

**DATE:** June 2, 2026

**TO:** Council Sustainability Committee

**FROM:** Rebecca Lucky, Sustainability Manager  
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**VIA:** Audrey D. Seymour, Assistant City Manager

**SUBJECT:** **Decarbonization Goal Analysis**

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### **RECOMMENDATIONS**

Receive the final Decarbonization Goal Analysis (Attachment 1).

### **BACKGROUND**

#### **Initial Scope**

On [November 19, 2024](#), the City Council approved a scope of work with Cascadia Consulting Group (Cascadia) to conduct a decarbonization goal analysis evaluating the feasibility of accelerating the City's adopted 2045 decarbonization goal to 2035 or 2040 and assessing the impact of actions at the federal, state, regional and local level on emissions.

The decarbonization analysis serves as a planning and decision-making tool rather than a fixed long-term implementation roadmap or commitment to specific future regulations, technologies, or funding levels through 2045. It provides a point-in-time assessment based on the available data, current technologies and market trends, and policy conditions during the analysis period. The framework is intended to remain flexible and can be updated over time as conditions evolve.

The analysis was initially designed to help answer several key policy questions, including:

1. What level of effort would need to be undertaken for Mountain View to meet carbon neutrality goals of 2045, 2040 or 2035.
2. What level of emissions reductions could be expected from existing regional, state, and federal policies and programs?
3. What emissions gap would remain for local government action?
4. Which local actions could provide the greatest emissions-reduction impact?
5. What actions should the City prioritize over the next five years?

## **Methodology**

The decarbonization analysis evaluated Mountain View's projected greenhouse gas emissions through 2045 and assessed the anticipated effectiveness of regional, state, federal, and local actions in reducing emissions over time. Using both business-as-usual (BAU) and adjusted business-as-usual (ABAU) emissions scenarios, the analysis identified the remaining emissions gap the City would need to address locally to achieve its adopted 2045 carbon neutrality goal. The analysis also evaluated a range of local emissions-reduction strategies to inform development of the City's Five-Year Decarbonization Plan and broader climate policy direction.

## **Shifting Policy Landscape**

The initial ABAU analysis was conducted in early 2025, before policy shifts at the state and federal levels were enacted. As a result, the initial projections for 2045 showed that just 7% of emissions remained to be addressed at the local level. Over the course of the analysis, however, rapidly evolving federal and state climate policies, changing market conditions, and uncertainty surrounding long-term regulatory implementation shifted significant responsibility for addressing emissions to the local level. One example of the magnitude of the shifts observed was the revocation of an Environmental Protection Agency (EPA) waiver that would have allowed California to implement its Advanced Clean Cars II regulations. This single change resulted in ABAU projections showing that 40% of emissions remain to be addressed at the local level by 2045, up from just 7%.

## **CSC and Council Direction on Decarbonization Goal and Plan Approach**

The shifting policy landscape has created a challenging pathway to meeting the City's currently adopted goal, leading CSC to recommend not accelerating the City's decarbonization goal. As a result, the final analysis and this report focus on the City's currently adopted 2045 carbon neutrality goal rather than evaluating the adoption of a new accelerated goal year. Additionally, the volatility of the policy landscape and significant changes to emissions projections that ensued underscored the difficulty of decarbonization planning over a 20-year time horizon.

As a result, the CSC directed staff to focus on decarbonization planning over a five-year period and to develop a plan that is adaptable to changing conditions, making progress toward the 2045 decarbonization goal to the fullest extent possible. The CSC also acknowledged that the actions available at the local level would not be commensurate with a 25% emissions reduction within the five-year plan period but would lay the groundwork for accelerated future emissions reductions. The City Council confirmed the CSC's recommended approach at a study session on [May 26, 2026](#).

## **Key Committee Feedback on the Decarbonization Analysis**

Throughout the decarbonization goal analysis process, CSC discussions focused on balancing ambitious climate goals with the practical realities of evolving federal and state policies, technological uncertainty, and the limitations of local government authority in achieving communitywide decarbonization.

### *Re-evaluate Modeling Assumptions*

During the [June 26, 2025](#) CSC meeting, Committee members requested that staff reevaluate assumptions used in the business-as-usual emissions forecast, particularly assumptions related to projected population and employment growth. Previously, the model utilized growth projections intended for the City's Housing Element. The updated forecast now uses the standard population growth projections for counties provided by the California Department of Finance. Additionally, it incorporates data from the California Employment Development Office regarding employment in the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area. These revised projections were presented during the CSC meeting on [November 6, 2025](#).

### *Recognize the Limits of Local Action Alone*

The CSC emphasized that even ambitious local actions would only partially close the remaining emissions gap and acknowledged that regional, state, and federal policies remain essential to achieving long-term decarbonization goals.

The Committee generally agreed that local government plays an important role in:

- Accelerating implementation
- Filling policy gaps and advocating at the regional and statewide levels
- Supporting broader market transformation
- Piloting scalable programs
- Encouraging community participation

However, the CSC also acknowledged that local programs alone could not realistically achieve carbon neutrality without broader structural changes and policy support.

### *Prioritize High-Impact Sectors Identified in the Analysis*

The CSC supported the analysis's findings that fossil fuels used for transportation and in buildings would remain the largest sources of emissions through 2045 unless broader policies, programs, and local actions are implemented.

Committee discussions focused primarily on:

- Transportation electrification
- Building electrification
- Electric vehicle (EV) charging infrastructure
- Transit and mobility improvements
- Regional transportation coordination

The CSC generally agreed with the conclusion that these sectors should remain the City's highest decarbonization priorities over the next five years based on future emissions projections.

#### *Support Flexibility and Regular Reassessment*

The CSC supported adopting an adaptive planning framework rather than a fixed, long-term roadmap requiring full buildout to the carbon-neutrality goal year. Committee members emphasized the importance of maintaining flexibility to adapt to changing technologies, funding opportunities, and policy conditions, and recommended revisiting emissions forecasts and assumptions every three to five years. The five-year decarbonization plan approach and draft actions confirmed by Council on [May 26, 2026](#) reflect this flexible approach.

The analysis tool developed by Cascadia also allows staff to adjust compliance assumptions for modeled regional, state, federal, and local policies to better understand potential future emissions impacts across different implementation scenarios. For example, the model can be used to evaluate how emissions projections may change if policies such as the Bay Area Air District zero-NOx furnace and water heater regulations are delayed, modified, or not fully implemented. Staff anticipate periodically revisiting the analysis assumptions and emissions forecasts as technologies, regulations, funding opportunities, market conditions, and state and federal climate policies continue to evolve.

#### **Federal, Regional, and State Actions Modeled and Replaced in the Analysis**

The scope of work with Cascadia included modeling ABAU actions related to regional, state, and federal actions, as well as local emissions-reduction actions. Throughout the analysis, staff and Cascadia encountered significant challenges associated with rapidly changing federal climate policies and uncertainty regarding long-term regulatory implementation, funding availability, market conditions, and technology adoption rates.

Additional ABAU actions were incorporated to reflect evolving policy conditions and CSC priorities: EV market trends and California's Small Off-Road Engine (SORE) Ban (Assembly Bill 1346).

The Advanced Clean Cars II regulations were replaced with EV market trend projections following federal actions by the U.S. EPA that revoked the ability to implement the policy. Rather than relying on regulatory mandates, the EV market trends analysis assumes continued growth in electric vehicle adoption driven by advancements in vehicle technology, expansion of charging infrastructure, declining costs, consumer preferences, and existing incentive programs.

The SORE Ban was added at the CSC's request after the emissions forecast identified small off-road engines as a notable source of projected 2045 emissions. Collectively, these modifications improved the analysis by better reflecting current policy realities, anticipated market transformation, and emerging state regulations, while providing a more robust assessment of the emissions reductions likely to occur in Mountain View independent of future federal policy actions.

The regional and state modeled actions included:

1. Bay Area Air Quality Management District Rules 9-4 and 9-6 that will require zero-NOx water heaters and furnaces over the next few years
2. EV market adoption trends
3. Assembly Bill (AB) 1346 – Small Off-Road Engine Ban
4. Senate Bill (SB) 100 – California Renewable Portfolio Standard
5. Silicon Valley Clean Energy's clean electricity commitments
6. California's Low Carbon Fuel Standard
7. SB 1383 – Short-Lived Climate Pollutants regulations
8. California Green Building Standards Code
9. Advanced Clean Cars II regulations- This action was removed because the EPA revoked California's authority to enforce the regulation.

### **Local Actions Modeled and Replaced in the Analysis**

The local action component of the decarbonization goal analysis focused on evaluating a targeted set of emissions-reduction strategies that the City could reasonably influence or implement over the next five years. Because local actions were projected to produce comparatively smaller emissions reductions than broader regional and state regulations, the analysis prioritized modeling the local actions with the greatest potential greenhouse gas reduction impact, based on available data, implementation feasibility, and modeling capacity. The local actions were also selected to help inform near-term implementation priorities for the City's forthcoming Five-Year Decarbonization Plan and broader climate policy direction.

During the [June 26, 2025](#) CSC meeting, the Committee expressed support for the initial five local actions included in the modeling analysis:

1. Outreach, education, and incentives to encourage building electrification

2. Mixed-use zoning and transit-oriented development through existing and planned Precise Plans
3. Implementation of a Transportation Demand Management (TDM) Ordinance
4. Implementation of the Active Transportation Plan
5. Implementation of the City's 2026 Reach Codes to support the electrification of residential and commercial buildings.

In [November 6, 2025](#), the CSC approved additional local actions for inclusion in the emissions modeling:

6. Expansion of electric vehicle (EV) charging infrastructure at or near existing multifamily properties
7. Outreach and education to encourage EV adoption
8. Implementation of parking management strategies in key Precise Plan areas. This action is now replaced by the sequestration potential linked to restored wetlands, as discussed below.
9. Time-of-sale building electrification requirement similar to Berkeley's Building Emissions Savings Ordinance
10. Implementation of the City's Zero Waste Plan. This action was not modeled, as discussed below.

The CSC also requested that staff incorporate sequestration benefits associated with the restoration of Mountain View marshland areas into the analysis. Because the project scope allowed modeling a limited number of local actions, staff replaced the parking management strategy with modeling the sequestration potential associated with restored wetlands and marshlands. Another proposed local modeling action, the City Zero Waste Plan implementation, was replaced with an additional state policy, AB 1346. While the Zero Waste Plan remains an important long-term sustainability initiative (and is included in the draft five-year decarbonization plan), many of its projected emissions reductions are already partially captured through the implementation of SB 1383-Short-Lived Climate Pollutants regulations.

## **ANALYSIS**

### **Purpose and Limitations of Emissions Forecast Analysis**

Cascadia conducted a comprehensive emissions forecast analysis. While specific emissions projections were made based on various scenarios, the key takeaways of the analysis were an evaluation of the feasibility of accelerating the City's decarbonization goal (not recommended based on the analysis) and the relative impact of the local measures identified as potential measures for inclusion in the draft five-year decarbonization plan.

Overall, while the analysis informed the identification of actions to be included in the draft Five-Year Decarbonization Plan, the analysis was not intended to model every action included in the Plan presented to the CSC on [April 30, 2026](#) and the City Council on [May 26, 2026](#). Instead, the modeling effort focused on a limited set of local actions expected to provide the highest measurable emissions reductions. At the same time, the broader Five-Year Decarbonization Plan also includes additional supporting actions related to education, outreach, policy, and program development, regional coordination, and implementation that may not directly produce quantifiable emissions reductions within the modeling framework but still support the City's long-term decarbonization objectives.

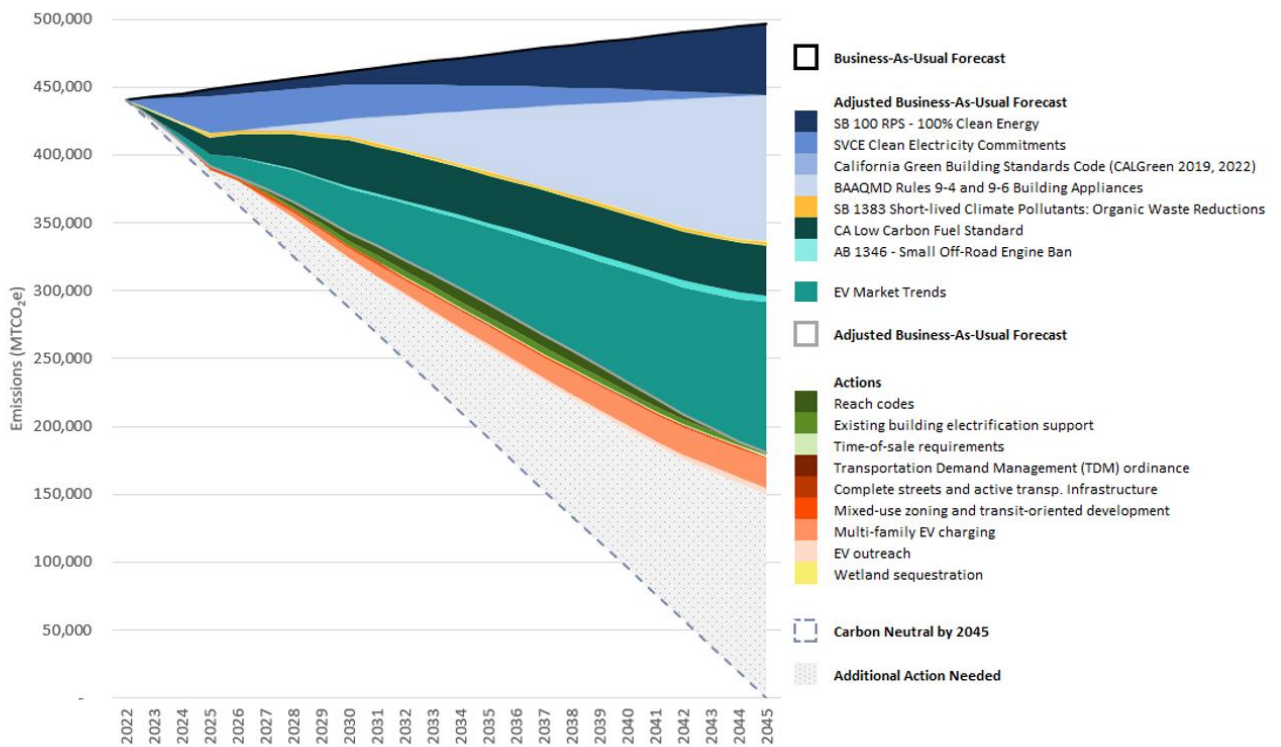
### **Analysis Methodology and General Findings**

Figure 1 illustrates Mountain View's projected communitywide greenhouse gas emissions under three emissions forecast scenarios:

- Business-as-Usual (BAU)
- Adjusted Business-as-Usual (ABAU)
- Local Action Scenario

Additional information regarding the emissions forecasting methodology, modeling assumptions, and scenario development is provided in Attachment 1.

**Figure 1: Mountain View's projected 2045 emissions and associated reductions**



Under the BAU scenario, which assumes no climate-related regulations, policies, or emissions-reduction measures at the federal, state, regional, or local level, emissions are projected to increase approximately 13% by 2045, reaching an estimated 496,716 metric tons due primarily to population and employment growth.

The ABAU scenario incorporates the anticipated impacts of existing regional and state climate policies, regulations, and market trends that are expected to reduce emissions over time. As shown in Figure 1, these measures collectively reduce emissions by approximately 59% below BAU levels by 2045. Major contributors to these reductions are shown in Table 1 below.

**Table 11: ABAU Emission Reductions**

Policy / Trends Initiatives	Emissions Reduction (Metric Tons)
Bay Area Air District Rules 9-4 and 9-6	107,476
SB 100 California Renewable Portfolio Standard	52,753
California’s Low Carbon Fuel Standard for vehicles	37,133
EV market trends	110,358

Additional reductions are attributed to clean energy commitments, building efficiency standards, and short-lived climate pollutant reduction measures. Despite these substantial reductions, approximately 181,216 Metric tons of emissions would remain in 2045, requiring additional local action, technological advancement, or market transformation to achieve the City's adopted 2045 carbon-neutrality goal.

The Local Action Scenario builds upon the ABAU forecast by incorporating nine local emissions-reduction actions, including:

- Building electrification
- Transportation demand management
- EV infrastructure expansion
- Land use and transportation improvements

Collectively, these local actions are projected to reduce emissions by an additional 7% beyond ABAU levels, resulting in an overall reduction of approximately 66% below BAU emissions levels by 2045 and lowering emissions to approximately 149,931 metric tons.

Figure 1 also illustrates that, even with implementation of all currently identified local actions, a remaining emissions gap persists between projected emissions and the City's adopted goal of achieving carbon neutrality by 2045. This remaining gap highlights the need for additional technological advancements, policy innovations, market transformation, and future emissions-reduction strategies to fully achieve long-term climate goals.

Although challenging in terms of identifying a specific pathway to carbon neutrality by 2045, the analysis identified several major findings to support Mountain View's climate action planning efforts.

### **Transportation Remains the Largest Source**

Transportation emissions are projected to remain the City's largest source of greenhouse gas emissions through 2045, even after accounting for modeled regional, state, federal, and local emissions-reduction actions. Under the ABAU scenario, the modeled transportation-related policies and market trends—including EV market trends and California's Low Carbon Fuel Standard—are anticipated to result in a 61% reduction in on-road transportation emissions by 2045. This is expected to lead to an overall reduction of approximately 30% in the City's projected communitywide BAU emissions.

The EV market trends used in the analysis were based in part on the availability of federal EV tax incentives, continued expansion of charging infrastructure, and anticipated long-term growth in consumer EV adoption. Since portions of the analysis were completed prior to the elimination or reduction of federal EV incentive programs, additional uncertainty now exists regarding future

EV adoption rates and long-term transportation emissions reductions. As a result, the transportation emissions reductions projected in the analysis may become more difficult to achieve if EV adoption slows or if future federal and state support for transportation electrification continues to weaken.

In response to this uncertainty, local strategies such as expanding EV charging infrastructure can help position the community to remain on track toward the City's adopted 2045 carbon neutrality goal by increasing EV readiness and reducing barriers to adoption in the event of future federal, state, or regional policies and incentive programs supporting a broader transition to electric vehicles.

Even with the general trend toward the purchase and use of EVs, on-road transportation emissions are still anticipated to account for approximately 95,180 Metric tons in 2045, representing roughly 63% of the City's remaining projected community-wide emissions. The remaining emissions reflect continued reliance on gasoline-powered vehicles, limited EV adoption, regional commuting patterns, and transportation sources not fully addressed by current regulations and market assumptions. Future state and federal transportation regulations, continued EV market transformation, expanded transit systems, and broader deployment of zero-emission vehicle technologies could further reduce these remaining transportation emissions over time.

The analysis also demonstrated that transportation electrification strategies offer some of the largest near-term local emissions-reduction opportunities available to the City over the next five years. Among the modeled local transportation actions, expanding EV charging infrastructure at or near existing multifamily properties produced the largest projected emissions reduction by a substantial margin.

As summarized in Table 2, multifamily EV charging expansion is projected to significantly outperform other modeled transportation measures, including EV outreach and education, Transportation Demand Management (TDM) strategies, and Complete Streets and active transportation infrastructure improvements.

**Table 2: Transportation Emission Reduction Actions**

<b>Local Transportation Action</b>	<b>Emissions Reduction by 2045 (Metric Tons)</b>
Multifamily EV charging expansion	22,217
EV outreach and education	4,111
Transportation Demand Management (TDM) strategies	190
Complete Streets and active transportation infrastructure improvements	173

The modeling highlighted the importance of addressing charging access barriers for multifamily residents, who represent a substantial portion of Mountain View's housing stock. Key assumptions in the analysis included increasing adequate EV charging access at or near multifamily properties from approximately 25% by 2031 to 95% by 2045, as well as research indicating that many multifamily residents would consider purchasing an EV if charging were available at or near their residence.

This finding reinforces the importance of:

- Transportation electrification
- Access to EV charging infrastructure
- Transit improvements
- Active transportation investments
- Transportation demand management strategies

The analysis findings also informed the recommended actions presented to the CSC on April 30, 2026, and discussed at the City Council Study Session on May 26, 2026.

### **Building Electrification Remains Critical**

Natural gas use in buildings remains a major source of future greenhouse gas emissions under the BAU scenario. However, Bay Area Air Quality Management District Rules 9-4 and 9-6 are projected to significantly reduce these emissions over time by establishing zero-NOx appliance standards that effectively phase out the sale and installation of new natural gas furnaces and water heaters in the Bay Area, accelerating the transition to electric technologies such as heat pumps. Key compliance dates include:

- **January 1, 2027:** Small water heaters (<75,000 BTU/hr) sold or installed must be **zero-NOx**. In practice, this generally means replacing failed residential gas water heaters with electric options such as heat-pump water heaters.
- **January 1, 2029:** Residential and many commercial furnaces sold or installed must be **zero-NOx**. When a furnace reaches end of life, replacement will generally be an electric heat pump rather than a conventional gas furnace.
- **January 1, 2031:** Larger water heaters (75,000–2,000,000 BTU/hr), including many multifamily, commercial, and larger tankless systems, sold or installed must be **zero-NOx**.

Under the ABAU scenario, these rules are anticipated to reduce building natural gas emissions by approximately 92% by 2045, resulting in an overall reduction of approximately 22% in the City's projected communitywide BAU emissions. Despite these substantial anticipated reductions, local electrification efforts remain important for accelerating implementation and providing

contingency emissions reductions if broader regional or state regulations are weakened, delayed, or modified in the future.

After accounting for these regional regulations and the modeled local building electrification actions, natural gas use is still projected to account for approximately 9,483 Metric tons of remaining emissions in 2045. These remaining emissions are expected to primarily come from end uses not currently covered under the Bay Area Air District Rules 9-4 and 9-6, including gas dryers, fireplaces, cooking appliances such as gas stoves and ovens, and pool and spa heating systems. Future state, regional, or federal regulations, as well as continued technology advancement and market transformation, could further support reductions in these remaining emissions sources over time.

Because the Bay Area Air District Rules already drive substantial long-term electrification of existing buildings, the emissions-reduction benefits associated with certain local building electrification actions diminish over time.

Table 3 summarizes the projected emissions reductions associated with local Reach Codes and building electrification outreach, incentives, and technical assistance programs. The analysis indicates that the effectiveness of these local measures declines over time as Bay Area Air District Rules 9-4 and 9-6 drive widespread electrification of space- and water-heating equipment. However, the analysis also demonstrates that local measures would continue to provide substantial independent emissions reductions if the regional Air District regulations are delayed, weakened, or rescinded.

**Table 3: Local Building Electrification Emission Reduction Scenarios**

<b>Local Building Electrification Measure</b>	<b>2035 Emissions Reduction (Metric Tons)</b>	<b>2040 Emissions Reduction (Metric Tons)</b>	<b>2045 Emissions Reduction (Metric Tons)</b>	<b>Additional Notes</b>
Local Reach Codes	9,233	6,637	Limited additional reductions by 2045	Reductions decline over time because most affected equipment is already electrified under Bay Area Air District regulations
Existing building electrification outreach, incentives, and technical assistance programs	5,016	4,037	2,373	Reductions decline over time as electrification occurs through Air District regulations
<i>Local Reach Codes (without Air District regulations scenario)</i>	—	—	30,849	<i>Represents estimated independent emissions reductions if Air District regulations are not implemented</i>

The analysis also helped identify which local building electrification strategies may provide the greatest near-term benefit, given implementation complexity and available City resources. Actions such as Reach Codes, building electrification outreach and education, permitting assistance, and incentive programs were identified as practical near-term strategies that can accelerate electrification adoption, prepare residents and businesses for future regulatory changes, and complement broader regional regulations already underway. In contrast, more complex regulatory approaches, such as time-of-sale electrification requirements, were projected to achieve comparatively smaller emissions reductions under current assumptions—approximately 1,173 Metric tons by 2045—while potentially requiring significantly greater administrative resources, regional coordination, enforcement mechanisms, and additional community outreach before implementation.

Although some local electrification actions may ultimately overlap with emissions reductions already expected under regional regulations, these local efforts remain important because they can accelerate near-term emissions reductions, reduce implementation barriers, increase

community awareness and readiness, and provide additional emissions-reduction certainty if regional regulations are delayed, weakened, or not fully implemented as currently assumed.

For example, Air District staff recently proposed flexibility amendments that would delay implementation of their rules and increase the exemptions allowed where the rules would not apply. These amendments would result in approximately 40% of water heater replacements being exempted from the Air District rules. Once adopted, the analysis can be adjusted to account for any amendments to the rules.

### **Conclusion**

The final decarbonization analysis demonstrates that Mountain View can make meaningful progress toward its adopted 2045 carbon neutrality goal through a combination of regional, state, federal, and local climate actions. It highlights the importance of transportation electrification, building electrification, and continued regional coordination as the City's highest-impact decarbonization priorities over the next five years. However, the analysis also reinforces that local action alone is insufficient; achieving full communitywide decarbonization will require sustained long-term implementation, continued technological advancement, strong state and regional climate policies, and ongoing market transformation.

The analysis serves as a flexible planning framework rather than a fixed implementation roadmap. Because the analysis represents a point-in-time assessment based on current technologies, policies, market trends, and assumptions, it is intended to be revisited and updated periodically as conditions evolve.

### **Next Steps**

No further action is required to finalize the decarbonization analysis. The analysis framework developed through this effort provides the City with a flexible planning and decision-making tool that can continue to be used to evaluate future emissions scenarios, policy assumptions, and implementation strategies. While no additional modeling work is currently proposed, any substantial modifications to the analysis framework or requests for additional emissions modeling would require additional budget and consultant support.

The final decarbonization analysis will help inform implementation priorities within the City's forthcoming Five-Year Decarbonization Plan and broader climate policy direction over the coming years. Staff recently presented proposed five-year decarbonization actions during the May 26, 2026 City Council Study Session and will return to the City Council with a final Five-Year Decarbonization Plan in the last quarter of 2026, focused on practical near-term implementation priorities identified through the analysis, including:

- Building electrification

- EV charging expansion
- Transportation electrification
- Active transportation infrastructure
- Transportation demand management
- Community outreach and education

Attachments: 1. Decarbonization Goal Analysis prepared by Cascadia Consulting Group