



## Agenda

- Context Why have a climate change assessment?
- 4th Assessment, Sierra Nevada
  Regional Report Review & Discuss
- Next Steps
- How to Stay Involved





## Why have a regional climate assessment?

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Fourth Climate Change Assessment

Sierra Nevada Region | 9

## Chapter 1: Introduction

#### 4th Assessment

- Sierra Nevada information
- Provision of ecosystem services to CA
- Climate
- Topography
- Vegetative communities
- Economy
- Land use
  - \*Includes call out box for wildfire. Does this need its own section?

#### **5th Assessment**

 Regional boundary has changed between 4th and 5th Assessments to remove southern desert regions

## Chapter 1: Introduction



#### **5th Assessment**

 Regional boundary has changed between 4th and 5th Assessments to remove southern desert regions

# Chapter 2: Sierra Nevada Climate and Climate Projections

#### 4th Assessment

- Historical Climate
- Expected Temp and precip change
- Snowpack loss
- Regional drying and runoff changes

Note: content primarily focused on change in, not on impact of change

#### 5th Assessment

- Update to how projections are measured
  - No more RCP, using SSP
- Include wildfire?

# Chapter 3.1: Terrestrial Ecosystems and Biodiversity

#### 4th Assessment

- Climate Effects, Trends, and projections in ecosystems
  - Focal ecosystems (forests, oak woodlands, meadows)
  - Trends and projections
  - Wildfire
  - Extreme events and climate variability
  - Carbon storage
  - Biogeographic shifts

#### 5th Assessment

## Chapter 3.2: Water Resources

#### 4th Assessment

- Climate Effects, Trends, and projections
  - Floods
  - Surface Water
- Vulnerabilities
  - Surface-water supplies
  - Groundwater
  - Drought
  - Water Quality
  - Demand

#### 5th Assessment

## Chapter 3.3: Communities

#### 4th Assessment

- Regional DAC definitions
- Demographics
- Types of rural, natural resourcebased communities
- Water-related vulnerability
- Forest/Wildfire vulnerability
- Forest restoration
- Health vulnerability
- Adaptation strategies

#### 5th Assessment

## Chapter 3.4: Some Additional Vulnerabilities

#### 4th Assessment

- Increased heat and precipitation extremes
- Hydroelectric generation impacts and electricity demands
- Impacts to emergency management capacities

#### 5th Assessment

# Chapter 4: Regional Knowledge and Resource Gaps

#### 4th Assessment

- Climate
- Wildfire
- Water
- Communities
- Hazards, health, and emergency management

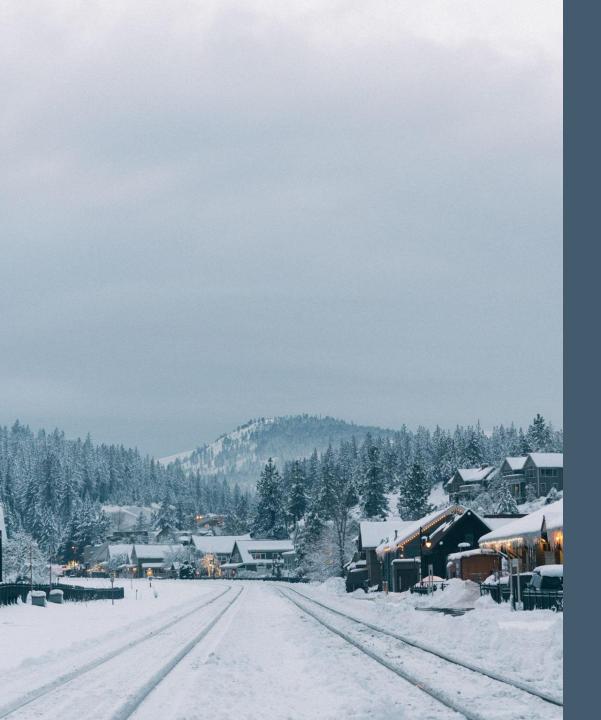
#### 5th Assessment

## Reportwide: Call Out Boxes

#### 4th Assessment

- Wildfire in the Sierra Nevada Region
- French Meadows Forest Resilience Project
- Lake Tahoe Basin Adaptation Efforts
- Sierra Nevada Watershed Improvement Program
- Examples of meadows restoration efforts
- Tribes and climate change
- Local Perspective: Dinkey Landscape
- Local Perspective: Upper Feather River Watershed
- Fire MOU Partnership
- Climate smart land trusts
- Climate smart land development

#### 5th Assessment



## Next Steps

- 1. Author team analyze climate trend and projection data
- 2. Authors draft report outlines
- 3. Authors draft report chapters
- 4. Community engagement with subject matter experts, tribes, decision makers, & communities
- 5. Authors embed feedback
- 6. LCI (OPR) Expert Review
- 7. Final report formatting

## Thank you.

Stay Involved: Join our mailing list.

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