



Climate Resiliency Comprehensive Plan Integration

**February 16, 2023
7:00-9:00 PM**



Welcome!

Agenda

- | | |
|----------------------|---|
| 7:00 – 7:15PM | Welcome & Introductions |
| 7:15 – 7:30PM | Climate Resiliency Comp Plan Integration Overview |
| 7:30 – 7:50PM | Climate Impacts & Vulnerability |
| 7:50 – 8:50PM | Review Draft Policies for Integration |
| 8:50 –9:00PM | Next Steps |

Project Team

City of Woodland

- **Travis Goddard**,
Community
Development Director
- **David Lukaczer**,
Associate Planner

Cascadia and BERK Consulting

- **Kristina Zeynalova**,
Presenter/Facilitator
- **Lisa Grueter**, Presenter/Facilitator
- **Mike Chang**, Presenter/Facilitator

Department of Commerce

- **Michael Burnham**,
Climate Resilience Lead

Our objectives tonight...



**Introduce the
Climate Resiliency
Comprehensive
Plan Integration
Project**



**Share overview of
climate impacts
and climate
vulnerability**



**Review and discuss
draft resiliency
policies for
integrating into the
Comprehensive
Plan**



Pollev

Use your phone to text or open a new browser window with your computer or phone



OR



Text "CASCADIA" to 22333

Go to pollev.com/cascadia

What is one thing you, your family, or community has done to be more climate resilient?



Climate Resiliency Comprehensive Plan Integration Project

City of Woodland Planning History

Woodland fully plans under the Growth Management Act.

- Planned with Cowlitz County under an agreement (1981 and 2002)
- Comprehensive plans starting in 2005
- Current plan is GMA compliant (2016-2036)
 - ❖ **Minor amendments in 2019**

Due for periodic update by 2025.

Washington State Department of Commerce

Pilot Program

Purpose: Provide guidance and tools for integrating climate change into comprehensive plans

Objectives:

- Develop a **Model Climate Element with resilience planning guidance (Resilience Guidance)** to illustrate how counties and cities can develop and implement plans, goals, and policies that build communitywide climate resilience.
- Select three jurisdictions to participate in pilot project to test and improve guidance (Port Angeles, **Woodland**, Pullman)
- Provide **flexible pathways** for communities who have done some or limited climate planning – e.g., build on CAPs.

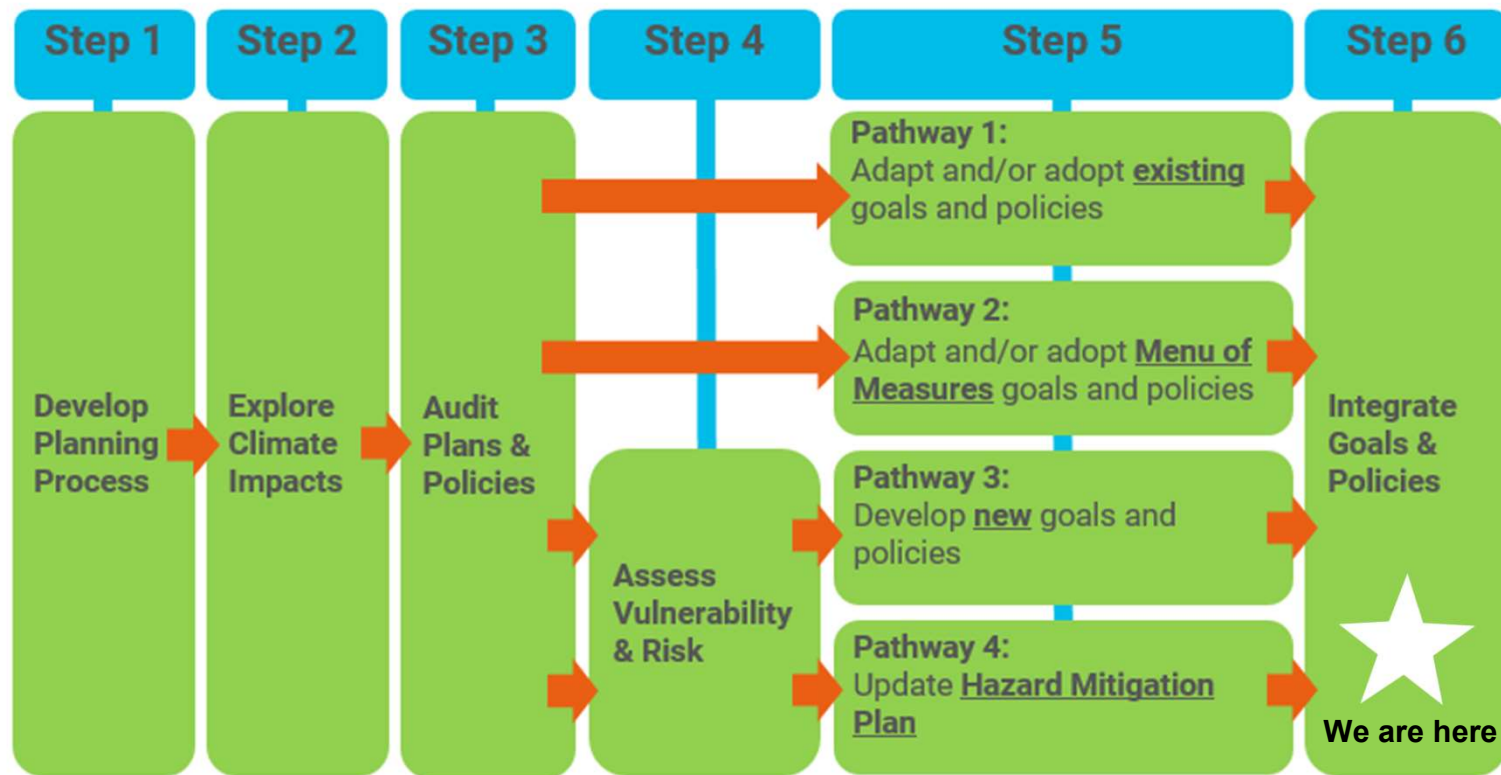
Defining Resilience

The federal government's U.S. Climate Resilience Toolkit defines **resilience** as:

"The capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from a disruption."

Washington's cities and counties may foster climate resilience by implementing a mix of preparedness, response, and recovery policies, including mitigating natural hazards, adapting to unavoidable impacts, and restoring degraded natural areas that provide key ecosystem services.

Process



Sectors Considered

- **Agriculture** (includes production and distribution);
- **Buildings & Energy** (includes generation, transmission, and consumption);
- **Cultural Resources & Practices** (includes historic sites and cultural resources and practices);
- **Economic Development** (includes business continuity, opportunities);
- **Emergency Management** (includes preparedness, response, recovery);
- **Human Health** (includes community well-being and engagement);
- **Ecosystems** (includes terrestrial and aquatic species, habitats, and services);
- **Transportation** (includes multimodal travel and infrastructure);
- **Waste Management** (includes materials recycling and disposal);
- **Water Resources** (includes water quality and quantity);
- **Zoning & Development** (includes site use, design, and other development facets).

Q&A



Q&A in chat or raise hand

Local Climate Hazards

Changes in Climate Indicators



Increased temperatures, heatwaves, and hot days



More frequent and intense extreme precipitation events



Summer drought and reduced snowpack

Climate-Related Hazards



More wildfire smoke days and increased wildfire risk



Public health impacts from extreme heat and air quality



Impacts to local wildlife



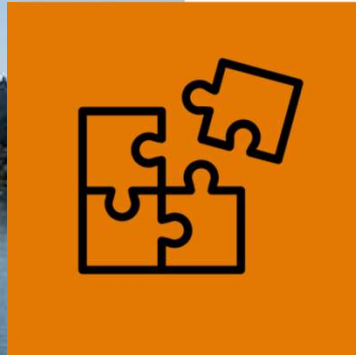
Sense of safety for homes in the WUI

Are there climate hazards you think are most important to emphasize in this effort?

Q&A



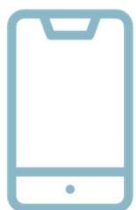
Q&A in chat or raise hand



Review & Discuss Draft Resiliency Policies for Comprehensive Plan Integration

Review and Discussion Process

- 1 We'll review resiliency policies by sector
- 2 Participate using Pollev:
 - a. Do any of the policies stand out as very important?
 - b. Are there any policies missing or that need to be revised?



Text "CASCADIA"
to 22333

OR



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pollev.com/cascadia

Transportation (multimodal travel & infrastructure)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Increase the resilience of transportation structures to floods and changes in maintenance due to cold-season precipitation. Provide a convenient, safe, and efficient multi-modal transportation system that promotes the mobility of people and goods within and through the city.</u>	<u>Maximize bicycle and pedestrian infrastructure and other active-transportation systems. Prioritize non-motorized routes to connect homes to work and other destinations.</u>	Transportation	<ul style="list-style-type: none"> • Reduces emissions (mitigation) • Enhances resilience • Improves health and wellbeing • Improves air quality
See above	<u>Expand and improve access to public transportation through transit system improvements and land use practices that support transit. Adapt community park and ride facilities to support improved transit service.</u>	Land Use, Transportation	<ul style="list-style-type: none"> • Reduces emissions (mitigation) • Enhances resilience • Improves health and wellbeing • Improves air quality
See above	<u>Improve street connectivity and walkability, including sidewalks and street crossings, to serve as potential evacuation routes.</u>	Transportation	<ul style="list-style-type: none"> • Enhances resilience • Improves health and wellbeing
See above	<u>Consider future climate conditions during siting and design of capital facilities like roads, bridges, utilities and other infrastructure. Address anticipated changes to temperature, rainfall, and flooding, to help ensure they function as intended over their planned life cycle.</u>	Transportation	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings

Transportation: Do any of the policies stand out as very important?

Transportation: Are there any policies missing or that need to be revised?

Zoning & Development (site use, design, & other facets)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Utilize zoning and other development regulations to limit development in at risk areas, and resilience of existing and new developments.</u>	<u>Encourage low-impact development techniques and green infrastructure that enhance climate resilience in proposals for new development, such as green roofs, rain gardens, and others.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Provides ecosystem services
See above	<u>Require the use of green infrastructure and low-impact development to address increased storm intensities and stormwater runoff.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Provides ecosystem services
See above	<u>Improve the siting and design of housing and landscaping to promote climate resilience such as passive heating and cooling, natural lighting, solar panels and heat pumps, drought resistant landscaping, and other techniques.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Provides ecosystem services

Zoning & Development (site use, design, & other facets)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Utilize zoning and other development regulations to limit development in at risk areas, and resilience of existing and new developments.</u>	<u>Add infill code to encourage redevelopment of residential lots, accessory dwelling units, and other middle housing options to promote housing near amenities and increase multiple modes of transportation, improve resiliency, and reduce greenhouse gas emissions.</u>	Land Use	<ul style="list-style-type: none"> • Reduces emissions (mitigation) • Enhances resilience • Improves health and wellbeing
See above	<u>Strengthen development regulations that promote compatible uses and protection of health and safety in geologic, flood, and other hazard areas including areas more prone to risks due to extreme precipitation and heat.</u>	Land Use, Environment	<ul style="list-style-type: none"> • Enhances resilience • Improves health and wellbeing
See above	<u>Consider a flood adaptation hierarchy with strategies and interventions to protect, accommodate, or retreat from flood hazard areas that would be exacerbated with climate change. Where interventions are necessary for protection prefer nature-based designs.</u>	Land Use, Environment	<ul style="list-style-type: none"> • Enhances resilience • Provides ecosystem services

Zoning & Development: Do any of the policies stand out as very important?

Zoning & Development: Are there any policies missing or that need to be revised?

Buildings & Energy (generation, transmission, & consumption)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
LU 1 Protect and enhance the character and long-term stability of the city through current standards for land development and subdivision.	Policy LU 1.3 - Place utilities underground where possible. <u>Implement development regulations to require new development to underground power and telecommunication infrastructure.</u> <u>Prioritize and incentivize underground utilities in existing developed areas.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Improves public health & wellbeing
EU 4 Manage and upgrade city infrastructure to conserve resources.	<u>Retrofit all publicly owned buildings for energy efficiency. Integrate alternative energy such as solar panels and electric heat pumps.</u>	Energy & Utilities	<ul style="list-style-type: none"> • Enhances resilience • Reduces emissions (mitigation) • Builds community knowledge

Buildings & Energy (generation, transmission, & consumption)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
EU 6. Reduce energy demands by developing and implementing energy conservation measures. <u>Enhance energy resilience.</u>	<u>Encourage design features in commercial and employment districts to integrate exterior building features (e.g., awnings, cool roofs, solar panels) that reduce the impacts of climate change.</u>	Energy & Utilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Improves public health & wellbeing
See above	<u>Promote the use of electric heat pumps and heat pump water heaters in new commercial construction consistent with the State Building Code.</u>	Energy & Utilities	<ul style="list-style-type: none"> • Enhances resilience • Reduces emissions (mitigation)
See above	<u>Diversify the grid to build resilience and capacity to prepare for increased energy demand. Increase resilience of utilities to extreme precipitation, fire danger, or other events.</u>	Energy & Utilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Improves public health & wellbeing

Buildings & Energy: Do any of the policies stand out as very important?

Buildings & Energy: Are there any policies missing or that need to be revised?

Emergency Management (preparedness, response, & recovery)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Enhance emergency plans, resources, and response to minimize the impacts of emergencies and disasters on people, property, environment, and economy.</u>	<u>Through interagency efforts with emergency services providers, identify safe areas for evacuation and assist in the implementation process with the city Police and Fire District.</u>	Capital Facilities	
See above	<u>Factor climate impacts into the planning of operations and coordination of preparedness, response, and recovery activities among first responders and partners, including public health, law enforcement, fire, school, and emergency medical services (EMS) personnel. Plan for emergency evacuations and post damage evaluation of City buildings and infrastructure.</u>	Capital Facilities	
See above	<u>Develop resilience hubs — community-serving facilities augmented to support residents and coordinate resource distribution and services before, during, and after a hazard event.</u>	Capital Facilities, and Parks, Recreation and Open Space	

Emergency Management: Do any of the policies stand out as very important?

Emergency Management: Are there any policies missing or that need to be revised?

Agriculture (production & distribution)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
EC 4 Create a stable and diversified economy offering a wide variety of employment opportunities.	<u>Promote processing and distribution of agricultural goods in city industrial areas to advance the regional natural resource economy and food system resilience.</u>	Economic Development	<ul style="list-style-type: none"> • Enhances resilience • Promotes economic development
<u>Support urban agriculture.</u>	<u>Allow for small-scale urban farms, community gardens, community kitchens, or other efforts to promote local food security. Work in partnership with the School District, local non-profits, and other entities that support local food systems.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Improves health and well-being • Reduces emissions (mitigation)

Agriculture: Do any of the policies stand out as very important?

Agriculture: Are there any policies missing or that need to be revised?

Cultural Resources (historic sites, resources, & practices)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
LU 2 Encourage the protection and preservation of significant historic, archaeological, architectural, aesthetic, and cultural resources.	<u>Encourage the preservation and adaptation of cultural resources and practices that are at risk due to more frequent and intense severe weather events. [include the two items below as sub-policies]</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Protects tribal treaty rights
See above	<u>Establish and maintain government-to-government relations with Native American tribes for the preservation of archaeological sites and traditional cultural properties that are vulnerable to climate impacts.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Protects tribal treaty rights
See above	<u>Preserve significant historic sites — e.g., via raising, retrofitting, or relocating buildings — prone to floods or other hazards worsened by climate change.</u>	Land Use	<ul style="list-style-type: none"> • Enhances resilience • Promotes economic development.

Cultural Resources: Do any of the policies stand out as very important?

Cultural Resources: Are there any policies missing or that need to be revised?

Economic Development (business continuity & opportunities)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
EC 1 Support a diverse and balanced local economy to ensure sustained growth, locally available commercial services, and varied employment opportunities.	EC 1. 3 Actively participate in county, state and federal planning and programs for Mount St. Helens related tourism and recreation development, to promote consistency with local objectives and policies. <u>Support adaptation of regional parks and trails to be resilient to extreme heat and extreme precipitation.</u>	Economic Development	<ul style="list-style-type: none"> • Enhances resilience • Promotes economic development • Improves health and wellbeing
<u>Prepare for changes in recreation due to heat, wildfire, and reduced snowpack.</u>	<u>Promote the design of city parks and trails to be climate resilient. Utilize water conservation methods and technologies in development of irrigation infrastructure. Develop standards for native drought-resistant landscaping. Provide low-impact green infrastructure to support improved stormwater management. Allow parks to provide flood storage in winter and play and recreation in dry periods.</u>	Economic Development or Parks, Recreation and Open Space	<ul style="list-style-type: none"> • Enhances resilience • Promotes economic development • Provides cost savings • Improves health and wellbeing
<u>Protect businesses, travel, and shipping routes with increased infrastructure resilience.</u>	<u>With community partners implement the Cowlitz County [and Clark County] Comprehensive Emergency Management Plans and infrastructure resilience plans to help ensure continuity of business and a sustainable recovery.</u>	Economic Development or Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Promotes economic development

Economic Development: Do any of the policies stand out as very important?

Economic Development: Are there any policies missing or that need to be revised?

Human Health (community well-being & engagement)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Plan for and respond to extreme heat and smoke hazards on human health such as vector-borne illnesses, increased pollution, and increased heat-related illnesses, deaths, and hospitalizations.</u>	<u>Work with the Fire District and Cowlitz County Health Department to address extreme heat and wildfire smoke planning and resources for homeowners and businesses owners, designating clean air or cooling centers, and planning for emergency medical responses for populations at risk (e.g. outdoor workers, older residents, very young residents, persons with preexisting health conditions, etc.).</u>	Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Improves health and wellbeing • Improves air quality
See above	<u>Develop a program to distribute cooling units and install heat pumps, prioritizing households with residents (e.g., low-income seniors) most vulnerable to extreme temperature events.</u>	Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Improves health and wellbeing
See above	<u>Use integrated pest management on shorelines, stormwater facilities, parks, and open spaces to reduce exposure to vectors (e.g. mosquitos and standing water, etc.).</u>	Environment	<ul style="list-style-type: none"> • Enhances resilience • Provides ecosystem services • Improves health and wellbeing
See above	<u>Develop and implement a wildfire smoke resilience strategy in partnership with local residents, emergency management officials, regional clean air agency officials, and other stakeholders.</u>	Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Improves health and wellbeing • Improves air quality

Human Health: Do any of the policies stand out as very important?

Human Health: Are there any policies missing or that need to be revised?

Ecosystems (terrestrial & aquatic species, habitats, & services)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<p>E 1 Be an effective steward of the environment, protect critical areas, and conserve land, air, water, cultural, and energy resources.</p>	<p>E 1.4 Ensure development is compatible with other environmental factors, such as ground water, climate, scenic, historic and cultural resources, and wildlife. <u>Preserve, restore, and enhance critical areas considering climate resilience. Link open space and habitat within ecosystems through shoreline restoration plans, critical areas regulations, and conservation design of developments and subdivisions.</u></p>	<p>Environment</p>	<p>Enhances resilience. Provides ecosystem services.</p>
<p>See above</p>	<p><u>Adaptatively manage, monitor, and periodically amend the City's critical areas regulations to promote resilience to extreme precipitation or heat and in coordination with other jurisdictions in watersheds.</u></p>	<p>Environment</p>	<p>Enhances resilience. Provides ecosystem services.</p>

Ecosystems (terrestrial & aquatic species, habitats, & services)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Protect and conserve ecosystems by increasing resilience to climate hazards such as heat, flooding, drought, and reduced snowpack that pose a risk to forest productivity, pest outbreaks, fish and wildlife habitats, and water quality.</u>	<u>Protect and enhance tree canopy particularly native trees to provide shade and reduce heat islands, improve air quality, and support fish and wildlife habitat.</u>	Environment	<ul style="list-style-type: none"> • Enhances resilience • Sequesters carbon • Provides ecosystem services
See above	<u>Update landscape standards to promote native drought- and pest-resistant trees, shrubs, and grasses to support climate resilience. Encourage landscape enhancement on existing developed sites. Develop an identification and monitoring program for urban trees to analyze risks or impacts of pests and disease, factoring in climate impacts.</u>	Environment	<ul style="list-style-type: none"> • Enhances resilience • Sequesters carbon • Provides ecosystem services

Ecosystems: Do any of the policies stand out as very important?

Ecosystems: Are there any policies missing or that need to be revised?

Waste Management (recycling & disposal)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Increase municipal cleanup and refuse capacity to prepare for increased need following extreme precipitation events.</u>	<u>Develop and implement a strategy to expedite the removal of waste (e.g., downed tree limbs and buildings blocking roads and streams) during and after a disaster incident to reduce the risks of subsequent fire, flood, injury, and disease vectors.</u>	Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Improves health and wellbeing
See above	<u>Incentivize recycling of construction and demolition debris. Develop a program that will enable recycling of all construction and demolition debris.</u>	Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Improves health and wellbeing

Waste Management: Do any of the policies stand out as very important?

Waste Management: Are there any policies missing or that need to be revised?

Water Resources (quality & quantity)

GOAL	POLICY	COMP PLAN ELEMENT	CO-BENEFITS
<u>Prepare conservation strategies to increase resilience to drought and reduced snowpack.</u>	<u>Manage water resources sustainably in the face of climate change through smart irrigation, stormwater management, preventative maintenance, water conservation and wastewater reuse, plant selection, and landscape management.</u>	Land Use, Environment, or Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Provides ecosystem services
See above	<u>Through the Water System Plan and regional water supply coordination, encourage "smart" metering, groundwater monitoring, and other proven measures to conserve water and enhance drought resilience.</u>	Land Use, Environment, or Capital Facilities	<ul style="list-style-type: none"> • Enhances resilience • Provides cost savings • Provides ecosystem services

Water Resources: Do any of the policies stand out as very important?

Water Resources: Are there any policies missing or that need to be revised?



Review Key Themes & Next Steps

Next Steps

- Update draft policies based on tonight's feedback
- City will continue policy refinement process
- Next opportunity to refine policies
 - 2023 Comp Plan Update – **DRAFT Public Participation Plan is available for review on the City website**



Thank you!

Local Climate Hazards



Increased heat

Heavy rains, flooding, and
landslides



Summer drought, reduced
snowpack, and wildfire

Slide 59

KZO

[@Mike Chang] - this is the slide we're hoping you can lead and more importantly we on deck to lead the Q&A after, which we expect will be robust and perhaps challenging.

Kristina Zeynalova, 2023-02-14T18:41:48.950