying city fleet aligned with vehicle replacement schedule
Innovative	• Require LEED Platinum in new city facilities and major renovations **(adapting as appropriate from ESTF-2 Rec: BN6)** • Reduce embodied carbon in building materials for new city facilities **(adapting as appropriate from ESTF-2 Rec: BN4)**

	Strategy 1.3: Track and Report on Sustainability Metrics Across City Programs and Departments
Foundational	• Assign a manager-level working group to support implementation of the ESAP and identify metrics for sustainability and resilience progress that are aligned with department missions, develop a tracking plan, set targets for each metric, and report frequently on progress. • Set annual GHG targets after analyzing pros and cons of both absolute and normalized measures (e.g., GHG per service population, **adapting as appropriate from ESTF-2 Rec: M2)**. Set an aggressive schedule to achieve the City's long-term goals (e.g., constant *percent* decrease per year or better, **(adapting as appropriate from ESTF-2 Rec: M13**) • Continue regular sustainability planning (e.g., through the ESAP process) with prioritized, actionable steps that have clear roles and responsibilities • Analyze transportation projects for GHG emissions
Advanced	• Assess the impact of projects and policies on the metrics defined above in all staff reports. • Create a climate dashboard and communicate progress to the public on a regular basis • Develop and track metrics to measure success of sustainable land use strategies (e.g., jobs-housing balance, minutes to cross city, livability index)
Innovative	• Develop a methodology for estimating regional equity impacts of sustainable and resilient actions, including avoided "spillover" effects of displacement • Manage Mountain View's emissions budget through streamlined inventory and emissions bank/offsets **(adapting as appropriate from ESTF-2 Rec: M1)** • Conduct a consumption-based GHG inventory **(adapting as appropriate from ESTF-2 Rec: W16)**

Lever 2: Mobilize the Local Community in Sustainability and Resilience Action

	Strategy 2.1: Engage Residents from Across Mountain View's Neighborhoods and Demographic and Socioeconomic Groups During Development of Policies and Programs to Promote Sustainability and the Quality of Life
Foundational	• Partner with community organizations to host meetings in communities across the city, particularly those not often represented through usual engagement channels • Provide multi-lingual resources and childcare in for evening engagements • Conduct frequent community pulse checks on feelings toward sustainability and quality of life via surveys, pop-up/mobile town halls, listening tours of community meetings and hearings, and other mechanisms
Advanced	• Develop lasting partnerships with community-based organizations, enlisting them to participate in substantial and ongoing agenda setting and co-creation of solutions • Collaborate with community organizations or non-profits to regularly engage residents
Innovative	• Develop a formal stakeholder engagement policy for residents that clarifies how heavily to engage with whom for major decisions (similar to that developed by City of Boulder)

	Strategy 2.2: Engage Small Businesses, Large Employers, and Non-profits to Determine Shared Priorities and Collaborate on Implementing Sustainable Actions
Foundational	• Gather input and ideas from the biggest employers in Mountain View on the sustainability topics that are most salient to their operations and their continued success, including transportation
Advanced	• Develop a group of business, institutional, and civic representatives to share information on and pilot sustainability solutions in their organizations
Innovative	• Establish a formal business and organization engagement policy that clarifies how heavily to engage with whom for major decisions • Integrate sustainability partnerships into the City's Economic Development strategies for small business engagement and retention, such as by publicizing energy performance and cost data on available real estate vacancies, or by becoming an early adopter of sustainability products and services offered by these businesses,

	Strategy 2.3: Develop and implement a communications strategy that celebrates successes and acknowledges collaborators
Foundational	• Strategically celebrate successes internally and externally through multiple major communications channels to foster momentum by affirming staff contributions and to motivate community supporters to be part of the City's movement

Advanced	• Partner with community groups and businesses to host peer learning exchanges and informational fairs on topics of interest to their constituencies (e.g., convening large property owners to share sustainability best practices; convening employers to share TDM best practices and other best practices; convening landlords and tenants to learn about techniques to overcome split incentives) • Host annual events to recognize the most innovative community-sourced ideas (e.g., a Sustainability and Resilience Innovation Challenge or a hackathon). These would be tied to community micro-grants.

	Strategy 2.4: Develop Direct Outreach and Education Programs Aimed at Encouraging Sustainable Behaviors for Residents, Workers, Visitors, and Property Owners
Foundational	• Map out city constituents' behaviors that affect sustainability (e.g., in transportation, electricity, heating, water, waste, ecological impacts), and assess whether educational campaigns will have substantial impacts • Host regular informational fairs such as EV Ride and Drive campaigns, and building decarbonization expos • Use community events, street fairs, and other highly-attended activities to educate people about waste reduction, recycling, and energy and water conservation • Provide tools to help households reduce their environmental impact and GHGs, including carbon calculators and the ability to generate and act on a plan **(adapting as appropriate from ESTF-2 Rec: 02B)** • Work with SVCE to develop a knowledge database and conduct outreach regarding building electrification and other sustainability actions **(adapting as appropriate from ESTF-2 Rec: M10)** • Increase participation in existing building energy efficiency programs through targeted outreach (**adapting as appropriate from ESTF-2 Rec. BE4)**
Advanced	• Develop sophisticated Community-Based Social Marketing campaigns covering major activities such as commute behavior, energy management, sustainable food, waste reduction, and more (e.g., pass a resolution supporting "Green Mondays"; reduce, reuse, and recycle campaigns; lawn replacement, sustainable landscape care that reduces fertilizers and pesticides, and electrification of landscape and garden equipment) **(adapting as appropriate from ESTF-2 Rec: W2 and W12)** • Provide technical assistance to property owners to help them navigate the permit system for sustainable technologies, and connect them with grant opportunities • Connect contractors with information and training resources to enable them to fill customer needs for installing heat pumps, EV charging, solar, solar thermal, and more
Innovative	• Recruit community ambassadors to implement intensive long-term campaigns and competitions in every major sector of the population and every major type of organization in the city • Educate landlords on efficiency, electrification, and green leases, provide technical assistance/program management, and convene property-owner forums to explore barriers to deployment and identify solutions • Provide assistance and education to small developers and contractors regarding new codes and technologies

	Strategy 2.5: Develop the Buy-in to Impose New Sustainability Requirements on Owners of Existing Properties and Businesses in the City
Foundational	• Convene a stakeholder forum of the largest property owners/property managers in the city to map out shared interests in the development of city programs and possible requirements to improve sustainability performance • Solicit voluntary commitments from this forum
Advanced	• Require energy use disclosure by all existing buildings of a certain size, potentially making the size threshold more stringent than the state-wide disclosure requirement for buildings above 50,000ft^2. Require or incent actions (e.g., energy audits, commissioning, energy and water conservation measures) to reduce emissions from higher emitting buildings. **(adapting as appropriate from ESTF-2 Rec: BE4)** • Impose additional requirements on businesses (e.g., mandatory composting and recycling, adopting a ban on single-use plastic foodware) **(adapting as appropriate from ESTF-2 Rec: W9)**
Innovative	• Require existing buildings above a certain threshold to achieve performance-based standards in energy consumption, emissions, and water consumption

	Strategy 2.6: Develop Options That Facilitate and Enable Sustainable Behaviors and Purchase Decisions by the Community
Foundational	• Using community input, determine Mountain View's role in stimulating EV market advancement, for instance through an EV Action Plan and filling priority gaps in the EV charging network such as in multi-family and commercial buildings (adapting as appropriate from ESTF-2 Rec. BE-7) • Using community input, results of SVCE's pilot incentive program, and emerging state incentive and technical assistance programs, determine Mountain View's role in stimulating building decarbonization through heat pumps, solar thermal, and other technologies • Continue improving the most important gaps in a multi-modal transportation system in a way that is responsive to community input and prioritization • Offer annual or regular group buy programs for sustainable technologies (e.g., EVs and chargers, micro-mobility devices, solar, solar water heaters, battery storage, heat pumps, and heat pump water heaters) **(adapting as appropriate from ESTF-2 Rec: T2 and BE1)**
Advanced	• Invest city funds in rebates or incentives for sustainable technologies (e.g., EVs and chargers, micro-mobility devices, solar, solar water heaters, battery storage, heat pumps, heat pump water heaters, and electric landscape equipment) **(adapting as appropriate from ESTF-2 Rec: W12),** within or outside the context of a group buy program • Develop advanced waste reduction programs such as expanding compost pickup to all customers **(adapting as appropriate from ESTF-2 Rec: W5**), increasing financial incentives for smaller bins and increased diversion rates, and more • Proactively develop public private partnerships that leverage private innovation and shape the rise of "new mobility services" in the city (e.g., mobility on demand that is electric and pooled, sustainable shared mobility clearinghouse, and mobility subscriptions)
Innovative	• Invest city funds in equitably providing sustainable "new mobility services" to the broadest possible user base (e.g., the City buys down the cost of offering services the market would not otherwise provide, in order to ensure equitable access to programs like bikeshare, carshare for low income housing or rental populations)

Lever 3: Partner Regionally to Enhance Connectivity and Impact

	Strategy 3.1: Find Alignment with Peer Governments and Establish a Clear Understanding of Roles, Responsibilities, and Appropriate Frameworks and Metrics for Tracking Regional Progress
Foundational	• Initiate informal and periodic check-ins with peer local governments to discuss goals, initiatives, and opportunities
Advanced	• Generate a regional sustainability and resilience metrics platform to track progress and spur friendly competition across the region
Innovative	• Work with regional entities and encourage them to maintain a regional accounting system for all sustainability impacts with regular reporting, from GHG to waste to water to environmental quality and habitat protection. • Develop, track, and regularly update an integrated regional sustainability and resilience roadmap/plan that incorporates climate change in the context of other shocks and stressors

	Strategy 3.2: Share Resources, Data, Information, and Funding Widely in Support of Implementing Regional Projects
Foundational	• Continue to lead on regional energy topics and maintain an active dialogue with Silicon Valley Clean Energy and other regional and state entities to support sustainability progress and advocate for strong policies • Co-commission studies that can be used to form regional approaches to shared challenges and share lessons learned from Mountain View's own research and planning processes.
Advanced	• Assess existing regional collaboration forums for whether there are any critical gaps (in topic coverage, audiences/participant types, and breadth of region – e.g., some regional collaborations may make sense just with immediately neighboring cities, while others should be Bay Area-wide). For any gaps identified, determine the best approach to partner and/or share information, data, and funding opportunities, and spur innovation with businesses, governments, NGOs, foundations, and other relevant organizations. • Conduct collaborative planning on new transportation solutions connecting new developments planned by neighboring cities • Develop partnerships with organizations like VTA and employers to provide transit pass discounts, work with surrounding municipalities to create transit priority networks, collaborate with the school district to increase bus services to reduce trip needs to drop off children. • Partner with surrounding cities to develop and advocate **funding** for regional transportation and mobility solutions that are both sustainable and resilient • Conduct annual summit to review and track county, state, and federal sustainability actions **(adapting as appropriate from ESTF-2 Rec: O3)**. Feed information from peer learning exchanges developed within the community into these regional discussions
Innovative	• Harmonize policies and processes across jurisdictional boundaries • Develop plans with surrounding municipalities for regional shared staffing and capacity building, where appropriate

Lever 4: Manage Inclusive, Sustainable Community Growth

	Strategy 4.1: Pursue Land Use, Planning, and Transportation Solutions That Decrease Emissions and Equitably Increase Quality of Life for All Residents
Foundational	• Review options for setting and enforcing **stricter** trip caps in precise plan locations • Continue current zoning and land-use planning strategies in current and new precise plans that emphasize mixed-use, walkable neighborhoods, and transit-oriented development to reduce unnecessary travel demand and increase the percentage of travel needs that are met by low-emitting modes • Develop and monitor TDM policy for all new development outside precise plan areas **(adapting as appropriate from ESTF-2 Rec: T7)** • Set policies that minimize new parking supply **(adapting as appropriate from ESTF-2 Rec: T6)**. Set appropriate parking prices, and address parking spill-over. Consider mode-shift incentives and GHG impacts when establishing parking policy • Continue current schedule of implementation of improvements to the active transportation landscape in Mountain View (including bike parking, sidewalk improvements, signal timings, intersection improvements, protected facilities, and more) • Construct grade separation at Transit Center to improve bike-ped connections • Complete comprehensive modal plan, identify gaps, and prioritize strategies and transportation projects using GHG emissions as a factor
Advanced	• Curtail growth in single occupant vehicle travel demand through a portfolio of actions in collaboration with the TMA and using other levers under the City's control. This could be incorporated in a community-wide TDM program that would extend beyond new construction, and would also address special events TDM **(adapting as appropriate from ESTF-2 Rec: T7)** • Rapidly accelerate the rate of implementation of improvements to the active transportation landscape in Mountain View within 3-5 years to create a low stress bicycle network • Plan for complete streets in neighborhoods outside of precise plan areas and optimize for neighborhood connectivity • Enhance and expand the Mountain View community shuttle • Update Parkland Ordinance to facilitate use of trails for active transportation
Innovative	• Develop a comprehensive curb management policy • Create an adaptable framework for decreasing congestion and emissions that is performance based and becomes more ambitious over time. This could include congestion pricing in North Bayshore and other areas as appropriate, studying and regulating emissions and congestion from TNCs, strong incentives for multi-modal transportation and disincentives for single occupant vehicle travel, and a VMT and congestion reduction requirement • Base the City's transportation demand reduction policies on the most recent relevant evidence and research, measure the impacts of current policies when possible, and adopt frameworks for development review that align with best practices (e.g., California Department of Housing and Community Development TOD Housing-Program funds point-system) **(adapting as appropriate from ESTF-2 Rec: BN8)** • Provide a full suite of low-carbon transportation services for all Mountain View employees and residents through aggressive expansion of the TMA.

	Strategy 4.2: Pursue Development in Mountain View in a Way that Aligns with the Community's Values of Sustainability, Place-making, Equity and Neighborhood Character
Foundational	• Integrate input from community engagement processes into Mountain View plans for growth • Update the Mountain View Green Building Code **(adapting as appropriate from ESTF-2 Rec: BN1)** • Increase capacity in the Building Division to enable more time for strategic long-term planning related to sustainability in the building stock broadly • Review zoning approaches to encouraging EV charging spaces, solar, storage, heat pumps, and other technologies (e.g., counting EV spaces toward parking requirements, providing development incentives like FAR bonuses and fee waivers) • Engage in research and learning about new and emerging technologies to develop streamlined regulatory processes for the technologies Mountain View wishes to support • Review Parkland Ordinance for potential revision to definition of parkland and calculation of fees
Advanced	• Set a target date for all new development to be zero net energy (ZNE) or zero net carbon (ZNC) and in the interim incent ZNE or ZNC through density bonuses, climate impact fees, or other mechanisms • Adopt a building decarbonization policy, and pursue opportunities to achieve all-electric building design **(adapting as appropriate from ESTF-2 Rec: B1)** • Develop reach code for solar PV in new non-residential development • Require EVSE pre-wiring in new development • Provide incentives for above-code new buildings **(adapting as appropriate from ESTF-2 Rec: BN3)** • Make the city resilient to drought and climate-related water stress
Innovative	• Educate developers about resilience strategies and location-specific risks so that they can develop with optimal resilience to future climate change • Commit to increasing the affordability of the city's housing stock without adverse effects on city emissions budgets, resource consumption, environmental quality, or quality of life • Require installation of EVSE in new development and require pre-wiring for EVSE in additions and alterations

Appendix B – Regional Entities Active in Sustainability and Resilience

This appendix provides a list of only a subset of the foundations, nonprofits, regional agencies, organizations, forums, and fellowship programs that are active in sustainability and resilience in the Bay Area. It can be used during the gap assessment activity within Strategy 3.1.

Organizations

- Asian Pacific Environmental Network (APEN)
- Association of Bay Area Governments (ABAG)
- Association of Regional Collaboratives for Climate Adaptation (ARCCA) and its regional affiliate, Bay Area Council
- Bay Area Climate Adaptation Network (BayCAN)
- Bay Area Regional Council (BARC)
- Bay Area Plug-in Electric Vehicle Coordinating Council
- Bay Conservation and Development Commission (BCDC)
    - Bay Area Adapting to Rising Tides
- Bay Area Regional Energy Network (BayREN)
- CA Sustainable Freight Action Plan
- Coastal Conservancy
- Coastal Commission
- Environmental Coalition for Water Justice (EJCW)
- The Greenlining Institute
- Hewlett Packard Foundation
- Joint Venture Silicon Valley
- Kresge Foundation
- Local Government Commission (LGC)
- Neighborhood Funders Group
- Ocean Protection Council (OPC)
- Resources Legacy Fund
- Rockefeller Foundation
- The San Francisco Foundation (SFF)
- Santa Clara Valley Transportation Authority
- Save the Bay
- Silicon Valley Clean Energy (SVCE)
- Silicon Valley Community Foundation (SVCF)
- Silicon Valley Economic Development Alliance (SVEDA)
- Silicon Valley Leadership Group
- SPUR Fossil Free
- SPUR Future Proof
- Strong, Prosperous, And Resilient Communities Challenge (SPARCC)
- Transformative Climate Communities
- TransForm

Nonprofit Sustainability Fellowships or Staff Capacity Augmentation Programs

- 100 Resilient Cities (not currently open for new applicants)
- Environmental Defense Fund Climate Corps
- FUSE Corps Fellows
- Local Government Commission Civic Spark Fellowships
- Natural Resources Defense Council American Cities Climate Challenge (not currently open for new applicants)
- Strategic Energy Innovations Climate Corps