WELCOME!

SHMP ADVISORY COMMITTEE
MEETING 1: RISK AND FUTURE CONDITIONS

Cal OES
GOVERNOR'S OFFICE
OF EMERGENCY SERVICES



TODAY'S AGENDA

- Safety Briefing
- Opening Remarks
- New Meeting Format
- Current Timeline
- Review 2025 FEMA Policy Guide Elements
- Hazard Mitigation Assessment Unit – RA Data Request Review & Discussion
- Next Steps
- QA

SAFETY BRIEFING



OPENING REMARKS

- Director - Caroline Thomas Jacobs
- Deputy Director - Robyn Fennig

WHAT IS THE SHMP FOR?

- Foundation for Risk Reduction to achieve a more resilient California
- Required for Federal Funding Eligibility
- Aligns Statewide Mitigation Priorities
- Provides the Basis for Continued Hazard Mitigation Work

2023 SHMP

State Mitigation Planning | California Governor's Office of Emergency Services

NEW MEETING FORMAT
SHMP ADVISORY COMMITTEE (**SAC**)

What is the SAC?

Interagency partners supporting the development of the 2028 State Hazard Mitigation Plan (SHMP)

Why does the SAC matter?

Helps decide which hazard, risk, and capability information is used in the plan, ensuring the best and most up-to-date information is incorporated.

How will the SAC work?

Four proposed meetings will provide a structured progression through major SHMP components.

TIMELINE 2026

Timeframe	Major Planning Activities
May 2026	2028 SHMP Update Kickoff
July–November 2026	Establish the SHMP Advisory Committee (SAC) structure; Conduct Mitigation Actions outreach to partners; Determine cadence with Mitigation Assessments Unit (MAU)and identify datasets from 2023 SHMP for validation update; Build out timeframe and schedule SAC meetings; Provide data requests to interagency partners and meeting schedule.
November 2026	**Strategic Advisory Committee Meeting 1 – GIS, Hazard Data, Climate & Future Risk (Risk & Future Conditions)**
November 2026–January 2027	Validate hazard profiles; Conduct Risk Assessment and vulnerability analysis with MAU; Evaluate 2023 SHMP cascading impacts from hazards; Conduct partner coordination and technical coordination as needed; Begin identification of mitigation opportunities.

TIMELINE 2027

January 2027	**Strategic Advisory Committee Meeting 2 – State Capability & Land Use**
January–March 2027	Document authorities, regulations, policies, programs, staffing, funding, technical and administrative capabilities that have changed in past 5 years; Review mitigation initiatives and SHMP integration; Analyze new land use and future development trends; Continue drafting Risk Assessment.
March 2027	**Strategic Advisory Committee Meeting 3 – Community & Infrastructure**
March–May 2027	Complete Risk revisions; Review and determine updates for Mitigation Strategy requirements; Review and update mitigation actions; Evaluate new State and Federal funding opportunities; Begin looking at implementation responsibilities; Develop quarterly reporting/performance measures moving into the future; Begin draft Plan Maintenance procedures.
May 2027	**Strategic Advisory Committee Meeting 4 – Mitigation Strategy & Implementation**
May-December 2027	Incorporate SAC recommendations; Resolve outstanding technical and policy issues; Finalize administrative draft SHMP; Conduct internal Cal OES review; Prepare document for executive and partner review.

TIMELINE 2028

January–May 2028	Public review; Finalize any outstanding edits for SHMP; Obtain required approvals; Submit the 2028 SHMP to FEMA for review and Approval/Adoption.

FEMA STATE MITIGATION PLANNING POLICY GUIDE 2025



The State Mitigation Planning Policy Guide is the Federal Emergency Management Agency's (FEMA) official policy on and interpretation of the applicable statutes and mitigation planning regulations at 44 Code of Federal Regulations (CFR) Part 201.

State Mitigation Planning Policy Guide (2025)

POLICY GUIDE ELEMENTS - SAC MEETING 1

S2 – Planning Process

- Technical coordination
- Data validation
- Interagency technical collaboration

S3-S7: Hazard Identification and Risk Assessment

- Hazard Identification, probability, state-asset vulnerability/losses, jurisdictional vulnerability, and development trends
- Early warning technologies
- Nature-based mitigation opportunities
- Additional partner resources

State Mitigation Planning Policy Guide

HAZARD MITIGATION ASSESSMENT UNIT



The Mitigation Assessment Unit (MAU) applies scientific research and data analysis to monitor natural hazards, assess risk, and evaluate the effectiveness of mitigation projects during actual hazard events.

"We're down the hole to Wonderland, and no White Rabbit to guide us."

- Dean Koontz

LOSS AVOIDANCE STUDY PLUG

We're looking for reviewers!

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Mitigationassessments@caloes.ca.gov

WHO ARE WE?

- PM I Brandon Fore, MPA
- **RDS III James Kupihea, PhD**
- RDS II Ryan Conway, PhD
- RDS II Mohammad Mirmazloumi, PhD
- RDS I Azar Ostovan, PhD
- RDS I Erica De Biasio, PhD
- RDA I Jared Eastlick
- Sr ESC Matthew Conner
- ESC Mae Howe

WHAT DO WE DO?

- Hazard Monitoring & Tracking
- Leadership Data Requests
- Reports & Dashboards
- Loss Avoidance Studies
- Benefit-Cost Analysis Review
- Project Feasibility
- Mitigation Prioritization
- Site Visits
- Remote Sensing & Change Detection
- LiDAR & Data Modeling
- Hydraulic & Flood Modeling
- Wildfire Modeling
- Machine Learning & Image Processing
- Research & Emerging Technologies

OUR ROLE IN THE SHMP

- The MAU leads the hazard mapping, exposure analysis, and risk assessment behind the SHMP update.
- Where the 2023 SHMP did not report replacement value, we will calculate it.
- We use peer-reviewed research, federal datasets, and state agency data to write the risk assessment chapters.
- Today, that means working with you to confirm the datasets behind each hazard chapter for 2028.

WHY THIS SECTION MATTERS

This section focuses on validating hazard identification, probability, state asset exposure, and jurisdictional vulnerability for the 2028 SHMP update (Policy Guide Elements S3–S7).

For each hazard, we need to determine whether the existing data source should be:

- Retained
- Updated
- Replaced

Your input will help establish the datasets used in the 2028 risk assessment and inform subsequent updates.

SEISMIC HAZARDS

- Chapter 5 - **Earthquakes**
- Chapter 12 – **Landslides, Debris Flow & Other Mass Movements**
- Chapter 14 - **Tsunami & Seiche**
- Chapter 17 – **Snow Avalanche**
- Chapter 19 - **Volcano**



SEISMIC HAZARDS – DATA REQUESTING

Earthquake:

Dataset	Agency	What we currently use / propose
CGS Seismic Hazard Zone Maps (liquefaction)	CGS	Used to identify liquefaction-susceptible areas statewide.
Earthquake-Induced Landslide Zones mapping	CGS	Included in the 2023 SHMP; confirm whether CGS recommends using it again, an updated version, or a different product for 2028.
Shaking Potential / NEHRP Soils Mapping (Map Sheet 48, Revised 2014)	CGS	Used to identify ground-shaking amplification potential by soil type; confirm whether an updated digital raster/GIS feature service is available for 2028.
California Earthquake Clearinghouse coordination data	CGS	Used to describe post-earthquake information-sharing processes.
USGS 2023 National Seismic Hazard Model (NSHM) data (proposed alternative to UCERF3)	CGS / USGS	The 2023 chapter cites UCERF3 (2014); confirm whether CGS recommends transitioning to the updated 2023 NSHM for 2028 probability calculations.

SEISMIC HAZARDS – DATA REQUESTING

Landslide, Debris Flow & Other Mass Movements:

Dataset	Agency	What we currently use / propose
CGS Landslide Inventory	CGS	Statewide inventory of mapped historical landslides.
CGS Landslide Susceptibility / Slope Stability Mapping	CGS	Used to characterize landslide susceptibility statewide.
Post-Fire Debris Flow Modeling (proposed new)	CGS	Currently sourced from USGS (federal); proposed new CGS source for 2028.

SEISMIC HAZARDS – DATA REQUESTING

Tsunami & Seiche:

Dataset	Agency	What we currently use / propose
Tsunami Hazard Area (THA) GIS geodatabase (2021-2022 update)	CGS	Used to identify statewide tsunami inundation zones; CGS released an updated THA layer in 2021-2022 replacing the older 2009 maps, so the data table should request the latest geodatabase specifically.
Tsunami Inundation Maps (e.g., Crescent City)	CGS	Used for local-scale inundation modeling in high-risk port communities.

SEISMIC HAZARDS – DATA REQUESTING CONT.

Snow Avalanche

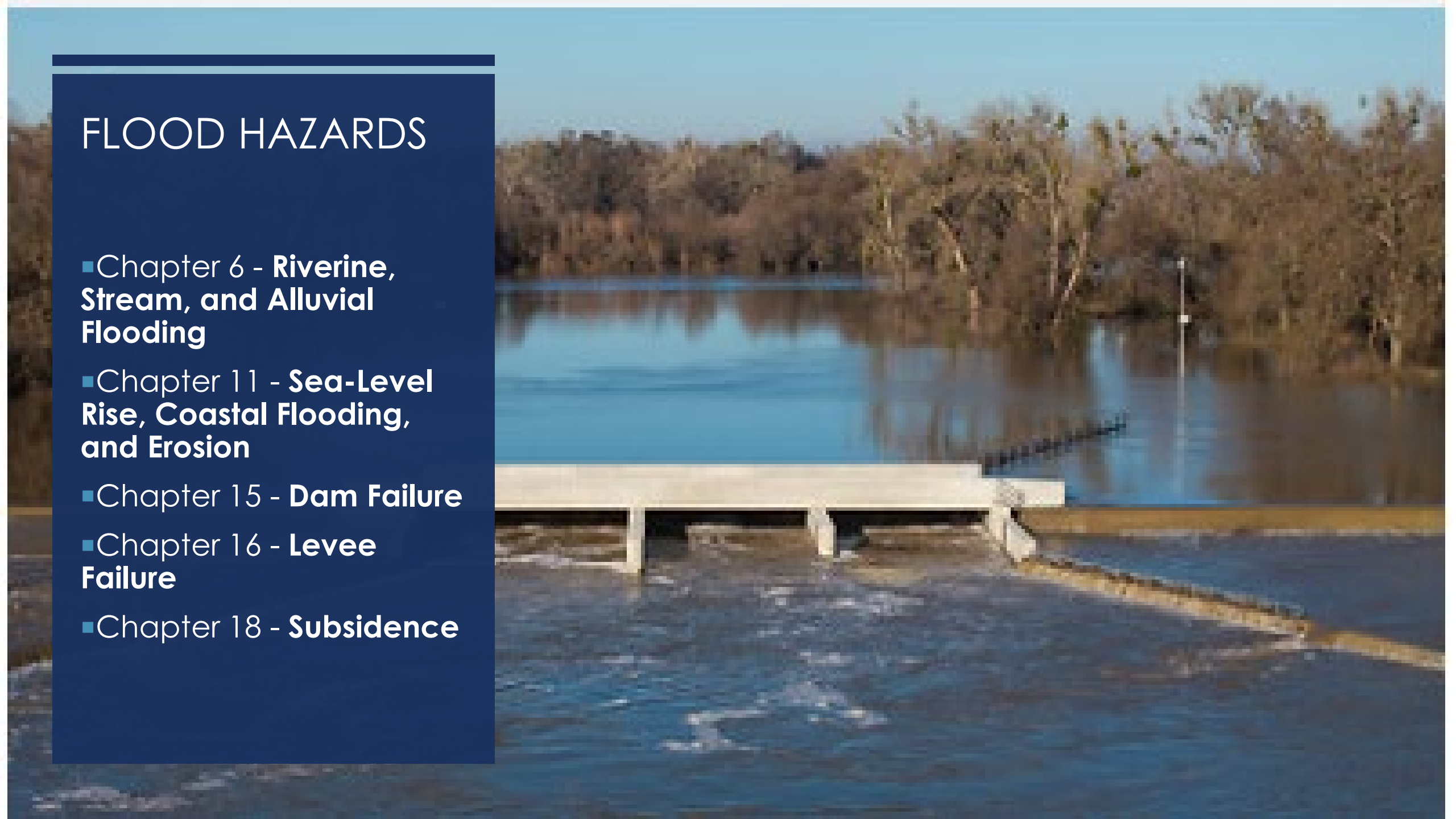
- *We did not identify a California state-curated primary dataset for this hazard in the 2023 SHMP; sourcing relied on federal (NOAA) and non-governmental (Avalanche.org) data, which are outside this state-partner request. Please let us know if your agency maintains a relevant dataset for 2028.*

Volcano

- *The 2023 SHMP's volcano hazard mapping is primarily USGS-sourced (federal, not part of this state-partner request); one figure also cites Caltrans and CDFW as contributing data layers within that USGS map. If CGS, Caltrans, or CDFW maintain an updated or standalone layer for 2028, please let us know.*

FLOOD HAZARDS

- Chapter 6 - **Riverine, Stream, and Alluvial Flooding**
- Chapter 11 - **Sea-Level Rise, Coastal Flooding, and Erosion**
- Chapter 15 - **Dam Failure**
- Chapter 16 - **Levee Failure**
- Chapter 18 - **Subsidence**



FLOOD HAZARDS – DATA REQUESTING

Riverine, Stream, and Alluvial Flooding

Dataset	Agency	What we currently use / propose
State-Owned Dams dataset	DWR	Used to characterize dam-failure inundation exposure.
State Water Project infrastructure dataset	DWR	Used to characterize exposure of water-conveyance infrastructure.
Best Available Maps (proposed new)	DWR	Proposed California-sourced alternative to the federal FEMA flood zone mapping used in 2023; new ask for 2028.
2027 Central Valley Flood Protection Plan (proposed new)	DWR	Expected release in September 2027; propose as an updated source for Central Valley flood management once available.
Flood-MAR / Forecast-Informed Reservoir Operations (FIRO) data (proposed new)	DWR	Named in the 2023 SHMP only as a future mitigation opportunity, not yet used as a data source; confirm whether usable flood-forecasting or recharge data now exists for 2028.
Fifth California Climate Change Assessment (precipitation/runoff projections)	CNRA / CEC / LCI	Replaces the Fourth Assessment (2018) data currently cited for flood probability and climate impacts; the Fifth Assessment is expected in October 2026.

FLOOD HAZARDS – DATA REQUESTING

Sea-Level Rise, Coastal Flooding, and Erosion

Dataset	Agency	What we currently use / propose
Additive Effects of Sea-Level Rise mapping	Coastal Commission	Used to characterize compounding coastal hazard effects.
Decadal Sea-Level Rise Projections (e.g., San Francisco)	OPC / CNRA	Used to project state asset exposure to future sea-level rise.
Fifth California Climate Change Assessment (sea-level rise projections)	CNRA / CEC / LCI	Replaces the Fourth Assessment (2018) data currently cited for sea-level rise probability and climate impacts; the Fifth Assessment is expected in October 2026.

FLOOD HAZARDS – DATA REQUESTING CONT.

Dam Failure

Dataset	Agency	What we currently use / propose
Downstream Hazard Potential Classifications	DSOD (DWR)	Used to classify dam hazard potential statewide.
Dam Inundation Mapping (fmds.water.ca.gov/damim)	DSOD (DWR)	Used to characterize inundation extent below state-regulated dams.
Spillway Re-Evaluation Program data (proposed new)	DSOD (DWR)	DSOD's statewide post-Oroville (2017) program requiring dam owners to re-evaluate spillway adequacy; not currently cited anywhere in the 2023 chapter. Proposed as a new source for 2028.

FLOOD HAZARDS – DATA REQUESTING

Levee Failure

Dataset	Agency	What we currently use / propose
Central Valley Levee Flood Protection Zones	DWR	Used to identify areas protected by, and exposed behind, Central Valley levees.

FLOOD HAZARDS – DATA REQUESTING CONT.

Subsidence

Dataset	Agency	What we currently use / propose
Critically Over-Drafted Groundwater Basins	DWR	Used to identify areas most susceptible to subsidence from groundwater overdraft.
Statewide Land Subsidence Monitoring data	DWR	Used to characterize observed subsidence extent and magnitude.
SGMA Groundwater Sustainability Plan data (proposed new)	DWR	The 2023 chapter cites SGMA only as background law, not as vulnerability data; basin-by-basin GSP compliance and sustainability status data is proposed as a new source for 2028.
CASGEM groundwater elevation monitoring data (proposed new)	DWR	Statewide groundwater elevation well network (since 2009, 515 basins); not currently cited in the 2023 chapter.

*While not necessarily a flooding specific hazard we've identified the majority of assets under DWR.

FIRE HAZARDS

- CHAPTER 9 – **WILDFIRE**

  CHAPTER 22 – **URBAN STRUCTURAL FIRE**



FIRE HAZARDS

Wildfire

Dataset	Agency	What we currently use / propose
Fire Hazard Severity Zone (FHSZ) Maps	CAL FIRE	Used to classify statewide wildfire hazard severity.
Wildfire smoke / air quality monitoring data	CARB	Used to characterize smoke exposure impacts.
Forest Action Plan (proposed new)	CAL FIRE / Board of Forestry	Currently out for public comment; expected release in 2027. Proposed as an updated source for forest and wildfire risk management data.
Fifth California Climate Change Assessment (wildfire projections)	CNRA / CEC / LCI	Replaces the Fourth Assessment (2018) data currently cited for wildfire probability and climate impacts; the Fifth Assessment is expected in October 2026.

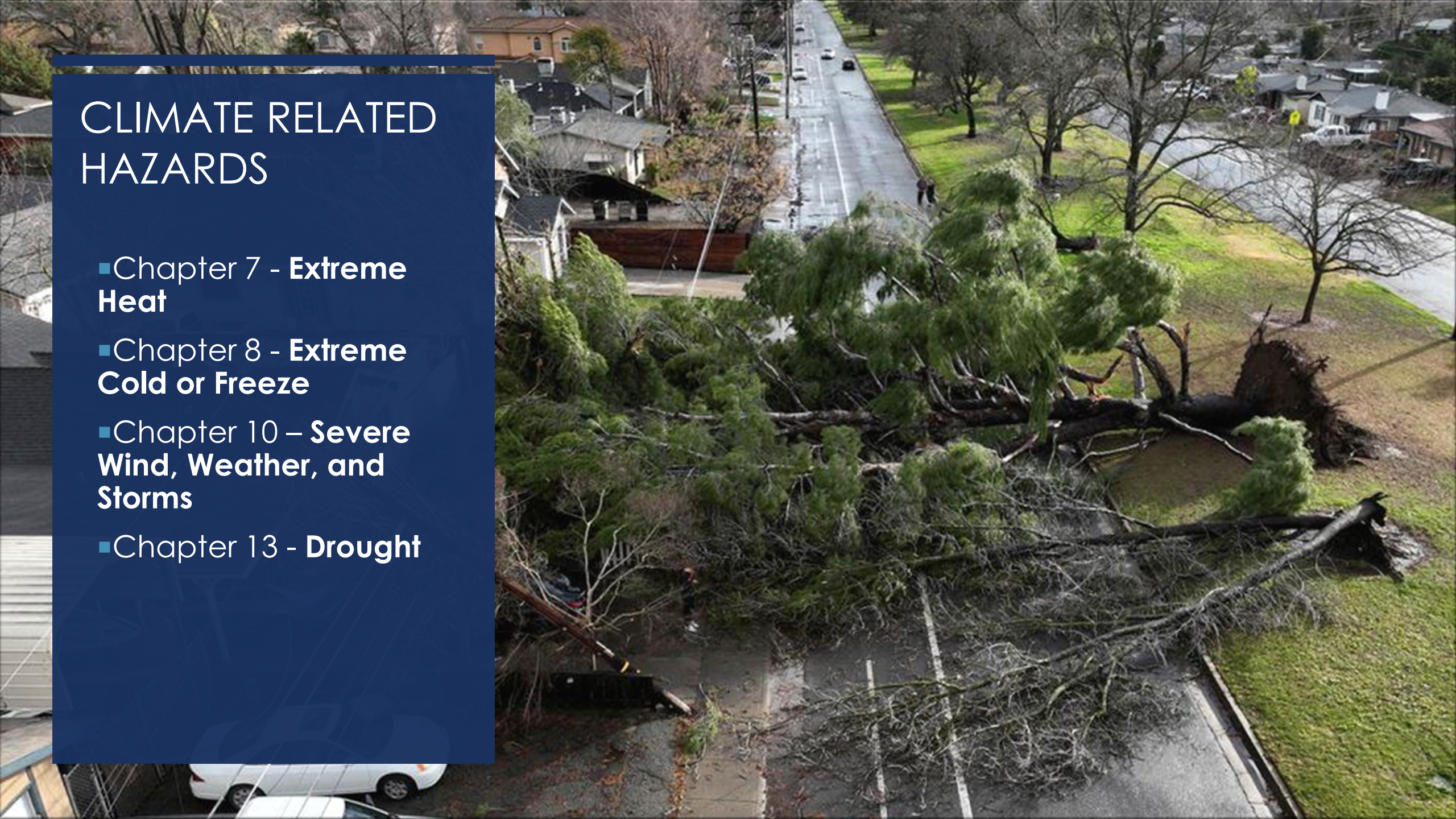
FIRE HAZARDS

Urban Structural

- This hazard was not in the original tracker scope and has no confirmed 2023 state data source on file. OSFM (Office of the State Fire Marshal, under CAL FIRE) may maintain relevant incident data; please confirm whether a state-curated dataset exists for 2028.

CLIMATE RELATED HAZARDS

- Chapter 7 - **Extreme Heat**
- Chapter 8 - **Extreme Cold or Freeze**
- Chapter 10 – **Severe Wind, Weather, and Storms**
- Chapter 13 - **Drought**



CLIMATE RELATED HAZARDS

Extreme Heat

Dataset	Agency	What we currently use / propose
Cal-Adapt climate projections (temperature)	CEC	Used for the historical and projected temperature data informing the heat hazard narrative (the 2023 chapter cites Cal-Adapt directly).
California Environmental Health Tracking Program (Tracking California) heat-related illness data	CDPH	Proposed California-sourced dataset, run by the Public Health Institute in partnership with CDPH and CDC, to supplement the CDC heat-illness data used in 2023.
CalHeatScore (California Communities Extreme Heat Scoring System)	OEHHA	Released December 2024, after the 2023 SHMP was published; not yet incorporated. Proposed as a new primary source for heat vulnerability scoring in 2028.
Fifth California Climate Change Assessment (heat projections)	CNRA / CEC / LCI	Replaces the Fourth Assessment (2018) data currently cited for extreme heat probability and climate impacts; the Fifth Assessment is expected in October 2026.

CLIMATE RELATED HAZARDS

Drought

Dataset	Agency	What we currently use / propose
Water Supply Conditions reporting	DWR	Used to characterize statewide water supply conditions and drought severity context.
Urban Water Management Plans (proposed new)	DWR	Statewide water-supply-reliability plans DWR collects from every urban water supplier; not currently cited in the 2023 chapter.
Fifth California Climate Change Assessment (drought/water supply projections)	CNRA / CEC / LCI	Statewide water-supply-reliability plans DWR collects from every urban water supplier; not currently cited in the 2023 chapter.

CLIMATE RELATED HAZARDS

Extreme Cold or Freeze

- We did not identify a California state-curated primary dataset for this hazard in the 2023 SHMP; sourcing relied entirely on federal data (NWS, FEMA NRI), which is outside this state-partner request. Please let us know if your agency maintains a relevant dataset for 2028.

Severe Wind, Weather, and Storms

- *We did not identify a California state-curated primary dataset for this hazard in the 2023 SHMP; sourcing relied on federal data (NWS, NOAA NCEI, FEMA NRI), which is outside this state-partner request. Please let us know if your agency maintains a relevant dataset for 2028.*

NEXT STEPS

- Partners return Hazard packages by 11/13/2026 - Return to SHMP@CalOES.ca.gov

- Review submissions, identify new data, and review updates - Coordinate partner collaboration as needed

- SMP Newsletter first edition in December

- Unit will prepare **Strategic Advisory Committee Meeting 2 – State Capability & Land Use:**

Review statewide policies, regulations, authorities, existing mitigation capabilities, state initiatives, and land use practices that influence long-term hazard mitigation. Validate State capabilities and identify opportunities to strengthen mitigation through planning, policy, and interagency coordination.



OPEN FLOOR QUESTIONS & DISCUSSION



State Hazard Mitigation Plan



State Mitigation Planning | California Governor's Office of Emergency Services

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