Scope of Work

Task 1. Decarbonization Goal Analysis

Greenhouse Gas (GHG) Emissions Analysis

Cascadia will use the City's existing communitywide GHG inventory data to develop an analysis that forecasts future GHG emissions and reductions against adopted or proposed emissions reduction targets. Analyses will be conducted to identify strategies that can achieve emissions reductions targets for 2035, 2040, and 2045. Using wedge analyses will help illustrate the impacts that various policies and climate actions (local, regional, and national) could have on reducing future emissions. Modeling future emissions through a wedge analysis approach also sets the stage for identifying measures and actions required to achieve various targets.

The wedge analysis task consists of two analyses:

- Business-as-usual (BAU) and adjusted business-as-usual (ABAU) analysis:
  - BAU: Cascadia will work with the City to determine the appropriate forecasting timeframe, growth factors, and assumptions to estimate future emissions in a "no action" scenario.
  - ABAU: With the ABAU, Cascadia can quantify the emissions reductions expected from key federal and state laws as well as regional rules like the BAAQMD ban on new gas-fired equipment. Examples of relevant policies include building energy efficiency standards (Title 24), renewable portfolio standard (SB 100), vehicle fuel economy standards, and short-lived pollutant requirements and edible food recovery (SB 1383). *Our budget assumes modeling up to 9 policies*.
- Local impact analysis: The local impact analysis focuses on emissions to be addressed by City and community action. Cascadia will model estimated GHG emission reductions associated with major proposed actions and any existing actions that would further contribute to GHG emission reductions. *Cascadia's budget assumes modeling up to 12 key actions.*

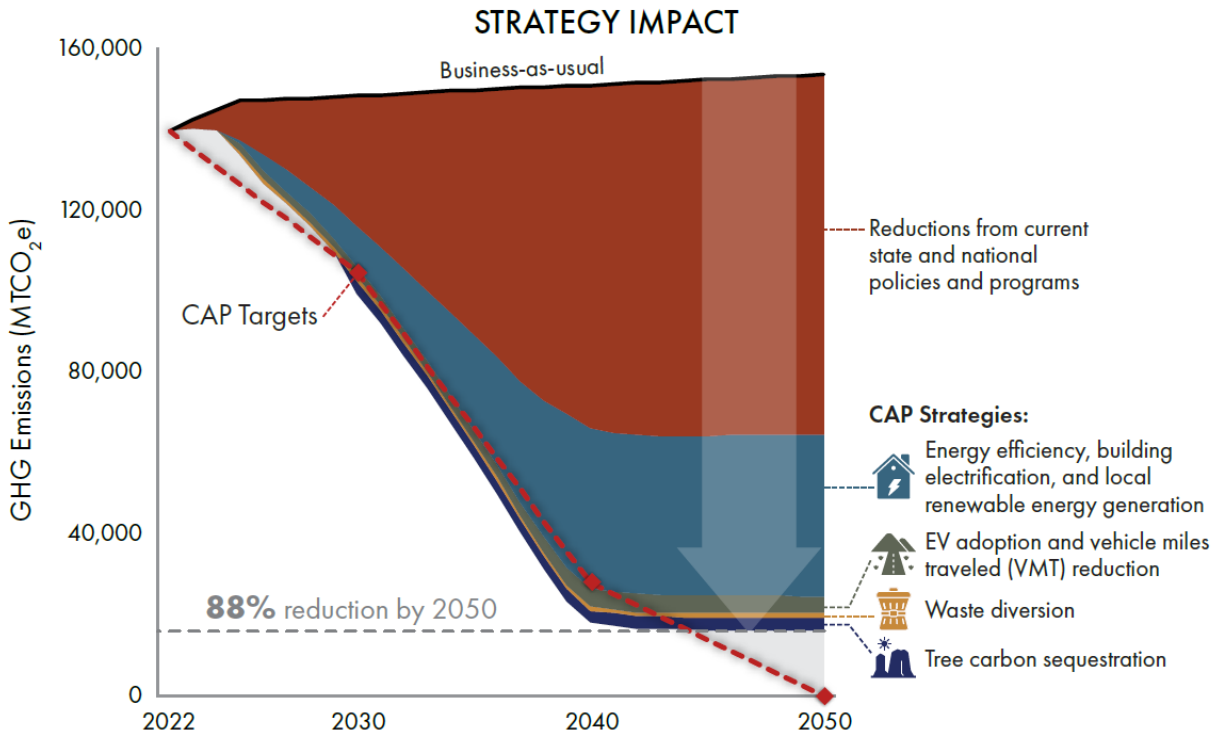


Figure: *Cascadia created this figure to show a jurisdiction's projected business-as-usual emissions, adjusted business-as-usual emissions (reductions from current state and national policies and programs), and emissions under several key Climate Action Plan strategies, alongside potential emission reduction targets.*

A short list of potential measures and actions for each wedge analysis will be developed to demonstrate the City's ability to meet the goal. The menu of actions will be considerations to implement over the next five years to align ensure progress with each wedge analysis goal. Actions will be developed to:

- Comply with current legislative requirements and targets, such as SB 32
- Ensure that they are impactful, feasible, and cost effective
- Integrate Mountain View's existing operations, policies, and goals
- Consider the available capacity to implement—both City and community—and adjust the number, scope, and timing of actions accordingly (i.e., aim for a parsimonious list of actions)
- Can adapt to future changing conditions and legislation (i.e., are not overly prescriptive and rigid)
- Reflect community priorities and values, including social and racial equity
- Bring additional co-benefits to the community (e.g., advance public health or economic goals)

To develop the list of measures and actions, Cascadia will use a variety of resources to begin developing its list of actions, including:

- Existing resources and plans
- Relevant plans and documents from key implementation partners (e.g., plans from Santa Clara County)
- Review of peer jurisdiction's plans and reports
- New and innovative actions from peer-reviewed publications

Cascadia will evaluate all measures using a multicriteria analysis to understand the benefits and challenges associated with each action. This stage will include one presentation to the Council Sustainability Committee to share results of the wedge analyses and discuss and finalize the criteria for assessing actions.

Decarbonization Analysis Report

Cascadia will develop a draft and final report for the two target decarbonization goals. The report will include the following key elements:

- Executive summary
- Introduction and background
- Summary of the City's emissions
- Menu of actions and recommendations for actions to implement in the first five years:
- Implementation considerations
- Appendices

Project Management Approach

Cascadia will familiarize our team with the City's climate efforts to date, review relevant documentation, and develop relevant project management documents such as a workplan and schedule. The scope also involves regular check-in meetings to share progress or include relevant feedback that would be of value to the project. Invoices will be provided on a quarterly basis and align with completed milestones.

Task No.1 Deliverables

- Meetings with City staff (up to 5)
- Wedge analyses in Excel for reduction targets of 2035,2040, and 2045.
- Wedge analysis summary memo, including brief descriptions of policies and actions modeled, assumptions used in modeling, and analysis findings
- Actions and measures memo detailing recommended strategies and actions with supporting rationale
- Actions and measures matrix in Microsoft Excel or Google sheets
- Draft and Final Decarbonization Analysis Report
- Council Sustainability Committee Meeting (up to 3)
- City Council Meeting (1)
- Project workplan
- Biweekly check-in calls
- Regular invoices and progress reports

Task 2. Climate Vulnerability Assessment

Cascadia will develop a Climate Vulnerability Assessment (CVA) for the City of Mountain View. The assessment process includes four phases: (1) exposure analysis, (2) sensitivity analysis, (3) adaptive capacity analysis, and (4) vulnerability assessment. This process complies with requirements for SB 379 for California communities and aligned with the vulnerability framework used by the Intergovernmental Panel on Climate Change (IPCC).

Climate Vulnerability Elements

Exposure: Whether a community might experience a given hazard (e.g., location of housing in relation to flooding, landslide hazards, etc.).
Sensitivity: Whether, and to what extent, a community might be damaged or disrupted if exposed to a hazard (e.g., community susceptibility to prolonged extreme heat).
Adaptive Capacity: The ability of the community at large to cope with the consequences of damage or disruption (e.g., health inequities that could increase the danger of extreme heat).

Assess Current and Future Exposure of Climate Impacts

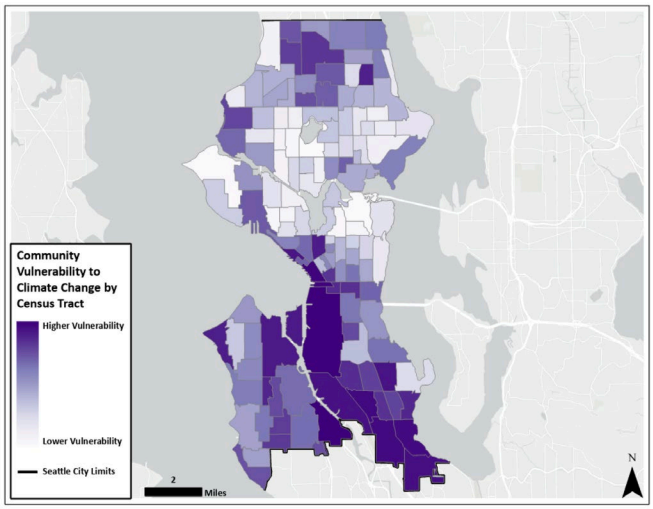
Cascadia will summarize existing science from the latest literature on observed and projected climate trends relevant to the City of Mountain View. Cascadia will draw from reputable reports and climate models—such as Cal-Adapt, the California Climate Change Assessment, the National Climate Assessment Atlas, ICLEI's TEMPERATE tool, NOAA's sea level rise projections—and other peer-reviewed studies that provides defensible climate data and projections. Cascadia anticipates working in collaboration with the City to confirm the parameters for the impacts assessment. As relevant, Cascadia can create graphs that document historical and future climate projections or maps that demonstrate the spatial variability of how a variable may change across the City of Mountain View's geography.

Assess Social Vulnerability and Other Sensitivity Factors

Cascadia will complete a social vulnerability assessment. Cascadia uses a robust spatial methodology — mapping social vulnerability at the census block or tract level — to get a granular understanding of socioeconomic and health disparities across a geographic area. Assessing social vulnerability together with climate impacts exposure can help the City understand the distributional burden of climate change impacts across its jurisdiction as well as the social determinants of vulnerability—such as income, age, race, linguistic isolation, renter status, or other factors.

In addition to the social vulnerability assessment, Cascadia will work with the City to determine other key considerations that may make the City's communities, assets, and operations more sensitive to

climate-related hazards and risks. For example, higher percentage of impervious surfaces and lower tree canopy coverage will make a neighborhood more sensitive to the impacts of extreme heat and precipitation. As data is relevant and available, Cascadia will integrate these other factors into our vulnerability assessment.



Map: Cascadia assessed community vulnerability to climate change for the City of Seattle by developing a race and social equity index, a climate exposure index (inclusive of extreme heat, precipitation, flooding, sea level rise, and air quality data), and other vulnerability factors (e.g., tree canopy) at the census tract level.

Assess Adaptive Capacity

Adaptive capacity—or the ability to cope or be resilient to climate risks and hazards—is related to multiple factors. For example, at the household-level, variables such as health insurance coverage, proximity to health care facilities, social cohesion and connectivity, or internet bandwidth can all indicate how residents. Adaptive capacity can also be built at the governance-level—government plans and actions can build collective capacity to withstand and respond to climate-related hazards.

As part of this assessment, Cascadia will collect information to understand adaptive capacity at multiple scales—from household to the community-level. As relevant and available, Cascadia will collect indicator data on key adaptive capacity considerations for the City of Mountain View. Additionally, Cascadia will review key documents—such as the City of Mountain View's General Plan Public Safety Element, the County of Santa Clara Silicon Valley 2.0 tool and Climate Adaptation Guidebook, the Mountain View Annex of the County of Santa Clara Hazard Mitigation Plan, the Shoreline Regional Park Community Sea Level Rise Study Feasibility Report and Capital Improvement Program, the City of Mountain View Biodiversity Strategy, among others—to understand the suite of climate strategies that have already been identified in existing plans, the level of implementation of each of these strategies, and additional gaps or needs that these strategies do not address.

Climate Vulnerability Analysis Report

After assessing climate exposure, sensitivity, and adaptive capacity Cascadia will synthesize all the information into a comprehensive climate vulnerability assessment report that includes the following:

- Summary of climate change science
- Methodology of the vulnerability analysis
- Summary of climate vulnerability results, including maps, data visualizations, exposure of key assets, social vulnerability, and narrative.
- Adaptation considerations such as asset maps of key services and resources that can be leveraged to enhance community resilience.
- Summary of gaps in vulnerability and resilience information and possible next steps, including recommendations about data layers for City tools.

Sectors Included

The CVA will include the following sectors, as discussed and decided with City staff in spring/summer 2025:

- Health & Wellbeing (including expanded subsection within extreme heat focused on air quality)
- Emergency Management
- Economic
- Buildings & Infrastructure (including 2-page standalone stormwater & flooding subsector summary within the buildings & infrastructure sector)

Project Management
Project management will be the same as Task No.1 approach and process.

DELIVERABLES

- Draft and final Climate Vulnerability Assessment Report
- Project management (aligned with Task 1.a)
  - Project workplan
  - Biweekly check-in calls
  - Regular invoices and progress reports

Task 3. Integrate Resiliency Planning into the 2045 Integrated Climate Strategy

This task will involve integrating the results of the CVA (Task 2) with the Decarbonization Analysis and Report (Task 1) to develop resiliency strategies and create an integrated 2045 Climate Strategy that addresses both GHG emissions reductions and climate resilience.

Project Initiation and Coordination
Cascadia will convene a project kick-off meeting with City staff to confirm the refined scope of work, clarify roles and responsibilities, and walk through an updated schedule. Project management will be the same as Task No.1 approach and process.

CVA Synthesis, Strategy Development, and Implementation Roadmap
Cascadia will translate the vulnerabilities identified in the CVA into a coordinated set of resilience strategies and actions. This includes integrating adaptation strategies with ongoing mitigation and decarbonization actions. The team will develop a phased implementation roadmap that identifies key implementation details, including timeframe (near-, mid-, and long-term actions), opportunities for early wins, and potential co-benefits.

A central component of this task is the introduction of an adaptation pathways framework. The team will work with City staff to identify event thresholds, or “triggers,” that signal when the City should implement additional actions. These thresholds reflect how much risk the community is willing to accept. For example, code updates to substation retrofits can mitigate some flooding, but if flooding events continue repeatedly after the code updates, that could trigger a higher-cost action such as relocation. Thresholds will be developed for sectors where they are most meaningful and relevant. Based on relevancy of CVA sectors and budget assumptions, we recommend adaptation pathways be developed for built infrastructure strategies. We will work with the City and our Creative Team to make the adaptation pathways visually engaging and public-facing.

The implementation roadmap will also indicate where adaptation and decarbonization strategies align, create synergies, or present tradeoffs. The team will include a brief analysis with selected examples that show how actions can support both goals or introduce constraints, such as tree canopy expansion

that reduces heat exposure but may increase long-term maintenance or water needs. These intersections may be summarized in a simple table or graphic informed by IPCC adaptation–mitigation crosswalks or comparable case studies; we anticipate working with the City to decide on the best format to integrate this discussion and analysis. Work will be completed through desktop analysis, coordination with City department leads, and working sessions with staff and the CSC/Council.

Stakeholder and Community Engagement

This task focuses on engagement with City staff, the CSC or City Council, and community members to review draft goals, strategies, and the implementation roadmap.

- Cascadia will facilitate one (1) CSC or Council meeting to discuss adaptation goals, priorities, and adaptation-mitigation framing and up to two (2) focused workshops with City departments to support cross-department alignment. Cascadia will attend one (1) other CSC meeting.
- Engagement with community members will include up to two (2) listening sessions to gather public input on draft strategies. Our budget assumes that one listening session will take place in person and that the City will cover the cost of printed materials, refreshments, and any interpretation/translation needed for the public listening sessions.

Final Strategy Plan

Cascadia will prepare and finalize the Integrated Climate Strategy that consolidates mitigation, decarbonization, and resilience actions into a single, integrated plan. The document will include action tables, supporting narrative, and appendices. This work assumes one Council meeting for final plan adoption, which is already included in the existing decarbonization scope (Task 1). Much of the development of the plan document can also be incorporated within the mitigation and decarbonization scope above; the additional amendment budget will support writing, editorial integration, and design required to merge the mitigation and resilience components into a single cohesive document. The final plan will also include a public-facing, highly designed 4-6-page executive summary, up to two (2) fact sheets, and up to two (2) custom infographics or designed data visualizations.

DELIVERABLES

- Draft and final list of adaptation and resilience strategies and actions
- Implementation roadmap (including adaptation pathways)
- Meeting summaries for facilitated CSC or Council work session, staff focus groups, and community listening sessions
- Draft and final Integrated Climate Strategy
    - Including: designed 4-6-page executive summary; fact sheets (2); and infographics (2)

Task 4. Contingency

This task establishes a contingency fund (about 10% of the total project budget) for unforeseen needs or on-call implementation support.

Proposal Costs

Item Number (Task)	Description	Fees
1	**Decarbonization Goal Analysis for 2035 and 2040**	**$174,228**

Item Number (Task)	Description	Fees
	a. Project Management & Kick-Off	*$31,883*
	b. Develop Project Approach	*$23,280*
	c. Wedge Analysis	*$49,240*
	d. Draft Decarbonization Goal Analysis	*$45,410*
	e. Final Decarbonization Goal Analysis	*$24,415*
2	**Climate Vulnerability Assessment**	**$83,677**
	a. Project Management	*$11,302*
	b. Develop Climate Vulnerability Assessment	*$72,375*
3	**Integrate Resiliency Planning into the 2045 Integrated Climate Strategy**	**$79,720**
	a. CVA Synthesis, Strategy Development, and Implementation Roadmap	*$38,420*
	b. Stakeholder and Community Engagement	*$23,405*
	c. Final Strategy Plan	*$17,895*
4	**Contingency**	**33,620**
Total		**$371,245**