Rancho Cordova

Climate Action Plan (CAP)

RANCHO CORDOVA CALIFORNIA

Virtual Workshop #2
January 13, 2022

Welcome, Introductions, and Agenda Review

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Team

- Darcy Goulart, Planning Manager, City of Rancho Cordova
- Stefan Heisler, Housing Manager, City of Rancho Cordova
- Honey Walters, Principal in Charge, Ascent Environmental
- Andrew Martin, Project Manager, Ascent Environmental
- Matt Gelbman, Planner, Ascent Environmental
- Jamie Kirchner, Outreach Coordinator, Ascent Environmental

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Why are we here tonight?

- Provide an overview of the project & update on process
- Share work completed to-date, including Greenhouse Gas Inventory and Vulnerability Assessment
- Answer any questions you may have
- Get your feedback and input on potential measures and strategies before they are developed
- Identify opportunities for you to provide input in the future

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Agenda

- Climate Action Plan (CAP) Overview
- Greenhouse Gas Inventory Results
- Vulnerability Assessment Findings
- CAP Timeline & Process
- How to Get Involved
- Q&A / Public Comment

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How to Participate in the Meeting

Use the Q&A feature at the bottom of your screen.

Submit Comments/ Questions During the Meeting

Having Issues With Zoom During The Meeting?

Email: CAP@cityofranchocordova.org

? Zoom Comments/Questions? Send message using Q&A

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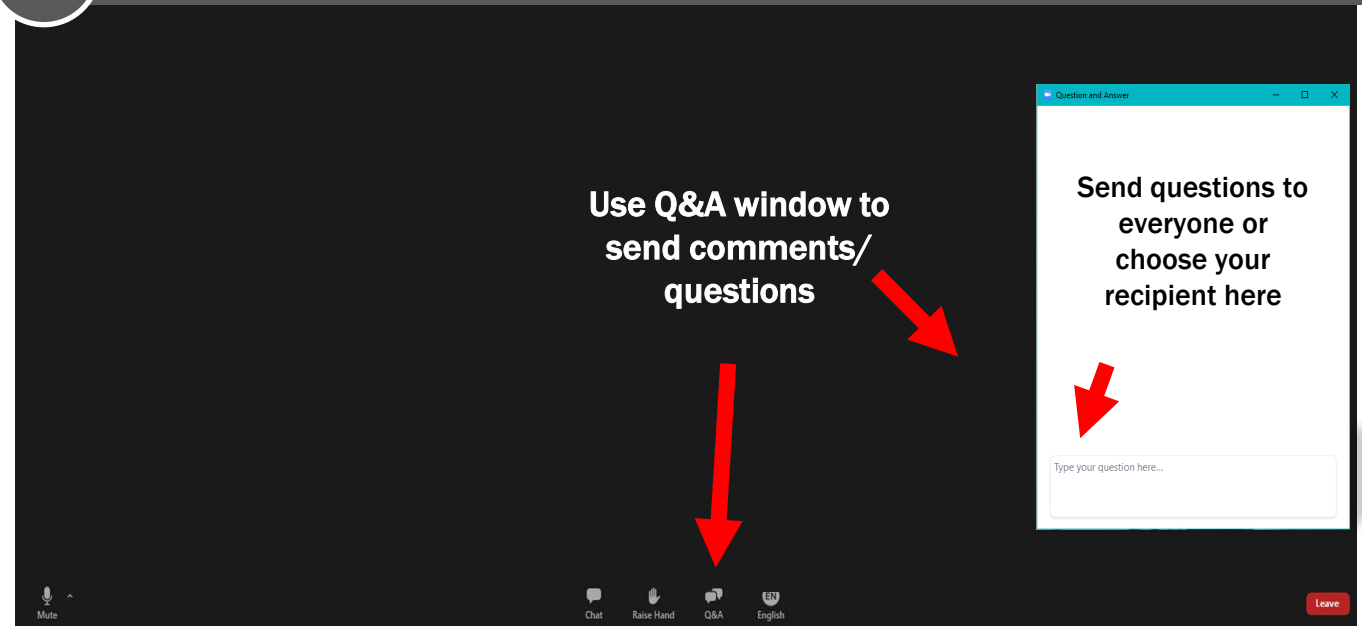
Zoom Meeting Controls - Desktop

Zoom Comments/Questions? Send message using Q&A



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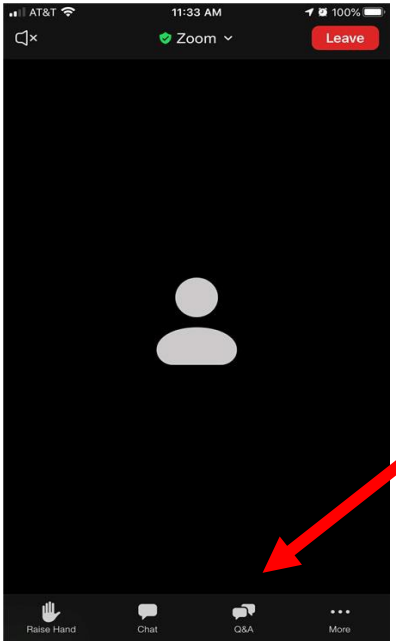

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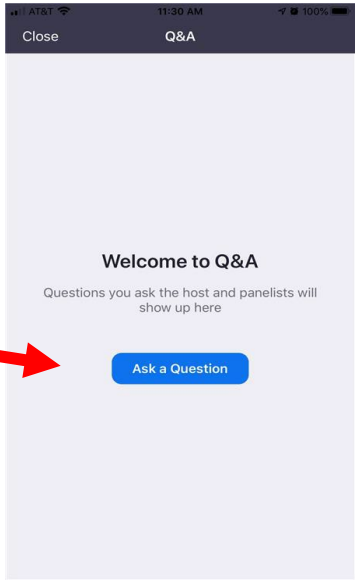
Access the Q&A window to send comments/ questions



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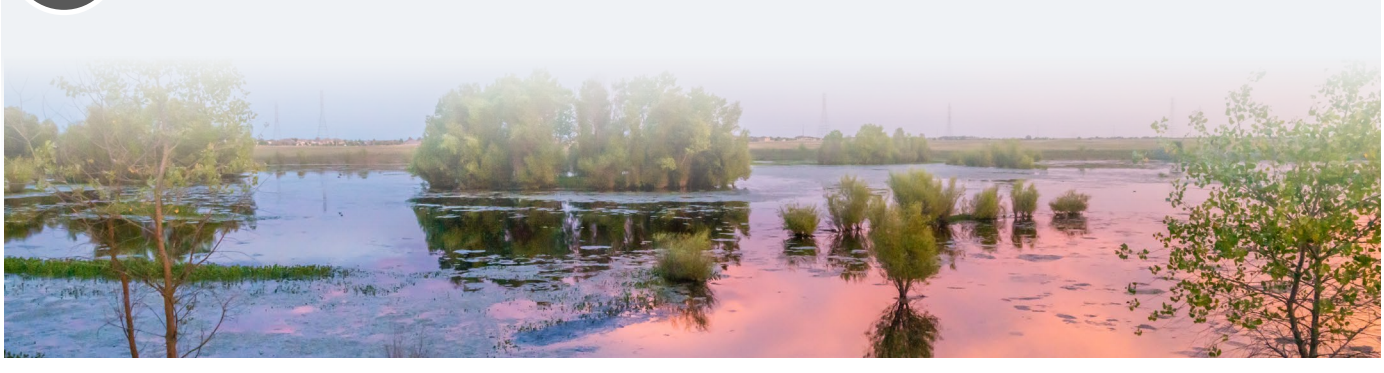

Virtual Public Workshop – October 21, 2021

- Purpose was to introduce the project, provide an overview of the process and timeline.
- Comments and questions, included:
  - Purpose of the CAP
  - Approach to GHG inventory, reduction targets.
  - Integration of other local/regional planning efforts
  - Relationship to planned future growth
  - Different ways to get involved

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Climate Action Plan (CAP) Overview

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Why is the City preparing a CAP?

- City's first CAP; CAPs are not required of local governments – they go above and beyond
- Reduce emissions in alignment with State goals and targets and increase community's resilience to existing and future climate effects
- Establish City-wide strategy for climate action and guide future decision making
- Result in a consistent way to reduce GHG emissions for future projects
- Support housing production to meet market demand
- Leverage other regional sustainability programs

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What is a Climate Action Plan?

The Climate Action Plan (CAP) is a **strategy** for reducing greenhouse (GHG) emissions and adapting to existing and future effects of climate change.

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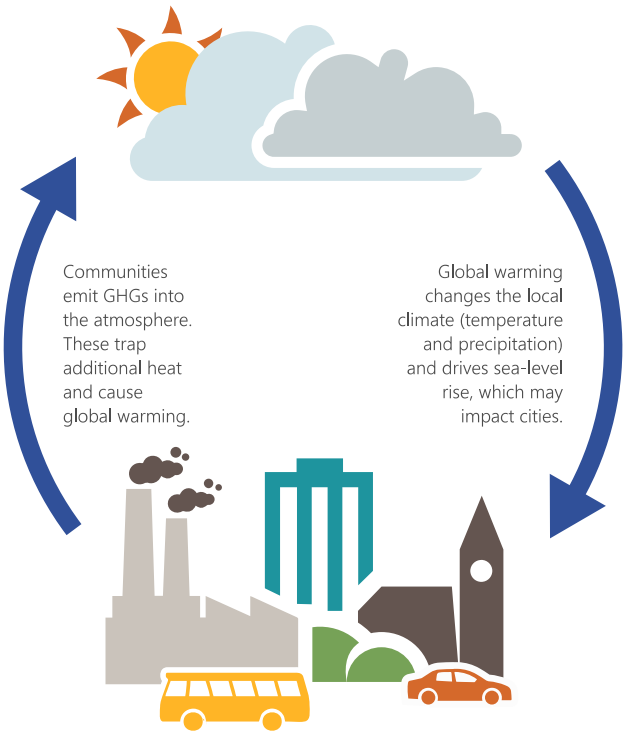
Climate Action Planning Approach

GHG Reduction



Adaptation

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Components of the Climate Action Plan

Inventory

Projections

Targets

Reduction Measures

Climate Vulnerability

Adaptation Strategies

Implementation Monitoring Program

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Anticipated CAP Project Timeline

E-mail us at: **CAP@cityofranchocordova.org**

* *Timing assumes the preparation of an Initial Study / Mitigated Negative Declaration.*

2019 Greenhouse Gas Inventory

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Purpose of Greenhouse Gas Inventory

- Identify existing GHG emissions sources in the City
- Create foundation for next phases of CAP planning process:
  - Forecasting future emissions
  - Setting emissions reduction targets
  - Developing measures to reduce emissions

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Summary of Greenhouse Gas Inventory

- Baseline year is 2019
- Uses best available data; standard protocols and methodologies
- Includes emissions from 7 sectors
- Nearly all emissions (94%) from:
  - **On-road transportation** (cars, trucks, SUVs)
  - **Building energy** (electricity and natural gas used to cool, heat, and power homes and businesses)

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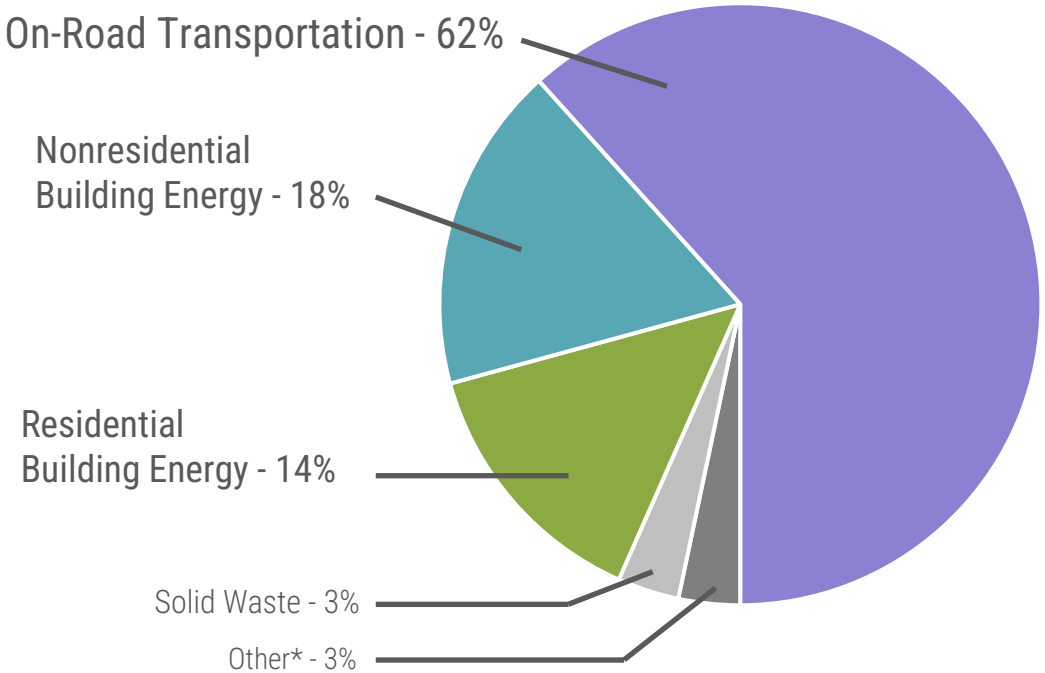
2019 Greenhouse Gas Emissions Inventory



*Other includes offroad vehicles and equipment, water supply, wastewater

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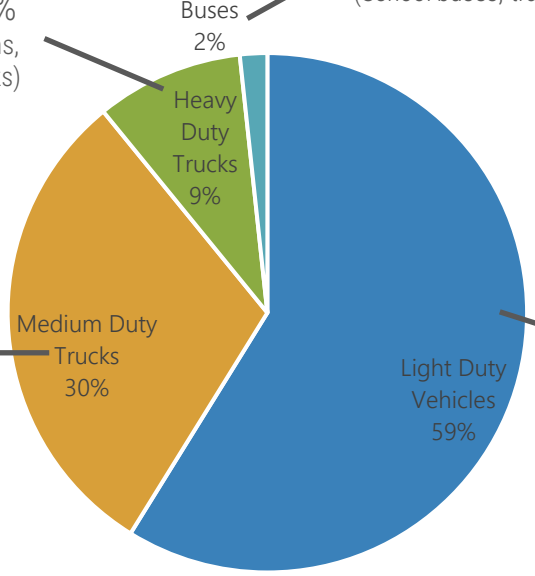
On-Road Transportation GHG Emissions



Buses - 2%
(School buses, transit buses, RVs)

Heavy Duty Vehicles - 9%
(Cement Mixers, Refrigerated Vans, Tankers, Fire Trucks, Dump Trucks)

Medium Duty Vehicles - 30%
(Delivery Trucks, Heavy Duty Pick-Up Trucks, Garbage Trucks)

Passenger Vehicles - 59%
(Sedans, SUVs, Utility Vans)

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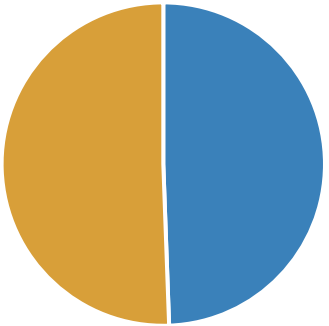
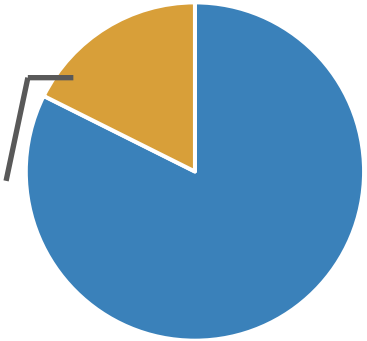
Building Energy GHG Emissions

Residential



Non-Residential



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Which of the following potential strategies do you think would be most effective in reducing GHG emissions from on-road transportation?

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Which of the following potential strategies do you think would be most effective in reducing GHG emissions from nonresidential buildings (e.g., retail stores, offices, industrial businesses)?

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Which of the following potential strategies do you think would be most effective in reducing GHG emissions from residential buildings?

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GHG Inventory Discussion

WE WANT TO HEAR FROM YOU!

PLEASE SHARE ADDITIONAL COMMENTS

ASK ANY QUESTIONS

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Vulnerability Assessment and Preliminary Adaptation Strategies

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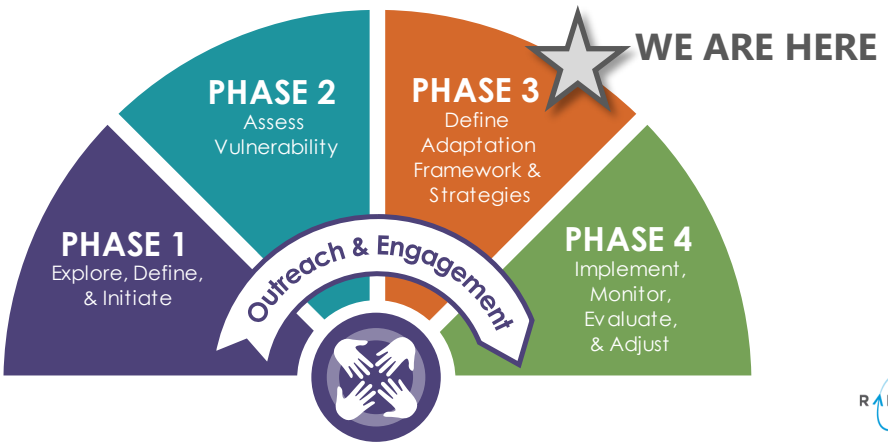
Adaptation Planning Process

- **Identify** climate change effects and community assets
- **Assess** critical infrastructure and vulnerable populations
- **Analyze** city's adaptive capacity (i.e., preparedness)
- **Develop** adaptation strategies



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Vulnerability Scoring Summary

Temperature and Extreme Heat

Precipitation and Flooding

Drought and Water Supply

Wildfire

Climate Change Effects	Adaptive Capacity	Potential Impact	Vulnerability
Temperature and Extreme Heat	Low	High	5
Precipitation and Flooding	Medium	High	4
Drought and Water Supply	Medium	Medium	3
Wildfire	High	Medium	2

Temperature and Extreme Heat

- Average high temperature: **9°F hotter**
- **Significantly more** days hotter than 100°F
- **Significantly more** extreme heat days (hotter than 103.6°F)
- **Significantly more** heat waves (hotter than 103.6°F - **4 or more days in a row**)
- **Significantly longer** heat waves

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Temperature and Extreme Heat

Temperature or Heat Event	Historic[1]	2021-2050	2040-2070	2070-2099
Average High Temperature	74°F	78°F (+4)	80°F (+6)	83°F (+9)
Days Above 100°F	15	35	44	67
Extreme Heat Days	4	19	32	48
Heat Wave Events	0.2[2]	1-2	5	8
Heat Wave Duration (days)	2.5	6	7	14

[1] Historic = 1961 to 1990

[2] 0.2 = one heat wave event every five years

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Temperature and Extreme Heat

- **Large increase** in air conditioning demand
- **Notable decrease** in heating demand
- Increase bridge maintenance costs, compromise structural integrity
- Harmful to public health
  - persons over age 65
  - infants and children
  - persons with chronic health conditions
  - low-income groups
  - unhoused population

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Potential Adaptation Strategies & Measures
Temperature and Extreme Heat

Prepare for increases in average temperature and increases in extreme heat days and events

- Develop an Urban heat strategy
- Update the City's approach to street trees
- Implement program to retrofit existing buildings to withstand hotter temperatures and extreme heat days and events

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Precipitation and Flooding

- **Modest increase** in annual rainfall
- More variation from year to year
- Increases due to extreme rain events
- Extreme rain events will happen more often, may be more intense

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Precipitation and Flooding

Precipitation	Historic[1]	2021-2050	2040-2070	2070-2099
Annual mean precipitation (inches)	18.3	20.1 (+10%)	20.2 (+10%)	22.1 (+21%)

[1] Historic = 1961 to 1990

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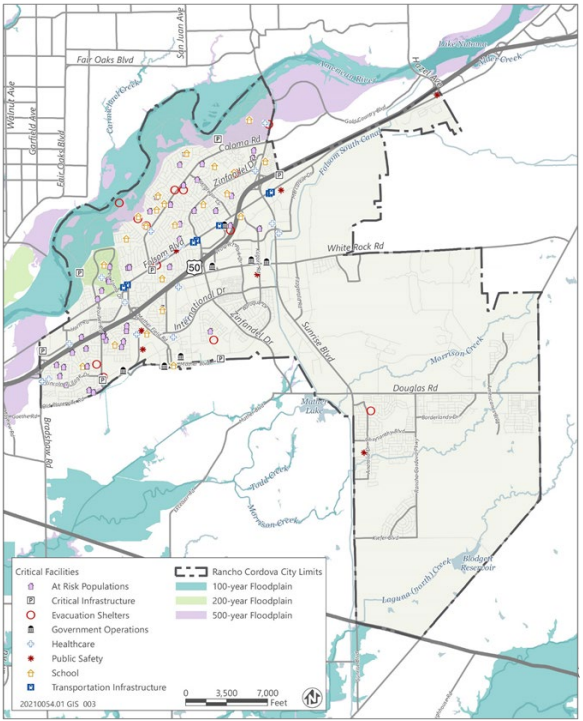
Precipitation and Flooding

Watershed	Storm Event Size	Historic	By 2064	By 2099	Percent Change Historic to 2099
			Change in 24-Hour Rainfall Period (inches) for 100-Year Storm Event		
American River	100 year	7.1	4.8	6.3	-11%
	10 year	3.5	2.9	3.5	0%
	2 year	2.1	2.0	2.3	9%

Precipitation and Flooding

- **Adverse impacts to levee system integrity** during extreme precipitation events
- Cordova Meadows Levee
- Sunriver Levee
- Both protect residential neighborhoods



Potential Adaptation Strategies & Measures
Precipitation and Flooding

Increase community preparedness for increases in large storm event flooding

- Green infrastructure strategies for flood management (e.g., permeable pavement, permeable parking lots, landscaping and vegetated areas, rain barrels)

Drought and Water Supply

- Extended droughts more likely; reduced snowpack and additional rainfall
- Reductions in available water supply
- Could lead to water use restrictions for residents or businesses (e.g., lawn and landscape irrigation; recreational opportunities at Folsom Lake)
- Economic impacts to tourism-related businesses (e.g., tied to Folsom Lake, recreation areas)

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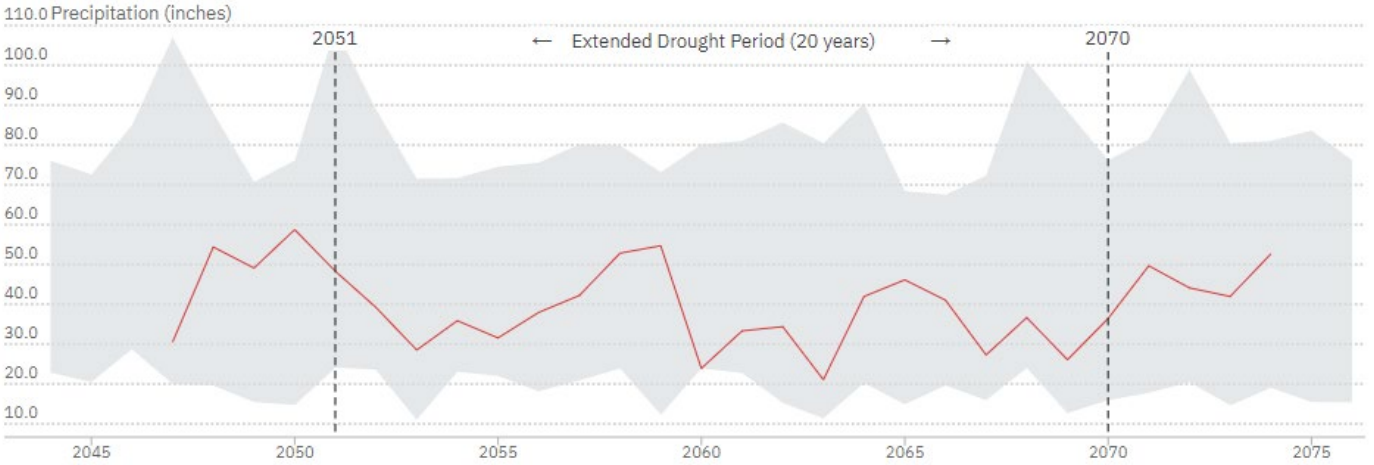
Drought and Water Supply



Source: California Energy Commission 2021

Potential Adaptation Strategies & Measures
Drought and Water Supply

Increase resilience to long-term droughts

- Advocate for drought-proof water supplies
- Include water-efficient appliances as part of building retrofit program
- Reduce per capita water use through conservation practices and efficiency retrofits (e.g., lawn retrofit, native landscaping)

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Wildfire

- Large portions of the eastern and southern portions of the City are located in areas designated as Moderate Fire Hazard Severity Zones
- Overall, relatively low risk
- However, uncertainty due to increasing severity and frequency of wildfires in recent years

	Historic	By 2050	By 2064	By 2099 Medium Emissions	By 2099 High Emissions	Percent Change Historic to 2099
Average Annual Acreage Burned	51,783	59,162	71,065	78,258	103,250	99%

Wildfire

- Public health impacts from wildfire smoke (e.g., age 65 and older; children; persons with underlying health conditions)
- Indoor air quality, access to air conditioning and climate control
- Outdoor occupations

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Potential Adaptation Strategies & Measures
Wildfire

Increase community resilience to the local and regional impacts of wildfires

- Implement a wildfire smoke outreach and education program
- Coordinate outreach with Sacramento Air Quality Management District
- Prioritize outreach to vulnerable populations

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Potential Adaptation Strategies & Measures
Community Resilience

Increase community resilience and ensure equitable implementation of adaptation strategies

- Prioritize historically marginalized communities and climate-vulnerable populations
- Regional collaboration as part of climate adaptation planning
- Clean energy microgrid for reliability of essential City facilities during an emergency

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Which climate effect are you most concerned about?

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Which of the following potential adaptation strategies are most important to you?

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What other strategies do you think should be included to adapt to impacts identified in the Vulnerability Assessment?

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Public Comment / Q&A

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Public Comment

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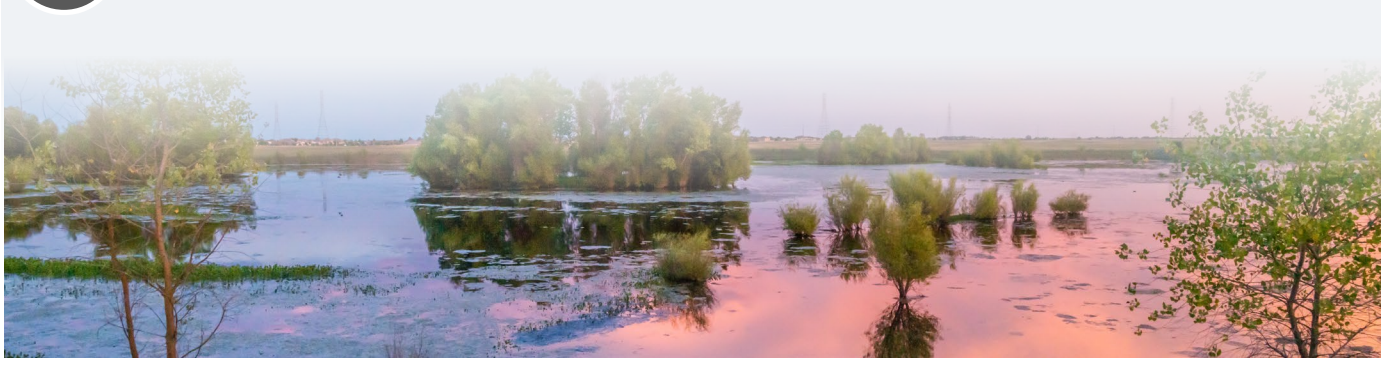

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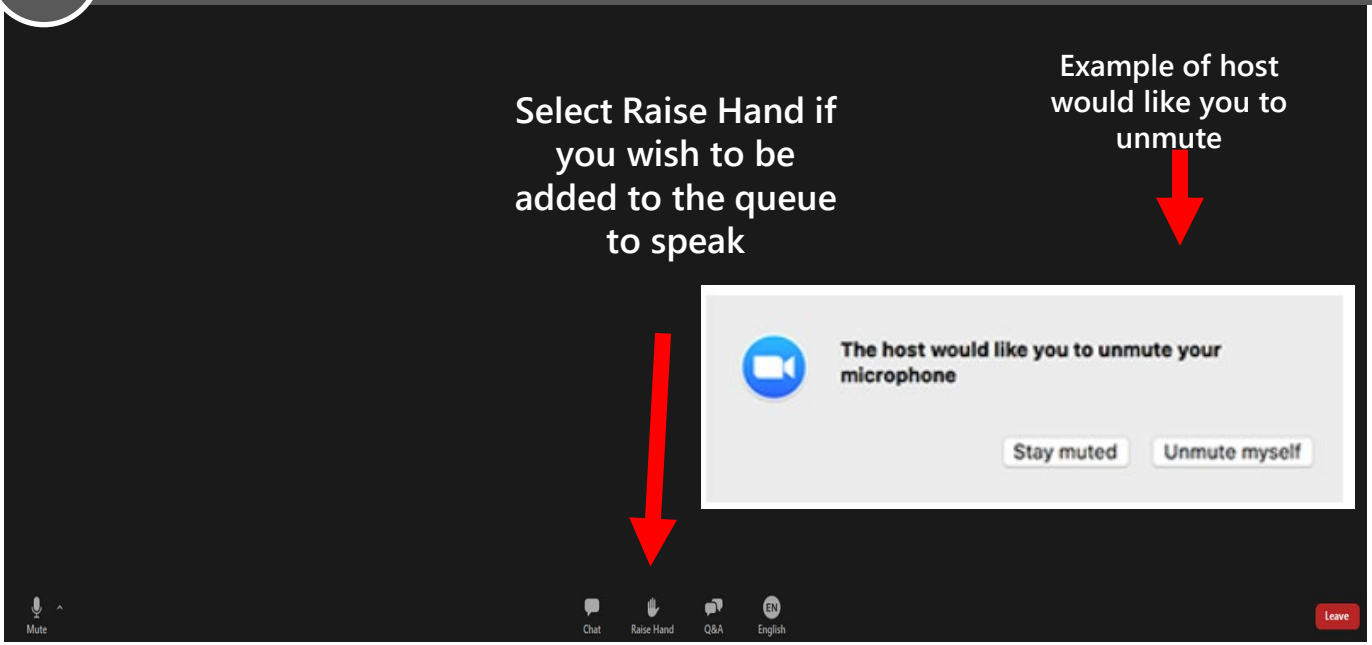
Providing Public Comments via Zoom

Zoom Comments/Questions? Send message using Q&A

Select Raise Hand if you wish to be added to the queue to speak

Example of host would like you to unmute



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Providing Public Comments by Phone

- Press Star (*) 9 to indicate you would like to speak
- Listen for the message: “The host would like you to unmute your microphone. You can press Star (*) 6 to unmute”
- When you are done with your comment, please press Star (*) 6 to re-mute

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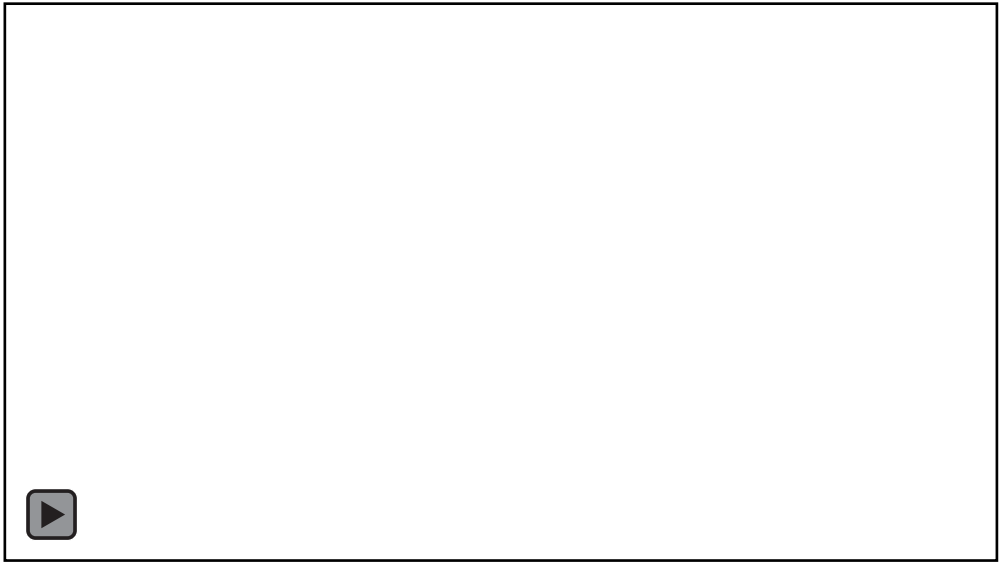
Public Comment



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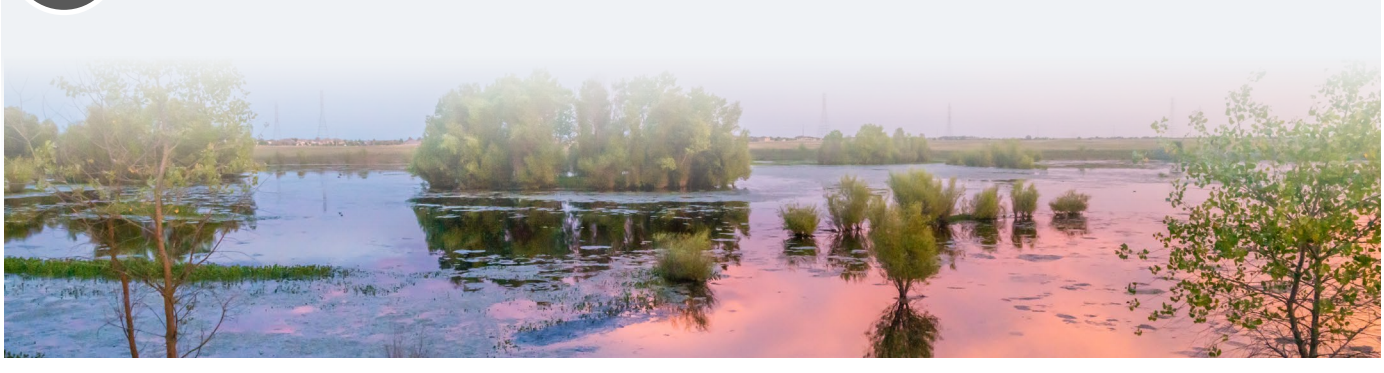

Thank you for joining!

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