

Climate Planning

CRSB Technical Workshop #3
May 22, 2025

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PLANSPOKANE
Resilient | Connected | Livable | 2046

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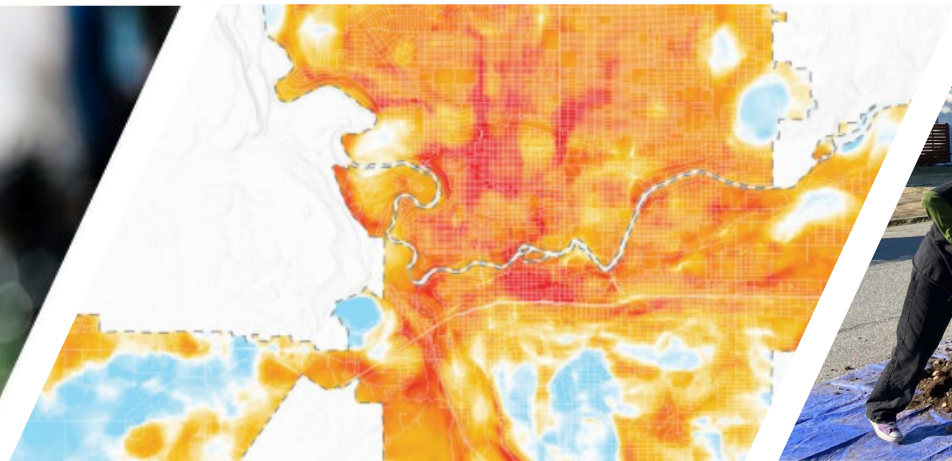



Meeting Objectives

- Share review draft Climate Risk & Vulnerability Assessment (CRVA)
- Gather input on review draft CRVA
- Summarize next steps

Project Updates

Climate Resiliency - Phase 1 Tasks

Steps and Pathways to Integrate Resilience into Comprehensive Plan

Phase 1 grant due June 15

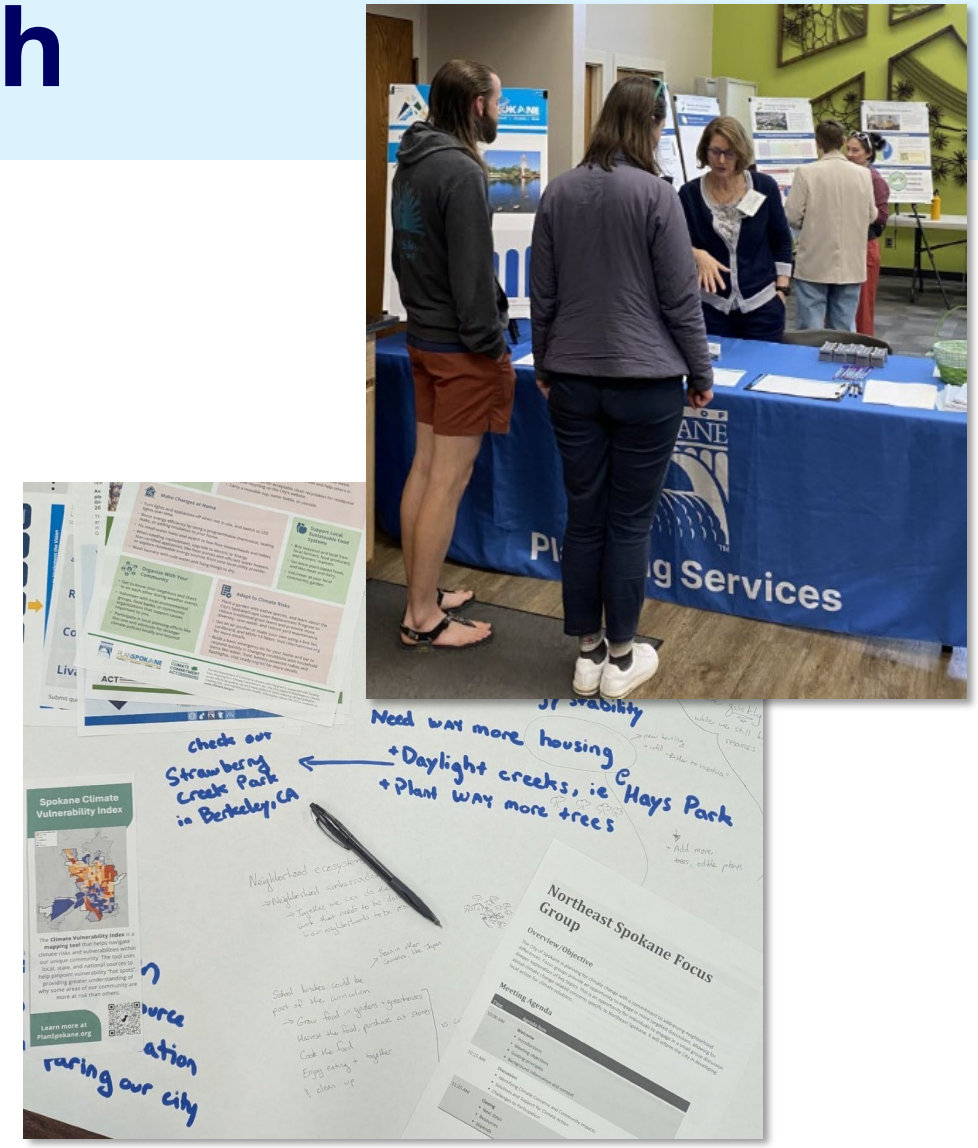
Project Schedule

	Q2 2024	Q3 & Q4 2024	Q1 & Q2 2025	Q3 & Q4 2025	Q1 2026
PROJECT ACTIVITY	KICK OFF DATA GATHERING	GAP ANALYSIS EVALUATE IMPACTS	CLIMATE VULNERABILITY & RISK ASSESSMENT GHG INVENTORY	DRAFT GOALS & POLICIES ENVIRONMENTAL JUSTICE MEMO	Resilience Goals & Policies
COMMUNITY ENGAGEMENT	Engagement Plan • Form CTAC & CRSB • CTAC meeting 5/29 • Table at events (Expo)	**Understand Current Perspective** • Committee meetings & staff interviews • Community wide survey & workshop	**Develop a Shared Vision** • Committee Meetings • Focus groups • Table at events & community outreach • Staff interviews	**Develop & Refine Based on Feedback** • Focus groups	**Finalize Based on Feedback** • Online open house

People Centered Approach

- CTAC & Staff Interviews
- Tribal Engagement Workgroup
- Survey
- Workshop
- Focus Groups

  ...Integrated into CRVA



Climate Vulnerability Index

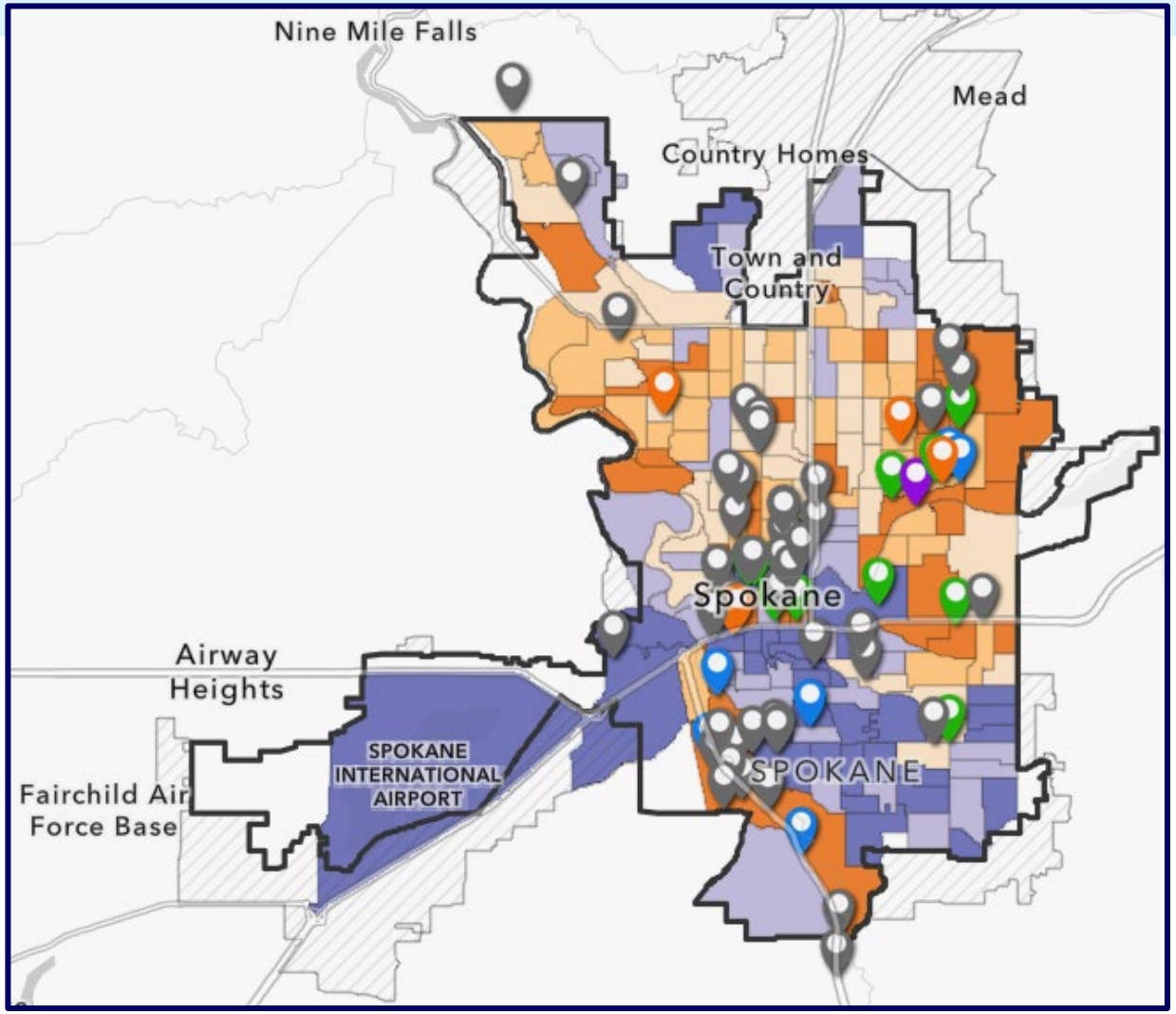
- Synthesizes Exposure, Sensitivity and Adaptive Capacity
- Provides Public Comment Features

Public Comments

- Extreme Heat Concern
- Urban Flooding Concern
- Lack of Street Trees
- Access to Nature
- Other

Climate Vulnerability Index

- Very High
- High
- Moderate
- Low
- Very Low



CRVA Draft Discussion

Section-by-section discussion

For each section/sector, we will share content overview and then discuss:

- Did any findings stand out to you for the different sections/sectors?
- Is there a particular section/sector that is of high priority?
- Are there any community impacts that need additional attention?
- Does the CRVA prompt ideas for future policies/strategies in Phase 2?

Introduction & CRVA Methodology

- Executive Summary
- Introduction
  - Purpose
  - Sectors
  - Climate Justice Context
- CRVA Methodology
  - Climate Vulnerability Framework
  - Climate Vulnerability Index
  - Engagement
  - Climate Hazards and Impacts

Climate Hazards & Impacts

Rising Temperatures & Extreme Heat: Average summertime temperatures are projected to increase by 11°F by 2099. This increase can harm public health, damage infrastructure, threaten water quality, and disrupt fish and wildlife habitat.

Wildfires: There will be more days with high wildfire risk due to rising temperatures and anticipated drought. Wildfires can harm property, wildlife, and public safety.

Smoke: Regional and local wildfires will result in an increased frequency and intensity of wildfire smoke. Wildfire smoke worsens air quality and can make health problems like asthma worse. High levels of smoke can also lead to cancelled events and outdoor activities. Extended smoke events can contribute to anxiety and depression.

Heavy Precipitation: By 2099, annual precipitation could increase by 10% with more of that precipitation occurring during winter months, and less rainfall during summer months.

Flooding: By 2099, winter water flow in streams could increase by 84%, leading to more flooding, landslides, and erosion for communities near the river. Flooding and landslides can damage homes, businesses, roads, and other infrastructure.

Drought & Reduced Snowpack: By 2099, summer rainfall is projected to decrease by 14%, which will make drought conditions worse. Snowpack, which is important for water supply, could drop by 75%, reducing water availability and harming fish and wildlife habitats and winter recreation.

People Centered Approach

Staff and Community Leaders

- 40+ City staff participated on the City of Spokane Internal Climate Technical Advisory Committee
- Tribal Engagement Workgroup with members from three area Tribes and representatives from organizations serving urban Indigenous and Native community members
- Climate Resilience and Sustainability Board engagement serving as the Climate Policy Advisory Team (CPAT)
- City Council, Boards, Commissions and Committees

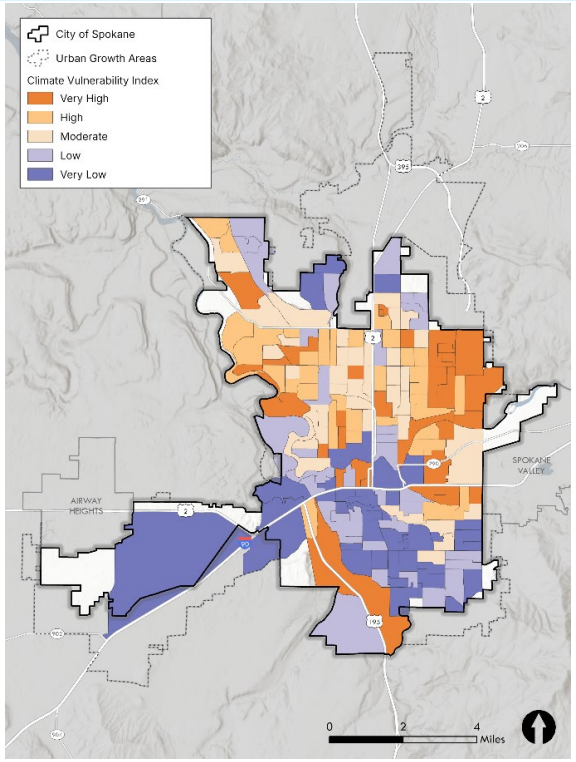
Public Engagement

- 1,500+ responses to the Community Climate Planning Survey
- Earth Day community-wide workshop
- 3 focus groups: youth (18 years or younger), those in Northeast Spokane communities, and climate justice communities.
- Out in the community tabling events includinged the Expo '74 50th anniversary celebration, 2024 Fall Leaf Festival, 2025 Spring Riverfront Market, and multiple Earth Day related events.
- Met directly with multiple organizations and groups representing communities directly impacted by climate planning.

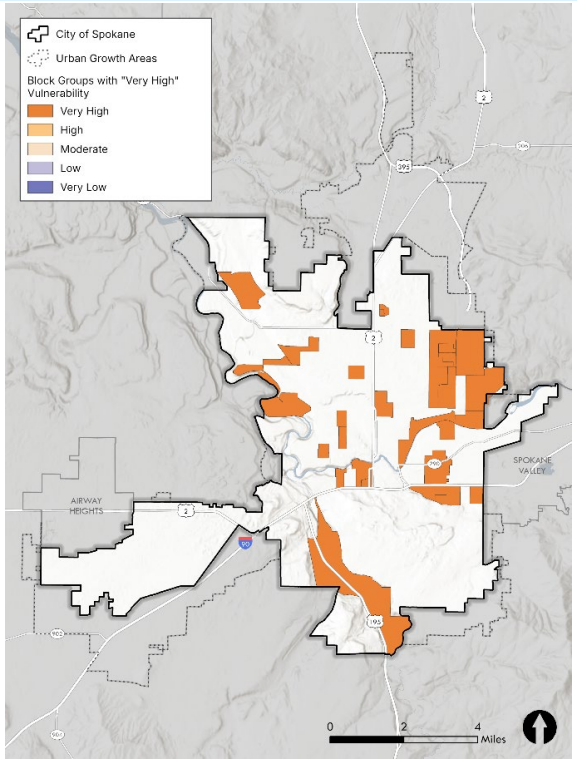
Changing Climate Trends & Vulnerable Populations

- Vulnerable Populations
- Climate Risk and Vulnerability results
  - Climate Risks and Vulnerabilities by Location
  - How to interpret the sector results

Climate Vulnerability Index



Blocks with Very High Vulnerability



Our Impacted Community Members

Climate hazards affect everyone, but some people are at greater risk. See below for examples of how some communities and people may be at greater risk.

- **Children and Caregivers:** Are at higher risk for heat stroke and long-term health impacts.
- **Houseless Residents:** Are highly vulnerable to heat, air pollution, floods, and storms.
- **Outdoor Workers:** Are more exposed to heat and smoke, affecting their health and job stability.
- **Low-Income Households:** Have fewer resources to deal with climate risks.
- **Pregnant People:** Pregnant women and their fetuses are more sensitive to heat and smoke which can result in heat stroke, low birth weight, and other health impacts.
- **Older Adults and Residents with Disabilities:** May struggle to access emergency services or evacuate during fire and flood events.
- **Native American and Tribal Communities:** Face health issues and loss of traditional cultural resources and food sources.
- **Communities in Wildland Urban Interface:** Face additional health and property risks due to wildfires.
- **Communities of Color:** Experience higher exposure to pollution and more intense heat in neighborhoods with less tree canopy and lower quality infrastructure.
- **People with Chronic Health Conditions:** Experience higher asthma and heart disease risks during heat and smoke events.

- **Did any findings stand out to you for the different sections/ sectors?**
- **Is there a particular section/sector that is of high priority?**
- **Are there any community impacts that need additional attention?**
- **Does the CRVA prompt ideas for future policies/ strategies in Phase 2?**

Sectors

The CRVA process assesses climate risk to key community assets including, social, cultural, economic and environmental assets across the five sectors.

Human Well Being / Emergency Management

Infrastructure

Community Design, Land Use, and Economic Development

Ecosystems & Water Resources

Cultural & Natural Resources

Discussion: Human Wellbeing and Emergency Management

Did any findings stand out to you for the different sections/sectors?

Is there a particular section/sector that is of high priority?

Are there any community impacts that need additional attention?

Does the CRVA prompt ideas for future policies/strategies in Phase 2?

Human Well-Being and Emergency Management

What's included

- Public Health
- Social Services
- Emergency Management

Key takeaways

- Extreme heat will cause **increased rates of illnesses and injuries**. Wildfire smoke, increased pollen production, and shifts in geographic ranges of disease vectors are also likely to cause increases in some illnesses.
- **Medical care and emergency management systems** could become more difficult to access due to weather related disruptions, particularly flooding and wildfires yet these climate impacts may cause surges in need for their services.
- **Social services**, **including libraries** and **schools**, are relatively exposed to high ground temperatures and flooding. This may limit their ability to provide services and to serve as gathering places in an emergency.
- **Correctional facilities** face climate risks, both to the facilities and the people institutionalized there. Extreme heat and regional wildfires pose the largest health risks to incarcerated people.
- Several primary **evacuation routes** and **major arterials** overlap with flood hazard zones and the wildland-urban interface (WUI), increasing risks to emergency services.

Who is most at risk?

- Elderly residents, young children and pregnant people
- Individuals with disabilities, mental illnesses and/or chronic health conditions
- Residents who are cost-burdened and/or experiencing food insecurity
- Incarcerated people
- Unhoused people

Discussion: Cultural and Natural Resources

- Cultural Resources
- Food Systems
- Parks, Trails, and Open Spaces
- Urban Forests

Did any findings stand out to you for the different sections/sectors?

Is there a particular section/sector that is of high priority?

Are there any community impacts that need additional attention?

Does the CRVA prompt ideas for future policies/strategies in Phase 2?

Key takeaways

- **Extreme heat**, **wildfire smoke**, **flooding**, **extreme precipitation**, and **drought** are accelerating the degradation of traditional foods, medicinal plants, salmon populations, and culturally significant landscapes.
- Indigenous cultural practices are deeply tied to specific land-based traditions and are therefore **threatened by environmental changes**.
- Cultural gatherings have already been affected by **air quality**, **diminished berry and root harvests, and damage to sacred sites**.
- Climate disruptions are likely to **deepen food insecurity** in Spokane.
- Heat events are likely to **increase demand for indoor facilities**, **water features**, **water access**, and **shade in parks**.
- **Heat and smoke** make parks and outdoor areas **less safe** for visitors, staff, and natural resources workers.
- Flooding and wildfire could damage some parks assets directly.
- Discrepancies in urban forest cover already result in **large differences in localized temperatures** in summer.
- Urban forests can be weakened by **drought and rising temperatures**.

Who is most at risk?

- Tribal Elders and youth
- Urban Native populations
- Cultural practitioners and traditional plant gatherers
- Tribal service providers
- Agricultural workers
- Outdoor resource workers
- Communities in areas with low tree canopy cover

Discussion: Infrastructure

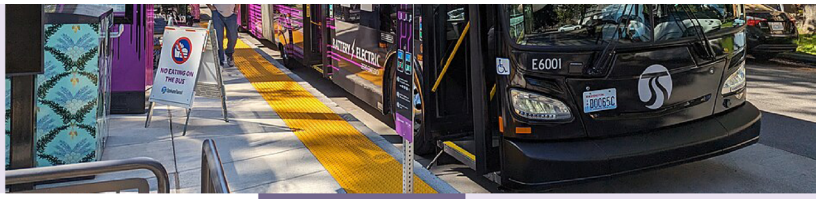
Did any findings stand out to you for the different sections/sectors?

Is there a particular section/sector that is of high priority?

Are there any community impacts that need additional attention?

Does the CRVA prompt ideas for future policies/strategies in Phase 2?

- Energy
- Transportation
- Waste
- Water and Wasterwater Infrastructure
- Stormwater



Key takeaways

- Higher summer temperatures and wildfire risk have already resulted in more **frequent power outages** and **strain to energy infrastructure**.
- Lower streamflows in the Spokane and Clark Fork Rivers could **impact hydropower generation capacity**.
- Debris from storms and ice or snow buildup can cause **damage to powerlines**.
- Higher demand for energy in summer and winter is expected as the climate changes, which could **increase energy costs** and **impacts people's ability to cool and heat homes and buildings in affordable and safe ways**.
- Extreme heat can make active transportation like walking, biking, and rolling **less safe** and **damage roads**, **bridges**, and **rail infrastructure**. Wildfire can also have **impacts on transportation** in certain parts of the city.
- Extreme precipitation can impact **driving safety** and **lead to flooding** that affects a range of transportation infrastructure and the ability for people to **safely evacuate during events**.
- The Spokane International Airport is affected by climate events like **flooding**, **heat** and **smoke leading to flight disruptions**.
- Climate disruptions are likely to occur to **waste** and **recycling operations**.
- Water and wastewater infrastructure could be impacted by **flooding**, **wildfire heat**, and **storms** as well as **power outages**.

Who is most at risk?

- Residents and businesses in areas with lower quality and less resilient infrastructure
- Low-income residents
- Individuals with health conditions
- Residents in aging housing
- Residents who rely on electricity for health or medical devices
- People without a vehicle and/ or limited access to public transportation
- Areas with lots of impervious surfaces

Discussion: Ecosystems

Did any findings stand out to you for the different sections/sectors?

Is there a particular section/sector that is of high priority?

Are there any community impacts that need additional attention?

Does the CRVA prompt ideas for future policies/strategies in Phase 2?

Ecosystems and Water Resources

What's included

- Critical Areas
- Water Supply

Key takeaways

- **Wetlands** citywide are likely to be impacted by summer drought and winter precipitation and flooding, impacting **water quantity**, **quality**, **biodiversity**, and **ecosystem services**.
- **Invasive species** could have more opportunities to proliferate due to changes in local conditions.
- **Wildlife and habitat** could be stressed from extreme precipitation and changes to water regimes and seasonal changes could make finding food more difficult.
- **Landslides** could become more likely due to extreme precipitation, particularly after fire.
- **Groundwater** supplies could be impacted by **warmer temperatures**, **drought**, and **reduced snowpack**, affecting City operations and broader community impacts.

Who is most at risk?

- People living near flood zones
- Low-income residents
- Areas without drainage infrastructure

Discussion: Com. Design, Land Use, & Econ. Development

Did any findings stand out to you for the different sections/sectors?

Is there a particular section/sector that is of high priority?

Are there any community impacts that need additional attention?

Does the CRVA prompt ideas for future policies/strategies in Phase 2?

- Buildings/Major Facilities
- Businesses
- Neighborhoods
- Housing

Key takeaways

- Extreme heat, flooding, and wildfires could **damage buildings**.
- Greater demand for electricity during extreme heat raises the **risk of power failures**.
- **Older buildings** are less equipped with ventilation and air conditioning and are more **dangerous during extreme heat** and **smoke events**.
- Some major facilities are located near the Spokane River and are susceptible to **flood hazards**.
- **Businesses** could be impacted by **increasing costs**, **infrastructure** and **supply chain disruption**, and **worker health impacts**.
- Some **industrial areas** in Spokane may be particularly susceptible to **flooding**.
- **Recreation and tourism industries** could be particularly impacted by **landscape degradation**, **heat**, and other changes.
- Increased pressure on **household costs** could lead to health impacts for **lower income households** and **greater displacement risk**.

Who is most at risk?

- Residents of older housing stock
- Areas with a lack of greenspace and trees
- Areas with more impervious surfaces
- Outdoor workers
- Households with lower incomes
- Communities and areas facing displacement risk
- Residents and businesses in flood hazard areas and wildfire hazard areas

Next Steps

Next Steps

CRVA Preparation and Staff, CTAC, CSRB & TEG Review

Final CRVA June 15, 2025

Preparing for Phase 2!

Join Us In Community Conversation!

Stay up-to-date and submit comments on the project!

https://my.spokanecity.org/climateplanning

EngagementHQ webpage

PlanSpokane monthly newsletter

climateplanning@spokanecity.org

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Appendix: Glossary of Terms

- **Adaptation:** The process of adjusting to new (climate) conditions in order to reduce risks and harm.
- **Climate Resilience:** The ongoing process of anticipating, preparing for, and adapting to changes in climate and minimizing negative impacts to our natural systems, infrastructure, and communities.
- **Climate Risk and Vulnerability Assessment (CRVA):** A tool for data analysis to identify the likelihood of future climate hazards and their potential impacts for cities and their communities, both of which contribute to overall climate risk.

Appendix: Glossary of Terms

- **Overburdened Community:** A geographic area where vulnerable populations face multiple environmental harms and health impacts, and frequently includes lower-income residents.

- **Vulnerable Populations:** Vulnerable populations are groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms due to adverse socioeconomic factors (including unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation) and sensitivity factors (including disabilities and other causes for higher rates of hospitalization). Vulnerable populations include, but are not limited to, racial and ethnic minorities, low-income populations, disabled communities, and other populations disproportionately impacted by environmental harms.

Appendix: Engagement Results

1,573 total responses
Full survey analysis available:
my.spokanecity.org/climateplanning

Community Climate Planning Survey

- Key Takeaways:
  - Of those who provided their race, a **higher percentage of survey takers are members of identified vulnerable populations** than the City of Spokane population as a whole
  - 23.74% have been impacted by wildfires while **72.49% have been impacted by smoke**
  - Incomes of $28,000 or less indicated a **significantly higher** rate of being impacted by **extreme heat and extreme cold**
  - Ages 24 and younger indicated a **significantly higher** rate of having their **mental health impacted** by climate hazards
  - **Suggested climate solutions** included increased recycling and compost services, more trees, fire planning, financial incentives for home improvements, and ongoing series/interactive community education with information on how to be more sustainable/resilient

Appendix: Engagement Results

15+ community members joined Open-House format with 4 stations

Earth Day Community Workshop

Key Takeaways:

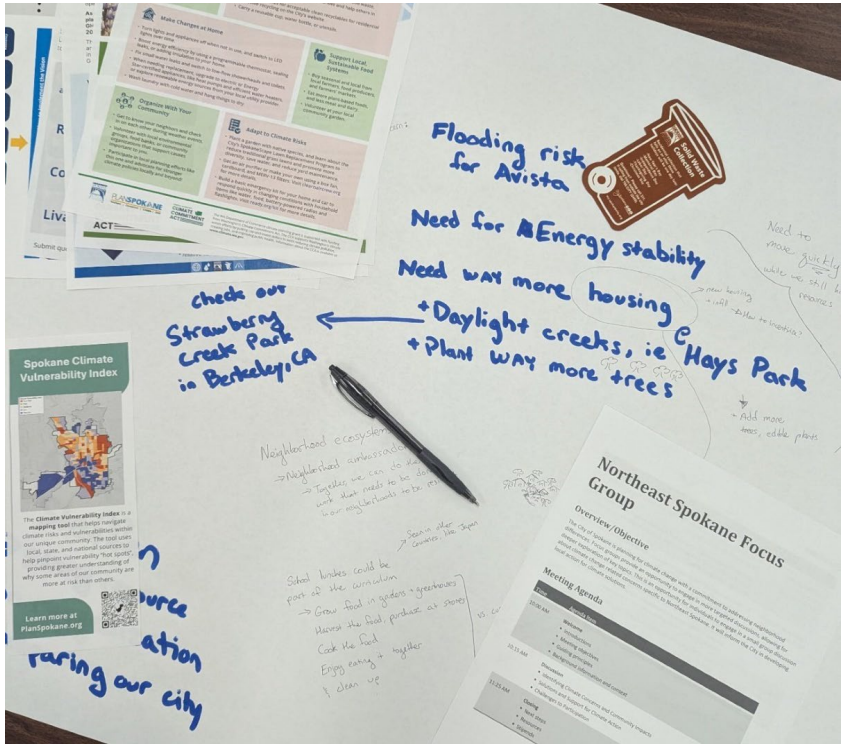
- Attendees were at least **somewhat concerned** with climate impacts.
- Of the six climate pollution reduction action categories, **alternative transportation options and protect green spaces and trees** received the most support.
- Of the eight climate resilience action categories: **preserve, restore, and expand nature** received the most support
- Comunuty actions that were most supported include: **support local, sustainable food systems and organize your community.**
- There were a few action ideas that were common among the attendees including:
  - Increased bike and pedestrian infrastructure, and ensuring current systems are safe
  - Expanding public transportation infrastructure and promoting comprehensive connectivity
  - Supporting infill and mixed use development to reduce sprawl
  - Promoting water conservation

Appendix: Engagement Results

3 focus groups: Youth (12), NE Spokane (15), and Climate Justice (8)

Focus Groups

- Key Takeaways:
  - **Youth** emphasized concerns about not being able to go outdoors, social isolation, and mental health impacts. They want to see more transportation options like bus service.
  - **NE Spokane** residents are concerned about being stuck indoors and especially for older residents and those with health conditions and disabilities. They want to see more meaningful investments in trees, transit, bike/walking infrastructure, energy efficiency and air filters, and more.
  - **Climate Justice** representatives from several environmental justice and community-based organizations joined the focus group. Many raised concerns about lack of access to cooling centers and poor housing conditions. They shared that community barriers to climate resilience include language and accessibility, economic hardship, and disinvestment.



Appendix: Engagement Update

- **Climate Resilience and Sustainability Board** meeting May 22
- **Tribal Engagement Workgroup** met on Feb 28, March 26 and April 30, meeting in May & June
- **Upcoming:**
  - **Phase 2 Engagement Planning**