Scope of Work

Task 1. Decarbonization Goal Analysis for 2035 and 2040

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. Two analyses will be conducted to identify strategies that can achieve emissions reductions targets for 2035 and 2040. 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 8 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 10 key actions*.

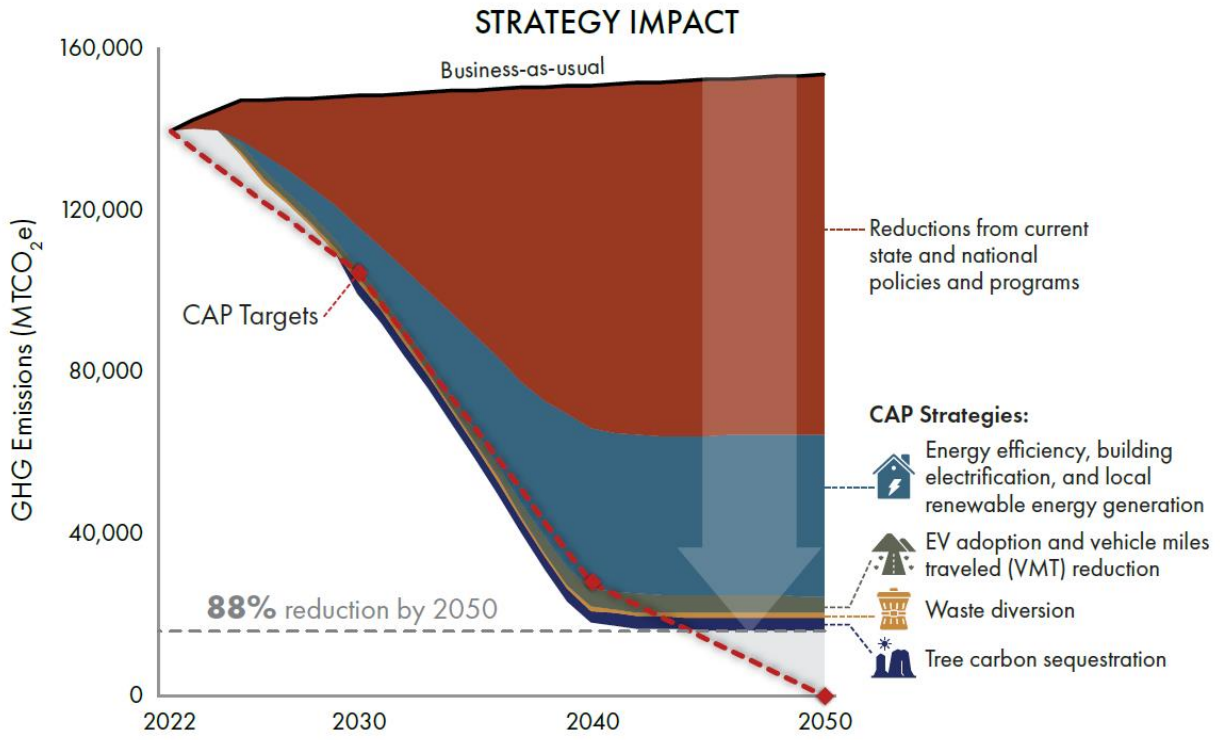


Figure: *Cascadia created this figure to show a jurisdiction's projected business-as-usual emissions, adjusted business-as-usual emissions (reductions from current state and national policies and programs), and emissions under several key Climate Action Plan strategies, alongside potential emission reduction 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 for 2035 and2040

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 7)
- Wedge analyses in Excel for reduction targets of 2035 and 2040.
- 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 2)
- City Council Meeting (up to 2)
- 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

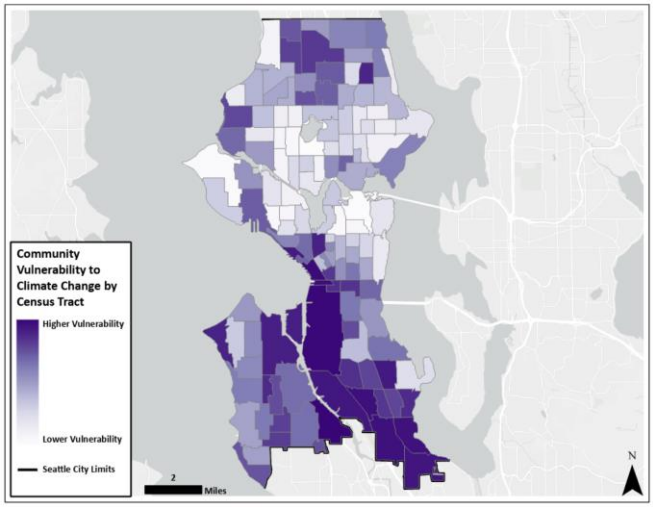
Cascadia will complete a social vulnerability assessment. Cascadia uses a robust spatial methodology — mapping social vulnerability at the census block or tract level — to get a granular understanding of socioeconomic and health disparities across a geographic area. Assessing social vulnerability together 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.

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.



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.

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.

Project Management

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

DELIVERABLES

- Meetings with City staff (up to 7)
- Draft and final Climate Vulnerability Assessment Report
- Presentation to the Council Sustainability Committee (up to 2)
- Presentation to City Council (up to 2)
- Project workplan
- Biweekly check-in calls
- Regular invoices and progress reports

Proposal Costs

Item Number (Task)	Description	Fees
1	**Decarbonization Goal Analysis for 2035 and 2040**	**$149,328**
	a. Project Management & Kick-Off	*$22,603*
	b. Develop Project Approach	*$23,280*
	c. Wedge Analysis	*$33,620*
	d. Draft Decarbonization Goal Analysis	*$45,410*
	e. Final Decarbonization Goal Analysis	*$24,415*
2	**Climate Vulnerability Assessment**	**$73,677**
	a. Project Management	*$11,302*
	b. Develop Climate Vulnerability Assessment	*$62,375*
Total		**$223,005**