City of Cupertino, CA - Cities 2019

Introduction

(0.1) Please give a general description and introduction to your city including your city's reporting boundary in the table below.

	Administrative boundary	Description of city
City boundary	City / Municipality	The City of Cupertino (population 61,000, 13 square miles) is located against the foothills of the Santa Cruz Mountains at the west end of the world famous Silicon Valley. Corporate headquarters blend with tree-shrouded residential neighborhoods that climb into the foothills of the Santa Cruz Mountain range. With 2,000 businesses, Cupertino is home to many well-known high-tech companies: Apple Inc., Verigy, Durect Corporation, and Trend Micro are headquartered in the city. DeAnza College, one of the largest single-campus community colleges in the country, is another major employer. Quality schools and proximity to high-tech jobs and beautiful open spaces make Cupertino a desirable location for a highly educated and culturally diverse population. Cupertino's ecosystem ranges from the urban environment in the flatlands to semi-rural and rural environment in the western foothills of the Santa Cruz Mountains. There are approximately 16 square miles of hillsides included in and around the boundary of the city. Info from the 2010 Census: July average temp: 21C; average annual precipitation: 58cm; average household income: $161,000; population: 63% Asian, 31% White, 4% Hispanic / Latino, 2% all other races / ethnicities; population density: 3171 / sq. mile.

(0.2) If you have not previously submitted your Letter of Commitment to the Global Covenant of Mayors, either through the relevant regional covenant or through the Global Covenant secretariat, please attach the letter signed by an appropriately mandated official (e.g. Mayor, City Council) to this question.

12.1.15.Mayors.Climate.Ltr.pdf

City Details

(0.3) Please provide information about your city's Mayor or equivalent legal representative authority in the table below:

	Leader title	Leader name	Current term end month	Current term end year
Please complete	Mayor	Steven Scharf	December	2019

(0.4) Please select the currency used for all financial information disclosed throughout your response.

USD US Dollar

(0.5) Please provide details of your city's current population. Report the population in the year of your reported inventory, if possible.

	Current population	Current population year	Projected population	Projected population year
Please complete	60170	2018	75487	2050

(0.6) Please provide further details about the geography of your city.

	Land area of the city boundary as defined in question 0.1 (in square km)
Please complete	29.29

Governance and Data Management

Governance

(1.0) Does your city incorporate sustainability goals and targets (e.g. GHG reductions) into the master planning for the city?

Yes

(1.0a) Please detail which goals and targets are incorporated in your city's master plan and describe how these goals are addressed in the table below.

Goal type	How are these goals/targets addressed in the city master plan?
Emissions reduction targets	The Master Plan references emissions reduction target development in Strategy ES-1.1.1: Climate Action Plan (CAP): Adopt, implement and maintain a Climate Action Plan to attain greenhouse gas emission targets consistent with state law and regional requirements.
Adaptation targets	Adaptation target development addressed in ES-1.1.3: Climate Adaptation and Resiliency: Conduct a climate vulnerability assessment and set preparedness goals and strategies to safeguard human health and community assets susceptible to the impacts of a changing climate (e.g., increased drought, wildfires, flooding). Incorporate these into all relevant plans, including the Emergency Preparedness Plan, Local Hazard Mitigation Plan, Dam Failure Plan, Climate Action Plan, Watershed Protection Plan, and Energy Assuredness Plan.
Energy efficiency targets	Energy efficiency target assessment addressed in ES-2.1.1: Coordination: Continue to evaluate, and revise as necessary, applicable City plans, codes and procedures for inclusion of Federal, State and regional requirements and conservation targets. Also in ES-2.1.2: Comprehensive Energy Management: Prepare and implement a comprehensive energy management plan for all applicable municipal facilities and equipment to achieve the energy goals established in the City's Climate Action Plan. Track the City's energy use and report findings as part of the Climate Action Plan reporting schedule.
Renewable energy targets	Renewable energy addressed in ES-2.1.6 which requires the City to promote and increase the use of alternate and renewable energy resources and renewable energy resources for the entire community through effective policies, programs, and incentives. Also in ES-2.1.10 which required the City to collaborate with regional partners to evaluate feasibility for development of a community choice energy program.

(1.1) Has the Mayor or city council committed to climate adaptation and/or mitigation across the geographical area of the city?

Yes

(1.1a) Please select any commitments to climate adaptation and/or mitigation your city has signed and attach evidence.

Name of commitment and attach document
Global Covenant of Mayors for Climate & Energy
12.1.15.Mayors.Climate.Ltr.pdf

Type of commitment
Both

Comments

Climate Hazards & Vulnerability

Risk and Vulnerability Assessment

(2.0) Has a climate change risk and vulnerability assessment been undertaken for the city area?
Yes

(2.0a) Please select the primary process or methodology used to undertake the risk and vulnerability assessment of your city.

	Primary methodology	Description
Risk assessment methodology	State or region vulnerability and risk assessment methodology	County of Santa Clara specific study and risk assessment. Key methodology elements include: climate variable data, community asset data, vulnerability assessment (exposure analysis, sensitivity analysis, adaptive capacity analysis), and risk assessment (likelihood analysis, consequence analysis). Planning efforts that informed project methodology and gap analyses (abbreviated list): - Safeguarding California Climate Adaptation Strategy (California Natural Resources Agency) - State Hazard Mitigation Plan (Federal Emergency Management Agency) - Regional Multi-Jurisdictional Local Hazard Mitigation Plan (Association of Bay Area Governments) - Adapting to Rising Tides (San Francisco Bay Conservation and Development Commission and National Oceanic and Atmospheric Administration)

(2.0b) Please attach and provide details on your climate change risk and vulnerability assessment. Please provide details on the boundary of your assessment, and where this differs from your city's boundary, please provide an explanation.

Publication title and attach the document
Silicon Valley 2.0 Climate Adaptation Guidebook
1_150803_Final Guidebook_W_Appendices.pdf

Year of adoption from local government
2015

Web link
https://www.sccgov.org/sites/osp/Documents/SV2/1_150803_Final%20Guidebook_W_Appendices.pdf

Boundary of assessment relative to city boundary (reported in 0.1)
Larger – covers the whole city and adjoining areas

Explanation of boundary choice where the assessment boundary differs from the city boundary
Assessment covers 15 cities within the boundaries of Santa Clara County, including the City of Cupertino. The assessment was part of an extensive regional, multi-year, multi-stakeholder process to create a proactive framework for Santa Clara County cities to work together in preparing the region for the impacts of climate change.

Areas/sectors covered by the risk and vulnerability assessment
Energy
Water Supply & Sanitation
Transport
Food and agriculture
Waste Management
Information & Communications Technology
Environment, Biodiversity and Forestry
Industrial
Commercial
Residential
Education
Public health
Emergency Management
Land use planning

Primary author of assessment
Regional / state / provincial government

Does the assessment identify vulnerable populations?
Yes

Climate Hazards

(2.1) Please list the most significant climate hazards faced by your city and indicate the probability and consequence of these hazards, as well as the expected future change in frequency and intensity. Please also select the most relevant assets or services that are affected by the climate hazard and provide a description of the impact.

Climate Hazards
Water Scarcity > Drought

Did this hazard significantly impact your city before 2019?
Yes

Current probability of hazard
Medium High

Current consequence of hazard
Medium

Social impact of hazard overall
Increased demand for public services
Increased risk to already vulnerable populations

Future change in frequency
Increasing

Future change in intensity
Increasing

When do you first expect to experience those changes?
Short-term (by 2025)

Most relevant assets / services affected overall
Water supply & sanitation
Environment, biodiversity, forestry

Please identify which vulnerable populations are affected
Low-income households

Magnitude of expected future impact
High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future
Drought periods are projected to increase, which may increase subsidence risk from groundwater depletion. There are seven recorded instances of drought within Santa Clara County between 1927 and 2015. The drought between 2012-2014 is the most recent to have affected Santa Clara County. Statewide precipitation during this three-year period ranked the second lowest since official measurements began in 1895. The September 2014 assessment of statewide water storage revealed that water levels were at 50% of average for that time of year, according to the California Department of Water Resources. Water supply depletion has not resulted from the lack of precipitation alone, but also from very high temperatures, with the 2013/14 winter being the state's warmest on record. In 2014, Santa Clara county experienced extreme drought conditions. Drought does not directly impact physical urban infrastructure assets in the county. While drought can potentially have significant impacts on water supply services, these services are within the domain of the Santa Clara Valley Water District, who is engaged in numerous collaborative water conservation efforts with communities in Santa Clara County.

Climate Hazards
Extreme hot temperature > Extreme hot days

Did this hazard significantly impact your city before 2019?
Yes

Current probability of hazard
Medium

Current consequence of hazard
High

Social impact of hazard overall
Increased incidence and prevalence of disease and illness
Increased demand for public services
Increased demand for healthcare services
Increased risk to already vulnerable populations
Increased resource demand

Future change in frequency
Increasing

Future change in intensity
Increasing

When do you first expect to experience those changes?
Medium-term (2026-2050)

Most relevant assets / services affected overall
Energy
Public health
Emergency services

Please identify which vulnerable populations are affected
Children & youth
Elderly
Low-income households

Magnitude of expected future impact
High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future
According to data sources such as NCDC and SHELDUS, a total of six extreme heat events have been recorded in Santa Clara County. These extreme heat events occurred in the summers of 1961, 1973, 1992, 2000, 2006, and 2009. Of these, the impacts of the 2000 and 2006 extreme heat events were the most notable. The extreme

heat event in 2000 resulted in one death and 11 heat-related illnesses in Santa Clara County. The extreme heat in 2006 spanned 14 days from late July to early August. This event caused extensive damage to the agriculture sector and had significant impacts on public health. According to the Santa Clara County of Public Health, the Emergency Medical System Agency (EMS Agency) of Santa Clara County saw a 50% increase in volume of calls in the last week of July as a result of the heat wave. The 2006 extreme heat event also resulted in power outages all over the County. The Bay Area is expected to experience longer, more frequent, and more severe heat waves in the future, but like annual changes, these changes are somewhat variable across the region. Day-time and night-time temperature is projected to increase during extreme heat events in both summer and winter. The frequency of extreme heat days is predicted to increase dramatically by mid- and end-of-century as compared to the historical frequency of 4 days per year on average.

Climate Hazards
Extreme Precipitation > Rain storm

Did this hazard significantly impact your city before 2019?
Yes

Current probability of hazard
Medium

Current consequence of hazard
Medium

Social impact of hazard overall
Increased risk to already vulnerable populations

Future change in frequency
Do not know

Future change in intensity
Do not know

When do you first expect to experience those changes?
Short-term (by 2025)

Most relevant assets / services affected overall
Energy
Transport

Please identify which vulnerable populations are affected
Low-income households

Magnitude of expected future impact
High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future
While literature does not indicate a clear historical trend in the frequency and intensity of riverine flooding in the Santa Clara County region, that rain storm recurrence intervals for larger 10-year, 25-year, and 50-year events have declined between 1890 and 2010 in the San Jose area. It should be noted that other parts of the Bay Area have seen marked increases in larger storms. While the frequency of flooding may have declined in areas of Santa Clara County, the severity of individual extreme precipitation events has been high, such as in the flooding event of 1998. While overall annual precipitation is not projected to change by mid-century, increased precipitation is projected to occur in winter in the form of more frequent and stronger storms. Storm events with 1% probability of occurrence in the historical record are projected to become 10 times more likely by the 2060s.

Climate Hazards
Flood and sea level rise > River flood

Did this hazard significantly impact your city before 2019?
Yes

Current probability of hazard
Do not know

Current consequence of hazard
Do not know

Social impact of hazard overall
Increased demand for public services

Future change in frequency
Increasing

Future change in intensity
Increasing

When do you first expect to experience those changes?
Long-term (after 2050)

Most relevant assets / services affected overall
Information & communications technology
Commercial
Residential
Emergency services

Please identify which vulnerable populations are affected
Children & youth
Elderly
Low-income households

Magnitude of expected future impact
High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future
Approximately 40 instances of riverine/inland flooding have occurred in the Santa Clara County region between 1832 and 2012. Three of these flooding events (winter storms in 1963, 1997, and 1998) were declared as disasters by FEMA. The impacts of these flooding events have included dam/levee failures, inundation of roads and highways, power outages, physical damage to property and roads, evacuations, injuries, and deaths. One of the six rivers and creeks within the county that experience frequent flooding is Calabazas Creek which runs through Cupertino. In 1998, Calabazas Creek received up to seven inches of rain by the fifth day of the rain storm. Overbaning led to the flooding of homes and businesses and the closure of major roads. A projected increase in frequency of extreme precipitation events could cause more riverine flooding.

Climate Hazards
Wild fire > Forest fire

Did this hazard significantly impact your city before 2019?
No

Current probability of hazard
Do not know

Current consequence of hazard
Do not know

Social impact of hazard overall
Increased demand for public services
Increased risk to already vulnerable populations
Population displacement

Future change in frequency
Increasing

Future change in intensity
Increasing

When do you first expect to experience those changes?
Long-term (after 2050)

Most relevant assets / services affected overall
Energy
Commercial
Residential

Please identify which vulnerable populations are affected
Low-income households

Magnitude of expected future impact
High

Please describe the impacts experienced so far, and how you expect the hazard to impact in the future
There are 64 recorded instances of major wildfires within Santa Clara County between 1978 and 2012. the two largest fires in the County's history occurred in 2003 and 2007. Climate change is projected to increase the frequency of wildfire events, the extent of burned areas across California, and the duration of wildfire seasons. Wildfire seasons are projected to begin earlier in the spring due to drier and warmer spring conditions on average, potentially requiring longer periods of firefighting services. Greater inter-annual variability in temperature and precipitation may also affect wildfire intensity. For example, multiple wet years can result in larger fuel buildup in landscapes. This may result in increasingly intense and frequent wildfires, if followed by drought years. Wildfire risk will also vary depending on population growth and land use characteristics, including rates of residential expansion and infrastructure into fire prone areas over the next century.

(2.2) Please identify and describe the factors that most greatly affect your city's ability to adapt to climate change and indicate how those factors either support or challenge this ability.

Factors that affect ability to adapt	Support / Challenge	Please describe the factor and the degree to which it supports or challenges the adaptive capacity of your city
Access to education	Support	Silicon Valley municipalities have access to a number of higher education institutions and cutting edge science and research which enhances our ability to prepare studies and plan responses to climate threats as a city and region.
Environmental conditions	Challenge	Extensive droughts, such as the five-year drought California experienced recently, put stress on our city's physical, economic, and natural resources. Severe droughts will challenge our city's ability to adapt and prepare for climate change.
Land use planning	Challenge	Our city's land use is low- to moderate- density suburban and our built environment includes a lot of hardscape and roadways. This land use exacerbates the urban heat island effect and will challenge our city's ability to adapt and prepare for climate change.

Adaptation

Adaptation Actions

(3.0) Please describe the main actions you are taking to reduce the risk to, and vulnerability of, your city's infrastructure, services, citizens, and businesses from climate change as identified in the Climate Hazards section.

Climate hazards
Water Scarcity > Drought

Action
Promoting and incentivizing water efficiency

Action title
Rebate programs to conserve residential water use

Status of action
Operation

Co-benefit area
Improved resource efficiency (e.g. food, water, energy)

Action description and implementation progress
Santa Clara Valley Water District (Valley Water) offers a Landscape Rebate Program for residents and businesses to convert lawns or pools to drought tolerant landscaping and receive $2 per square foot. This rebate amount is made possible by the City of Cupertino's agreement with Valley Water to add an additional $1 per square foot to the District's existing $1 per square foot rebate. The City also matches rain barrel and cistern rebates offered by Valley Water. The City hosts free graywater information workshops for residents on how to qualify for Valley Water's $200 Laundry to Landscape Rebate Program and matches the graywater rebate for Cupertino residents. The $120,000 total cost for the project is the City of Cupertino's contribution; additional funding comes from the water district. The Cupertino Library also offers a free Do-It-Yourself energy & water savings toolkit available for checkout.

Finance status
Finance secured

Total cost of the project
120000

Total cost provided by the local government
120000

Primary fund source
Local

Web link
https://www.valleywater.org/saving-water/rebates

Climate hazards
Extreme hot temperature > Extreme hot days

Action
Community engagement/education

Action title
Website and social media communication about cooling centers

Status of action
Operation

Co-benefit area
Disaster preparedness

Action description and implementation progress
The City provides information on locations of City-run cooling centers on its website and social media accounts during heat events. The City also advertises advice and tips for staying cool and healthy during heat events. This information is posted on facebook, NextDoor, twitter, and the City's website. As this communication is rolled into normal operations, no specific cost is allocated to this project at this time.

Finance status
Finance secured

Total cost of the project
0

Total cost provided by the local government
0

Primary fund source
Local

Web link
When heat events occur, information is published at www.cupertino.org.

Climate hazards
Extreme Precipitation > Rain storm

Action
Public preparedness (including practice exercises/drills)

Action title
Public outreach and preparedness for flooding and rain storms

Status of action
Operation

Co-benefit area
Disaster preparedness

Action description and implementation progress
The City provides sand bags at no cost to residents during the wet season, conducts outreach to residents in flood risk areas around clearing out leaves from storm drains and other preparedness activities, and regularly publishes content about flood preparedness for residents and businesses in City publications and on the City website. This outreach is part of normal city operations and no specific cost is allocated to this project at this time.

Finance status
Finance secured

Total cost of the project

0

Total cost provided by the local government
0

Primary fund source
Local

Web link
https://www.cupertino.org/Home/ShowDocument?id=7920

Climate hazards
Flood and sea level rise > River flood

Action
Flood mapping

Action title
FEMA Flood Zones in Cupertino are mapped and available in an online and paper map format. These maps are used for planning and emergency preparedness.

Status of action
Operation

Co-benefit area
Disaster preparedness
Improved access to data for informed decision-making

Action description and implementation progress
Flood zones, as designated by the Federal Emergency Management Agency (FEMA), have been mapped for planning and emergency preparedness purposes. Flood zones include areas subject to inundation by the 1-percent-annual-chance flood event, areas where there are possible but undetermined flood hazards, areas of minimal flood hazard, areas subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between one and three feet, areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet, and areas with 0.2% annual chance flood. Some areas have been determined using approximate methodologies and other using detailed hydraulic analyses. These maps are available in an online format and in print form. This action is part of normal city operations and thus a project cost was not determined.

Finance status
Finance secured

Total cost of the project
0

Total cost provided by the local government
0

Primary fund source
Local

Web link
http://gis.cupertino.org/servicefinder/?varname=fema

Climate hazards
Wild fire > Forest fire

Action
Community engagement/education

Action title
Workshops, training, and resources for residents and staff on preparedness for wildfire emergencies.

Status of action
Operation

Co-benefit area
Disaster preparedness

Action description and implementation progress
Cupertino's Office of Emergency Services, the Santa Clara County Fire Department and teams of volunteer responders ensure that emergency preparedness and disaster response resources are in place for our community. This effort is part of normal city operations and thus there is not specific project budget.

Finance status
Finance secured

Total cost of the project
0

Total cost provided by the local government
0

Primary fund source
Local

Web link
https://www.cupertino.org/our-city/community-services-programs/emergency-services

---

Adaptation Planning

(3.1) Does your city council have a published plan that addresses climate change adaptation?
Intending to undertake in the next 2 years

Adaptation Goals

(3.2) Please describe the main goals of your city's adaptation efforts and the metrics / KPIs for each goal.

Intending to undertake this planning effort in the next 2 years.

City Wide Emissions

City-wide GHG Emissions Data

(4.0) Does your city have a city-wide emissions inventory to report?
Yes

(4.1) Please state the dates of the accounting year or 12-month period for which you are reporting your latest city-wide GHG emissions inventory.

	From	To
Accounting year dates	January 1 2015	December 31 2015

(4.2) Please indicate the category that best describes the boundary of your city-wide GHG emissions inventory.

	Boundary of inventory relative to city boundary (reported in 0.1)	Excluded sources / areas	Explanation of boundary choice where the inventory boundary differs from the city boundary (include inventory boundary, GDP and population)
Please explain	Same – covers entire city and nothing else		

(4.3) Please give the name of the primary protocol, standard, or methodology you have used to calculate your city's city-wide GHG emissions.

	Primary protocol	Comment
Emissions methodology	Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)	

(4.3a) The Global Covenant of Mayors requires committed cities to report their inventories in the format of the new Common Reporting Framework, to encourage standard reporting of emissions data. If your city is reporting an updated inventory, we encourage reporting this in the CRF format, for which guidance can be found in the link below. Would you like to report your inventory in the CRF format or continue to report in the GPC format? Please ensure you respond to this question in order for the correct emissions breakdown questions to be displayed.
Yes – use the CRF format

(4.4) Which gases are included in your city-wide emissions inventory? Select all that apply.
CO2
CH4
N20

(4.5) Please attach your city-wide inventory in Excel or other spreadsheet format and provide additional details on the inventory calculation methods in the table below.

Emissions inventory format
GPC format: ClearPath (ICLEI)

Document title and attachment
City of Cupertino 2015 Community GHG Inventory-ClearPath extracts
ClearPath2015DetailedReport_Cupertino_4.6.2018.xlsx
ClearPath2015GPCOverview_Cupertino_4.6.2018.xlsx

Emissions factors used
IPCC

Global Warming Potential (select relevant IPCC Assessment Report)
IPCC 5th AR (2013)

Please select which additional sectors are included in the inventory
Please select

Population in inventory year
60572

Overall Level of confidence
Medium

Comment on level of confidence
Inventory includes a mix of primary and secondary sources as well as estimates based on models or scaling.

(4.6a) The Global Covenant of Mayors requires committed cities to report their inventories in the format of the new Common Reporting Framework, to encourage standard reporting of emissions data. Please provide a breakdown of your city-wide emissions by sector and sub-sector in the table below. Where emissions data is not available, please use the relevant notation keys to explain the reason why.

	Direct emissions / Scope 1 (metric tonnes CO2e)	If you have no direct emissions to report, please select a notation key to explain why	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling / Scope 2 (metric tonnes CO2e)	If you have no indirect emissions to report, please select a notation key to explain why	Emissions occurring outside the city boundary as a result of in-city activities / Scope 3 (metric tonnes CO2e)	If you have no emissions occurring outside the city boundary to report as a result of in-city activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments
Stationary energy > Residential buildings	40700.23	Please select	22393.62	Please select	0	Not Occurring	Electric vehicle electricity consumption subtracted from residential electricity and included in Transportation emissions section.
Stationary energy > Commercial buildings & facilities	31093.72	Please select	31924.1	Please select	0	Not Occurring	Electric vehicle consumption estimate was subtracted from the total and included within the Transportation sector. "Commercial & Institutional Buildings" and "Manufacturing Industries & Construction" were combined for this inventory. Due to CPUC energy data privacy rules, PG&E was not able to provide a full breakdown of Commercial vs. Industrial electricity and natural gas usage. Thus, separating the two subsectors was not possible.
Stationary energy > Institutional buildings & facilities	0	Integrated Elsewhere	0	Integrated Elsewhere	0	Not Occurring	"Commercial & Institutional Buildings" and "Manufacturing Industries & Construction" were combined for this inventory. Due to CPUC energy data privacy rules, PG&E was not able to provide a full breakdown of Commercial vs. Industrial electricity and natural gas usage. Thus, separating the two subsectors was not possible.
Stationary energy > Industrial buildings & facilities	0	Integrated Elsewhere	0	Integrated Elsewhere	0	Not Occurring	"Commercial & Institutional Buildings" and "Manufacturing Industries & Construction" were combined for this inventory. Due to CPUC energy data privacy rules, PG&E was not able to provide a full breakdown of Commercial vs. Industrial electricity and natural gas usage. Thus, separating the two subsectors was not possible.
Stationary energy > Agriculture	0	Not Occurring	0	Not Occurring	0	Not Occurring	Not occurring.
Stationary energy > Fugitive emissions	2341.92	Please select	0	Not Occurring	0	Not Occurring	
Total Stationary Energy	74136	Please select	54318	Please select		Please select	
Transportation > On-road	55106	Please select	64.5	Please select	50054	Please select	The origin-destination methodology was used to estimate total VMT in Cupertino.
Transportation > Rail	0	Not Occurring	0	Not Occurring	0	Not Occurring	No rail service in Cupertino.
Transportation > Waterborne navigation	0	Not Occurring	0	Not Occurring	0	Not Occurring	No waterborne activities in Cupertino.
Transportation > Aviation	0	Not Occurring	0	Not Occurring	0	Not Occurring	No airport within City boundaries.
Transportation > Off-road	25173.6	Please select	0	Not Occurring	0	Not Occurring	
Total Transport	80276.6	Please select	64.5	Please select	50045	Please select	
Waste > Solid waste disposal	0	Not Occurring	0	Not Occurring	18219.6	Please select	Waste is not treated within the city boundary; no landfills or open dumps within the city boundary. Waste sent to landfill outside of city boundary. The GPC methane commitment method for waste emissions was used.
Waste > Biological treatment	0	Not Occurring	0	Not Occurring	689.89	Please select	Commercial, single family, and multifamily composting sent to facility outside of city boundary.
Waste > Incineration and open burning	0	Not Occurring	0	Not Occurring	0	Not Occurring	Waste incineration and open burning not occurring in city boundary.
Waste > Wastewater	0	Not Occurring	0	Not Occurring	17236.56	Please select	Wastewater is treated outside of the City boundaries. Cupertino is served by the San José-Santa Clara Regional Wastewater Facility.
Total Waste	0	Not Occurring	0	Not Occurring	36146.05	Please select	
IPPU > Industrial process	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
IPPU > Product use	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
Total IPPU	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
AFOLU > Livestock	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
AFOLU > Land use	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
AFOLU > Other AFOLU	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
Total AFOLU	0	Not Estimated	0	Not Estimated	0	Not Estimated	Cupertino is reporting to the BASIC requirement of the GPC.
Generation of grid-supplied energy > Electricity-only generation	0	Not Occurring	0	Not Occurring	0	Not Occurring	Emissions not occurring.
Generation of grid-supplied energy > CHP generation	0	Not Occurring	0	Not Occurring	0	Not Occurring	Emissions not occurring.

	Direct emissions / Scope 1 (metric tonnes CO2e)	If you have no direct emissions to report, please select a notation key to explain why	Indirect emissions from the use of grid-supplied electricity, heat, steam and/or cooling / Scope 2 (metric tonnes CO2e)	If you have no indirect emissions to report, please select a notation key to explain why	Emissions occurring outside the city boundary as a result of in-city activities / Scope 3 (metric tonnes CO2e)	If you have no emissions occurring outside the city boundary to report as a result of in-city activities, please select a notation key to explain why	Please explain any excluded sources, identify any emissions covered under an ETS and provide any other comments
Generation of grid-supplied energy > Heat/cold generation	0	Not Occurring	0	Not Occurring	0	Not Occurring	Emissions not occurring.
Generation of grid-supplied energy > Local renewable generation	0	Not Occurring	0	Not Occurring	0	Not Occurring	Emissions not occurring.
Total Generation of grid-supplied energy	0	Not Occurring	0	Not Occurring	0	Not Occurring	Emissions not occurring.
Total Emissions (excluding generation of grid-supplied energy)	154412.6	Please select	54382.5	Please select	86191.05	Please select	

(4.8) Please indicate if your city-wide emissions have increased, decreased, or stayed the same since your last emissions inventory, and describe why.

	Change in emissions	Primary reason for change	Please explain and quantify changes in emissions
Please explain	Decreased	Policy change	Emissions decreased comparing the 2010 to the 2015 community inventory due to multiple reasons, including but not limited to: a lower emissions factor associated with the utility's grid electricity; large, non-residential electricity consumers switching to low emissions electricity source; decrease in biochemical oxygen demand treated per day at wastewater facility; efficiency improvements in buildings and facilities.

(4.9) Does your city have a consumption-based inventory to measure emissions from consumption of goods and services by your residents?

	Response	Provide an overview and attach your consumption-based inventory if relevant
Please complete	Yes	The University of California, Berkeley's CoolClimate Network and the Bay Area Air Quality Management District developed a consumption-based greenhouse gas inventory of all San Francisco Bay Area census block groups, cities and counties, including the City of Cupertino. The inventory is a full life-cycle analysis of the emissions generated in the production, use and disposal of each type of product or service. The methodology incorporates local consumption and emissions data wherever possible. In other cases, consumption is approximated using econometric analysis of national and statewide transportation and household consumption survey responses by S.F. Bay Area residents. UC Berkeley researchers calculated the carbon footprints based on household consumption, regardless of where on the globe emissions occurred. Website: coolclimate.berkeley.edu/inventory sf-bay-area-consumption-based-ghg-inventory-results-dashboard.xls

City-wide external verification

(4.11) Has the city-wide GHG emissions data you are currently reporting been externally verified or audited in part or in whole?

Not intending to undertake

(4.11b) Please explain why your city-wide emissions inventory is not verified and describe any plans to verify your city-wide emissions in the future.

	Reason	Comments
Please explain	Data is internally verified	Inventory is conducted by a consultant and final product is verified by staff.

Historical emissions inventories

(4.12) Please provide details on any historical and base year city-wide emissions inventories your city has, in order to allow assessment of targets in the table below.

Inventory date from
January 1 2010

Inventory date to
December 31 2010

Scopes / boundary covered
Total emissions
Scope 1 (direct)
Scope 2 (indirect)
Scope 3 (other indirect)

Previous emissions (metric tonnes CO2e)
338673

Is this inventory used as the base year inventory?
Yes

Methodology
Global Protocol for Community Greenhouse Gas Emissions Inventories (GPC)

File name and attach your inventory
City of Cupertino 2015 Community-wide and Municipal Operations Greenhouse Gas Emissions Inventory Report
Cupertino_2015_GHG_Inventory_Report_FINAL.pdf

Comments
2010 baseline emissions were recalculated to reflect updated methodology (GPC, IPCC 5th AR) as part of our 2015 GHG inventory update . Attached 2015 GHG inventory report includes the 2010 updated inventory data.

Re-stating previous emissions inventories

(4.13) Since your last submission, have you needed to recalculate any past city-wide GHG emission inventories previously reported to CDP?
No

Emissions Reduction

Mitigation Target setting

(5.0) Do you have a GHG emissions reduction target in place at the city-wide level? Select all that apply.
Base year emissions (absolute) target

(5.0a) Please provide details of your total city-wide base year emissions reduction (absolute) target. In addition, you may add rows to provide details of your sector-specific targets, by providing the base year emissions specific to that target.

Sector
All emissions sources included in city inventory

Where sources differ from the inventory, identify and explain these additions / exclusions
Base year emissions for 2010 were calculated at 307,288 MT CO2e in our original Climate Action Plan. The base year emissions figure below reflects our recalculated base emissions (the 2010 inventory was recalculated as part of our 2015 re-inventory process to align our inventory to GPC Protocol and IPCC 5th AR). The 87% reported for "Percentage of target achieved so far" is based on our community wide emissions in 2015, 294,281 MTCO2e .

Boundary of target relative to city boundary (reported in 0.1)
Same – covers entire city and nothing else

Base year
2010

Year of target implementation
2015

Base year emissions (metric tonnes CO2e)
338673

Percentage reduction target
15

Target year
2020

Target year absolute emissions (metric tonnes CO2e)
287872

Percentage of target achieved so far
87

Does this target align with the global 1.5 - 2 °C pathway set out in the Paris Agreement?

Do not know

Please indicate to which sector(s) the target applies
Energy industry
Heating and cooling supply
Commercial buildings
Residential buildings
Public facility
Industrial facilities
Transport
Water

Does this target align to a requirement from a higher level of sub-national government
Yes

Please describe your target. If your country has an NDC and your city's target is less ambitious than the NDC, please explain why.
California Executive Order S-3-05 established a long-range GHG reduction target of 80% below 1990 levels by 2050. AB 32, the California Global Warming Solutions Act of 2006, required California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 also directed the Air Resources Board (ARB) to develop and implement regulations that reduce statewide GHG emissions. Many local governments do not have access to sufficient historical data to prepare a 1990 baseline emissions inventory, which would allow local governments to establish reduction targets that exactly mimic the state's own targets. In its 2008 Scoping Plan, the ARB "encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the state's commitment to reduce greenhouse gas emissions by approximately 15 percent from current levels by 2020." Based on this language, many community-wide CAPs have selected a reduction target of 15% below baseline levels by 2020 to parallel the state's target. Considering guidance from the Governor's Office of Planning and Research and the Bay Area Air Quality Management District at the time of CAP document preparation, Cupertino selected a reduction target of 15% below 2010 baseline levels by 2020 as a proxy for a return to 1990 levels.

Sector
All emissions sources included in city inventory

Where sources differ from the inventory, identify and explain these additions / exclusions
Base year emissions for 2010 were calculated at 307,288 MT CO2e in our original Climate Action Plan. The base year emissions figure below reflects our recalculated base emissions (the 2010 inventory was recalculated as part of our 2015 re-inventory process to align our inventory to GPC Protocol and IPCC 5th AR). The % reported for "Percentage of target achieved so far" is based on our community wide emissions in 2015, 294,281 MTCO2e .

Boundary of target relative to city boundary (reported in 0.1)
Same – covers entire city and nothing else

Base year
2010

Year of target implementation
2015

Base year emissions (metric tonnes CO2e)
338673

Percentage reduction target
49

Target year
2035

Target year absolute emissions (metric tonnes CO2e)
172723

Percentage of target achieved so far
27

Does this target align with the global 1.5 - 2 °C pathway set out in the Paris Agreement?
Do not know

Please indicate to which sector(s) the target applies
Energy industry
Heating and cooling supply
Commercial buildings
Residential buildings
Public facility
Industrial facilities
Transport
Water

Does this target align to a requirement from a higher level of sub-national government
Yes

Please describe your target. If your country has an NDC and your city's target is less ambitious than the NDC, please explain why.
California Executive Order S-3-05 established a long-range GHG reduction target of 80% below 1990 levels by 2050. AB 32, the California Global Warming Solutions Act of 2006, required California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 also directed the Air Resources Board (ARB) to develop and implement regulations that reduce statewide GHG emissions. Many local governments do not have access to sufficient historical data to prepare a 1990 baseline emissions inventory, which would allow local governments to establish reduction targets that exactly mimic the state's own targets. In its 2008 Scoping Plan, the ARB "encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the state's commitment to reduce greenhouse gas emissions by approximately 15 percent from current levels by 2020." Based on this language, many community-wide CAPs have selected a reduction target of 15% below baseline levels by 2020 to parallel the state's target. Considering guidance from the Governor's Office of Planning and Research and the Bay Area Air Quality Management District at the time of CAP document preparation, Cupertino selected a reduction target of 15% below 2010 baseline levels by 2020 as a proxy for a return to 1990 levels. This 2020 target was also extrapolated to 2050 to determine what level of reductions the City would need to achieve 80% below 1990 levels, per the state's long-term target. The City also developed an additional 2035 target to serve as a mid-point check-in between the 2020 and 2050 horizon years.

Sector
All emissions sources included in city inventory

Where sources differ from the inventory, identify and explain these additions / exclusions
Base year emissions for 2010 were calculated at 307,288 MT CO2e in our original Climate Action Plan. The base year emissions figure below reflects our recalculated base emissions (the 2010 inventory was recalculated as part of our 2015 re-inventory process to align our inventory to GPC Protocol and IPCC 5th AR). The % reported for "Percentage of target achieved so far" is based on our community wide emissions in 2015, 294,281 MTCO2e .

Boundary of target relative to city boundary (reported in 0.1)
Same – covers entire city and nothing else

Base year
2010

Year of target implementation
2015

Base year emissions (metric tonnes CO2e)
338673

Percentage reduction target
83

Target year
2050

Target year absolute emissions (metric tonnes CO2e)
57574

Percentage of target achieved so far
16

Does this target align with the global 1.5 - 2 °C pathway set out in the Paris Agreement?
Do not know

Please indicate to which sector(s) the target applies
Energy industry
Heating and cooling supply
Commercial buildings
Residential buildings
Public facility
Industrial facilities
Transport
Water

Does this target align to a requirement from a higher level of sub-national government
Yes

Please describe your target. If your country has an NDC and your city's target is less ambitious than the NDC, please explain why.
California Executive Order S-3-05 established a long-range GHG reduction target of 80% below 1990 levels by 2050. AB 32, the California Global Warming Solutions Act of 2006, required California to reduce statewide GHG emissions to 1990 levels by 2020. AB 32 also directed the Air Resources Board (ARB) to develop and implement regulations that reduce statewide GHG emissions. Many local governments do not have access to sufficient historical data to prepare a 1990 baseline emissions inventory, which would allow local governments to establish reduction targets that exactly mimic the state's own targets. In its 2008 Scoping Plan, the ARB "encourages local governments to adopt a reduction goal for municipal operations emissions and move toward establishing similar goals for community emissions that parallel the state's commitment to reduce greenhouse gas emissions by approximately 15 percent from current levels by 2020." Based on this language, many community-wide CAPs have selected a reduction target of 15% below baseline levels by 2020 to parallel the state's target. Considering guidance from the Governor's Office of Planning and Research and the Bay Area Air Quality Management District at the time of CAP document preparation, Cupertino selected a reduction target of 15% below 2010 baseline levels by 2020 as a proxy for a return to 1990 levels. This 2020 target was also extrapolated to 2050 to determine what level of reductions the City would need to achieve 80% below 1990 levels, per the state's long-term target. The City also developed an additional 2035 target to serve as a mid-point check-in between the 2020 and 2050 horizon years.

(5.2) Is your city-wide emissions reduction target(s) conditional on the success of an externality or component of policy outside of your control?
Yes

(5.2a) Please identify and describe the conditional components of your city-wide emissions reduction target(s).

City-wide emissions reduction targets take into consideration the emissions reduction impact of California State measures. Four key state measures were considered – California's Clean Car Standards, the Low Carbon Fuel Standard (LCFS), the Renewable Portfolio Standard (RPS), and the New Residential Zero Net Energy Action Plan.

(5.3) Does your city-wide emissions reduction target(s) account for the use of transferable emissions units?
No

Mitigation Actions

(5.4) Describe the anticipated outcomes of the most impactful mitigation actions your city is currently undertaking; the total cost of the action and how much is being funded by the local government.

Mitigation action
Energy Supply > Low or zero carbon energy supply generation

Action title
Carbon free electricity from community choice energy provider Silicon Valley Clean Energy.

Means of implementation
Development and implementation of action plan
Sustainable public procurement

Implementation status
Operation

Estimated emissions reduction (metric tonnes CO2e)
41590

Energy savings (MWh)
0

Renewable energy production (MWh)
0

Timescale of reduction / savings / energy production
Per year

Co-benefit area
Reduced GHG emissions
Shift to more sustainable behaviours
Improved access to data for informed decision-making

Action description
The City of Cupertino is a founding member of Silicon Valley Clean Energy (SVCE), a community choice energy entity. SVCE became the default electricity provider for Cupertino businesses and residents in 2017. SVCE provides carbon-free electricity to the community. The City of Cupertino has opted up to 100% renewable electricity for municipal electricity accounts. *Estimated emissions reduction of 41,590 MT CO2e is based on a projection of community-wide electricity emissions for 2018. This emissions reduction estimate may change based on more recently acquired data and the updated emissions calculation will be reflected in our 2018 GHG inventory, currently in development. **Total cost of project unknown; SVCE purchases carbon-free electricity on behalf of the entire community and individual customers pay for their own electricity usage.

Finance status
Finance secured

Total cost of the project
0

Total cost provided by the local government
0

Primary fund source
Local

Web link to action website
www.svcleanenergy.org

Name of the stakeholder group
<Not Applicable>

Role in the GCC program
<Not Applicable>

Name of the engagement activities
<Not Applicable>

Aim of the engagement activities
<Not Applicable>

Attach reference document
<Not Applicable>

Mitigation Planning

(5.5) Does your city have a climate change mitigation or energy access plan for reducing city-wide GHG emissions?
Yes

(5.5a) Please attach your city's climate change mitigation plan below. If your city has both action and energy access plans, please make sure to attach all relevant documents below.

Publication title and attach document
City of Cupertino Climate Action Plan
FINAL.CAP.pdf

Year of adoption from local government
2015

Web link
http://cupertino.org/modules/ShowDocument.aspx?documentid=9605

Areas covered by action plan
Energy
Transport (Mobility)
Water
Waste

Boundary of plan relative to city boundary (reported in 0.1)
Same – covers entire city and nothing else

If the city boundary is different from the plan boundary, please explain why and any areas/other cities excluded or included
N/A

Stage of implementation
Plan in implementation

Has your local government assessed the synergies, trade-offs, and co-benefits, if any, of the main mitigation and adaptation actions you identified?
Yes

Comment or describe the synergies, trade-offs, and co-benefits of this interaction
The following is a list of co-benefits for the Climate Action Implementation Measures: Improves air quality Increases natural habitat Reduces energy use Reduces heat island effect Promotes regional smart growth Improves public health Reduces traffic congestion Creates local jobs Reduces water use; Extends community water supply Reduces waste; Extends landfill lifespan Improves water quality; Reduces storm water run-off Provides long-term savings to residents, businesses, and local governments Improves local energy independence Raises community awareness Conserves natural resources Reduces landfill methane Regional Implementation Opportunities

Has there been a stakeholder engagement plan to develop the plan?
The City provided several public engagement opportunities during the plan development process to present information, gather comments, and begin a community dialogue that will continue through plan implementation. Two public workshops were held at the LEED Platinum Kirsch Center for Environmental Studies at De Anza College, along with supporting online surveys developed to mimic the workshop activities for residents who were unable to attend. The City also held two focus group meetings to collect additional input on specific topic areas. The first focus group meeting addressed the business community through the Cupertino Chamber of Commerce, while the second invited comments from representatives of the local real estate industry. The City also held study sessions with the Planning Commission and City Council prior to development of the CAP, both of which were open to the public, to ensure the Plan aligned with the expectations of the City's elected and appointed officials. Comments collected from each of these engagement opportunities were used to inform the climate planning approach presented throughout this plan.

Primary author of plan
Relevant city department

Opportunities

Opportunities

(6.0) Please indicate the opportunities your city has identified as a result of addressing climate change and describe how the city is positioning itself to take advantage of these opportunities.

Opportunity	Describe how the city is maximizing this opportunity
Increased energy security	The Silicon Valley Leadership Group's Bay Area Climate Compact, of which Cupertino is a signatory, is driving efforts to convene joint procurement of energy efficient technologies and renewable energy sources as a means of fostering stronger Business to Government (B2G) climate-tied partnerships.

(6.1) Does your city collaborate in voluntary partnership with businesses in your city on sustainability projects?
Yes

(6.1a) Please provide some key examples of how your city collaborates with business in the table below.

Collaboration area	Description of collaboration
Building and Infrastructure	The City offers a green business certification program, GreenBiz Cupertino, in which business receive free energy, water, and waste assessments, free equipment to help save water, guidance throughout the certification process, and recognition. GreenBiz acts as a way for the City to educate businesses on environmentally preferable practices and can double as an adaptation education tool in the future.

(6.2) List any emission reduction, adaptation, water related or resilience projects you have planned within your city for which you hope to attract financing and provide details on the estimated costs and status of the project. If your city does not have any relevant projects, please select No relevant projects under Project Area.

Project area
No relevant projects

Project title
N/A

Stage of project development
Please select

Status of financing
Please select

Project description
N/A

Total cost of project
0

Total investment cost needed
0

Local Government Emissions

Local Government Operations GHG Emissions Data

(7.0) Do you have an emissions inventory for your local government operations to report? Reporting a Local Government Operations emissions inventory is optional.
Yes

(7.1) Please state the dates of the accounting year or 12-month period for which you are reporting an emissions inventory for your local government operations.

	From	To
Accounting year dates	January 1 2015	December 31 2015

(7.2) Please indicate the category that best describes the boundary of your local government operations emissions inventory.
Departments, entities or companies over which financial control is exercised

(7.3) Please give the name of the primary protocol, standard, or methodology used to calculate your local government operations emissions inventory and attach your inventory using the attachment function.

	Primary protocol and attach inventory	Comment
Emissions methodology	Local Government Operations Protocol (ICLEI/The Climate Registry/California Climate Action Registry/ California Air Resources Board)	

(7.4) Which gases are included in your emissions inventory? Select all that apply.
CO2
CH4
N2O
HFCs

(7.5) Please give the total amount of fuel (refers to Scope 1 emissions) that your local government has consumed this year.

Source	Fuel	Amount	Units	Emissions (tonnes CO2e)
Buildings	Natural gas	33580	Therms	
Municipal vehicle fleet	Motor gasoline (petrol)	106079	L	
Municipal vehicle fleet	Diesel/Gas oil	51853	L	
Other (Generator)	Diesel/Gas oil	265	L	
Other (Generator)	Motor gasoline (petrol)	170	L	
Other (Generator)	Propane	4	L	
Buildings	Other (Refrigeratns HFCs)	0.002	Metric tonnes	
Municipal vehicle fleet	Other (Refrigeratns HFCs)	0.026	Metric tonnes	

(7.6) Please provide total (Scope 1 + Scope 2) GHG emissions for your local government operations, in metric tonnes CO2e. Scopes are a common categorization method.

Local government emissions breakdown

Total Scope 1 + Scope 2 emissions (metric tonnes CO2e)
1264.2

Total Scope 1 emissions (metric tonnes CO2e)
609.41

Total Scope 2 emissions (metric tonnes CO2e)
654.8

Comment

(7.7) Do you measure local government Scope 3 emissions?
Yes

(7.7a) Please complete the table.

Source of Scope 3 emissions	Emissions (metric tonnes CO2e)	Comment
Waste related Scope 3 emission sources	175.5	
Employee commuting	442.7	Employee commute emissions based on a survey of employees' commute patterns conducted in 2017.

(7.8) Please indicate if your local government operations emissions have increased, decreased, or stayed the same since your last emissions inventory, and please describe why.

	Change in emissions	Primary reason for change	Please explain
Please explain	Decreased	Other (See explanation.)	Emissions decreased comparing the 2010 to the 2015 community inventory due to multiple reasons, including but not limited to: a lower emissions factor associated with the utility's grid electricity; decrease in natural gas and electricity consumption; decrease in solid waste sent to landfill; efficiency improvements in buildings and facilities.

Local Government Emissions Verification

(7.9) Has the GHG emissions data you are currently reporting been externally verified or audited in part or in whole?
Not intending to undertake

(7.9b) Please explain why your local government operations inventory is not verified and describe any future plans for verification.

	Reason	Explanation
Please explain	Data is internally verified	Municipal inventory was completed by a consultant and the final product was verified internally by staff.

Energy

(8.0) Does your city have a renewable energy or electricity target?
Yes

(8.0a) Please provide details of your renewable energy or electricity target and how the city plans to meet those targets.

Scale
Local government operations

Energy / electricity types covered by target
Other (100% of municipal electricity from renewable sources.)

Base year
2010

Total renewable energy / electricity covered by target in base year (in unit specified in column 2)

Percentage renewable energy / electricity of total energy or electricity in base year
16

Target year
2020

Total renewable energy / electricity covered by target in target year (in unit specified in column 2)

Percentage renewable energy / electricity of total energy or electricity in target year
100

Percentage of target achieved
100

Plans to meet target (include details on types of energy/electricity)
Create Community Choice Energy option with the target: 100% of municipal electricity use in 2020 comes from 100% renewable or zero carbon sources via the CCE program.

(8.1) Does your city have energy consumption data to report?
Yes

(8.2) Please indicate the energy mix of electricity consumed in your city.

Percent

Coal
0

Gas
0

Oil
0

Nuclear
0

Hydro
0

Biomass
0

Wind
75

Geothermal
0

Solar
25

Other sources
0

Total - please ensure this equals 100%
100

(8.3) What scale is the energy mix data reported above?
Local government operations energy mix reported

(8.5) How much (in MW capacity) renewable energy is installed within the city boundary in the following categories?

	MW capacity	Please describe the scale of the energy source
Renewable district heat/cooling		
Solar PV	0.76	This number represents photovoltaic capacity installed in the City of Cupertino for the year 2018 only for commercial, multi-family, and residential sectors.
Solar thermal		
Ground or water source		
Wind		
Other: (please specify)		

(8.6) Does your city have a target to increase energy efficiency?
Yes

(8.6a) Please provide details on your city's energy efficiency targets.

Scale
Local government operations

Energy efficiency type covered by target
Reduce total energy consumed (in MWh)

Base year
2010

Total energy consumed/produced covered by target in base year (in unit specified in column 2)
2855

Target year
2020

Total energy consumed/produced covered by target in target year (in unit specified in column 2)
2441

Percentage of energy efficiency improvement in target year compared to base year levels
14.5

Percentage of target achieved
100

Plans to meet target (include details on types of energy in thermal /electricity)
Currently we are exceeding our target for energy efficiency. Our target covers municipal building usage. The percentage of target achieved is based on our electricity usage as of 2017 (2,131 MWh).

Please indicate to which energy sector(s) the target applies (Multiple choice)
Public facility

Transport

(10.0) Do you have mode share information available to report for the following transport types? Select all that apply.

Please select

(10.5) Please provide the total fleet size and number of vehicle types for the following modes of transport:

	Number of private cars	Number of buses	Number of municipal fleet (excluding buses)	Number of freight vehicles	Number of taxis	Transport Network Companies (e.g. Uber, Lyft) fleet size	Customer-drive carshares (e.g. Car2Go, Drivenow) fleet size
Total fleet size	46840		102				
Electric	1975		2				
Hybrid	3610		12				
Plug in hybrid	1000						
Hydrogen	39						

Notes: Number of private cars: Data based on CA Dept of Motor Vehicles registration data for Cupertino Number of municipal fleet (excluding buses): "Hybrid" includes hybrid and plug-in hybrid vehicles. Data from 2018.

(10.7) Do you have a low or zero-emission zone in your city? (i.e. an area that disincentivises fossil fuel vehicles)

No

Food

(12.0) How many meals per year are served through programs managed by your city? (this includes schools, canteens, hospitals etc.)

0

(12.4) Does your city have any policies relating to food consumption within your city? If so, please describe the expected outcome of the policy.

	Response	Please describe the expected outcome of the policy
Please complete	No	

Water Security

Water Supply

(14.0) What are the sources of your city's water supply? Select all that apply.

Surface water

Ground water

(14.1) Where does the water used to supply your city come from?

Other (Imported surface water and ground water)

(14.2) What percentage of your city's population has access to potable water supply service?

100

(14.3) Are you aware of any substantive current or future risks to your city's water supply?

Do not know

While drought can potentially have significant impacts on water supply services, impacts on drought on urban asset sectors are not analyzed in our hazard assessment, Silicon Valley 2.0. These services are within the domain of the Santa Clara Valley Water District which is involved in numerous collaborative water conservation efforts with communities in Santa Clara County.

Water Supply Management

(14.5) Does your city have a publicly available Water Resource Management strategy?

Yes

(14.5a) Please provide more information on your city's public Water Resource Management strategy.

Publication title and attach document
Urban Water Management Plan

Year of adoption from local government
2015

Web link
https://www.valleywater.org/sites/default/files/SCVWD%202015%20UWMP-Report%20Only.pdf

Does this strategy include Sanitation services?
No

Stage of implementation
Plan in implementation

Submit your response

What language are you submitting your response in?
English

Please read and accept our Terms and Conditions
I have read and accept the Terms and Conditions

Please confirm how your response should be handled by CDP.

	Public or non-public submission
I am submitting my response	Publicly (recommended)