



# Climate Planning

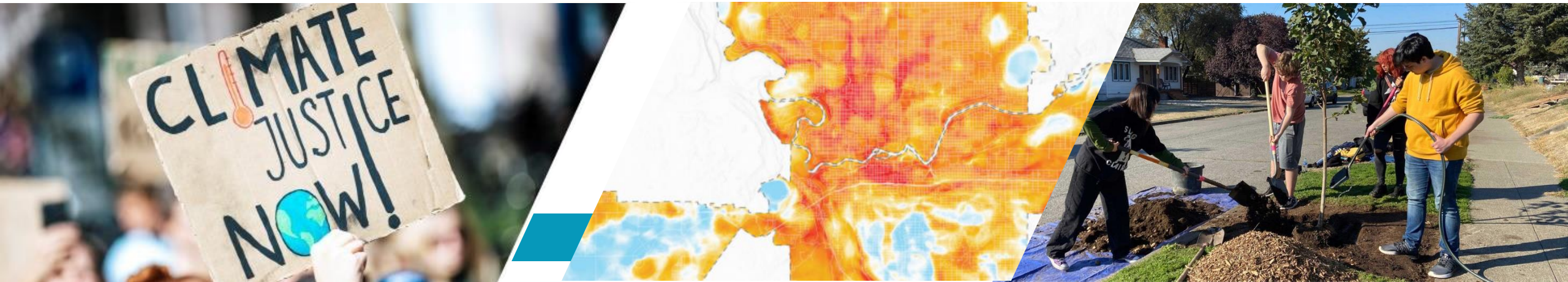
Spokane River Forum

April 22, 2025

Tirrell Black, AICP, [tblack@spokanecity.org](mailto:tblack@spokanecity.org)

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**CLIMATE  
COMMITMENT  
ACT**





# Spokane's Comprehensive Plan 2046

*Our vision for how we grow & invest in our community over the next 20 years*

- Incorporate new state guidance into Growth Management Act (GMA)
  - **Climate** goals
    - Land Use
    - Transportation
    - Capital Facilities & Utilities
  - **Housing** – Planning Housing for all Incomes
    - Anti displacement strategies
    - Look at our historic development pattern and past practices

Planspokane.org



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# Planning Process and What to Expect

Planning started in 2024 and will continue throughout 2026



## Visioning

- Community vision
- Environmental Impact Statement (EIS) Scoping

## Growth Alternatives Review

- Draft Environmental Impact Statement (EIS) reviewing growth options
- Draft amendments to the Comprehensive Plan

## Preferred Alternative Selection

- Community & Decision Makers pick desired growth options
- Final Environmental Impact Statement (EIS) based on selection

## Final Adoption

- Final Comprehensive Plan amendments
- Final Plan adoption



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# HB 1181 (2023): Climate Element added to WA State GMA



Mitigate greenhouse gas emissions and vehicle miles traveled



Build community resiliency to our changing climate



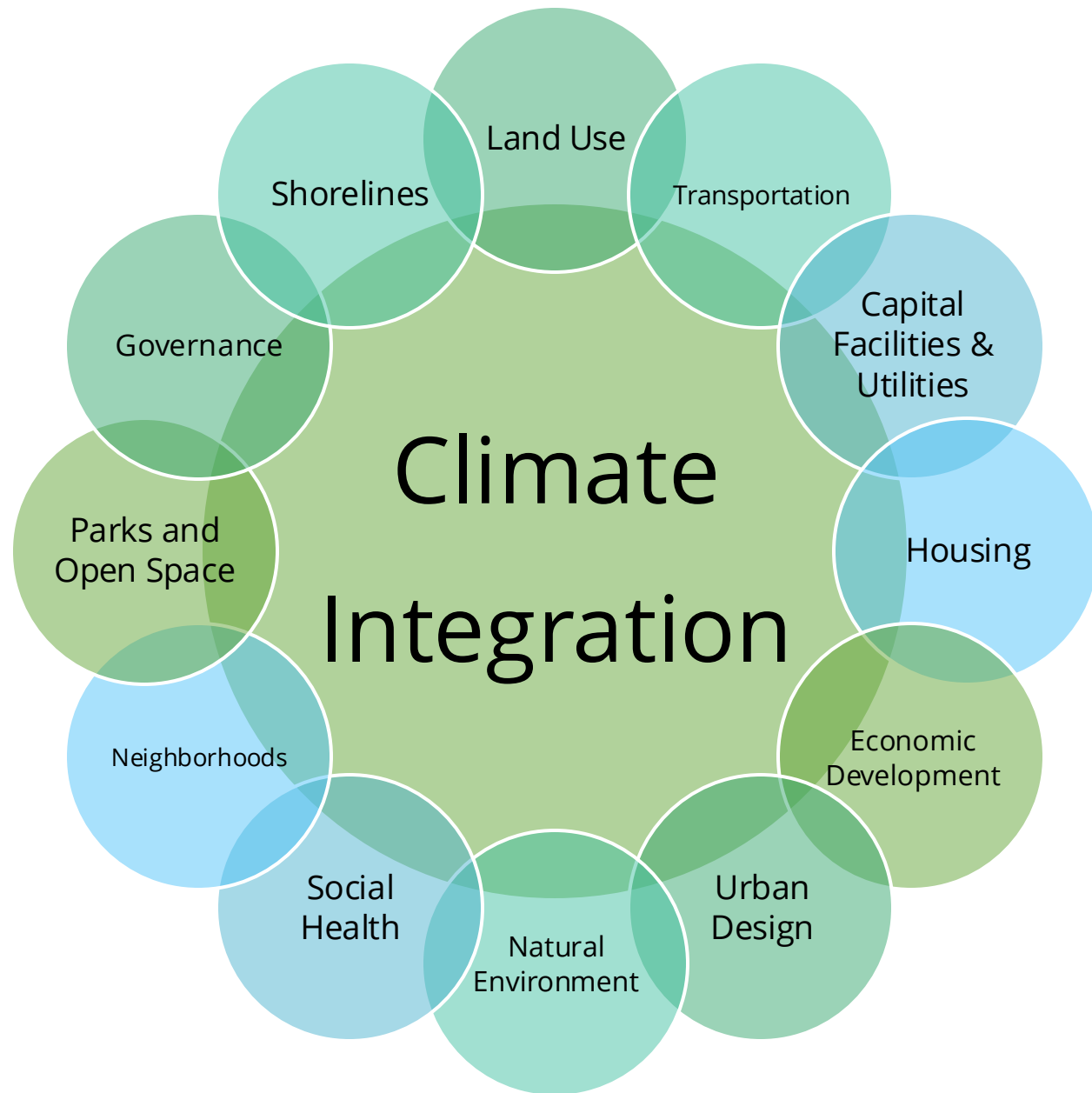
Prioritize environmental justice in land use and transportation goals and policies



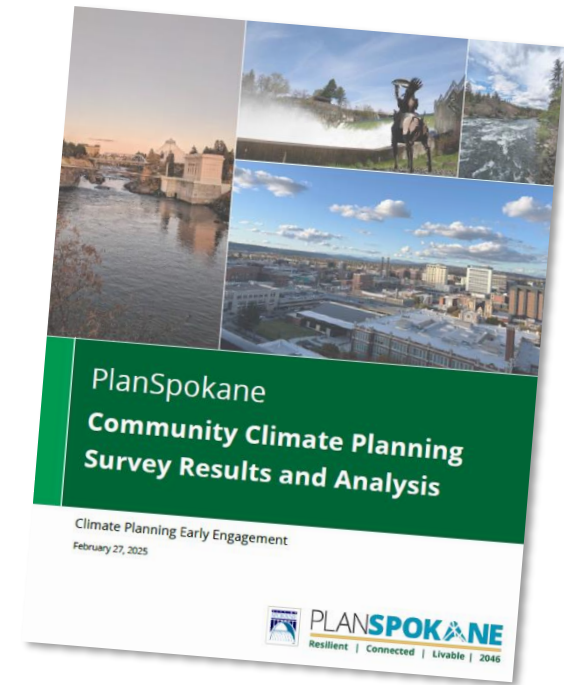
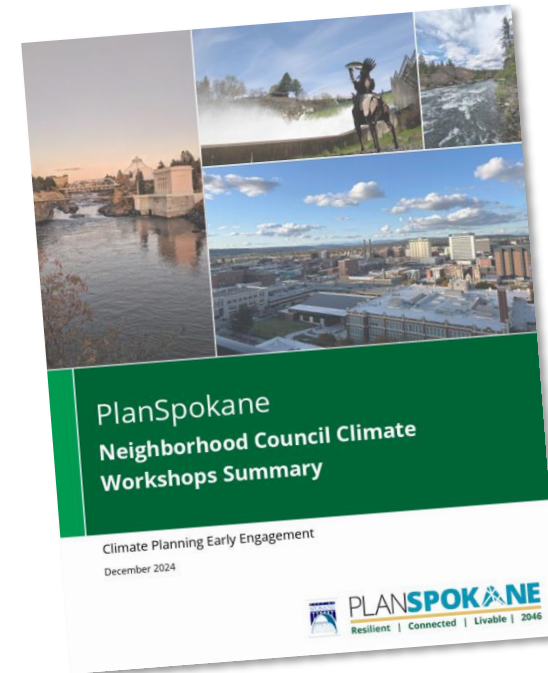
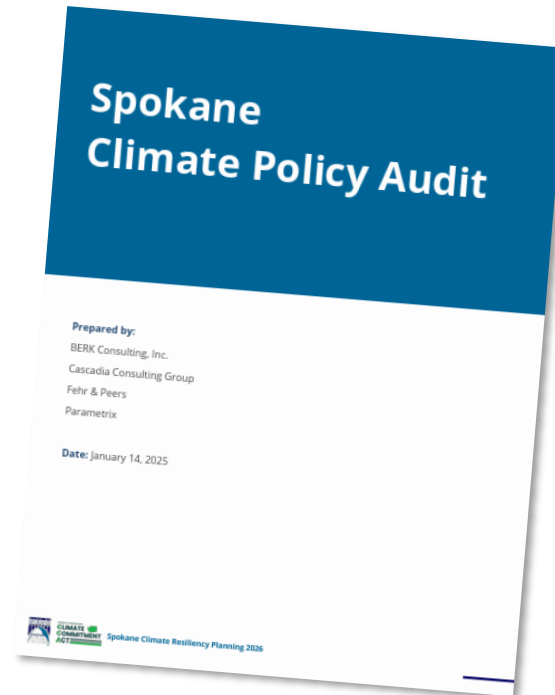
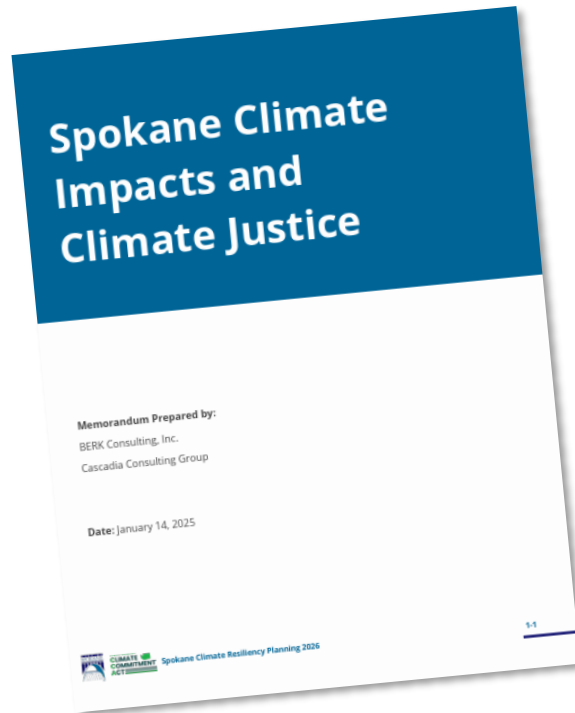
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*Climate affects  
all aspects of  
planning and  
**needs an  
integrative  
approach.***



# Recent Climate Planning Deliverables



Available online at  
[my.spokanecity.org/climateplanning](https://my.spokanecity.org/climateplanning)

# Climate Impacts in Spokane



## Increased Heat

Warmer summers with longer and more intense heat waves.



## Heavy Rains and Flooding

Increased stormwater flooding from more winter precipitation, along with more precipitation falling as rain rather than snow.



## Snowpack and Water Quality

Reduced snowpack, resulting in less water availability for streams during the late summer months, affecting habitat, water quality, and streamflow.



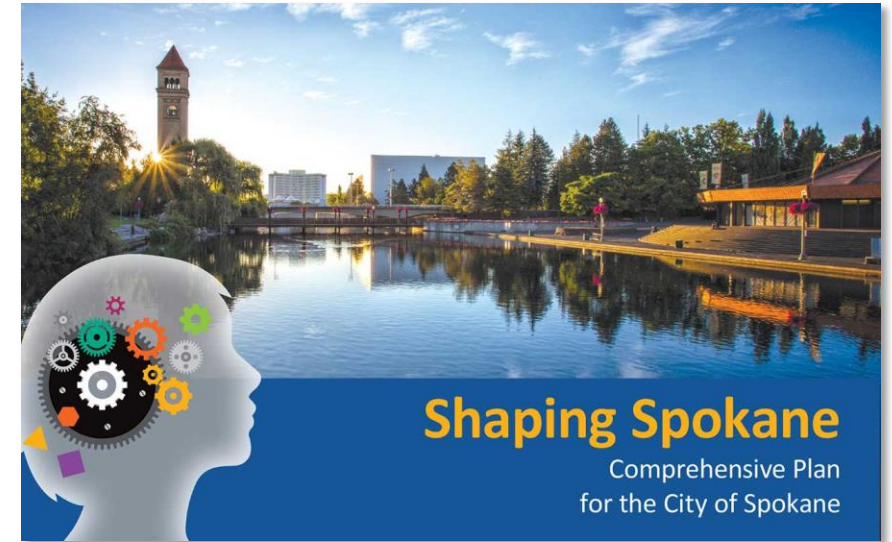
## Summer Drought, Wildfire, and Wildfire Smoke

Increased risk of drought, greater wildfire risk, severity, and smoke events.



# Policy Audit

- Spokane Comprehensive Plan
- Spokane Shoreline Master Program
- Spokane Critical Areas Ordinance
- Spokane Parks and Natural Lands Master Plan
- Spokane Municipal Code Section 15.05 Climate Change
- Council Sustainability Action Plan





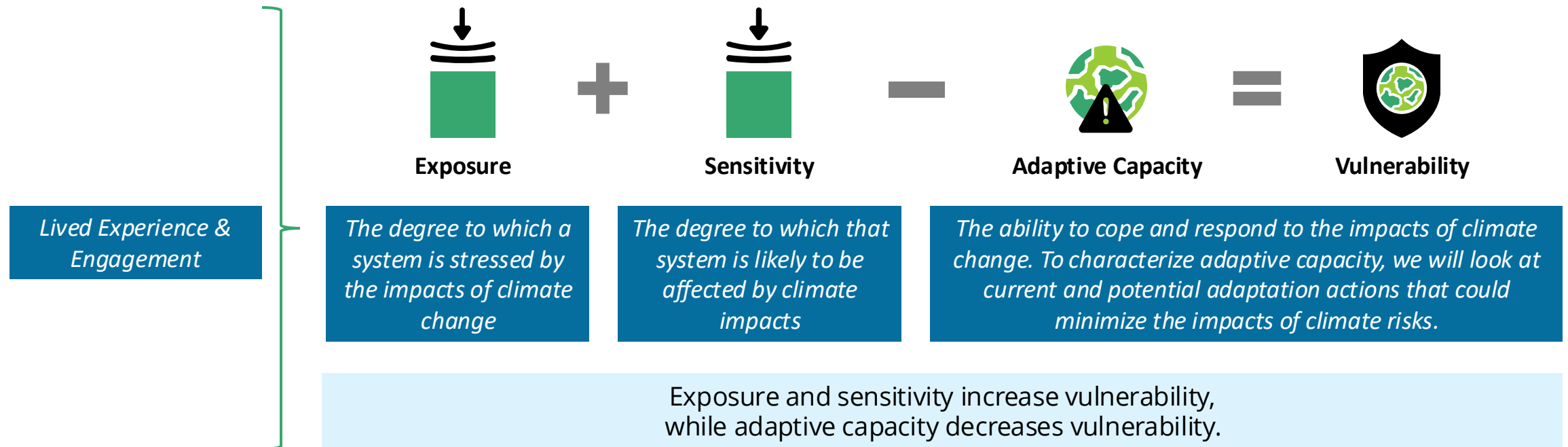
# Sectors – Lens of Review

- Agriculture & Food Systems
- Buildings & Energy
- Cultural Resources & Practices
- Economic Development
- Ecosystems
- Emergency Management
- Health & Well-being
- Transportation
- Waste Management
- Water Resources
- Zoning & Development

Commerce recommends identifying approximately 20-40 collective goals/policies addressing each of the 11 sectors in the Comprehensive Plan.

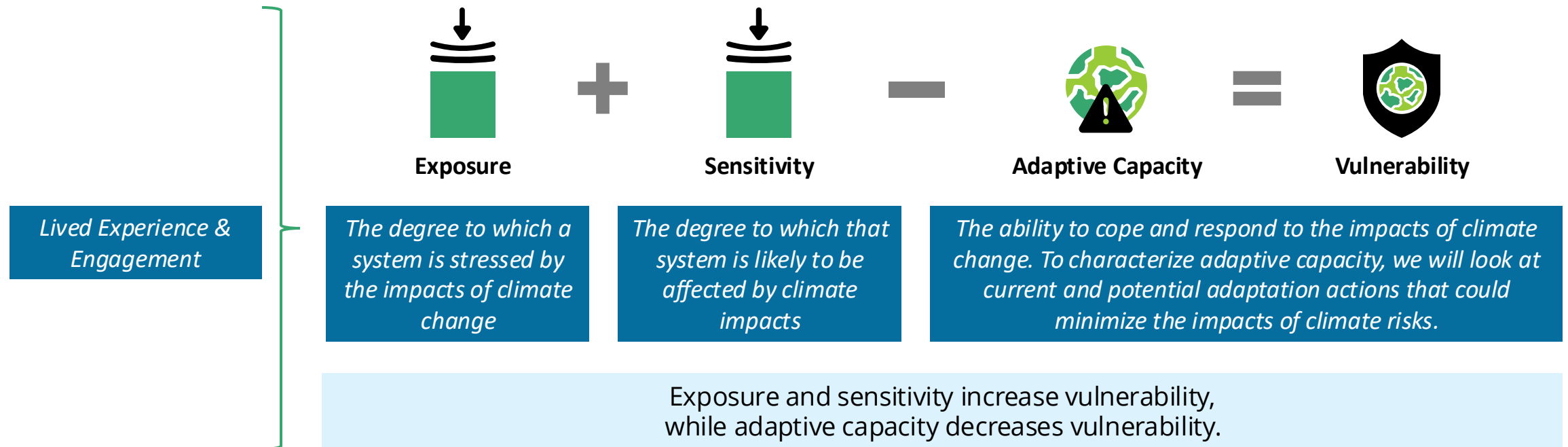
# Climate Vulnerability and Risk

- Provide the City and community with a baseline understanding of vulnerabilities + preliminary ranking of vulnerabilities' importance.
- Identify climate vulnerability priorities: Guide future investment in support of the City's equity and inclusion priorities and to ensure future actions are effective and efficient.



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# Climate Vulnerability Index



## Heat

- Gonzaga 2022 Heat Watch
- LANDSAT



## Flooding/Precipitation

- FEMA
- City of Spokane



## Fire Risk / Smoke / Air Quality

- UW Climate Impacts Group
- Washington DNR
- Washington Dept. of Ecology
- NW-AIRQUEST



## Sensitivity and Adaptive Capacity

- **Age, Socioeconomic, Employment** – Census / American Community Survey / CHAS / Energy.gov / Department of Health / EJScreen
- **Health Conditions** – CDC Places / EJScreen
- **Environment/Ecologic** – City of Spokane / Washington Dept. of Ecology / LANDSAT
- **Transportation** – City of Spokane
- **Housing/Built Environment** – City of Spokane, Assessor










# Climate Vulnerability Index

Provide the City and community with a baseline understanding of vulnerabilities + preliminary ranking of vulnerabilities' importance.

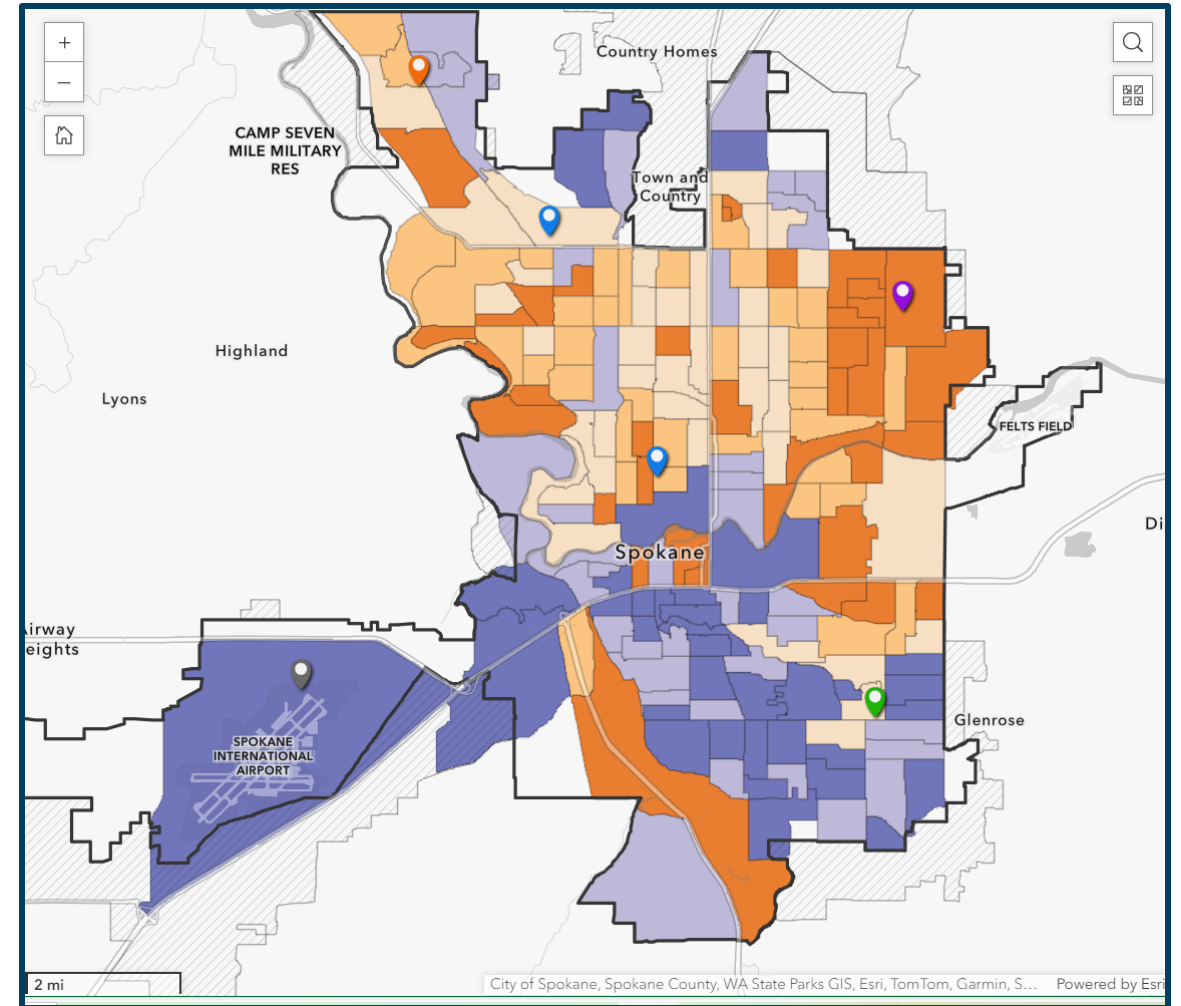
## Public Comments

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

## Climate Vulnerability Index

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

Available online at [planspokane.org](https://planspokane.org)

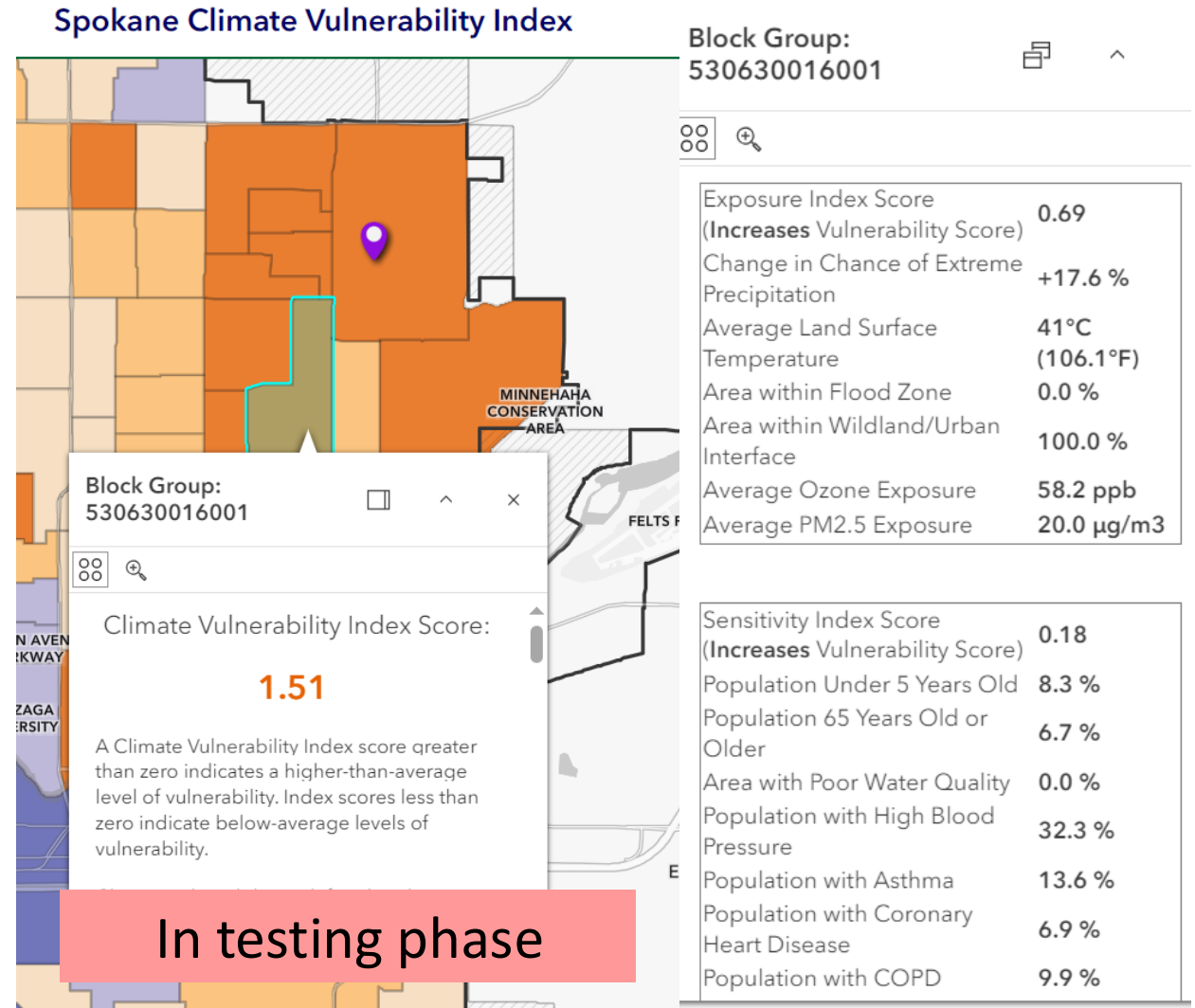


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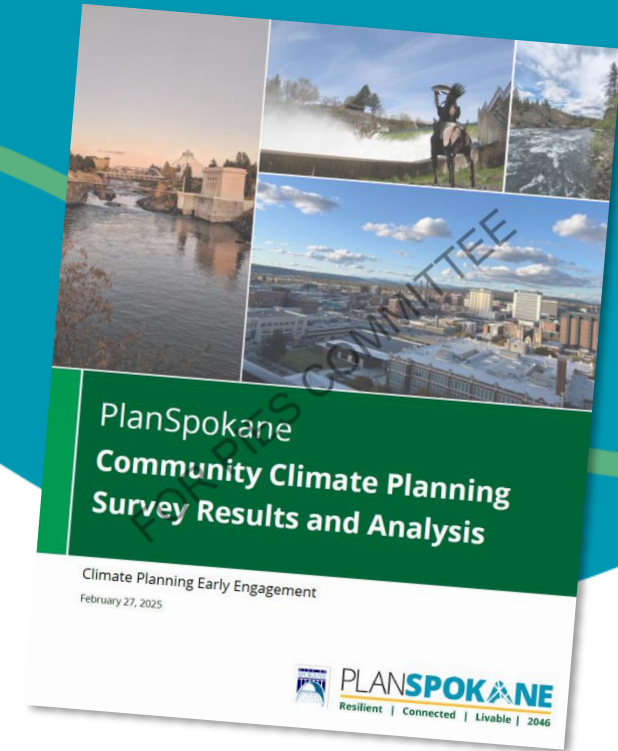
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# Map Example

- Explore results for each block group
- Show individual indices or each element that goes into each indices
- Assets – hospitals, roads, parks, etc. can be turned on/off
- Can support engagement to help collect lived experience feedback to incorporate into the full Climate Risk and Vulnerability Assessment

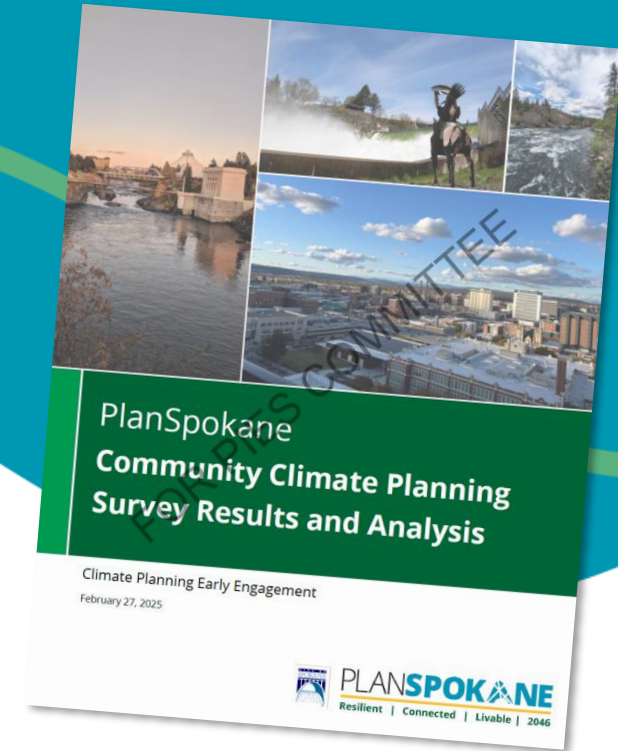


# Community Climate Planning Survey



- Ran from December 5, 2024, through January 31, 2025
- 1,573 total responses

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# The Value of the Lived Experience

The Community Climate Planning Survey focused on the *lived experiences* of Spokane's community members. Other elements of the Climate Planning effort have completed deep dives of local, state, and national data points to understand the *science and statistical trends* behind climate impacts and resiliency.



**Local Understanding:** Provides insight into how individuals perceive and navigate their world here in Spokane



**Contextual Relevance:** Uncovers nuances of culture, environment, and social factors influencing behaviors and decisions



**Human-Centered Insights:** Highlights personal stories, empowering participants by valuing their voices



**Actionable Data:** Reveals hidden needs, challenges, and opportunities that may not be immediately visible through numbers alone

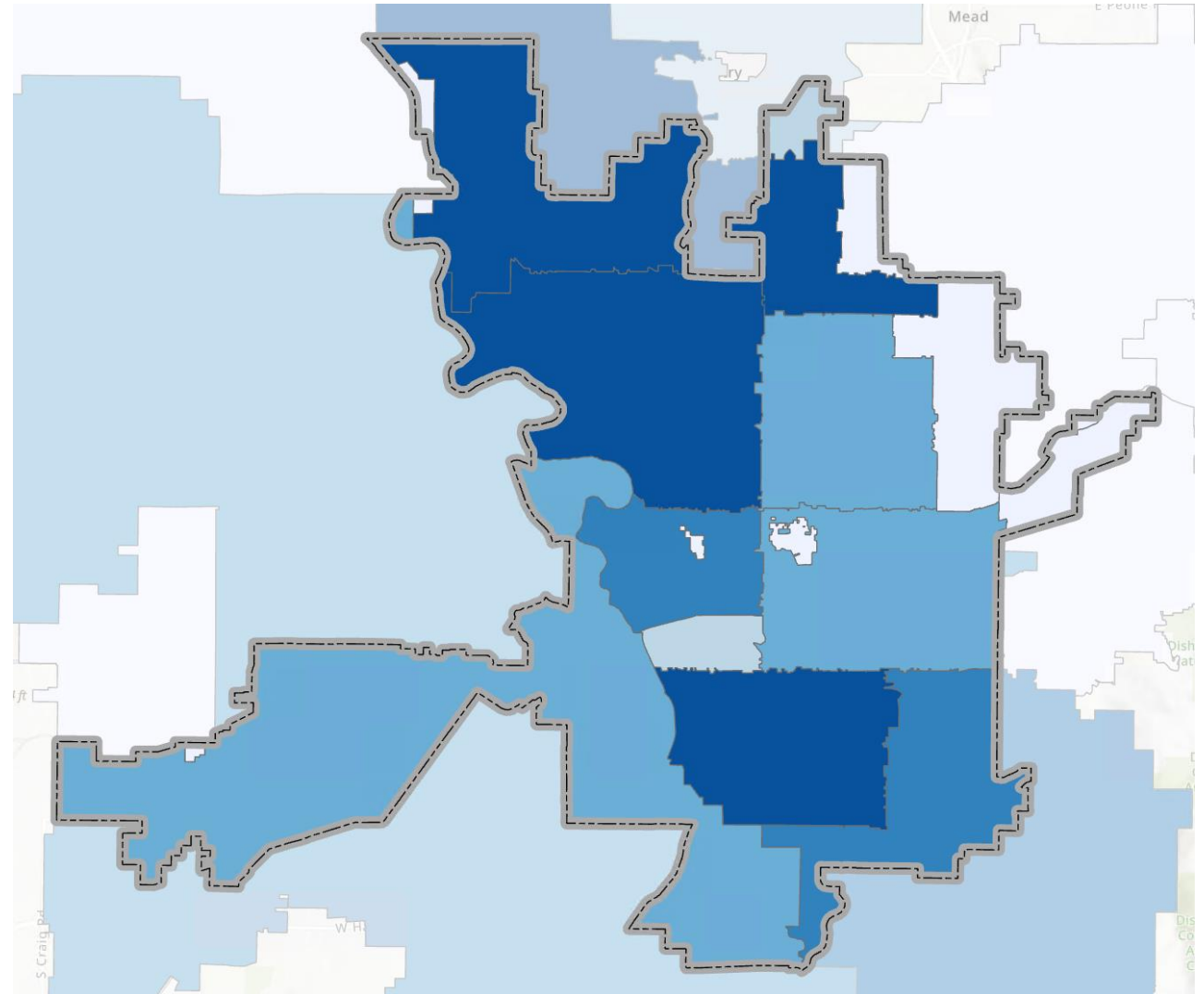


**Community-Based “Pilot Testing”:** Tests data to see if it matches what the community has to say

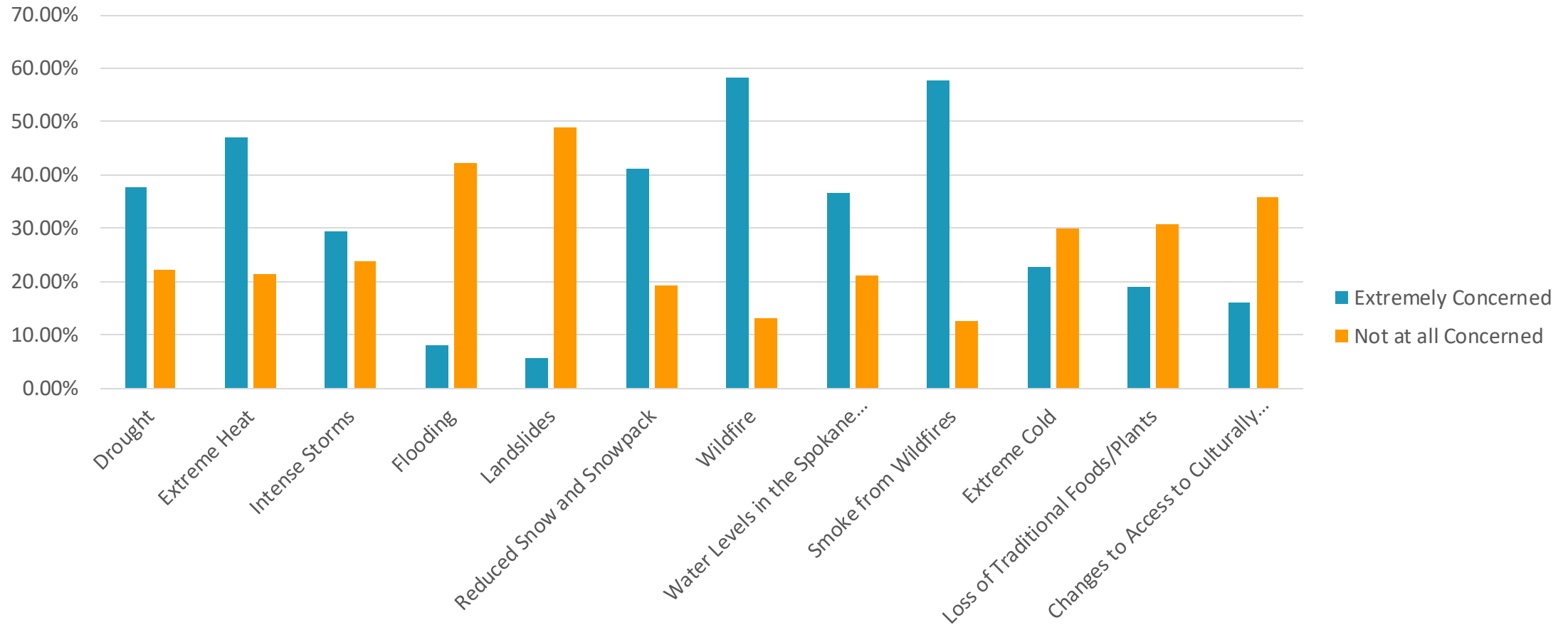
# Where do you live or otherwise engage in Spokane?

## Key Take Away

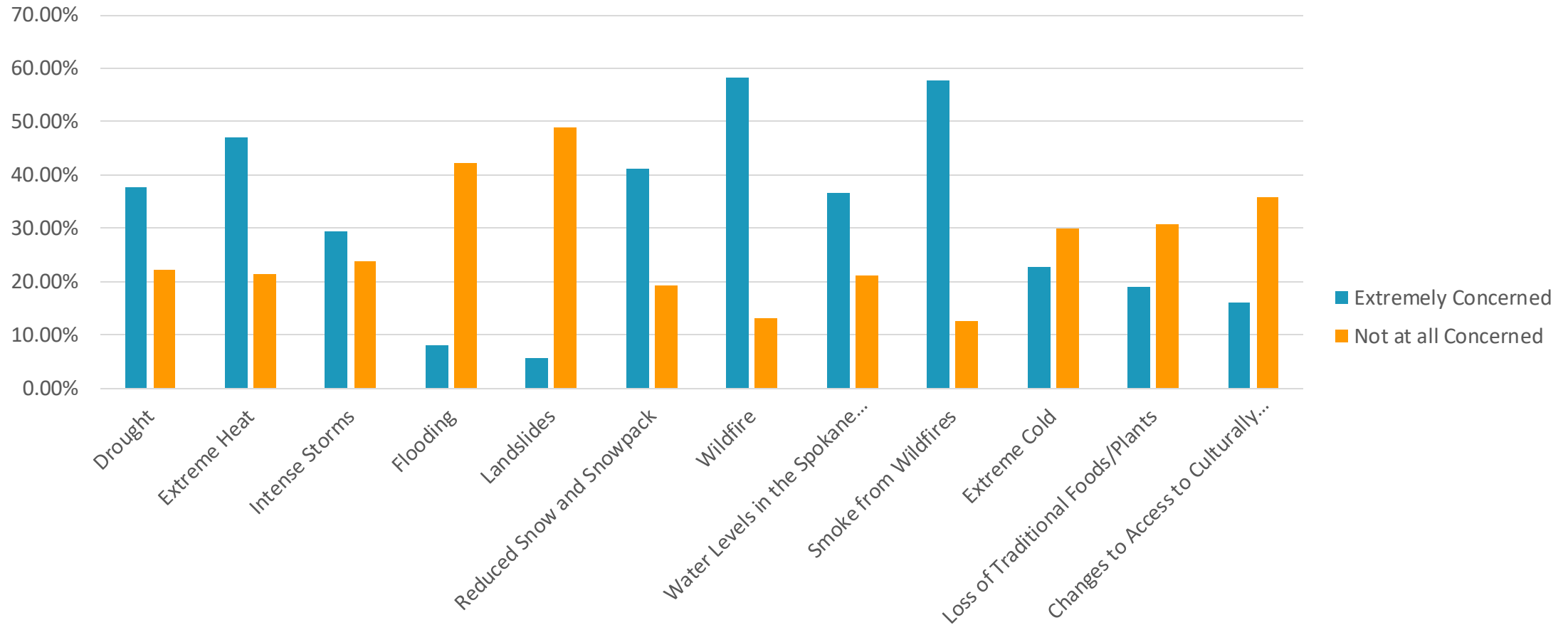
When asked the zip code of where they live, work, go to school, or otherwise engage in Spokane, the northwest and some southern portions of the City saw the most responses



# As you look to the future, how concerned are you with the following extreme weather and climate impacts in the City of Spokane?

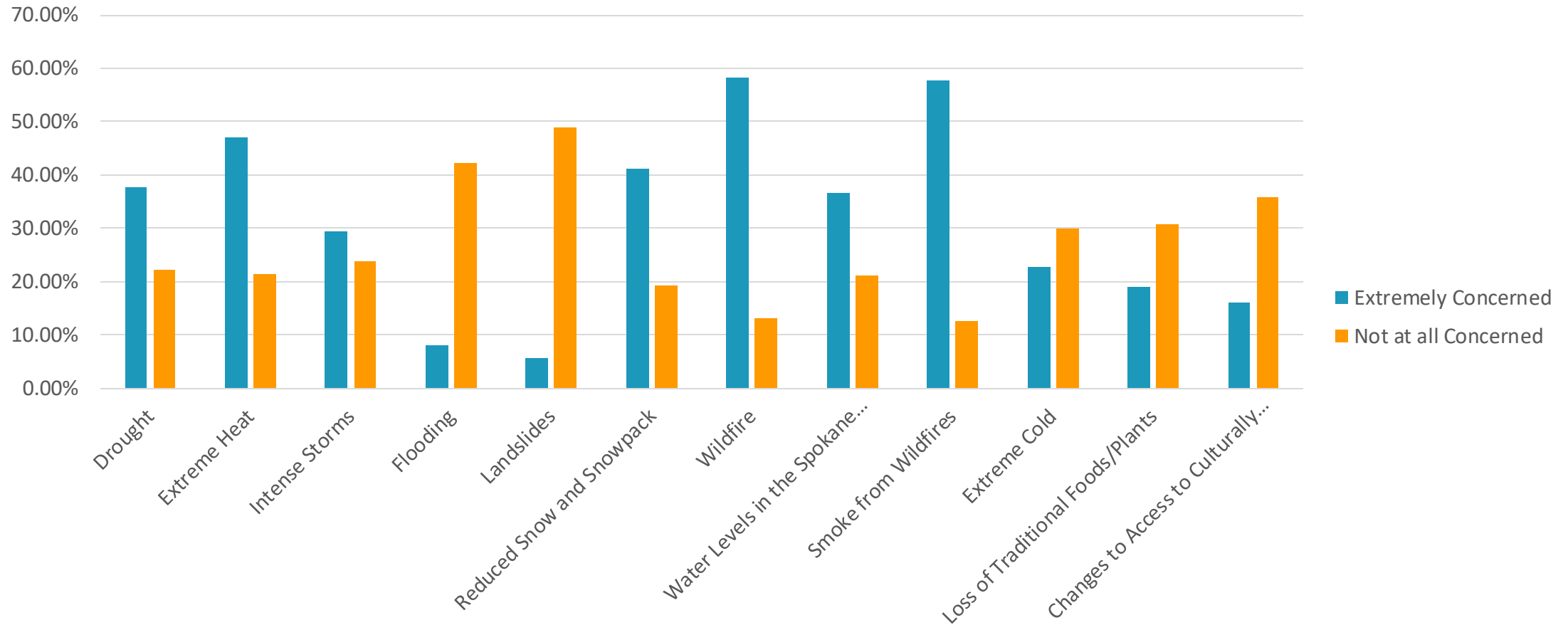


# As you look to the future, how concerned are you with the following extreme weather and climate impacts in the City of Spokane?





# As you look to the future, how concerned are you with the following extreme weather and climate impacts in the City of Spokane?



# Ongoing Engagement



PlanSpokane  
Newsletter

Blog Posts

Social Media

Earth Day  
Community  
Workshop

Focus Groups

Community  
Tabling

Presentations

Partnerships



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# Tribal Coordination

## Tribal Work Group

- Spokane, Kalispel, Coeur d'Alene Tribes
- Intertribal Orgs: AICC, STN, UCUT, The Native Project
- Virtual sessions, listening sessions, community surveys

## Tribal Engagement Goals

- Identify climate impacts, experiences, and traditional ecological knowledge (TEK)
- Review tribal plans, policies, and consultation process
- Review and identify resiliency and mitigation strategies

City of Spokane

# Earth Day

Climate Planning Community Workshop

**April 22**

West Central Community Center, The Newton Room

6 - 7:30 p.m.

Learn more about City of Spokane Climate Planning at [my.spokanecity.org/climateplanning](https://my.spokanecity.org/climateplanning)  
Contact the Climate Planning Team at [ClimatePlanning@spokanecity.org](mailto:ClimatePlanning@spokanecity.org)



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# Climate Resiliency - Phase 1 Tasks

Steps and Pathways to Integrate Resilience into Comprehensive Plan



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# Join the Conversation!



[my.spokanecity.org/climateplanning](https://my.spokanecity.org/climateplanning)



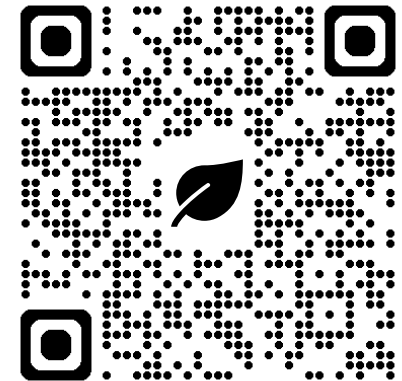
[climateplanning@spokanecity.org](mailto:climateplanning@spokanecity.org)



PlanSpokane Monthly Newsletter



[Engage.Spokane.gov](https://Engage.Spokane.gov)

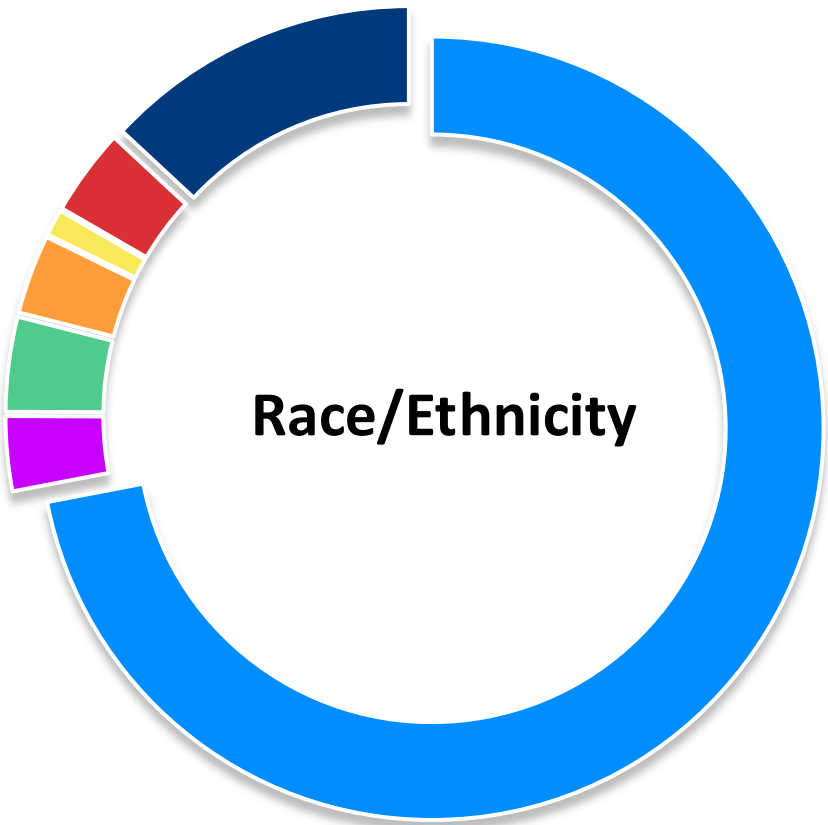
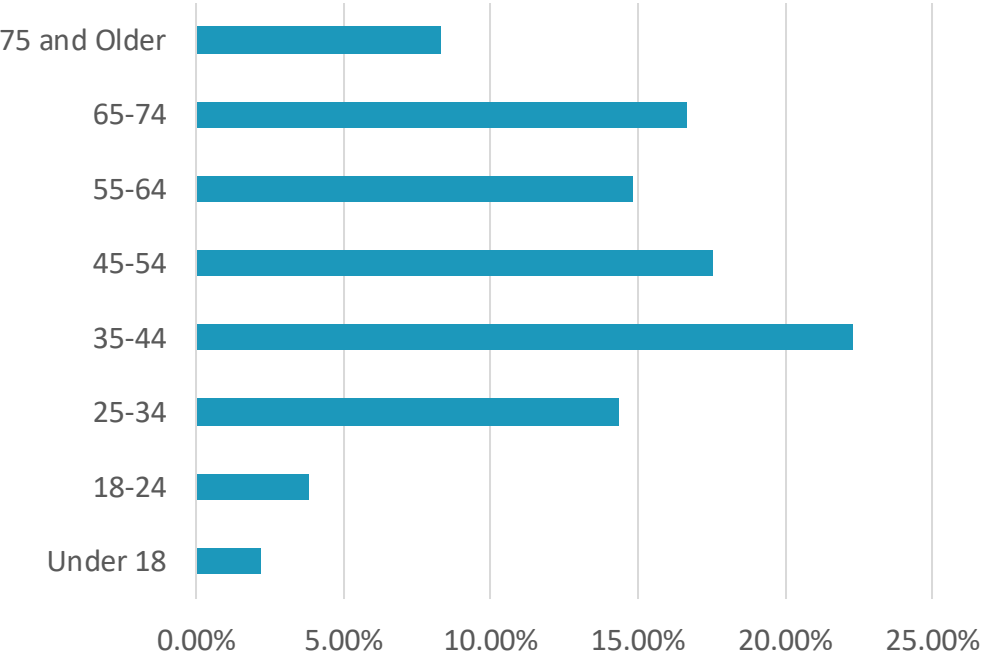


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# Demographics

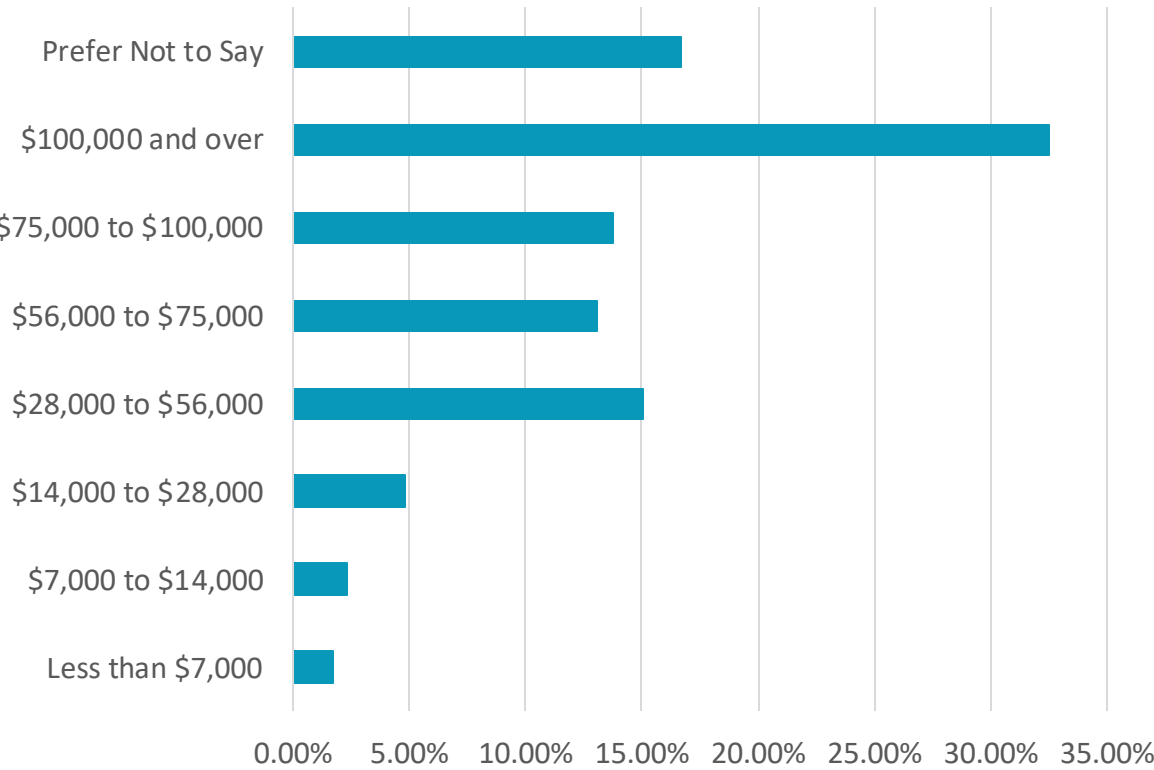
## What is your age group?



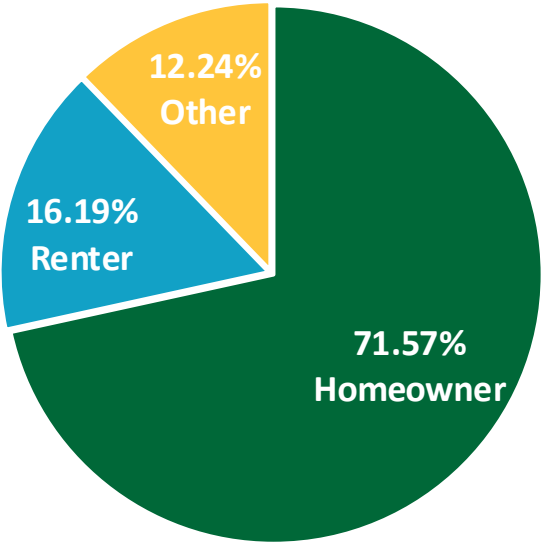
- White or Caucasian (75.02%)
- Black or African American (3.21%)
- Native American, Am. Indian, or Alaska Native (4.07%)
- Asian or Asian American (3.41%)
- Native Hawaiian or Other Pacific Islander (1.14%)
- Other (3.74%)
- Prefer Not to Say (13.63%)

# Household Characteristics

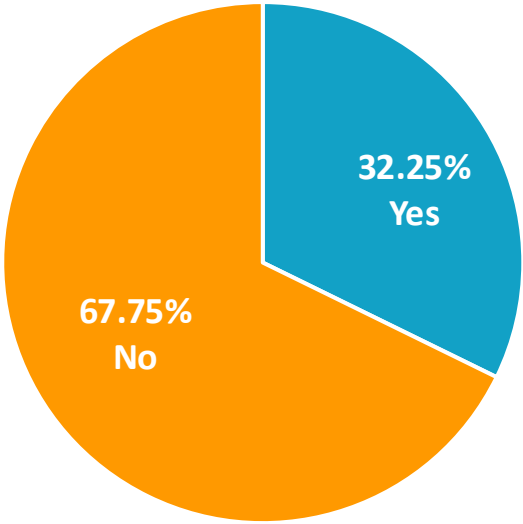
## Household Income



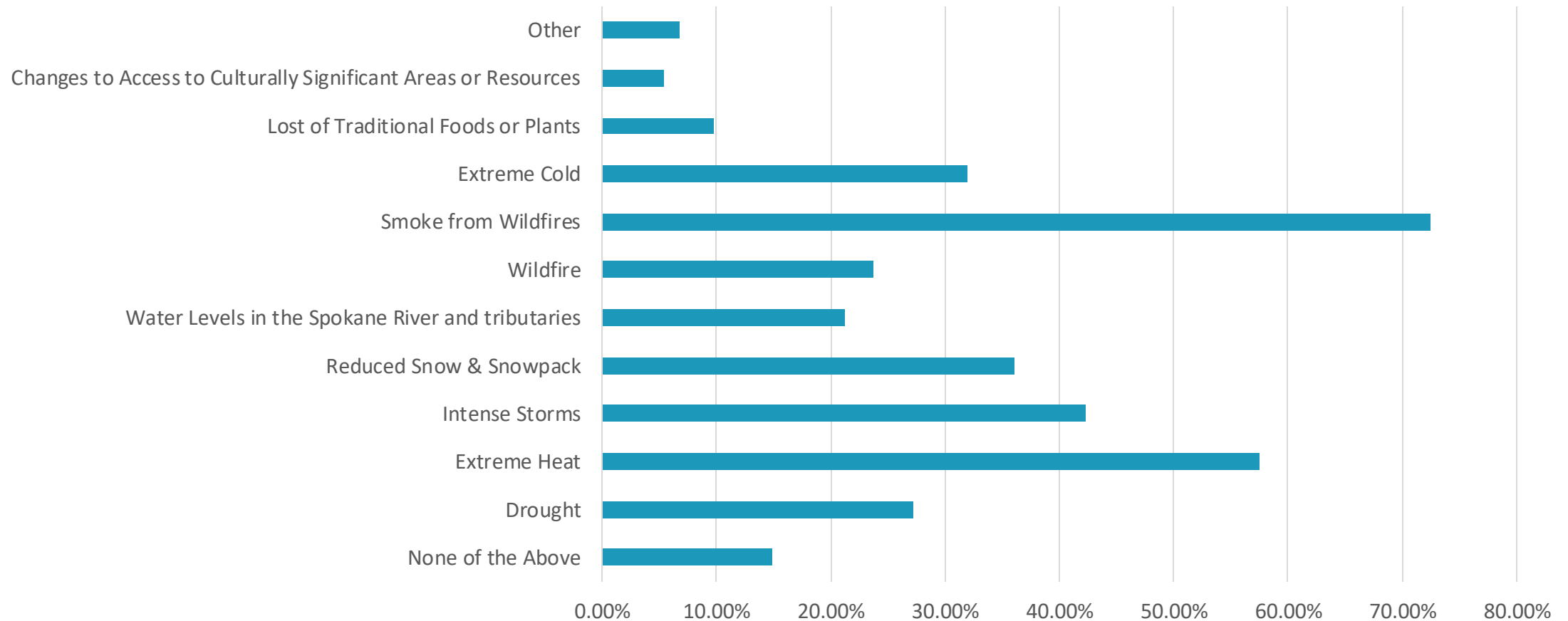
## Household Occupancy



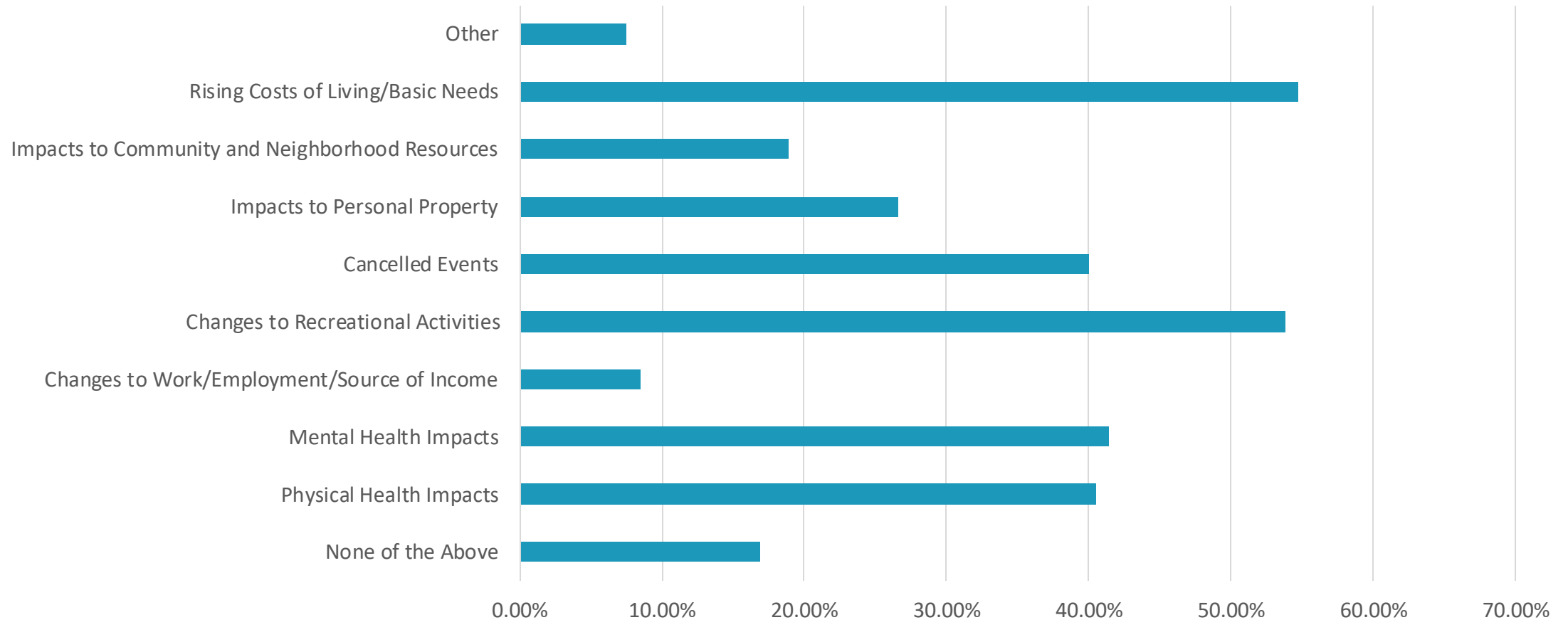
## Children under 18 in immediate household



# Have you been impacted by any of the following extreme weather and climate hazards in Spokane?



# How have extreme weather and climate hazards affected you personally in the past five years?





# SpoCanopy



Protecting our river and community through free trees.

Justyce Brant

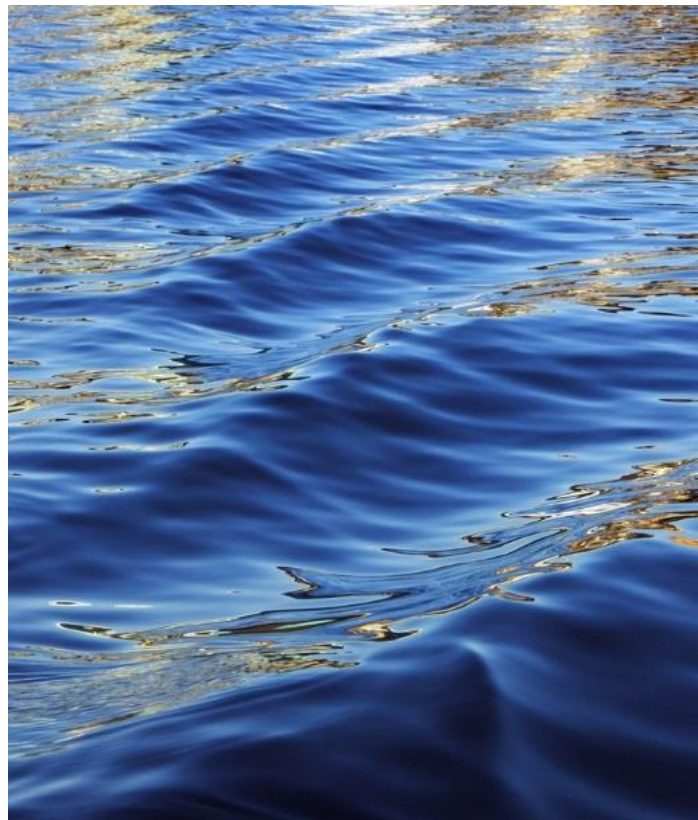
*Urban Forestry Program Director*

The Lands Council





# THE LANDS COUNCIL



Spokane



City of  
Spokane



Spokane  
County

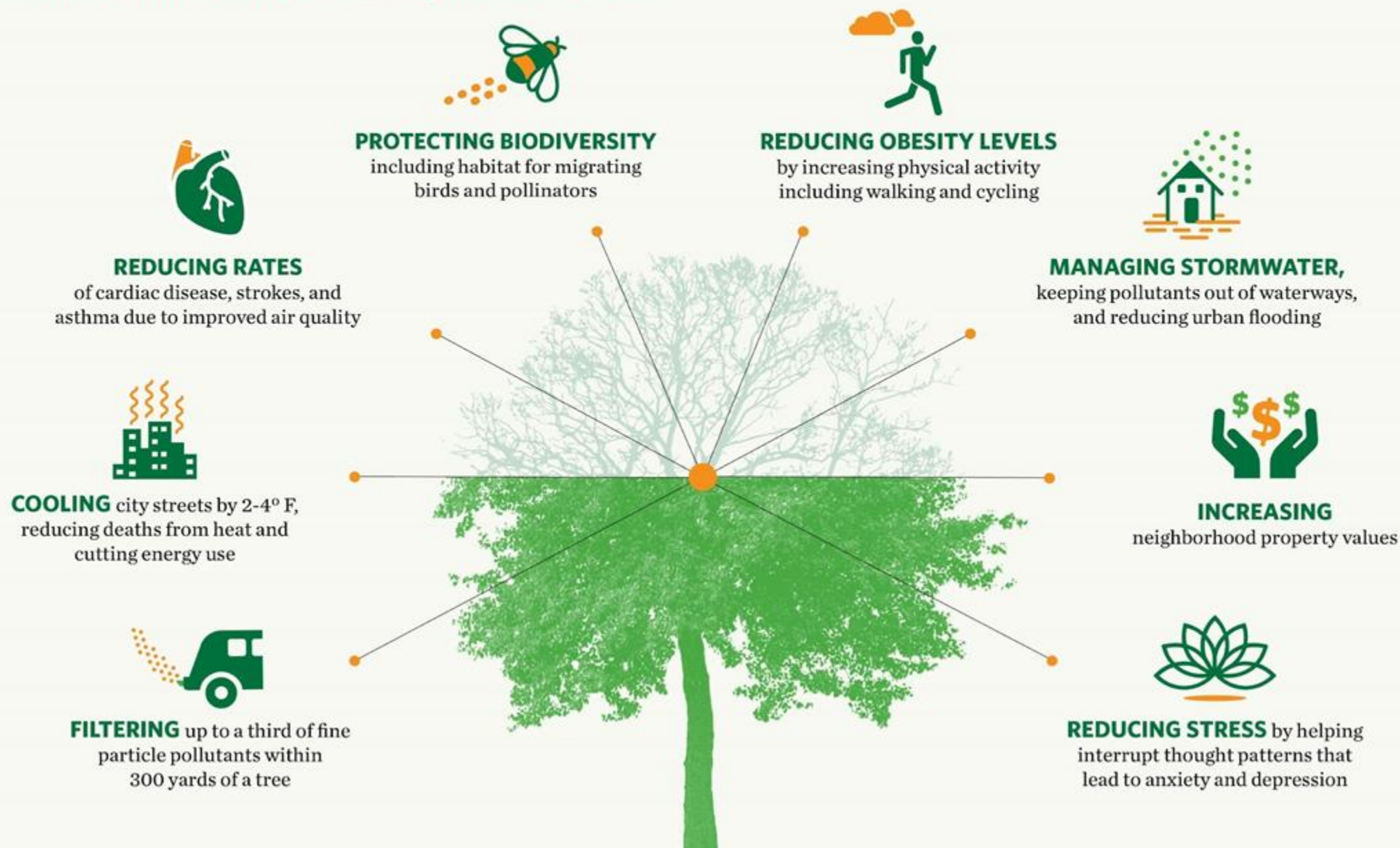
Cool Canopy





# Benefits of Urban Trees

*Research has linked the presence of urban trees to...*



## TREES & COMMUNITY



**Safety:** Residents with nearby trees and natural landscapes reported 25% fewer acts of violence.



**Value:** Having large trees along streets increases a home's value by 12%.



**Savings:** Trees reduce U.S. residential energy use by an average of 7.2% – an annual savings of \$100 for an average household.

## THE SIZE AND POWER OF 100 MILLION TREES

**The Size:** 3,500 Central Parks

**The Impact:** 578,000 tons of chemical pollution removed from the air – enough to fill 70,000 Goodyear blimps



## A TREE PLANTED TODAY MAKES LIFE BETTER FOR GENERATIONS TO COME.



### Healthier Environment

Forests provide 75% of the world's accessible fresh water by removing impurities and preventing erosion.



### Healthier Economy

Forests contribute \$33 trillion to the global economy each year.



### Healthier Society

1/4 of modern medicine is derived from tropical forest plants, including treatments for diseases like cancer, malaria, and rheumatism.







Forest Service  
U.S. DEPARTMENT OF AGRICULTURE

Pacific Northwest Research Station | Issue 263 | February 2024

# Science

## FINDINGS

### INSIDE

Exploring Tree Planting and Mortality Links . . . 2

Return on Investment . . . 3

Increasing Urban Greenness . . . 4

*"Science affects the way we think together."*  
Lewis Thomas

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## Plant a Tree and Save a Life?

### The Value of Planting More Trees in Urban Areas

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### IN SUMMARY

*Exposure to urban trees is associated with improved public health outcomes, including healthier infant birth weights, fewer symptoms of attention-deficit hyperactivity disorder, and decreased cardiovascular mortality. Conversely, tree loss is linked to increased rates of cardiovascular disease and higher mortality. Could this mean that trees save lives?*











# Stormwater Runoff Pollutes



Runoff  
from Roof

Runoff  
from  
Gutters

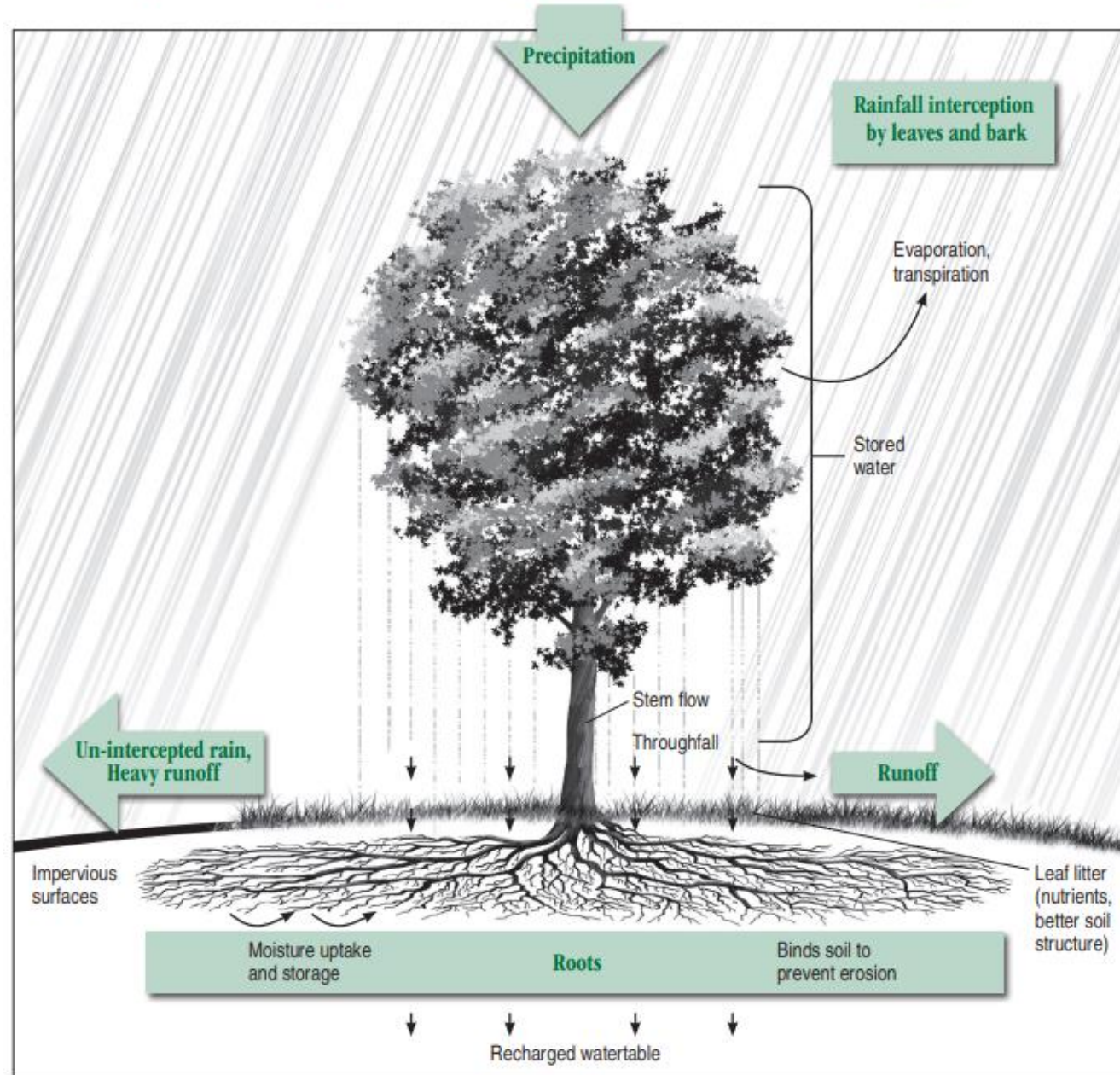
Runoff  
from  
Street

## RUNOFF PICKS UP:

- Pet Waste
- Fertilizers
- Motor Oil
- Detergents
- Chemicals
- Litter

STORMWATER RUNOFF  
CARRIES POLLUTANTS  
INTO OUR WATERWAYS.

## Important Ways a Tree Helps with Stormwater Management



# Trees as a measure of equity

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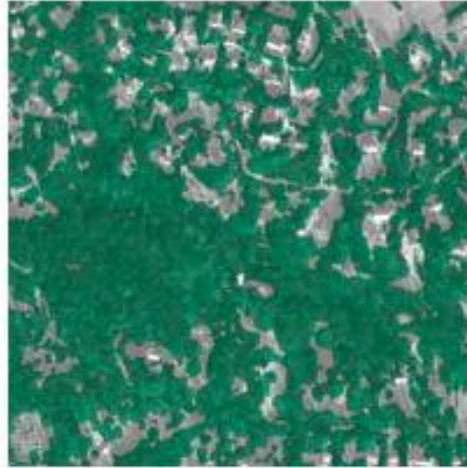
# Median Income and Canopy Coverage

## Baltimore

Median income: \$31K



Median income: \$154K

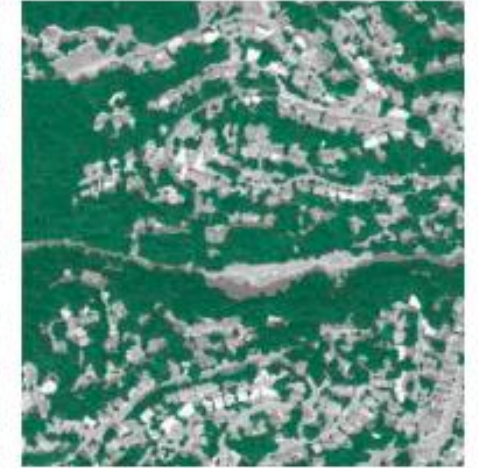


## Portland, Ore.

Median income: \$39K



Median income: \$161K

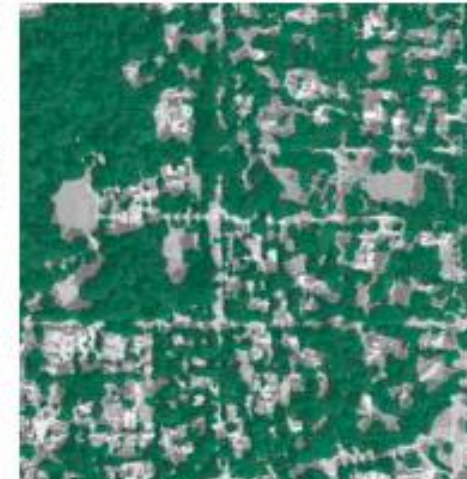


## Columbus, Ohio

Median income: \$38K



Median income: \$150K

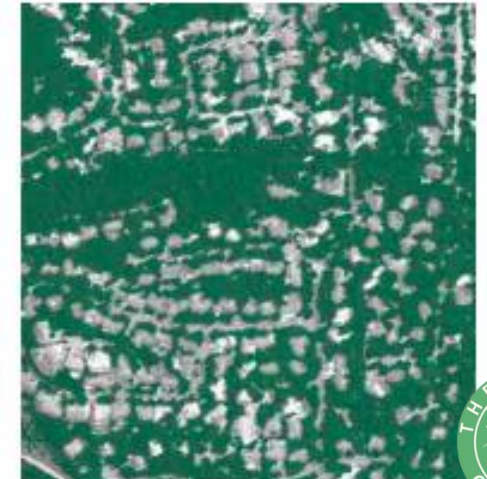


## Austin, Texas

Median income: \$59K



Median income: \$185K



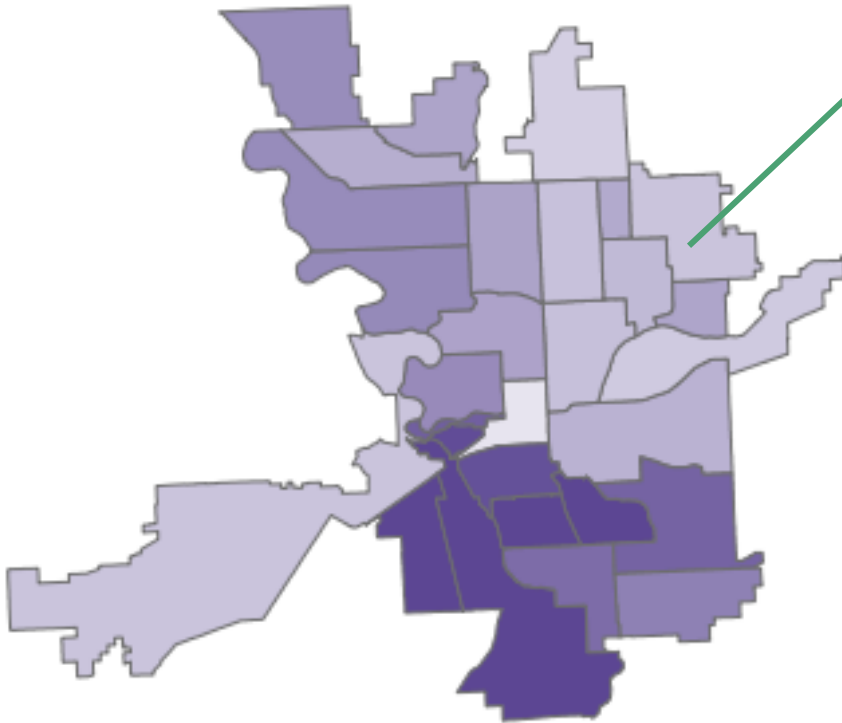


## City of Spokane Tree Canopy Cover and Ecosystem Benefits

20.7%      \$5.77M      \$44.39M

Tree Canopy Cover      Estimated Annual Ecosystem Benefits      Additional Lifetime Stored Carbon Value

City of Spokane Tree Canopy Cover by Neighborhood for 2020



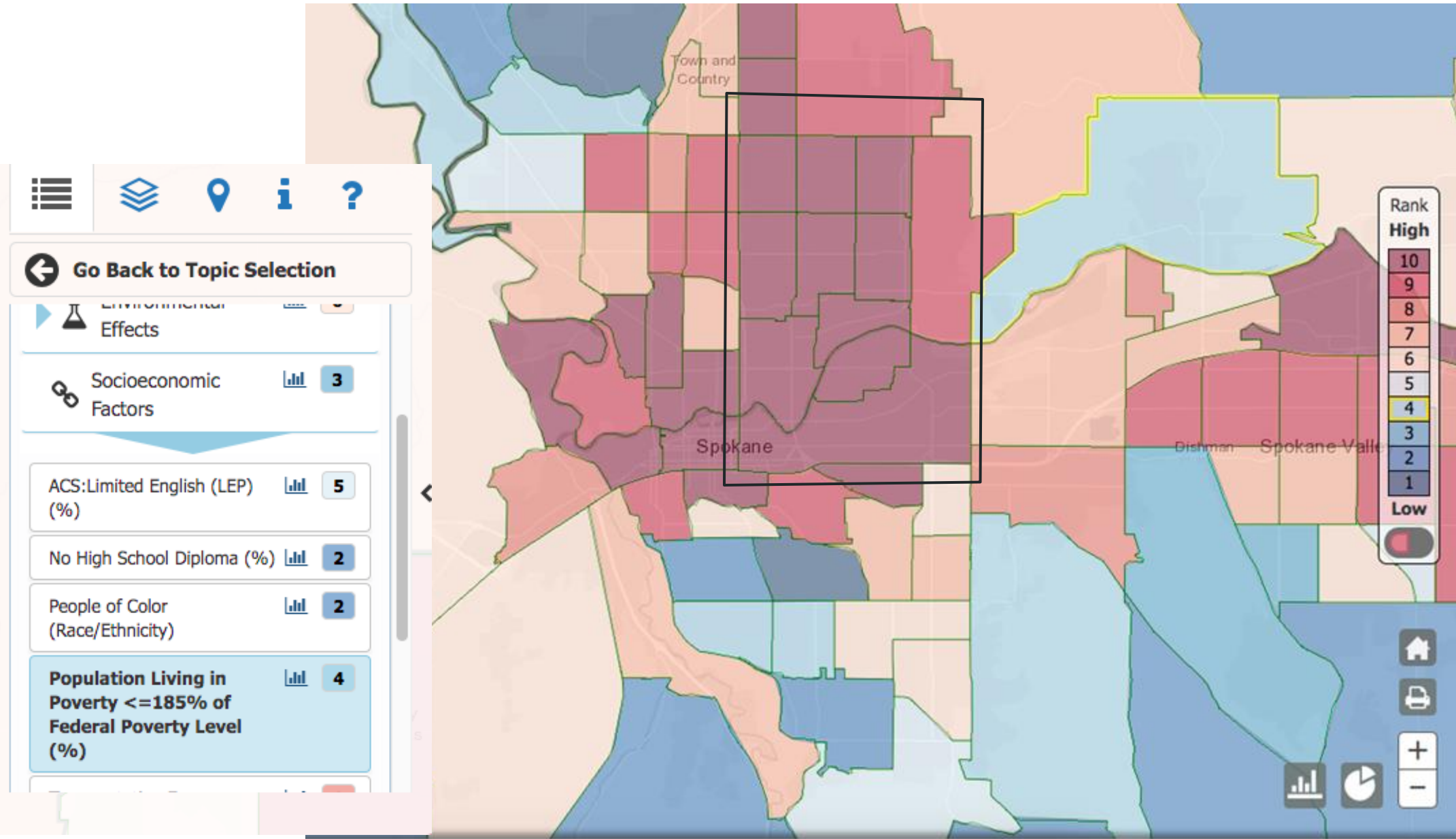
Council District	Tree Canopy Cover	Annual Ecosystem Benefits	Additional Lifetime Stored Carbon Value
<b>1</b>	<b>13.9%</b>	<b>\$1,096,950</b>	<b>\$8,439,583</b>
Bemiss	14.9%	\$89,344	\$700,000
Chief Garry Park	12.1%	\$154,804	\$1,300,000
East Central	16.1%	\$237,490	\$1,200,000
Hillyard	13.1%	\$147,897	\$1,300,000
Logan	13.9%	\$104,247	\$500,000
Minnehaha	18.4%	\$64,770	\$500,000
Nevada Heights	13.7%	\$113,010	\$1,000,000
Shiloh Hills	11.2%	\$147,762	\$1,300,000
Whitman	17.5%	\$37,626	\$300,000
<b>2</b>	<b>20.8%</b>	<b>\$1,463,666</b>	<b>\$8,570,899</b>
Browne's Addition	32.9%	\$38,037	\$339,659
Cliff-Cannon	32.2%	\$150,442	\$765,035
Comstock	27.7%	\$188,719	\$959,696
Grandview / Thorpe	43.9%	\$330,971	\$2,955,475
Latah / Hangman	35.7%	\$837,879	\$7,482,019
Lincoln Heights	29.1%	\$366,627	\$3,273,880
Manito / Cannon Hill	38.5%	\$164,385	\$1,467,918
Peaceful Valley	29.9%	\$30,106	\$268,850
Riverside	7.8%	\$32,325	\$288,653
Rockwood	38.1%	\$190,115	\$1,697,682
Southgate	24.4%	\$227,425	\$2,030,840
West Hills	13.2%	\$650,781	\$5,811,305
<b>3</b>	<b>20.8%</b>	<b>\$1,463,666</b>	<b>\$8,570,899</b>
Audubon / Downriver	23.0%	\$217,060	\$1,103,815
Balboa / South Indian Trail	16.9%	\$121,596	\$618,355
Emerson / Garfield	18.7%	\$127,882	\$649,740
Five Mile Prairie	18.6%	\$109,400	\$556,336
North Hill	18.8%	\$150,346	\$764,553
North Indian Trail	22.4%	\$293,484	\$2,620,740
Northwest	22.6%	\$311,640	\$1,584,789
West Central	22.7%	\$132,258	\$672,565
<b>Total</b>	<b>20.7%</b>	<b>\$5,768,428</b>	<b>\$44,393,583</b>

\*Shading Indicates Degree of Canopy Cover



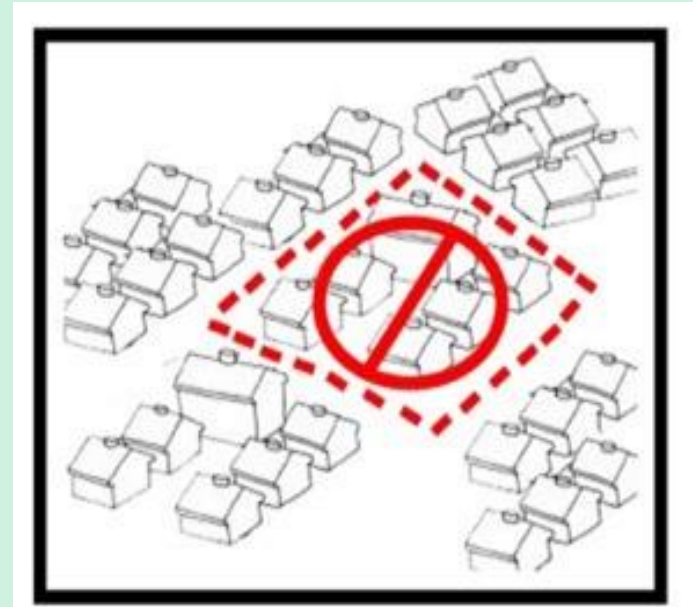
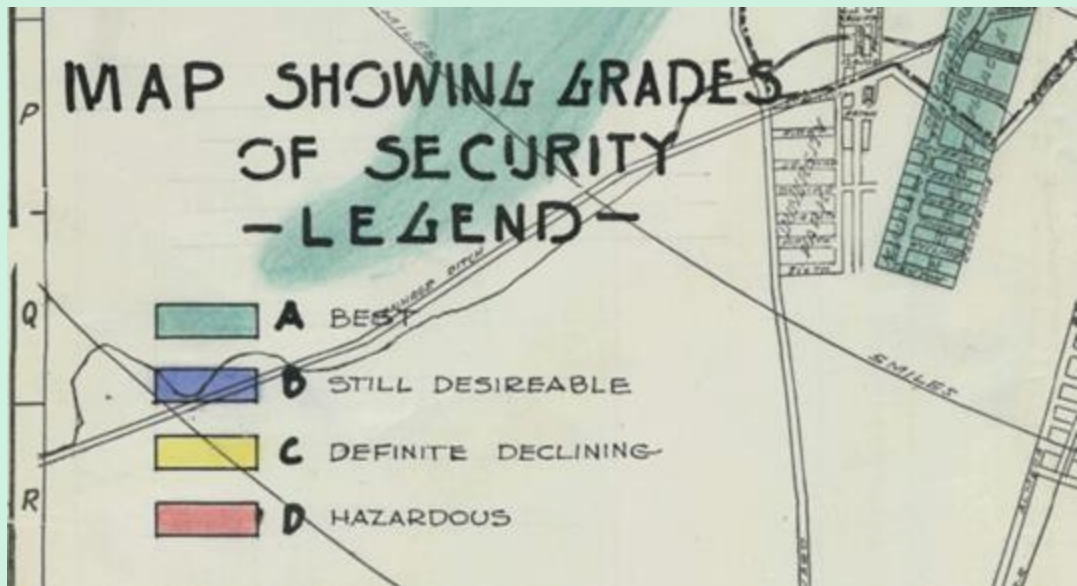


# Population living in **poverty**



# Quick history: What is **redlining**?

Systemic denial of services and resources to certain communities and neighborhoods either by direct removal, denial of resources or sudden increase of prices.



### Baltimore

Share of tree canopy

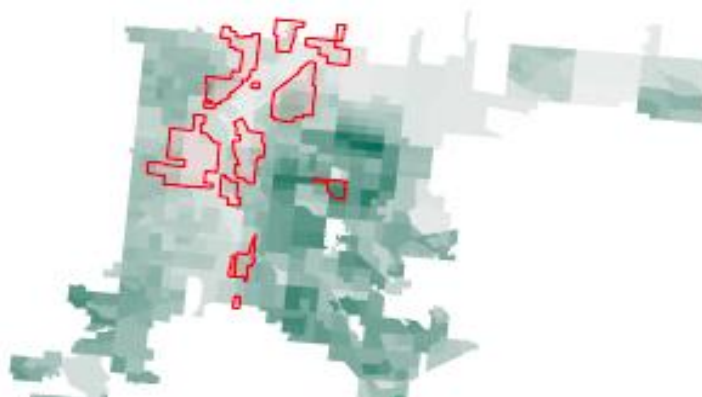
1% 83



### Denver

Share of tree canopy

1% 37



### Portland, Ore.

Share of tree canopy

2% 81

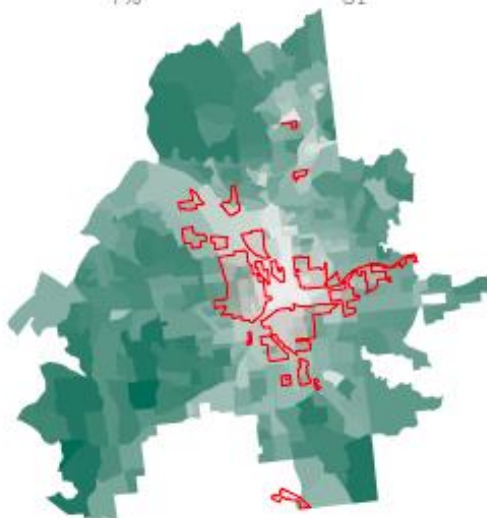


3 miles

### Atlanta

Share of tree canopy

7% 81



3 miles

### Charlotte, N.C.

Share of tree canopy

4% 80

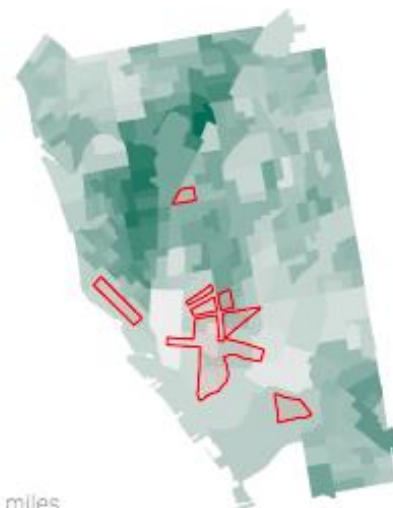


3 miles

### Buffalo

Share of tree canopy

4% 54



3 miles

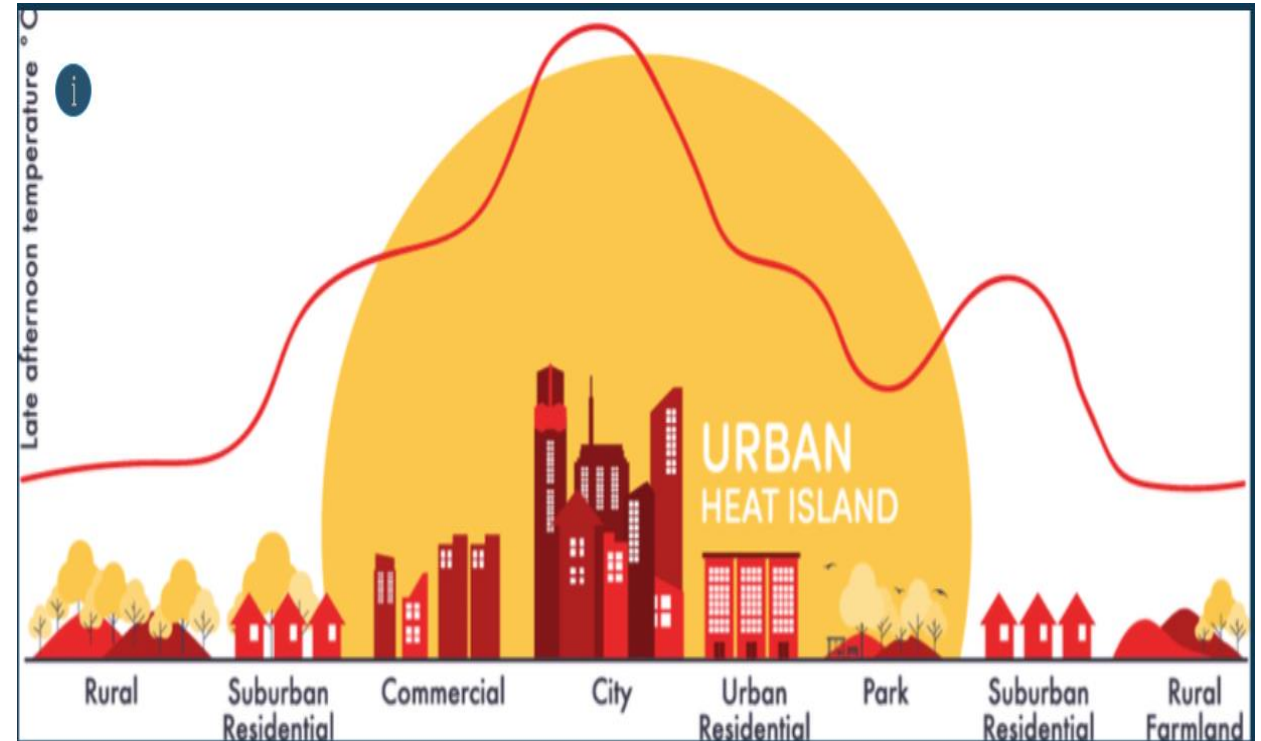
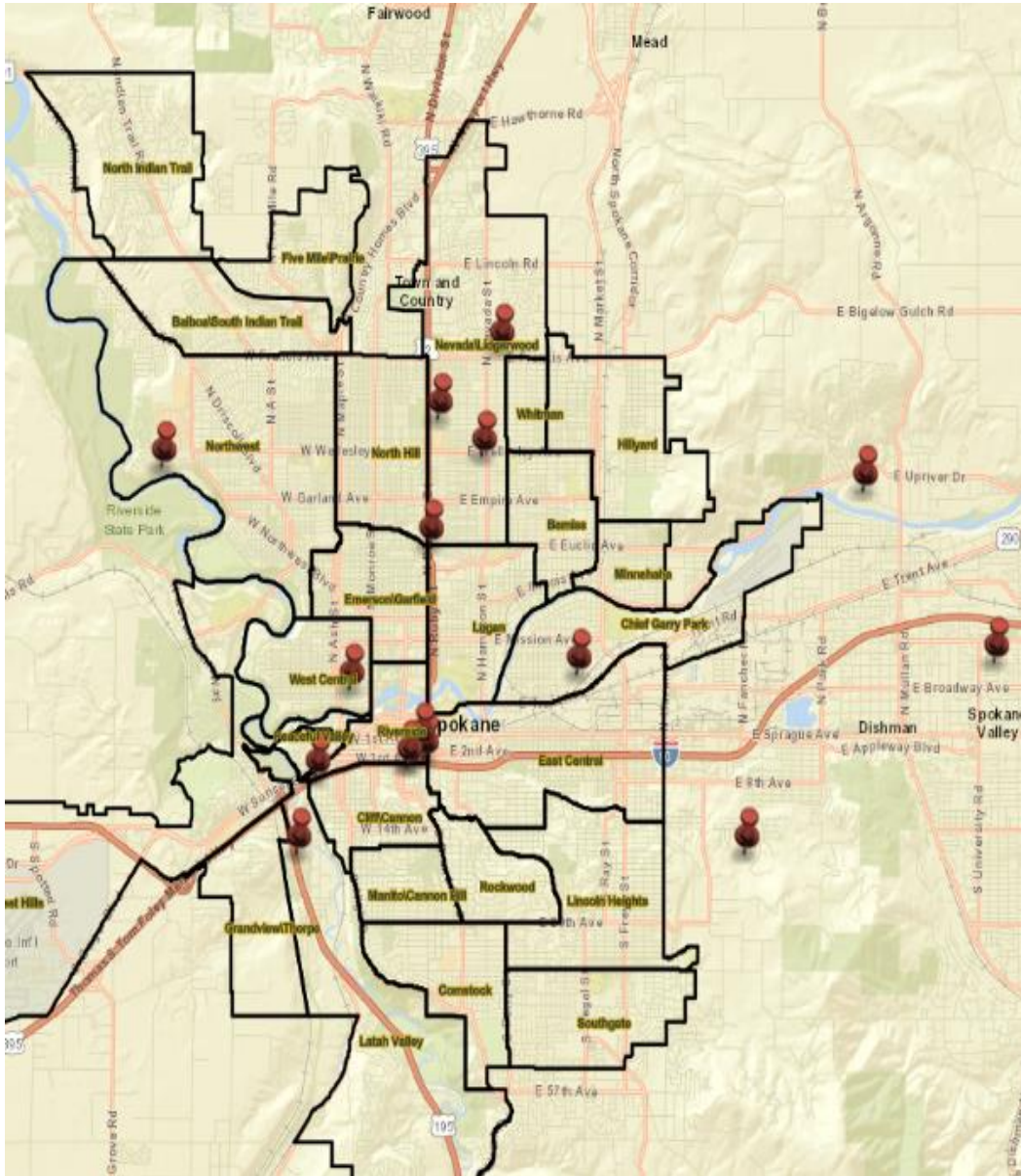
Sources: American Forests (share of tree canopy), Mapping Inequality (redlining boundaries).











Red pins on the map depict 15 of Spokane County's 19 confirmed heat-related deaths during the 2021 Heat Dome, others occurred within the county, but outside of the image extent or lacked a location in the release from the Medical Examiner.

SpoCanopy's goal is to equitably increase urban canopy by planting street trees in low canopy, low-income neighborhoods

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# SpoCanopy Process and Phases



1- Start by mapping, prioritizing and planning with an equity lens



2- Canvass neighborhoods, knock on doors and leave information and alert residents on their opportunity for a free tree.



3- Organize resident interest, help residents choose the right tree for the right place.



4- Trees are planted at a community event by volunteers, the City of Spokane and TLC. Volunteers dig, plant and water the trees.



5- The trees are the responsibility of the resident, but throughout the summer Tree Stewards visit the trees to monitor their health and watering.



# SpoCanopy Expo-Forest





Any guesses on how many trees we planted last spring?

**782!!!**



421 Ponderosa Pine (plus an undetermined amount of Rocky Mountain Juniper) seedlings  
70 Ponderosa Pines (larger stock)  
70 Western Larch  
40 Austrian Pine  
36 Autumn Brilliance Apple Serviceberry  
35 Espresso Kentucky Coffee tree  
35 Harvest Gold Linden  
20 Forest Green Italian Oak  
20 Honey Locust  
12 English Oak  
10 Norway Maple  
8 Douglas Fir  
3 Emerald Sunshine Elms  
2 Eastern Redbuds





# Questions on SpoCanopy & Cool Canopy?





# Contact Information

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*We are here to help! Don't hesitate to reach out!*

