


# HEAT & AIR QUALITY RESILIENCE (HAQR) WORK GROUP

Quarterly Meeting

May 29, 2024

# Meeting Objectives

- Network and share information with fellow work group members
- Understand how the HeatRisk Tool informs decisions for heat advisories and warnings
- Learn about the research findings from Santa Clara University students on expanding access to cooling centers in Santa Clara County

# Agenda

- Welcome and Meeting Objectives
- Group Information Share
- HeatRisk Tool and Summer Heat Forecast – National Weather Service SF Bay Area/Monterey
- Expanding Access to Cooling Centers in Santa Clara County – Santa Clara University
- Next Steps & Closing

GROUP PHOTO

# GROUP INFO SHARE

Take this opportunity to connect with other working group members to share program updates, request feedback, share opportunities, or just ask questions!

Raise Hand or Chat to share

# HeatRisk Tool and Summer Heat Forecast

Nicole Sarment and Brian Garcia
National Weather Service SF Bay Area/Monterey

# Summer - Heat - Fire 2024

## Summer Season Briefing

Weather Forecast Office

San Francisco Bay Area

Wednesday, May 29

National Weather Service SF Bay Area / Monterey Bay regions



*Nicole Sarment - Meteorologist*

# Table of Contents

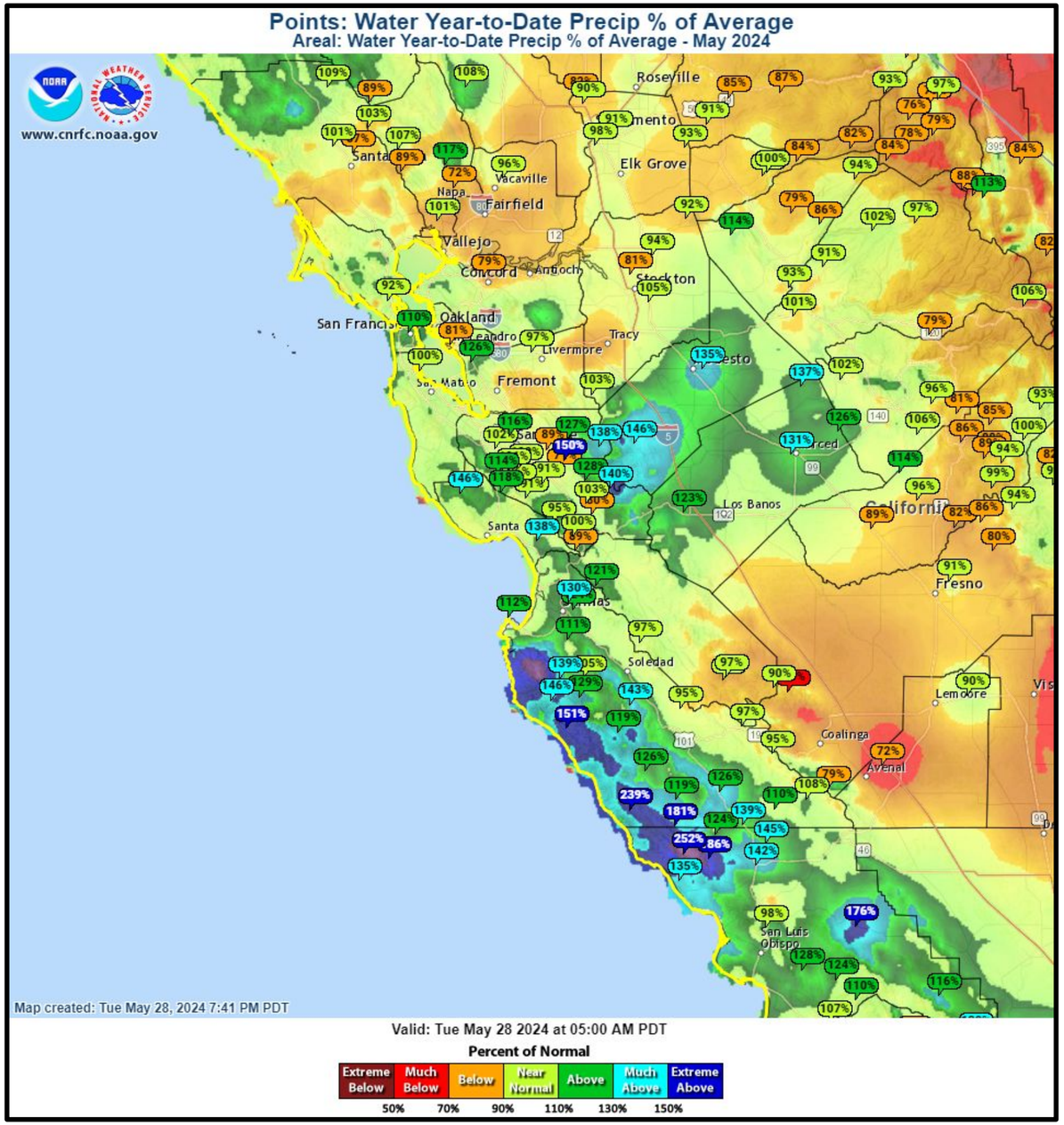


**Topics**

- Lookback
- Current Conditions
- Summer Outlook
- HeatRisk
- Fire Season Outlook
- Tools to Use

# Winter 2023 / 2024 Lookback

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29



# Winter 2023 / 2024 Lookback

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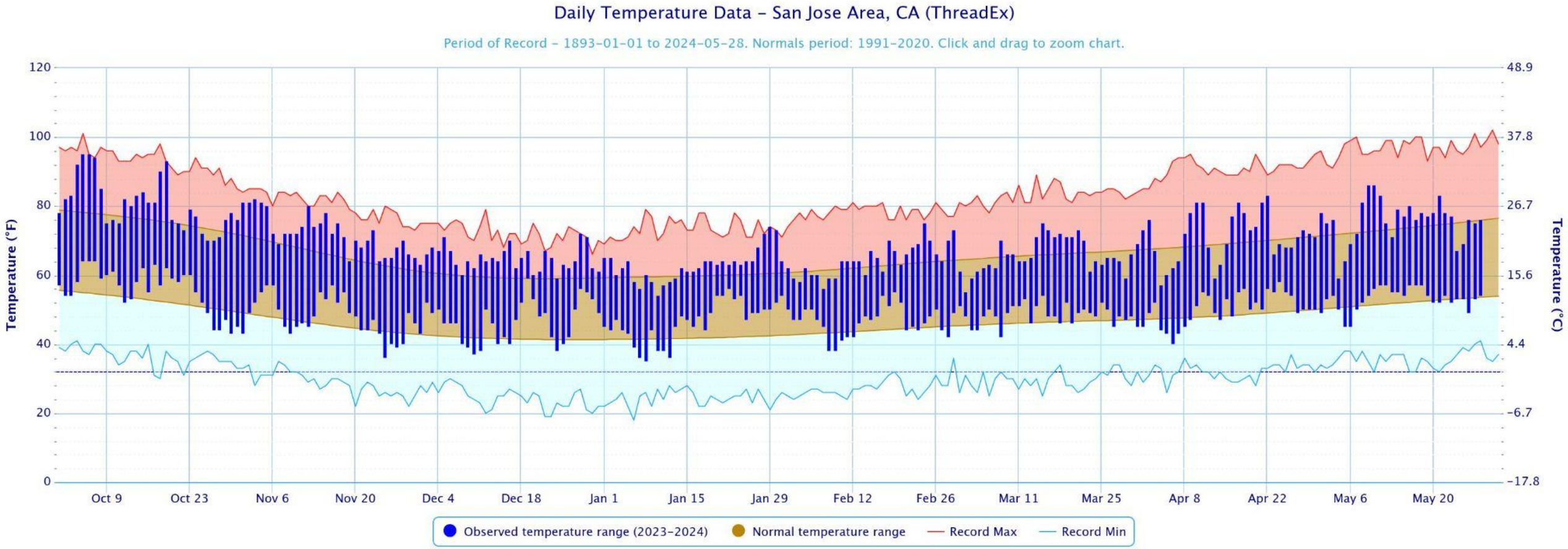
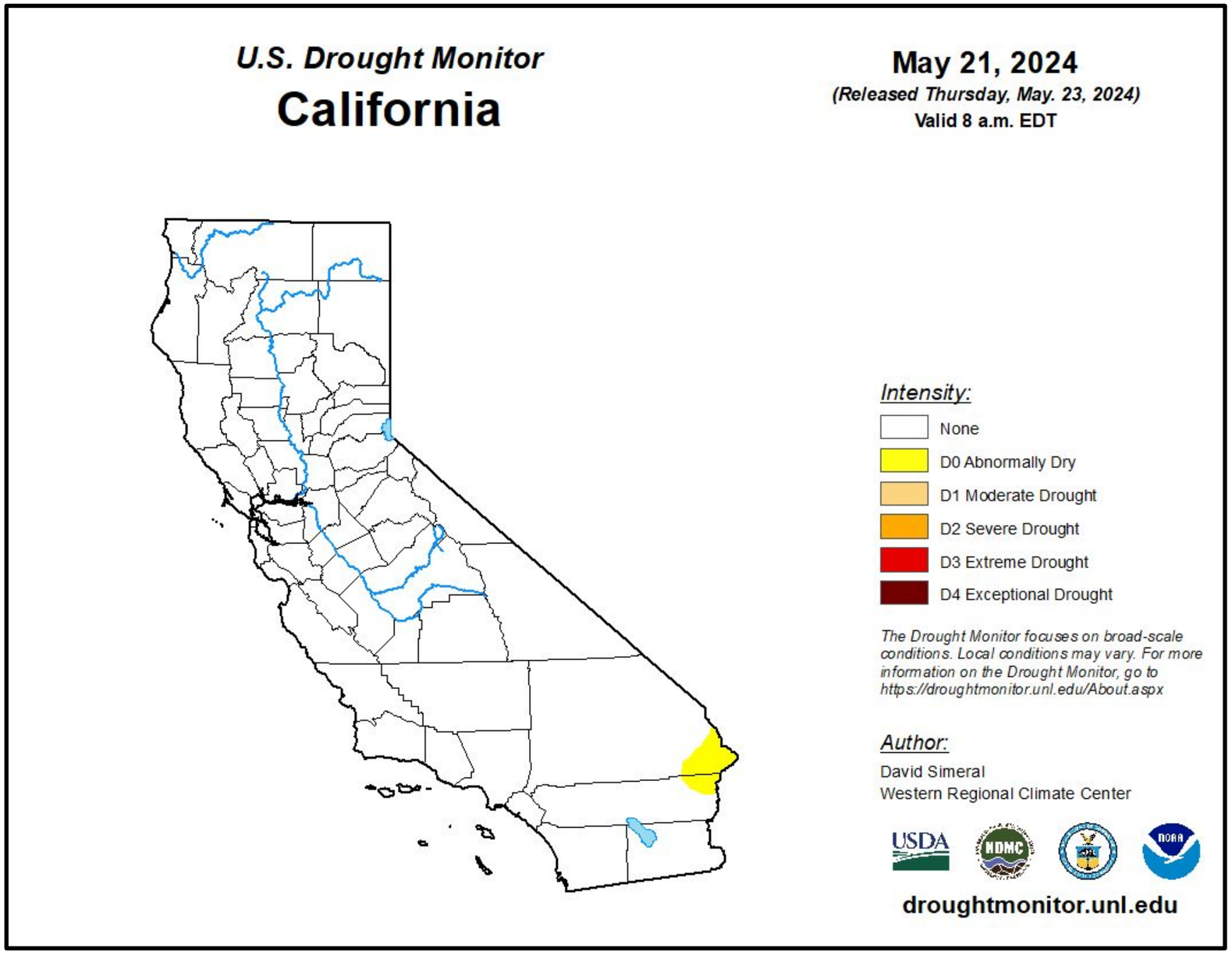
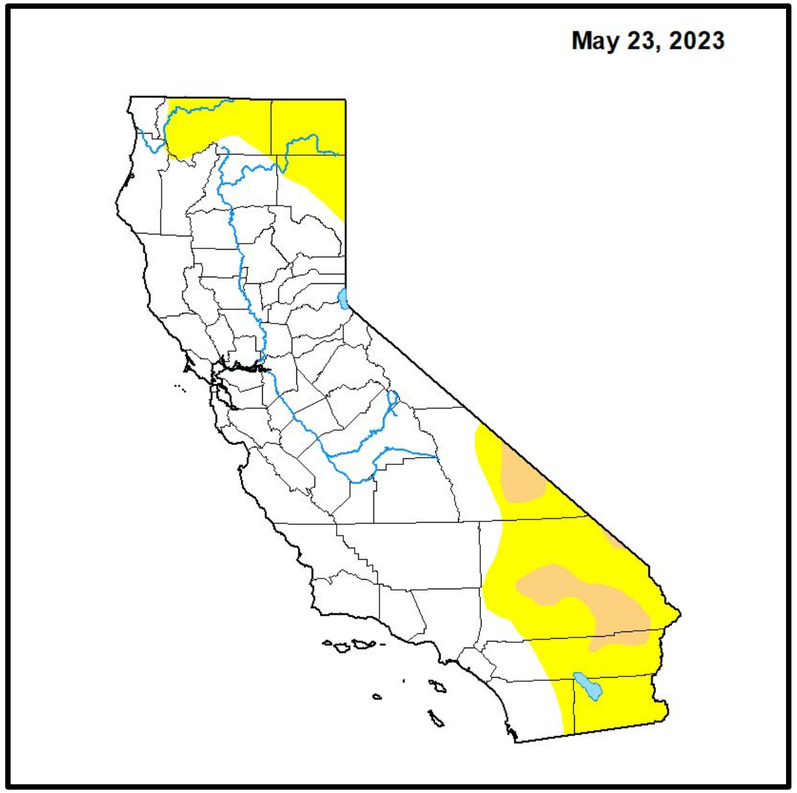
San Francisco Bay Area
Wednesday, May 29



# Current Conditions





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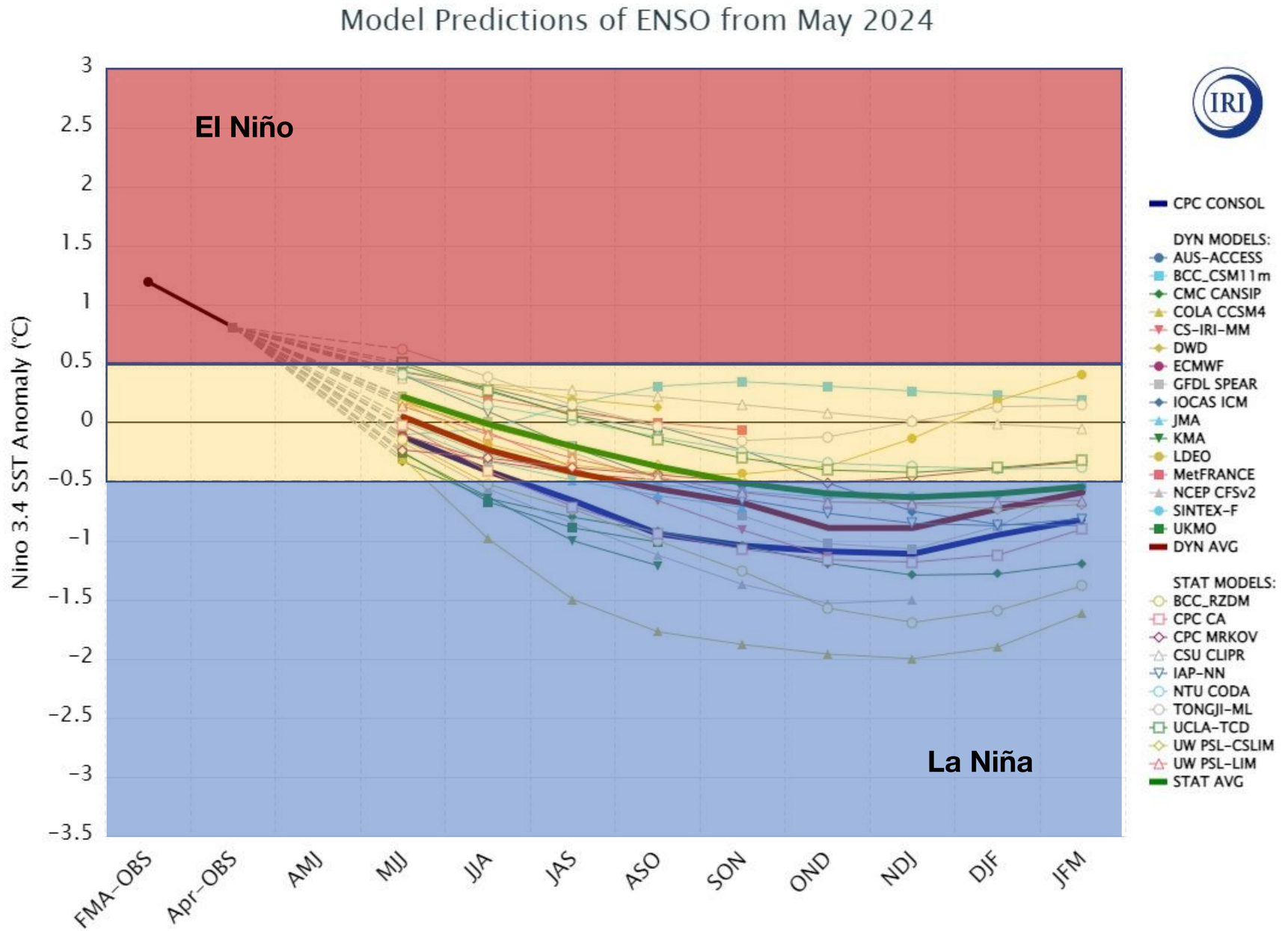
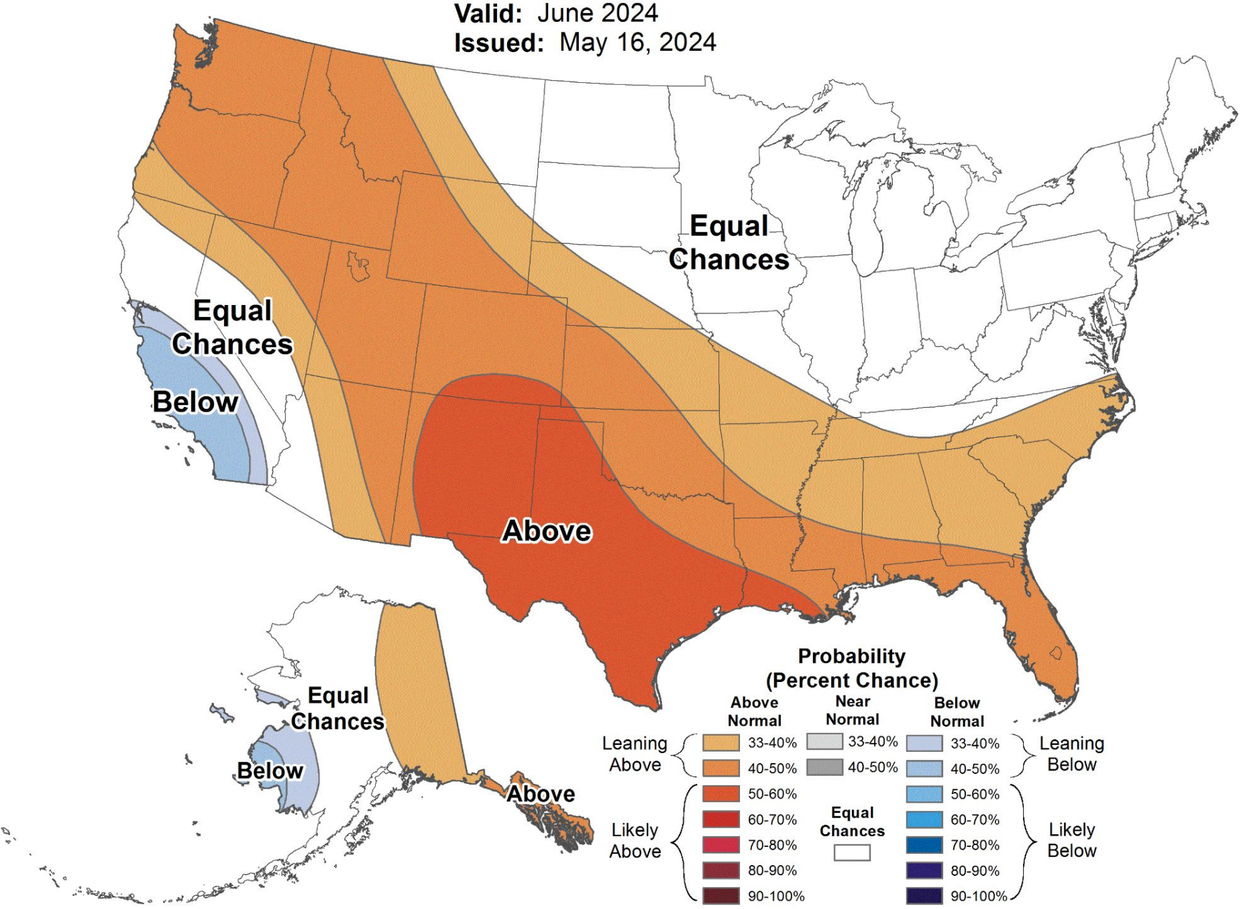


# Summer Outlook

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29

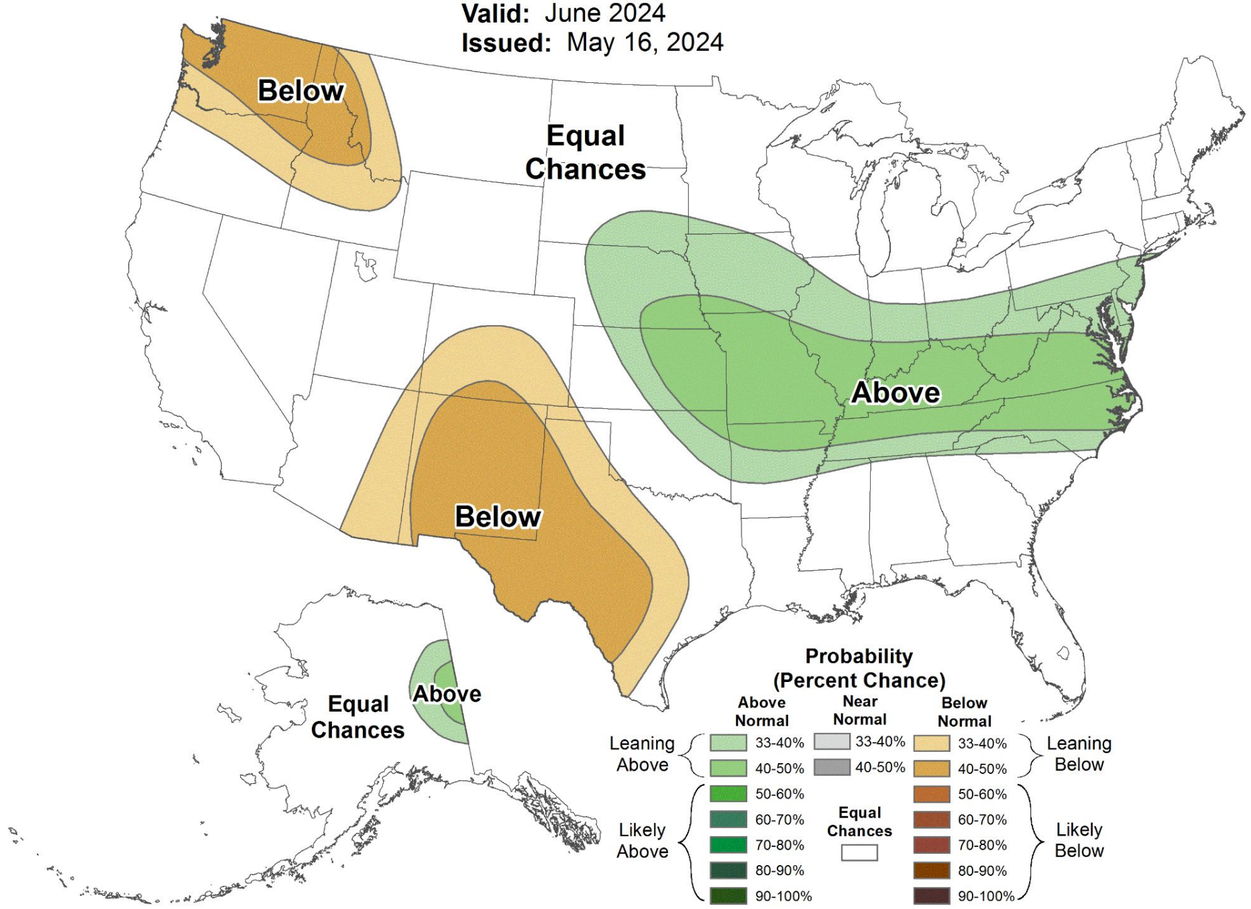
## Monthly Temperature Outlook

**Valid:** June 2024
**Issued:** May 16, 2024




## Monthly Precipitation Outlook

**Valid:** June 2024
**Issued:** May 16, 2024



# Summer Outlook

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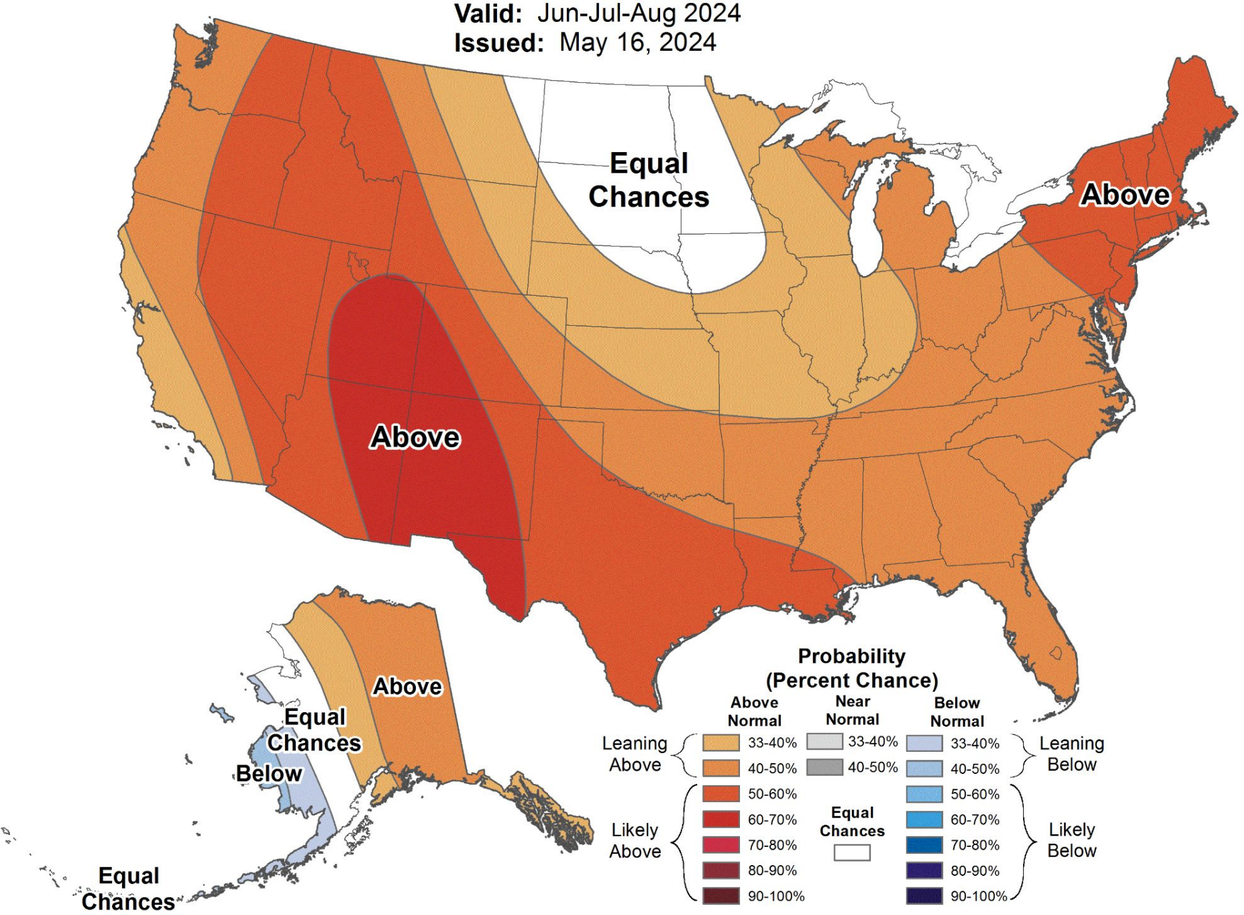
San Francisco Bay Area
Wednesday, May 29

## Seasonal Temperature Outlook

**Valid:** Jun-Jul-Aug 2024
**Issued:** May 16, 2024

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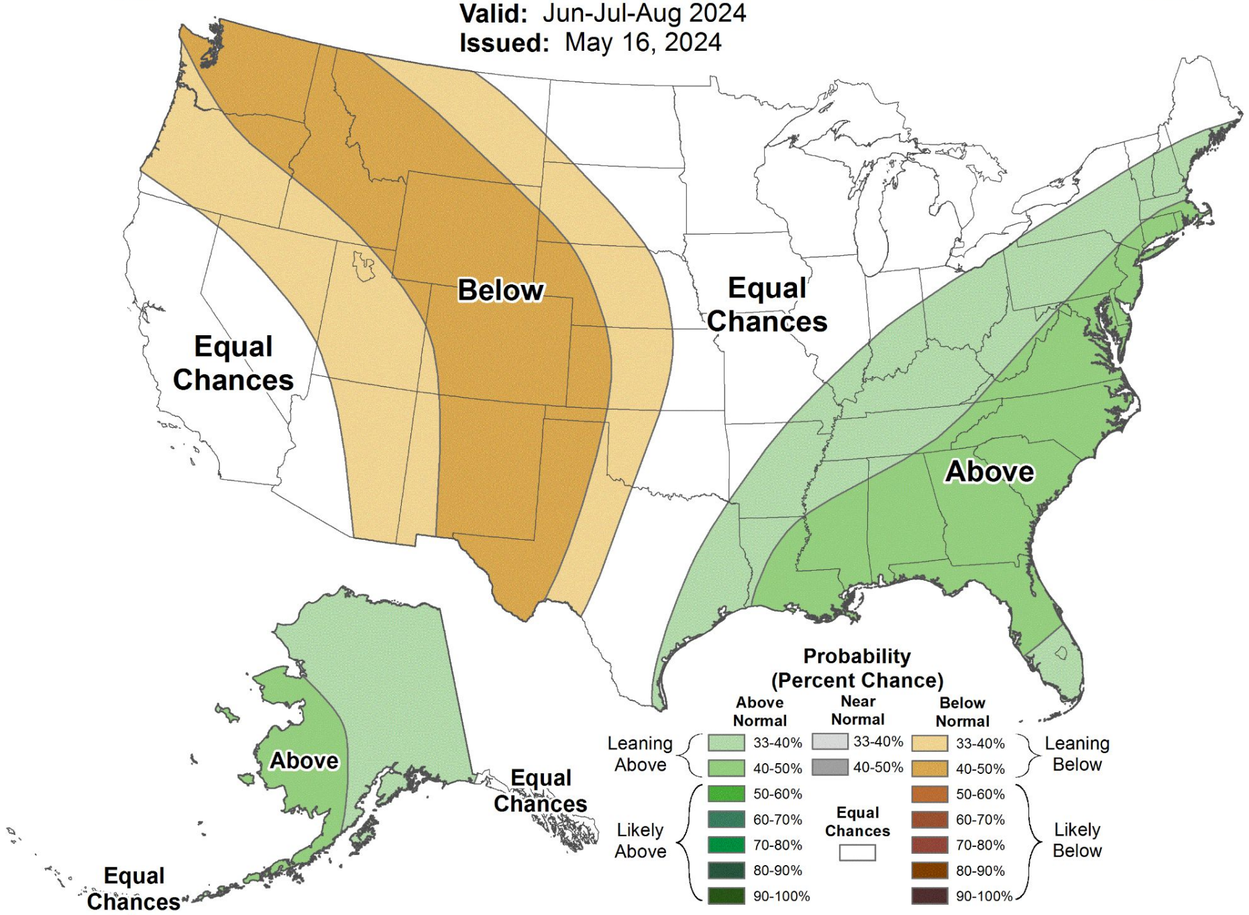

# Summer Outlook

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29

## Seasonal Temperature Outlook

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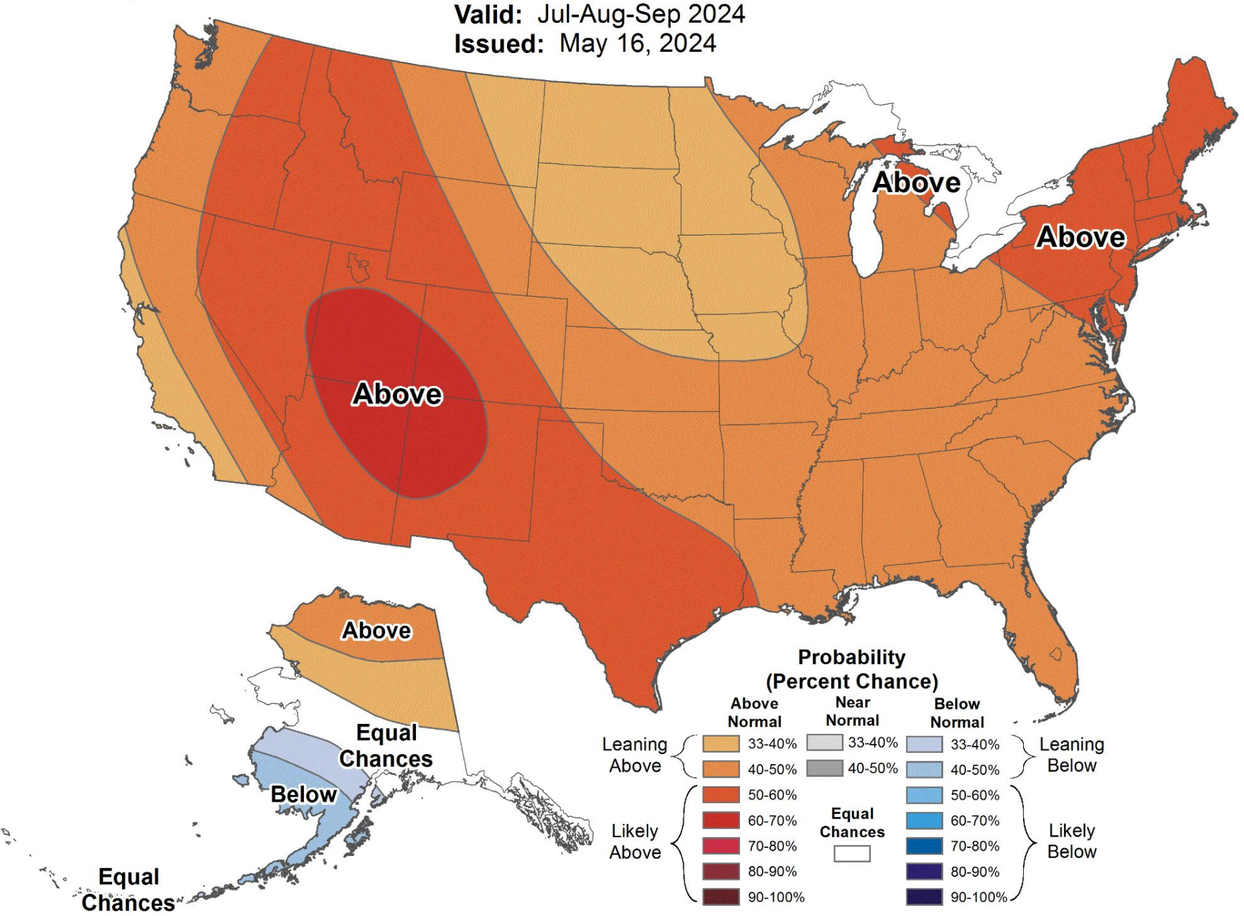


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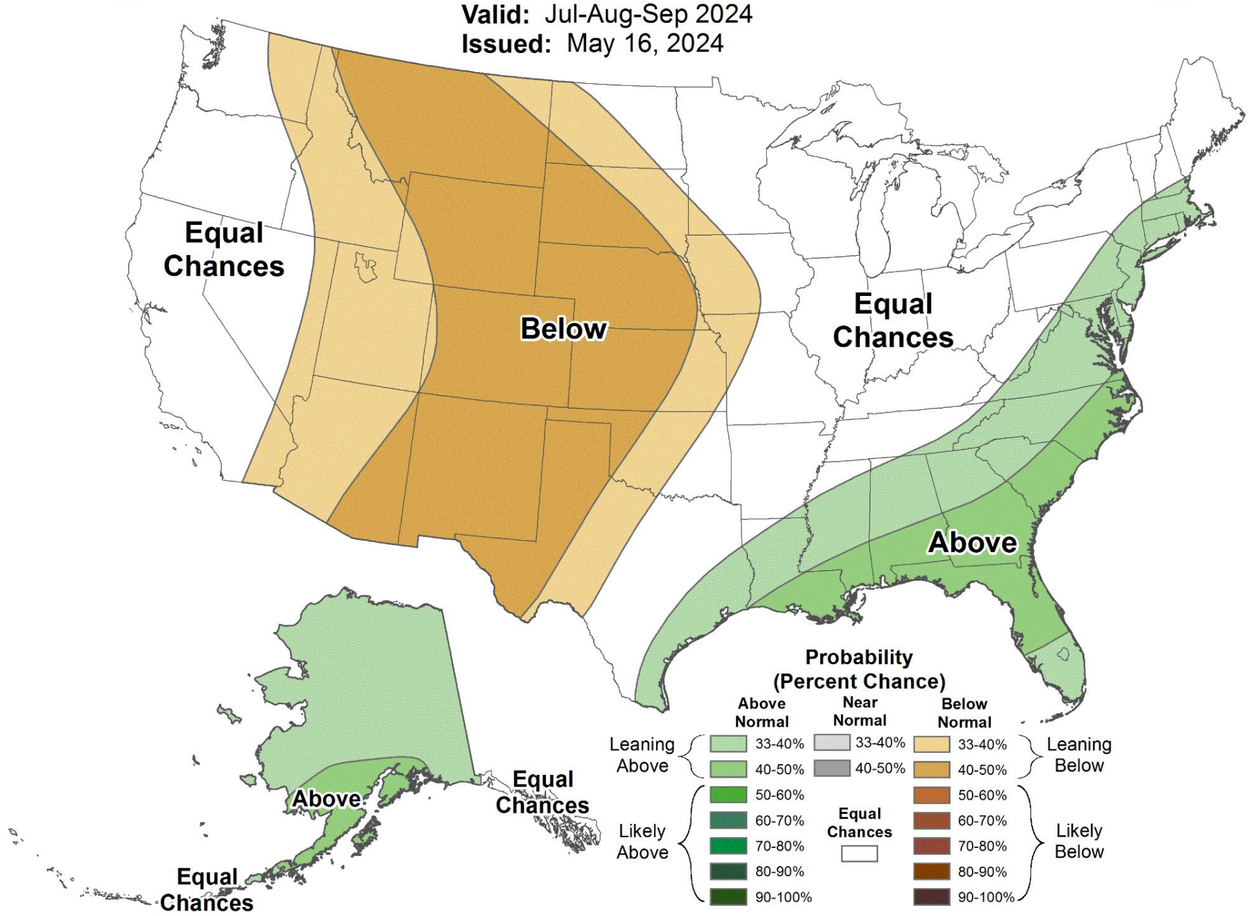


# HeatRisk

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29

National Weather Service
National Oceanic and Atmospheric Administration

Bookmark | Download KML | Graphics | En español

## NWS HeatRisk

Identifying Potential Heat Risks in the Seven Day Forecast

Map | Overview | What's in HeatRisk? | Understanding HeatRisk | CDC-NWS Collaboration | Verification | Looking for Resources?

| Wed 5/29 | Thu 5/30 | Fri 5/31 | Sat 6/1 | Sun 6/2 | Mon 6/3 | Tue 6/4 |
|---|---|---|---|---|---|---|

Click map for potential heat risks and NWS forecast for a location.

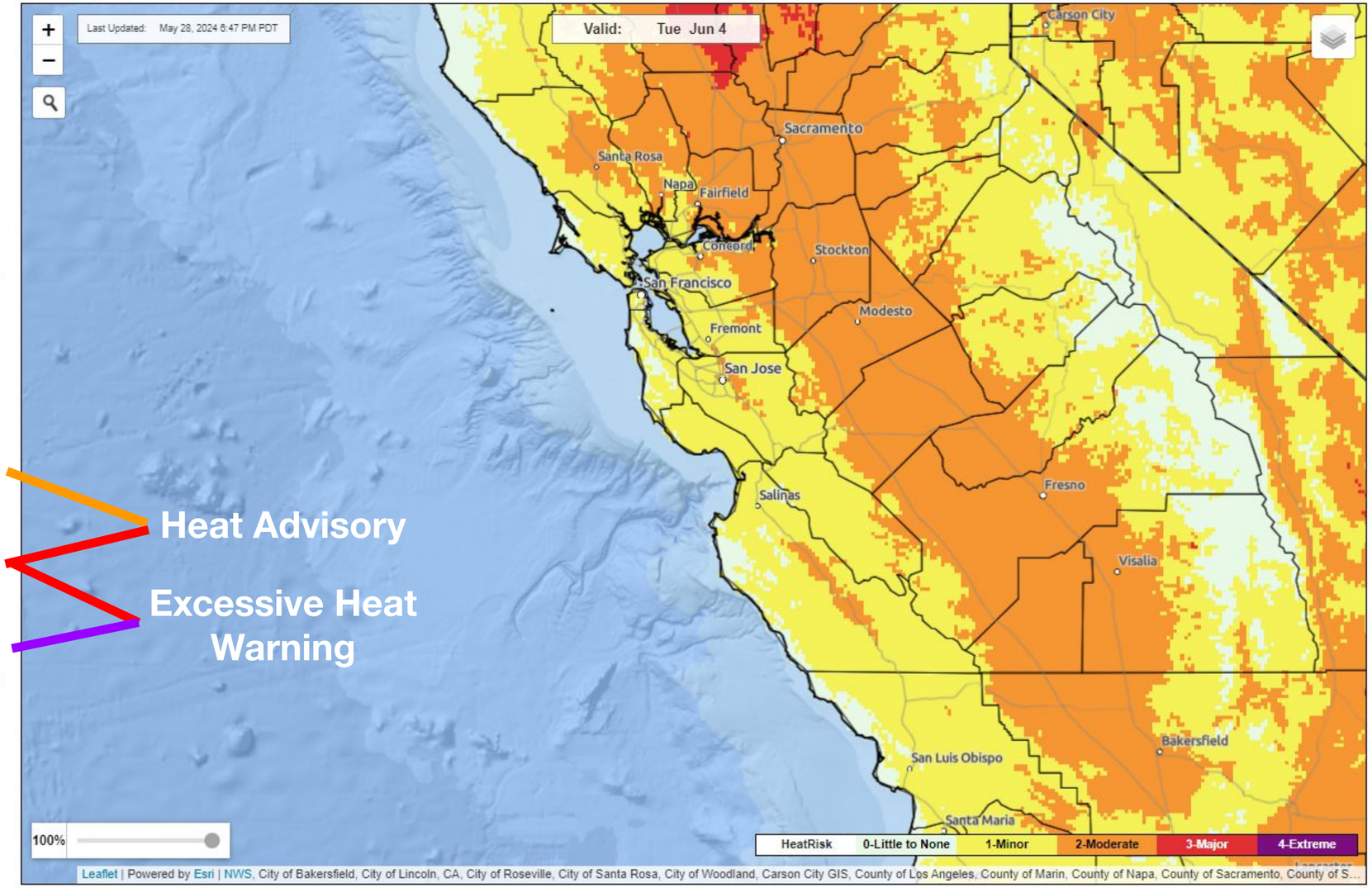
The NWS HeatRisk is an experimental color-numeric-based index that provides a forecast risk of heat-related impacts to occur over a 24-hour period. HeatRisk takes into consideration:

- How unusual the heat is for the time of the year
- The duration of the heat including both daytime and nighttime temperatures
- If those temperatures pose an elevated risk of heat-related impacts based on data from the CDC

This index is supplementary to official NWS heat products and is meant to provide risk guidance for those decision makers and heat-sensitive populations who need to take actions at levels that may be below current NWS heat product levels.

| Category | Risk of Heat-Related Impacts |
|---|---|
| Green 0 | Little to no risk from expected heat. |
| Yellow 1 | Minor - This level of heat affects primarily those individuals extremely sensitive to heat, especially when outdoors without effective cooling and/or adequate hydration. |
| Orange 2 | Moderate - This level of heat affects most individuals sensitive to heat, especially those without effective cooling and/or adequate hydration. Impacts possible in some health systems and in heat-sensitive industries. |
| Red 3 | Major - This level of heat affects anyone without effective cooling and/or adequate hydration. Impacts likely in some health systems, heat-sensitive industries and infrastructure. |
| Magenta 4 | Extreme - This level of rare and/or long-duration extreme heat with little to no overnight relief affects anyone without effective cooling and/or adequate hydration. Impacts likely in most health systems, heat-sensitive industries and infrastructure. |

Comments? Questions? Please Contact Us.



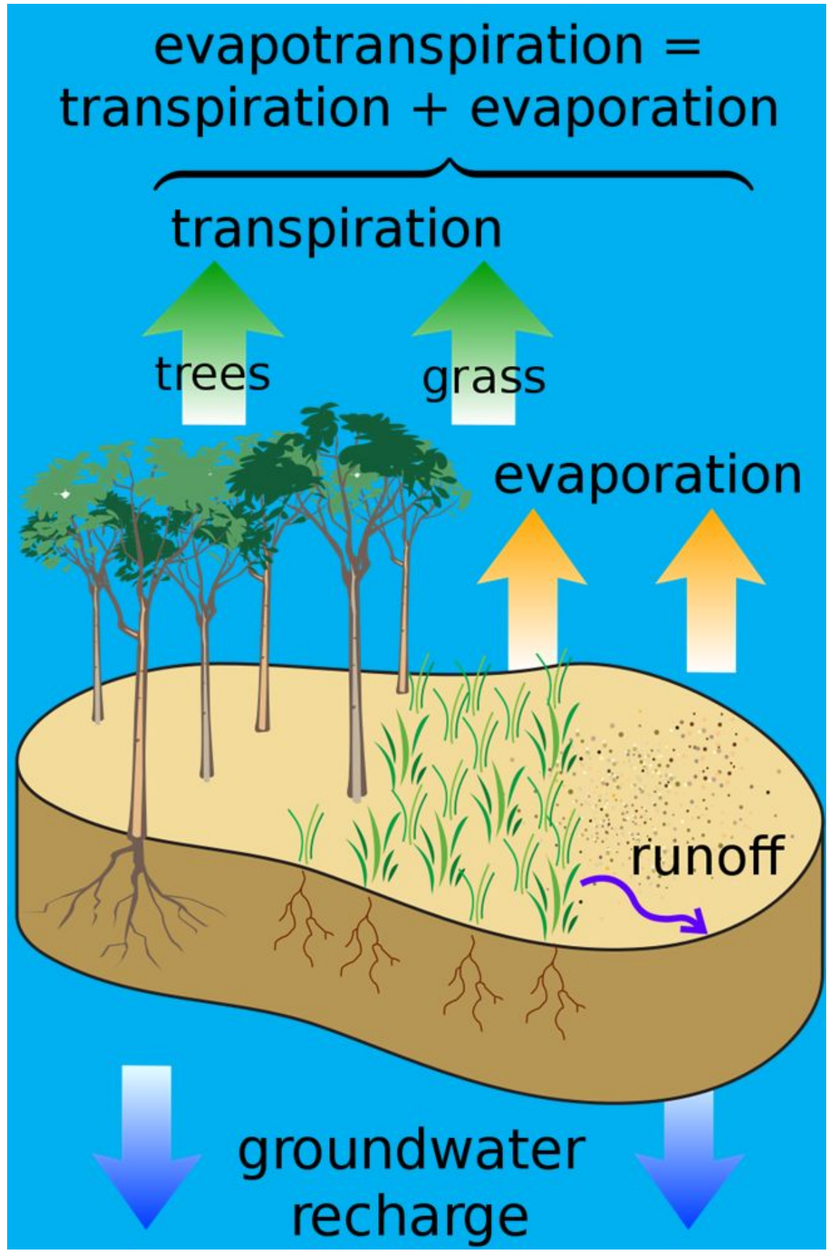

Heat Advisory

Excessive Heat Warning

# Summer Outlook



**Why Summer Matters…**



# Fire Season Outlook

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29

## Seasonal Temperature Outlook

**Valid:** Aug-Sep-Oct 2024
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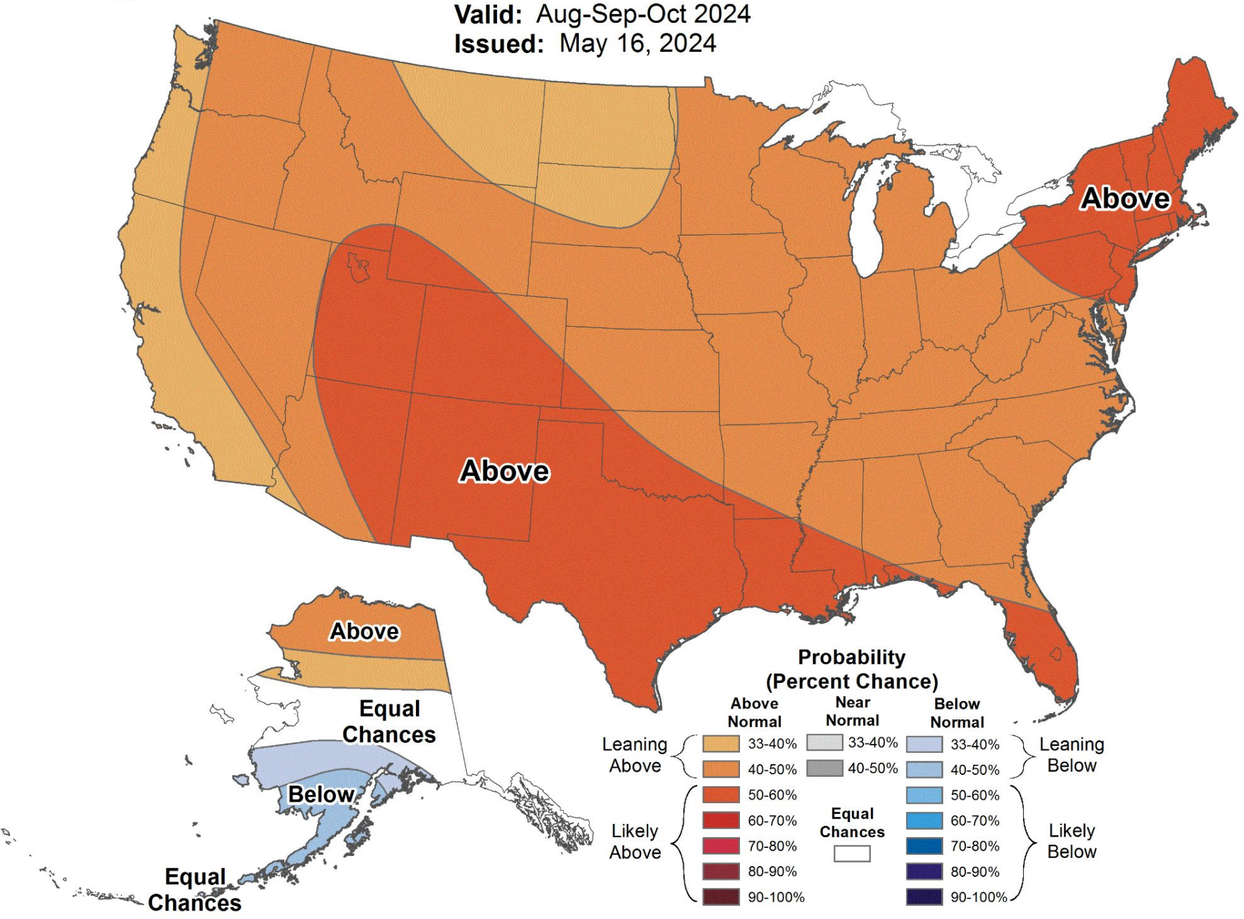


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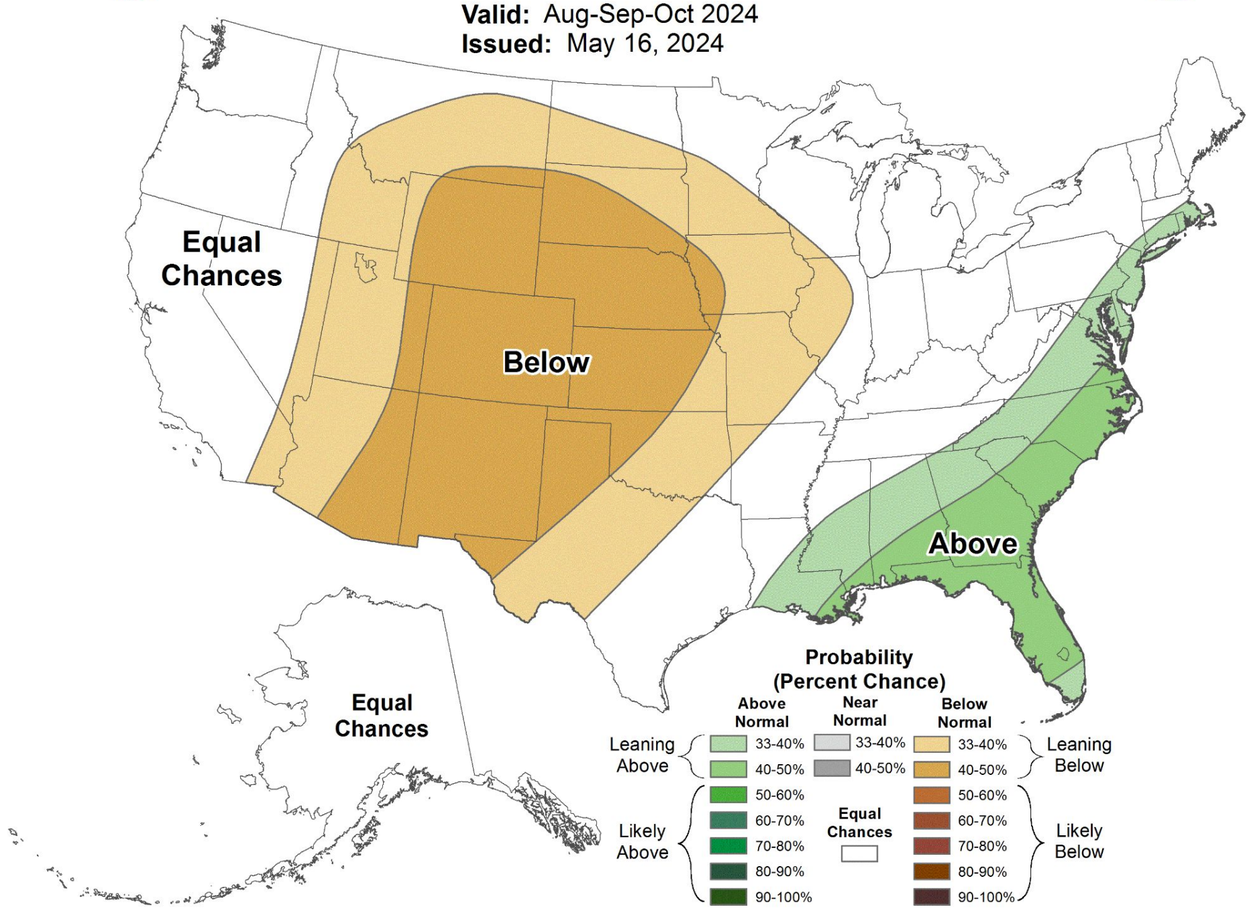

# Fire Season Outlook

Weather Forecast Office
San Francisco Bay Area
Wednesday, May 29

## Seasonal Temperature Outlook

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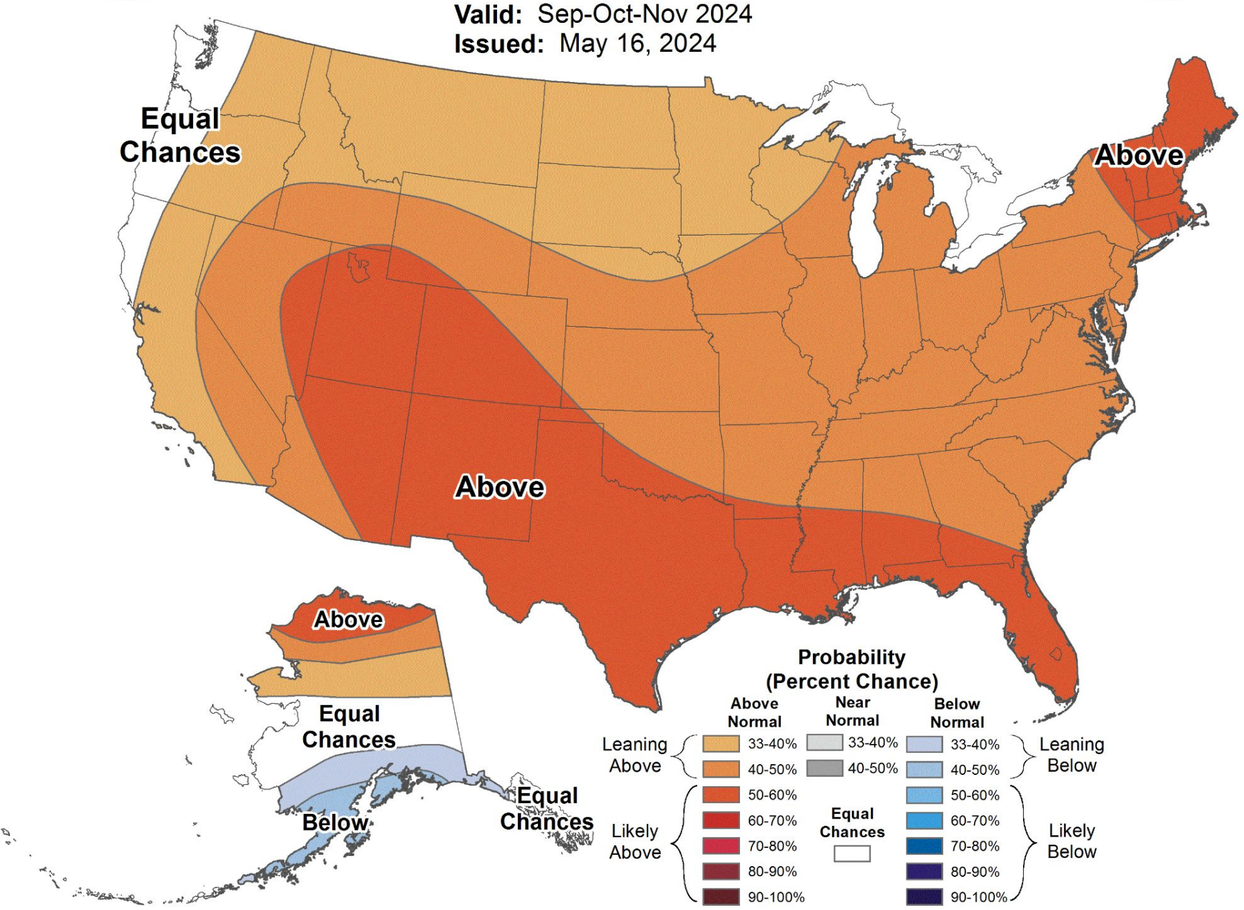


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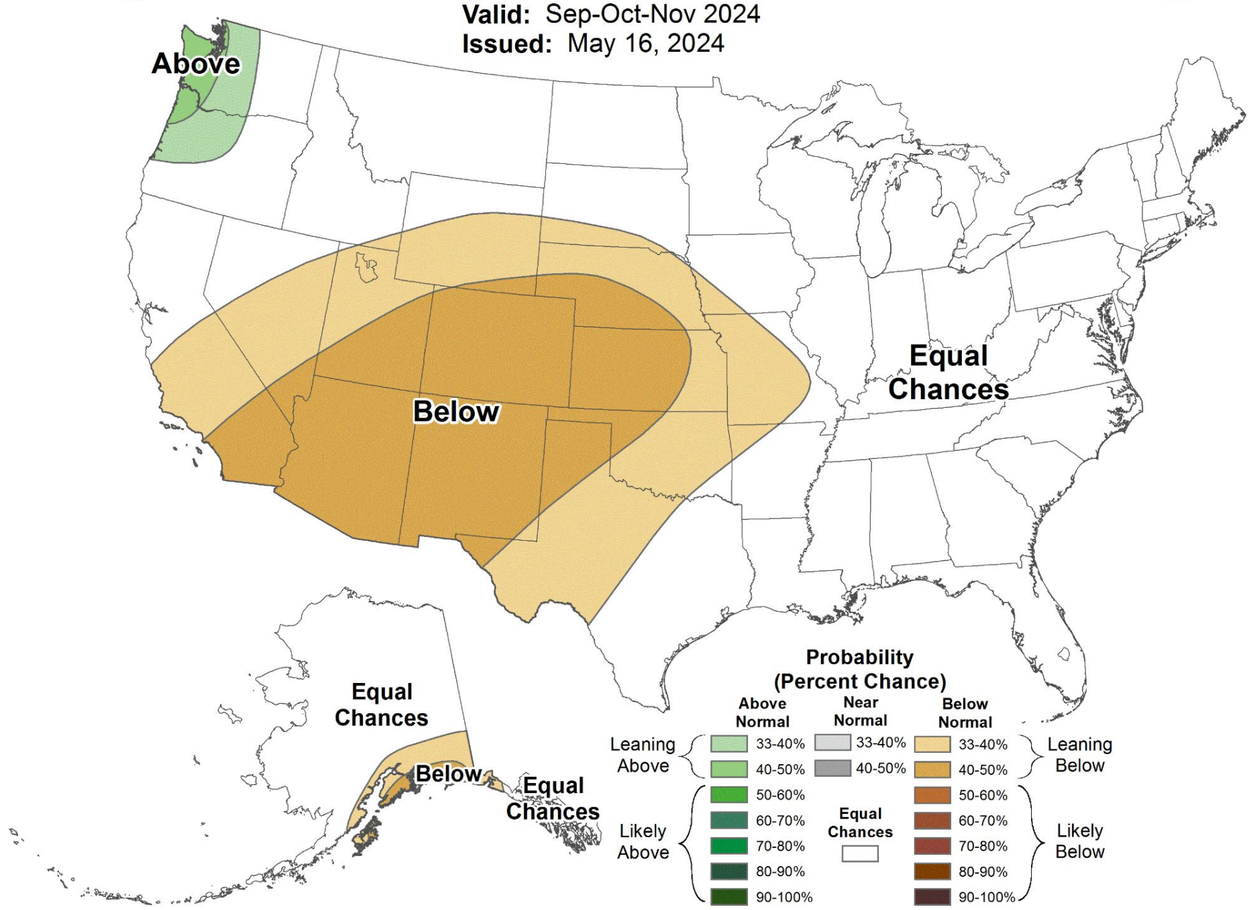

# Fire Season Outlook



## May - August 2024 North Ops Highlights

- Timely cool-moist intrusions are likely next few months thus mitigating the potential for extended critically dry fuel periods.
- A few resistance barriers to significant fire spread should be in place next 2-3 months thus leading to a slower start to the significant portion of the fire season.
- Herbaceous curing will be more noticeable latter half of May into June across the lowlands and likely lead to an uptick in Initial Attack fires and more growth.
- A longer window for prescribed burn projects is expected next 2-3 months.
- **Significant Fire Potential is normal for May when very little activity occurs then trends Near to Below Normal June-July when the occurrence increases and Normal for August when the potential typically peaks across most PSAs.**

# Fire Season Outlook

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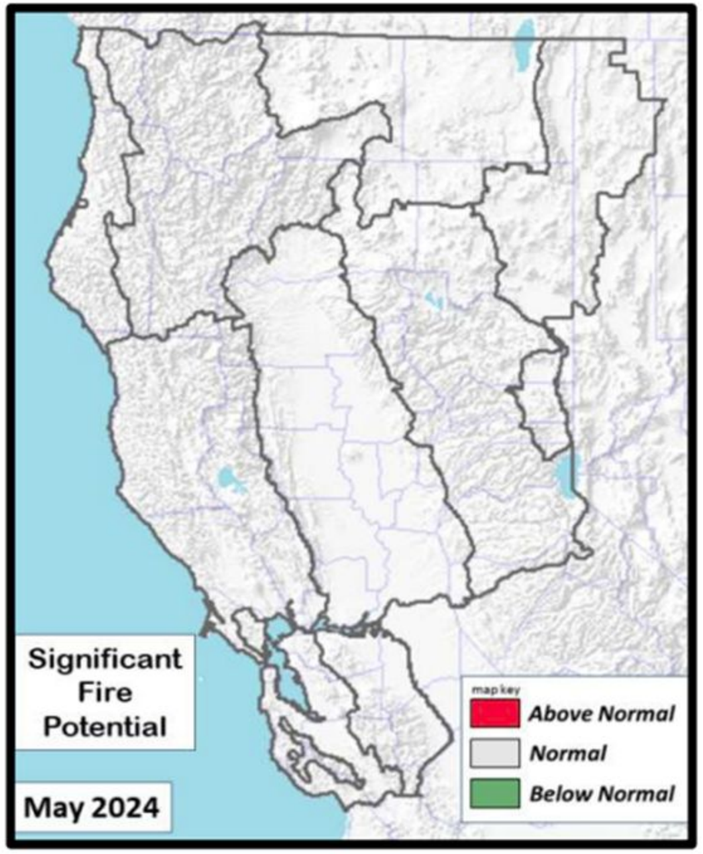
San Francisco Bay Area
Wednesday, May 29

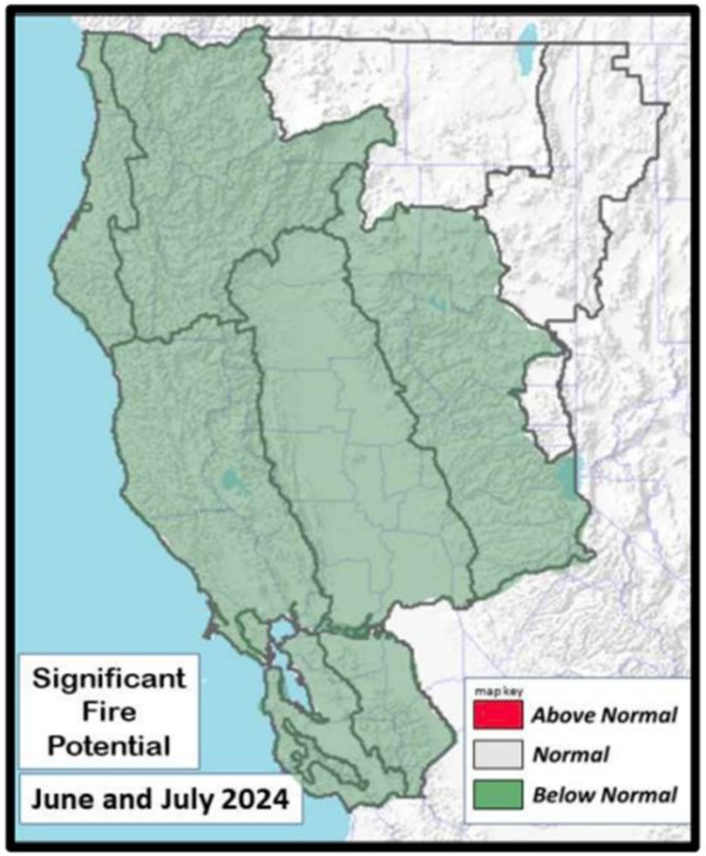
Northern Operations

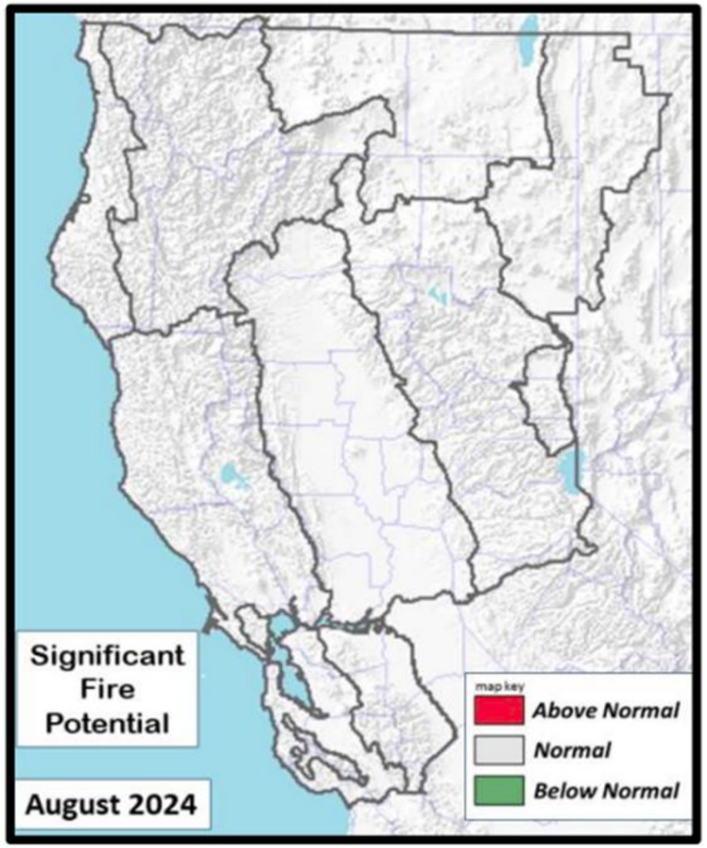
## MONTHLY/SEASONAL OUTLOOKS

ISSUED May 1, 2024 VALID May - August 2024

PREDICTIVE SERVICES



# Tools to Use



## Sources of Information

- Social Media (Twitter, FB, YT)
  - @NWSBayArea
- iNWS (for ".gov" partners)
  - inws.ncep.noaa.gov
- Slack for NWS
  - partnerservices.nws.noaa.gov/registration/
- Email Briefings
  - Send me an email to request addition
- weather.gov/bayarea
  - HeatRisk
- Phone
  - 831-656-1717 (unlisted – for ".gov" use only)

# Tools to Use






weather.gov/safetycampaign

# Summer/Fire Season 2024

## Seasonal Briefing

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National Weather Service SF Bay Area / Monterey Bay regions



skylinescenes.com

*Nicole Sarment - Meteorologist*

# Questions?



# Identifying Opportunities to Increase Cooling Center Utilization in Santa Clara County

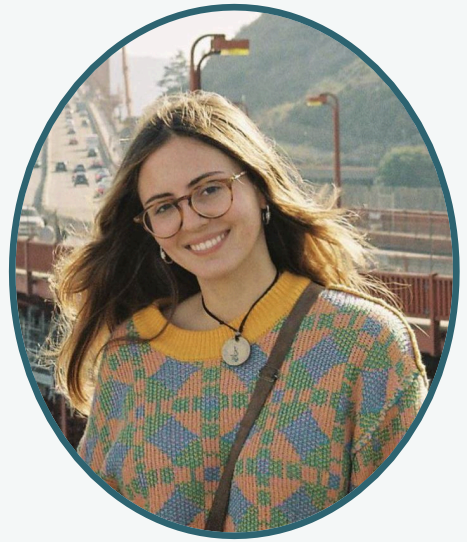

## Santa Clara University Students



Audrey Joy



Jessica Luna



Isabelle Solorzano

# Identifying Opportunities to Increase Cooling Center Utilization in Santa Clara County



Annika Espling, Audrey Joy, Jessica Luna,
Lucas Royston, & Isabelle Solórzano

# Agenda

**01**

**Research Questions**

**02**

**Internet Scan**

**03**

**Interviews**

**04**

**GIS**

**05**

**Recommendations**



# Research Questions

What **policies and programs** are **most effective** at **reducing heat risks** for vulnerable populations, including strategies that are complementary to cooling centers?

What are the **current operations of cooling centers** in SCC, in both public and privately owned facilities, and how do they impact **efficiency and accessibility**?

What are the **best practices in cooling center design and accessibility**, and how can these practices be **applied to SCC**?

# Overview of Methods

1. **Internet Scan**
    a. Heat action plans
2. **Semi-structured Interviews**
    a. in Santa Clara County
    b. Other key cities: Phoenix, Sacramento, Miami, Portland, & Chico
3. **GIS**
    a. Identifying vulnerable tracts
    b. List of Proposed Cooling Centers



# Internet Scan Findings

- Key Cities: Miami (FL), Phoenix (AZ), Sydney (Australia), Athens (Greece)
- Outreach strategies
- Urban Planning
- Unique Approaches



# Interview Findings

**Support from the County:**

- Transportation
- Outreach & Marketing
- Funding to extend hours
- Funding for generators

**Programs in Other Cities:**

- Transportation
- Outreach
- Partnerships with community organizations

**Table 2. Areas of Need for Cooling Centers**

| | |
|---|---|
| ***Accessibility*** | ▸Provide transportation to populations in need |
| ***Outreach*** | Assistance from county for:<br>▸Outreach materials and methods<br>▸TV and social media alerts |
| ***Attendance*** | ▸Attendance logs |
| ***Expansion of Services*** | ▸Reliable internet<br>▸Extended hours<br>▸Food services<br>▸Bottled water |
| ***Partnerships*** | ▸Improve non-governmental partnerships & resource-sharing |

# GIS

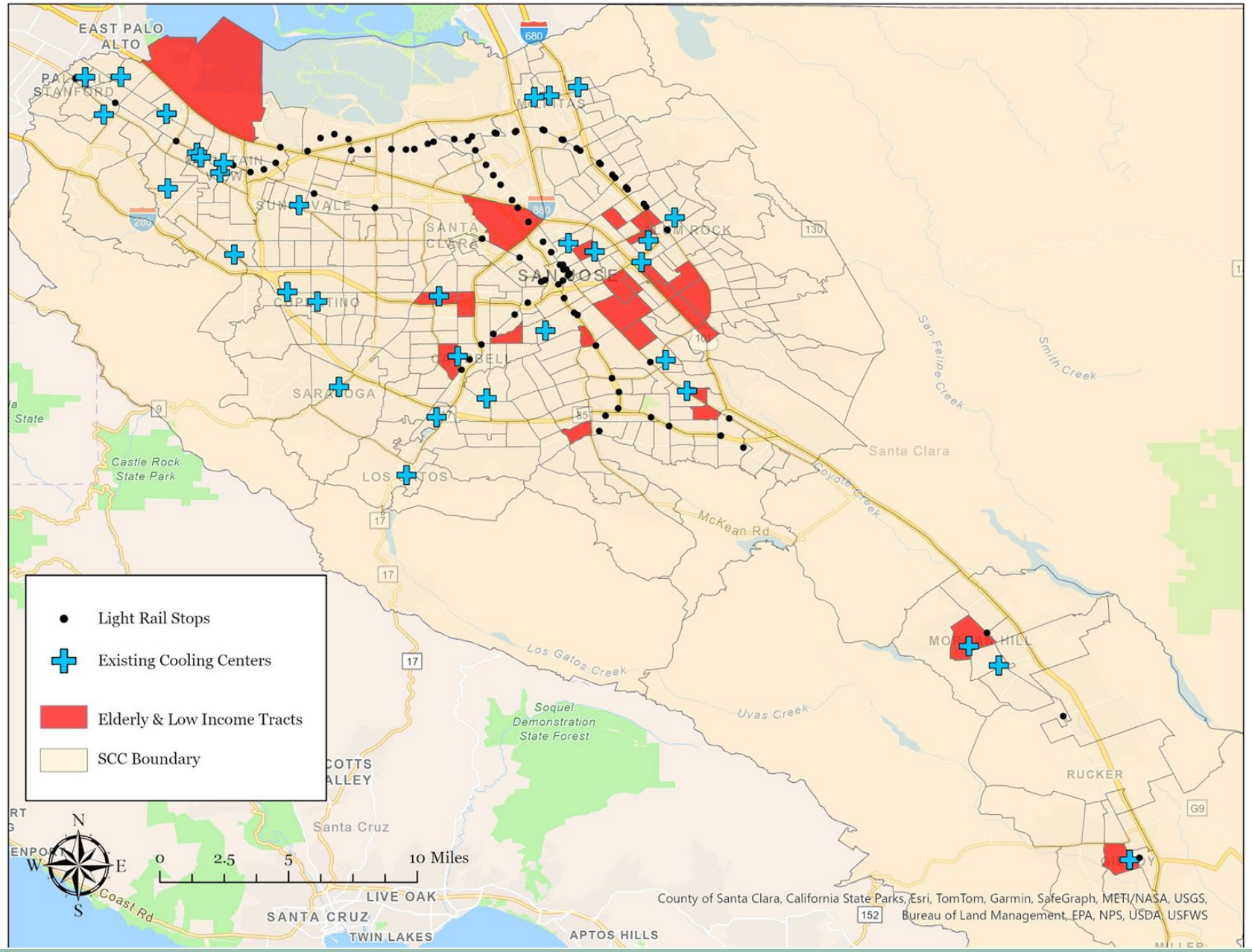



*Figure 1. Tracts with High Shares of People Over Age 65 and Low Incomes in Santa Clara County*

# GIS

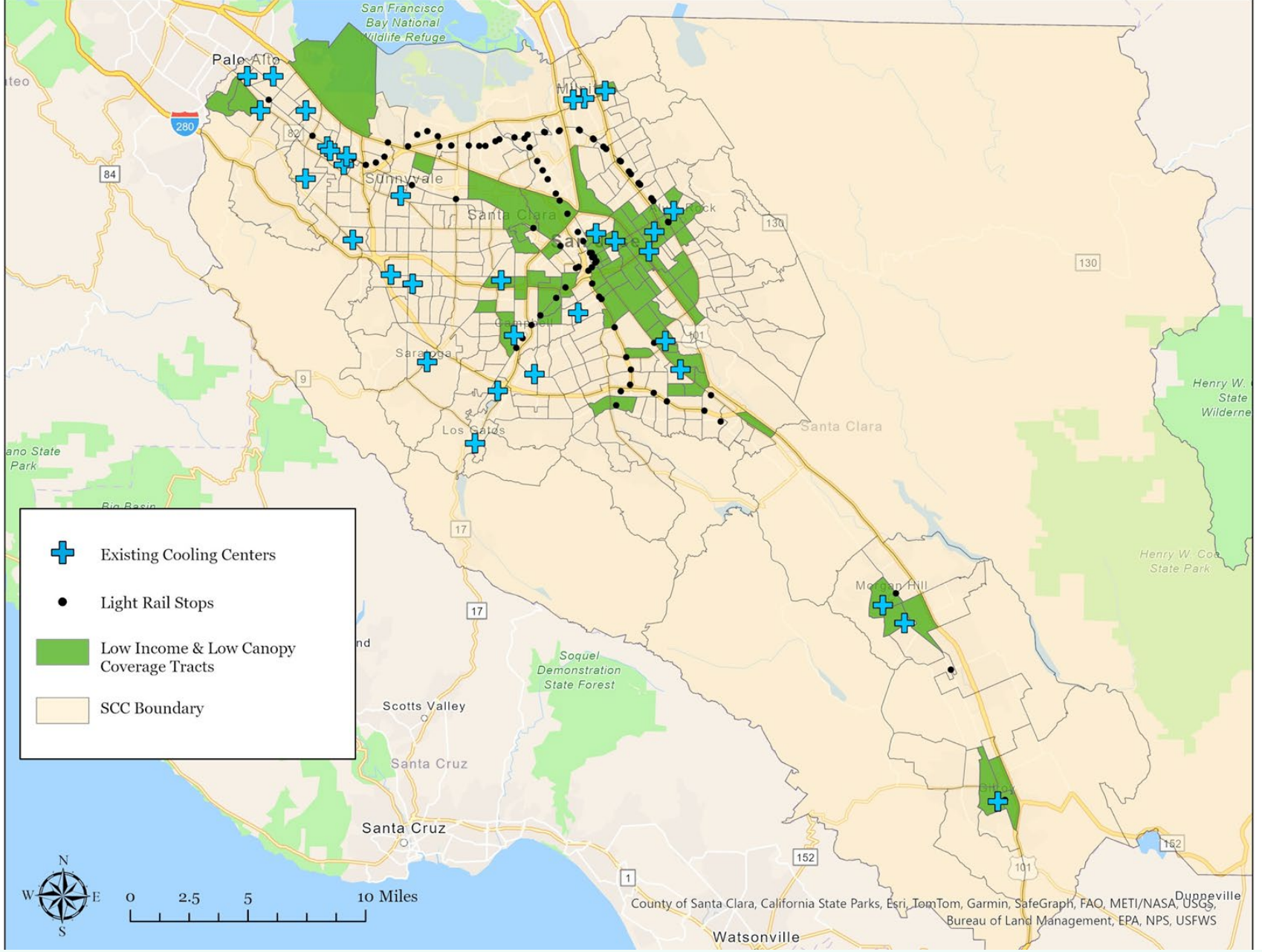



*Figure 2. Low Income and Low Canopy Coverage Tracts in Santa Clara County*

# GIS

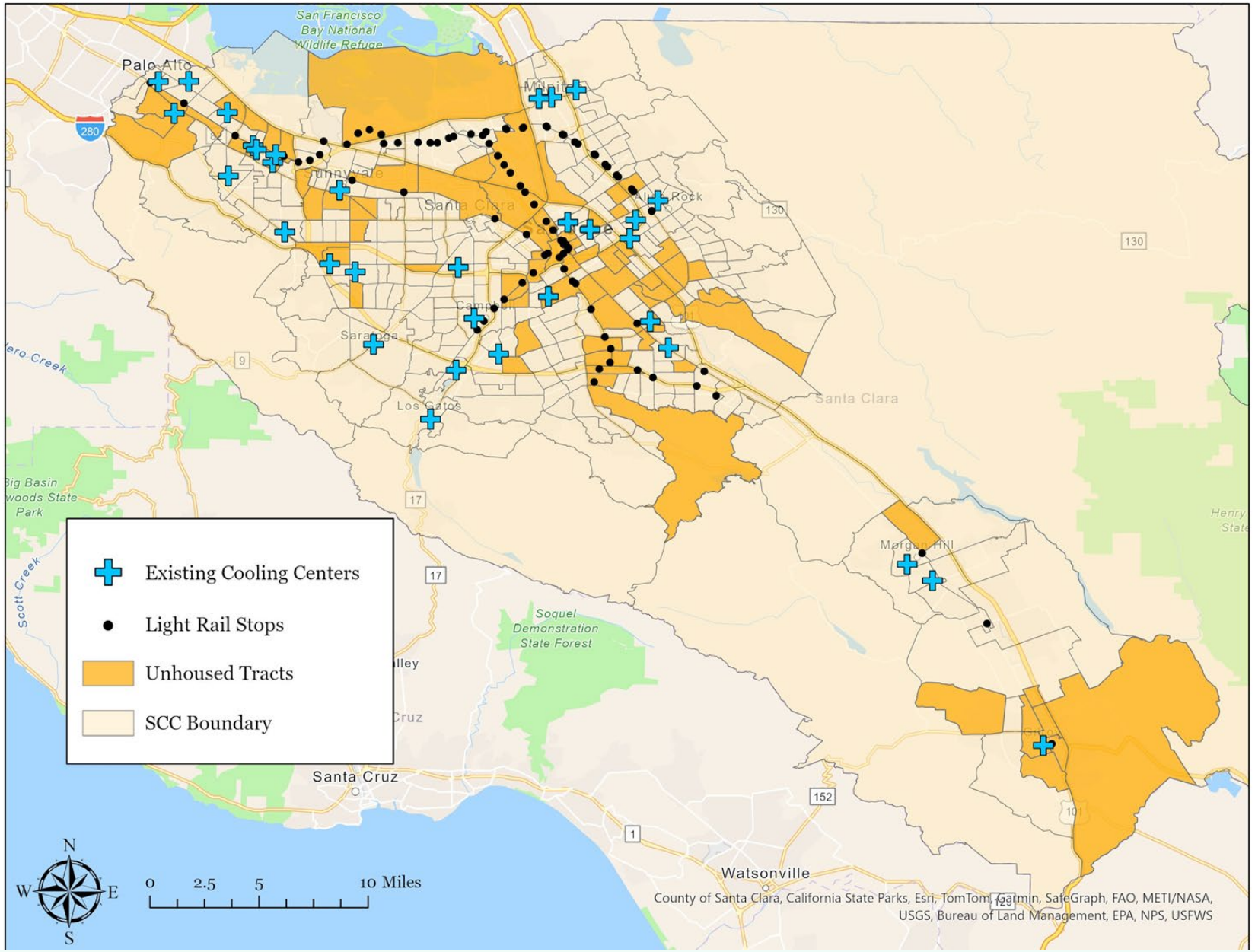



*Figure 3. High Shares of Unhoused Residents in Santa Clara County*

# Final Map

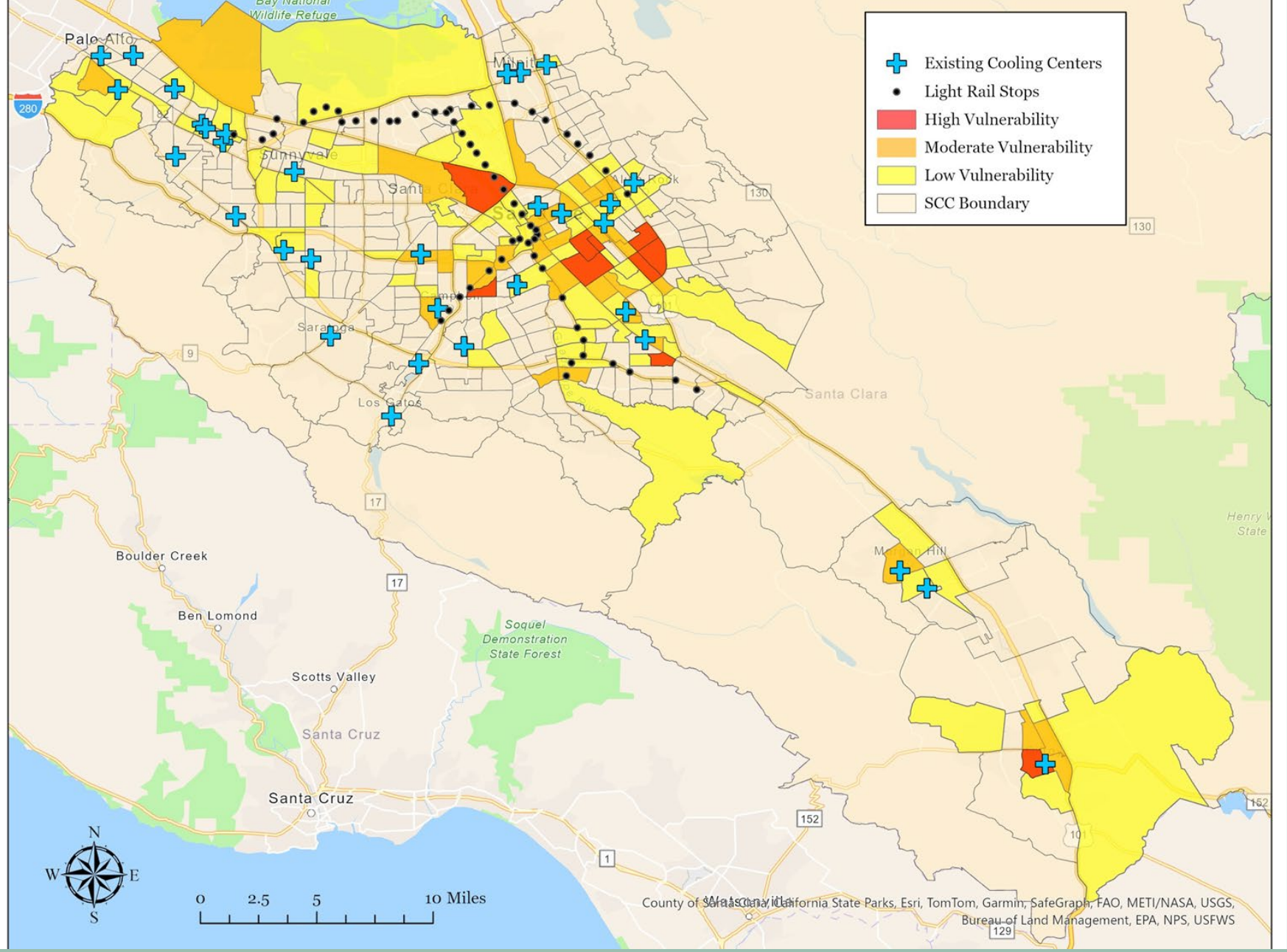



*Figure 4: Limited Accessibility of Cooling Centers for Vulnerable Populations*

# Proposed Cooling Centers

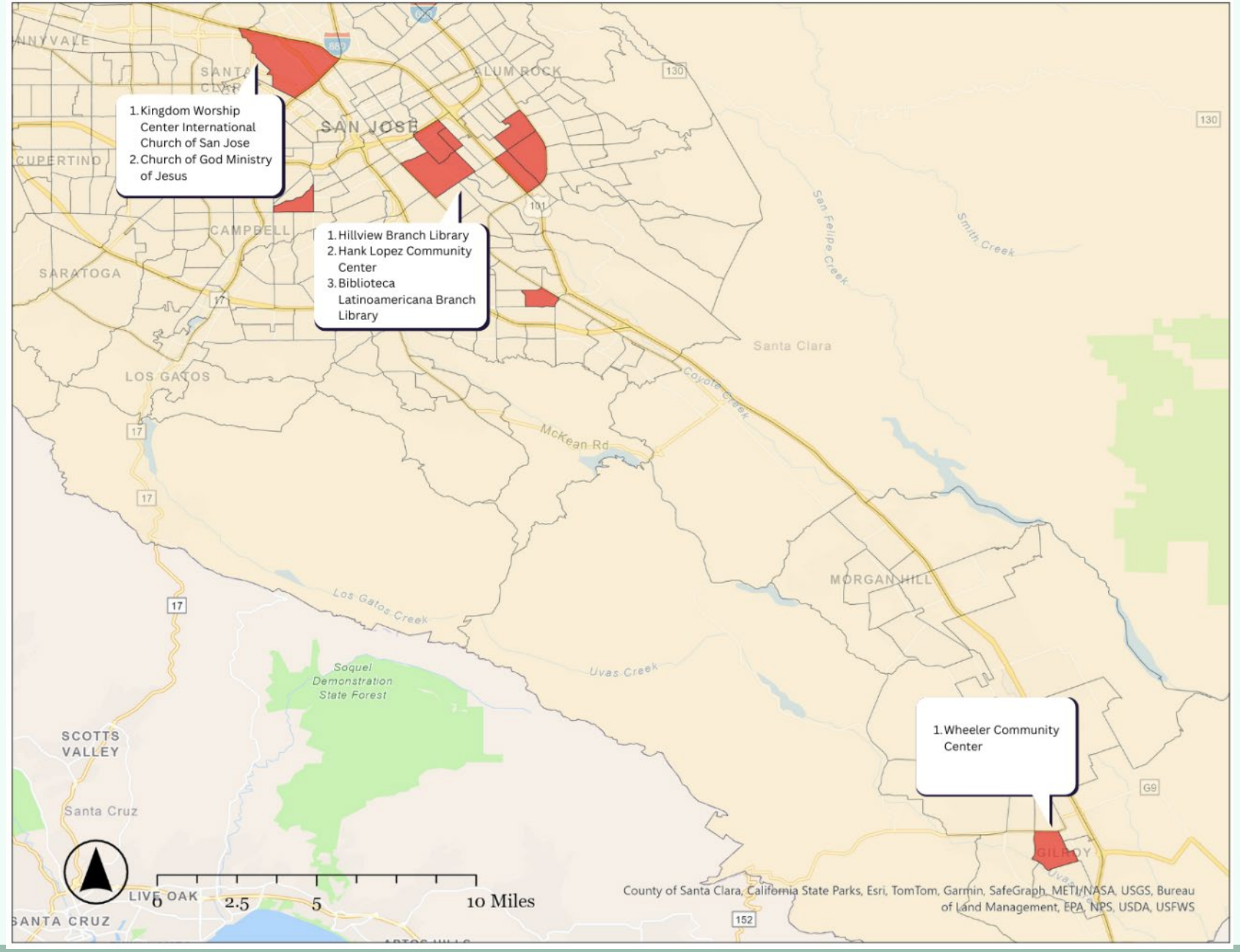
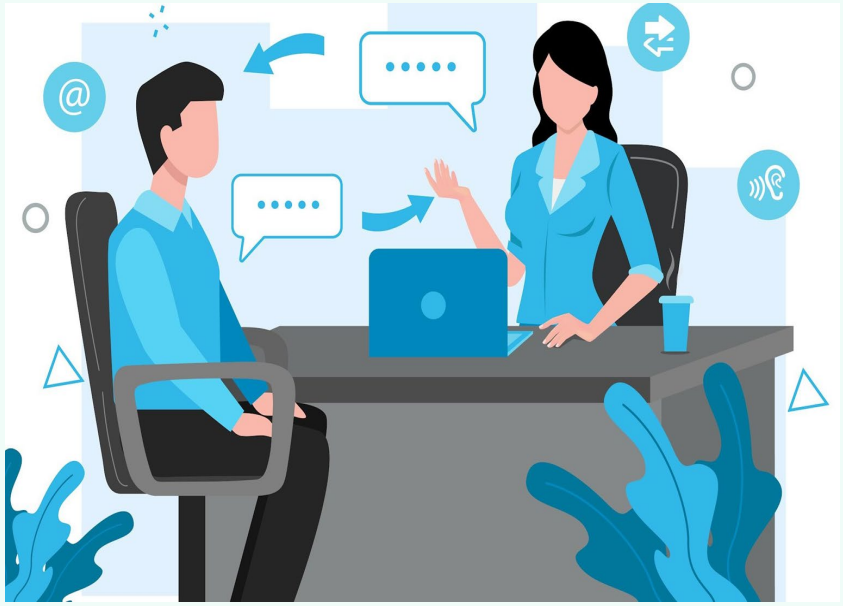



*Figure 5: Example of Potential Cooling Centers within High Vulnerability Tracts in San Jose*

# Recommendations

1. **Standardize communication and protocols**; ensure availability of a year-round map; and enhance in-person outreach efforts.
2. **Designate more cooling centers** in Downtown and East San Jose, as well as South County; partner with VTA to provide free transportation; and extend hours.
3. **Increase collaboration with local community-based partners** to enhance accessibility for vulnerable populations; and acknowledge connections of such organizations already present within communities.



# Questions?



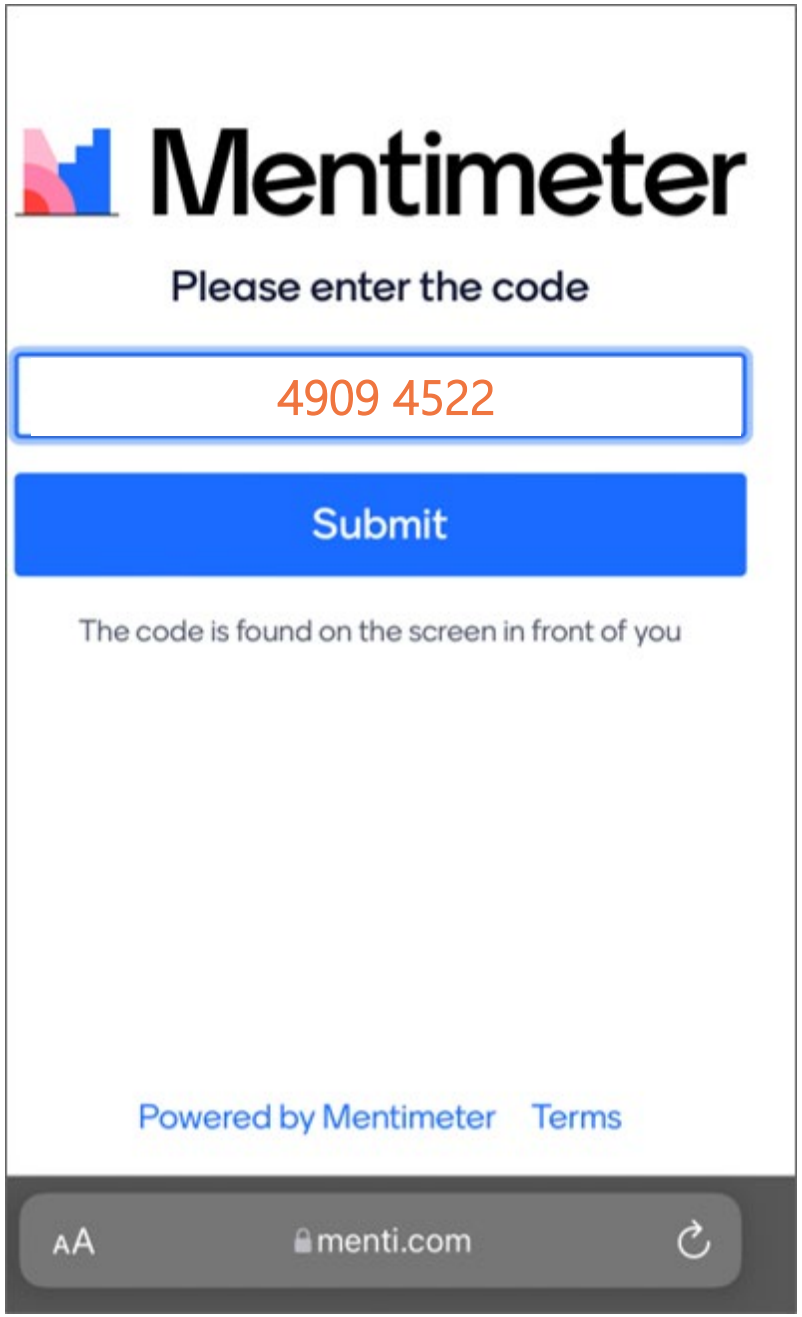
# Thank you!

Special thanks to Erin Xavier from the Climate & Health Program at SCC Public Health Department for providing us with guidance over the course of this project. We would like to thank Dr. C.J. Gabbe from SCU for his academic guidance and support with our report. We appreciate the Public Health Department staff and our interviewees for providing us with information for our project.



# Questions?

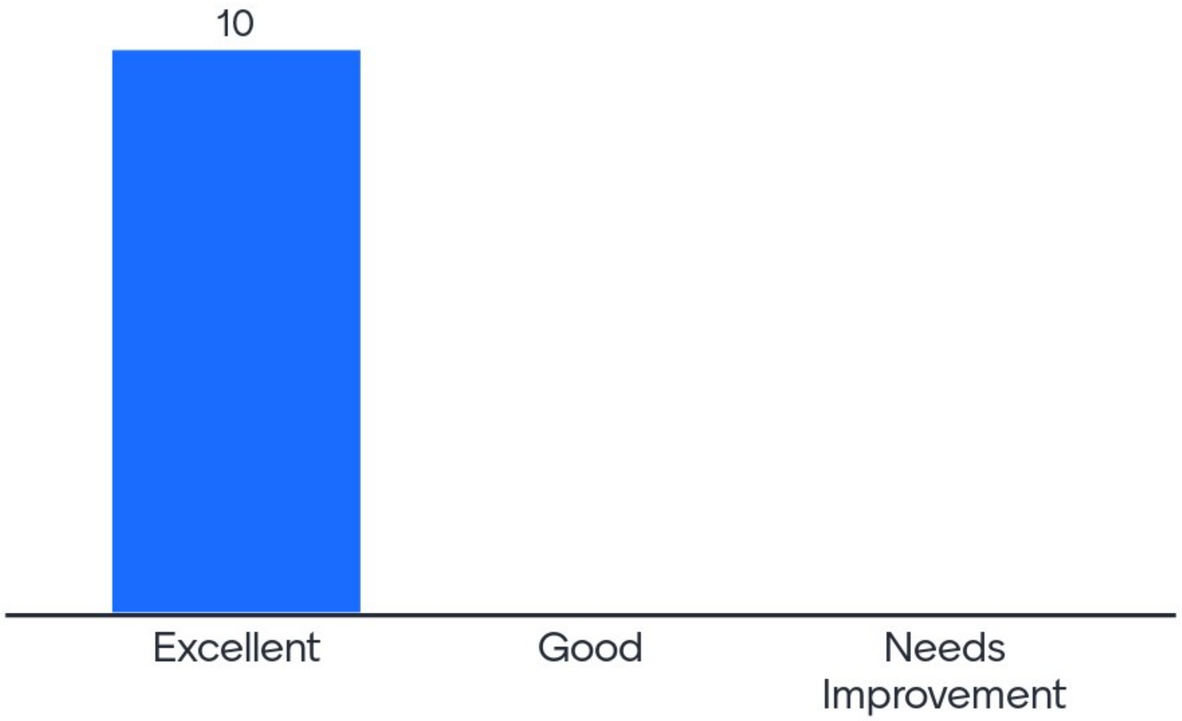





# Feedback Survey

- Visit Menti.com
- Enter Code: 4909 4522 to provide your input

# How would you rate the quality of today's meeting?



Mentimeter

# What ideas do you have to improve future HAQR meetings?

More discussion time. It was great to talk with the NWS, but would have been great to have time with the students.

more time for Q&A with students

Discussion about tree canopy and options to mitigate heat short/long term. What's being planned?

# Thank you!


Co-Chairs

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## Next Quarterly Meeting

August 28th
10:30am – 12:00pm