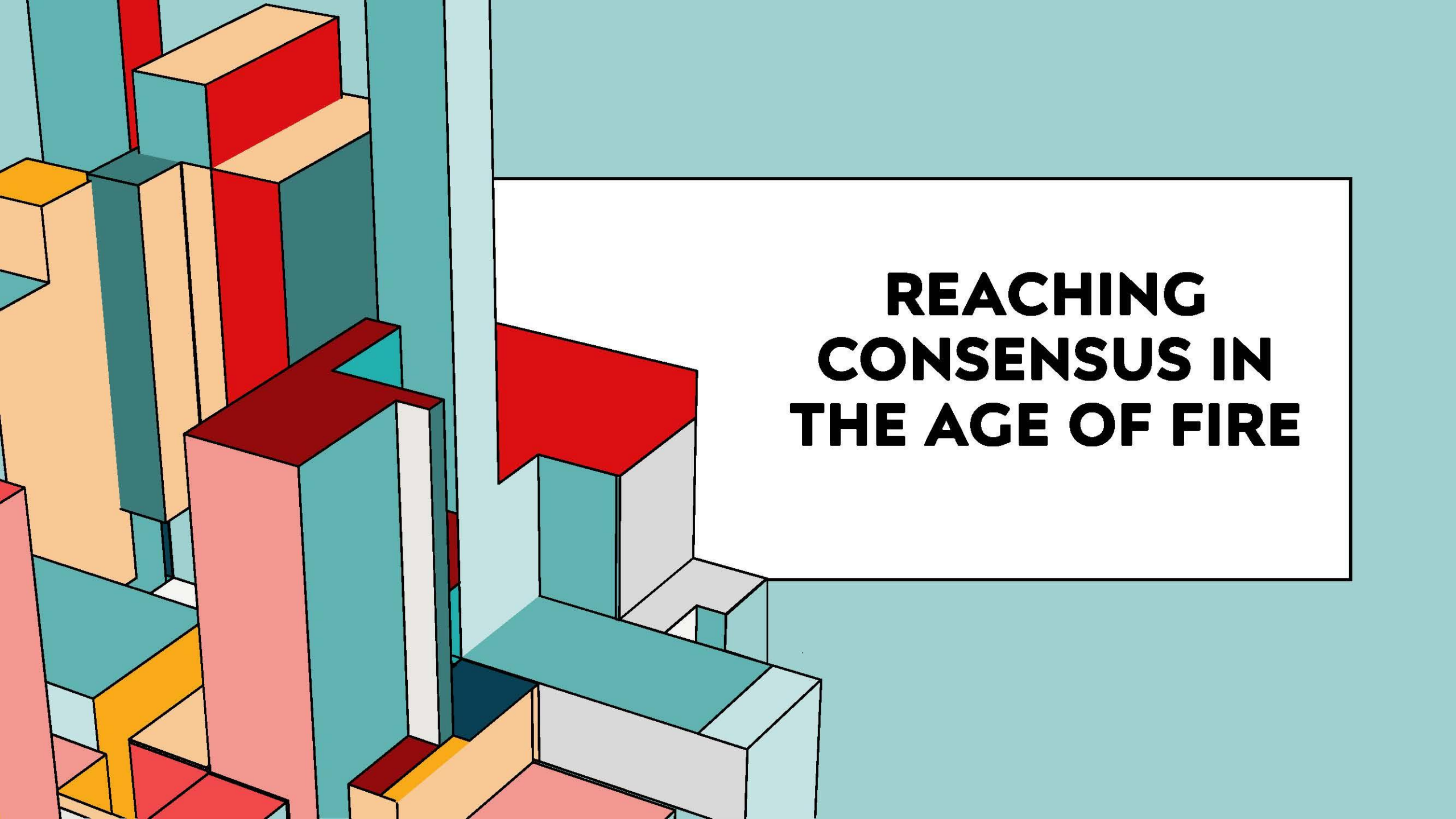


REACHING CONSENSUS IN THE AGE OF FIRE

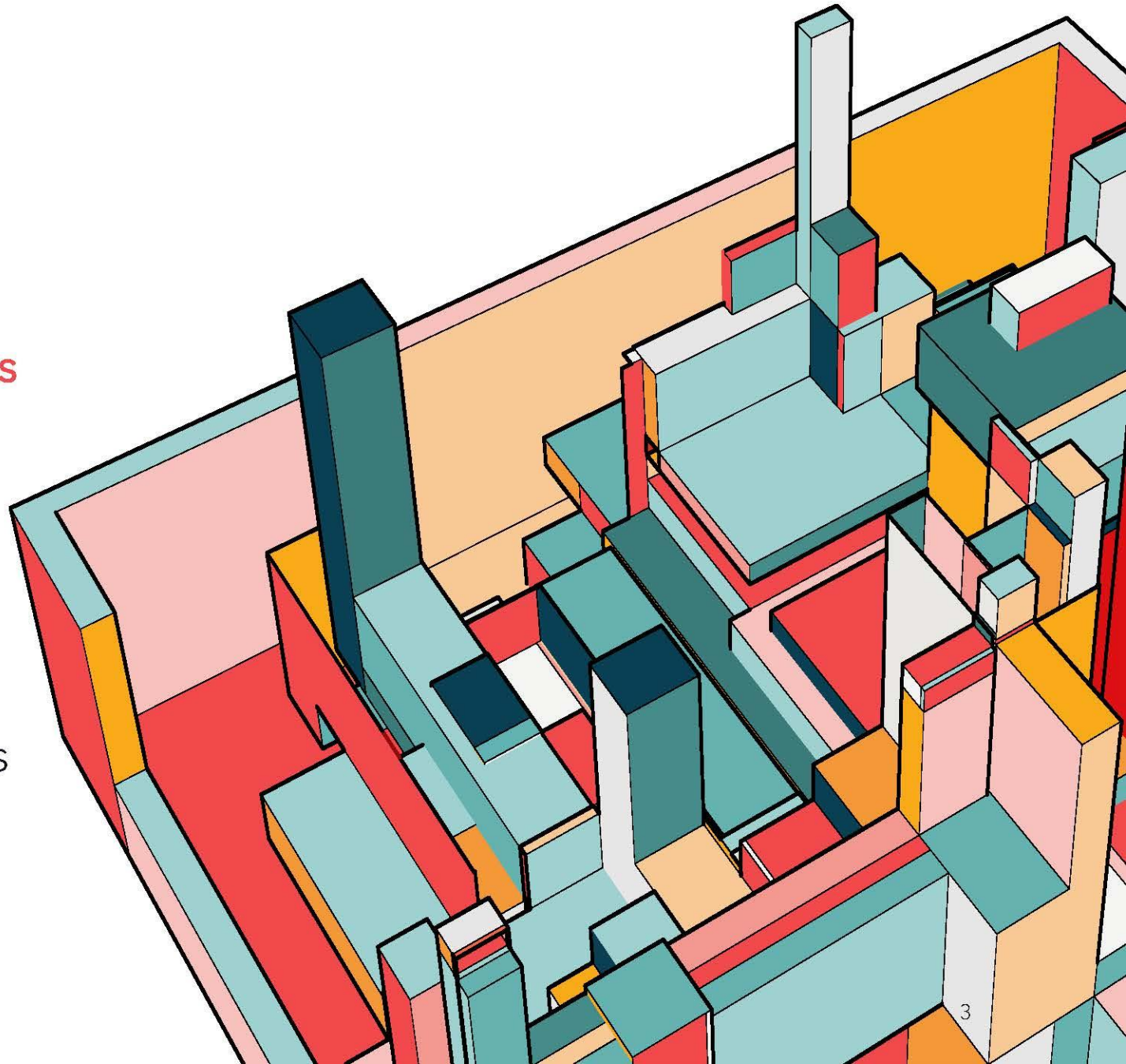
IDENTIFIED PROBLEM

The rise in severity and occurrence of wildfires in the Pacific West poses an increased risk to wildland urban interface (WUI) populations.

In Oregon, the 2020 fires were much more extensive and impactful, as most were in timber, resulting in one million acres burned. The fire consumed at least 4500 structures, and nine residents lost their lives.

SENATE BILL 762 (SB 762)

- The bill, enacted June 25, 2021, was designed to assist Oregon in modernizing and improving wildfire preparedness through three key strategies:
  - Creating fire-adapted communities
  - Developing a safe and effective response
  - Increasing the resilience of Oregon's landscape.
- The bi-partisan legislation implicated 14 state-level agencies and allocated approximately $220 million to address wildfire mitigation and adaptation in Oregon.
- The bill outlined 15 objectives related to wildfires.



TOP PRIORITIES

1. Define and establish classes of wildland-urban interface
2. Development of Statewide Wildfire Risk Map
3. Establishment of Local Defensible Space Requirements
4. Development of Landscape Resilience and Fuel Reduction Programs
5. Establishment of Small Forestland Grant Program

Defensible Space Requirements

- Agencies will administer and enforce defensible space requirements.
- Financial, administrative, technical, or other assistance provided to local governments for administration and enforcement.

New Building Code Standards

- Creation of standards for additions to existing dwellings and dwelling accessory structures in extreme and high wildfire risk class.
- Requires a publicly accessible interactive mapping tool that displays wildfire hazard mitigation standards and, in the future, with the inclusion of snow load, seismic, and wind building code standards.

Statewide Wildfire Risk Map

- Establishment of five statewide risk classes of extreme, high, moderate, low and no risk.
- Made public through the *Wildfire Risk Explore platform.*

Small Forest Management Programs

- Directs ODF to establish a grant program, on a competitive basis, to support small forestland owners (>160 acres) in reducing wildfire risk through restoration of landscape resiliency and reduction of fuels on property.

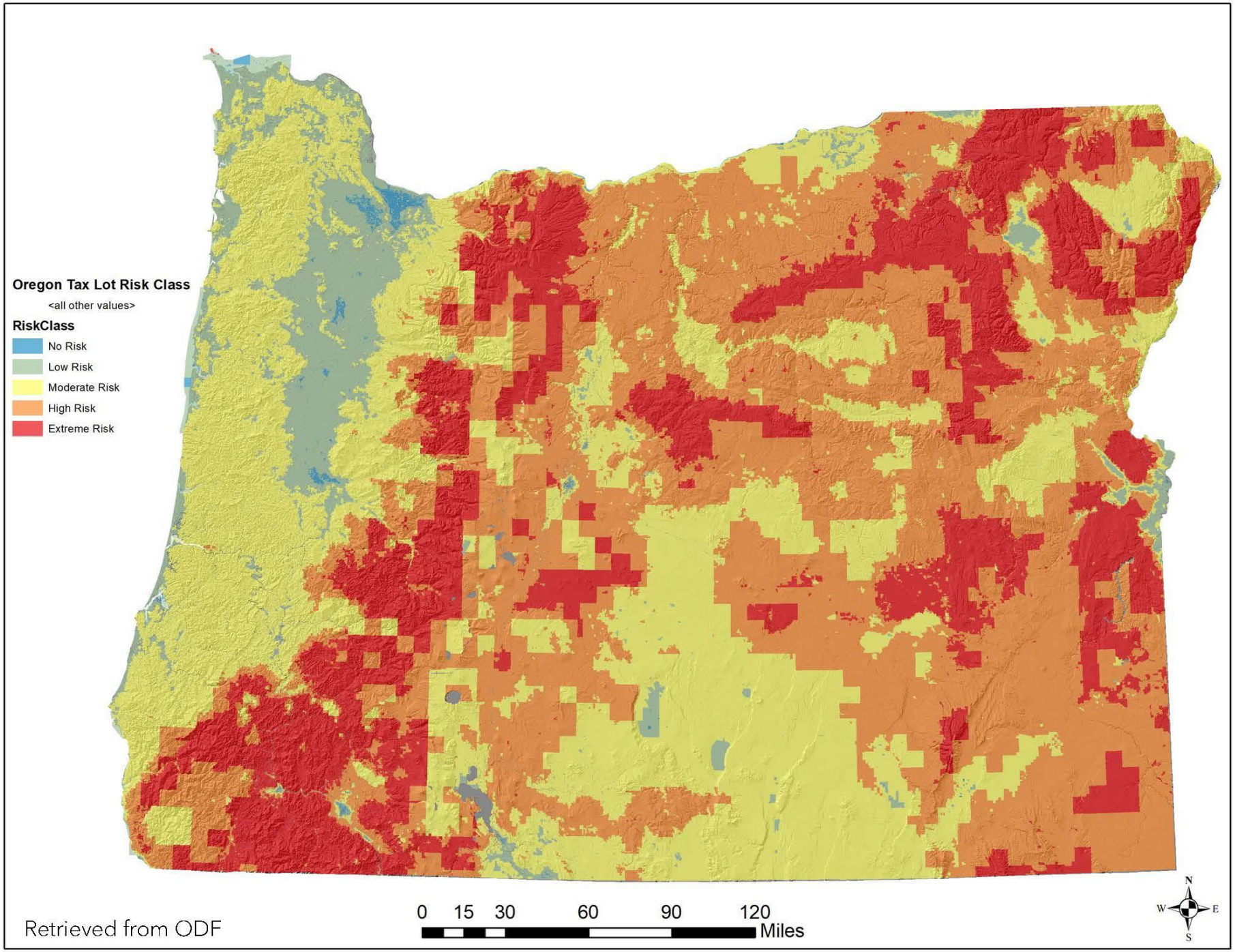
Landscape Resiliency and Fuel Reduction Programs

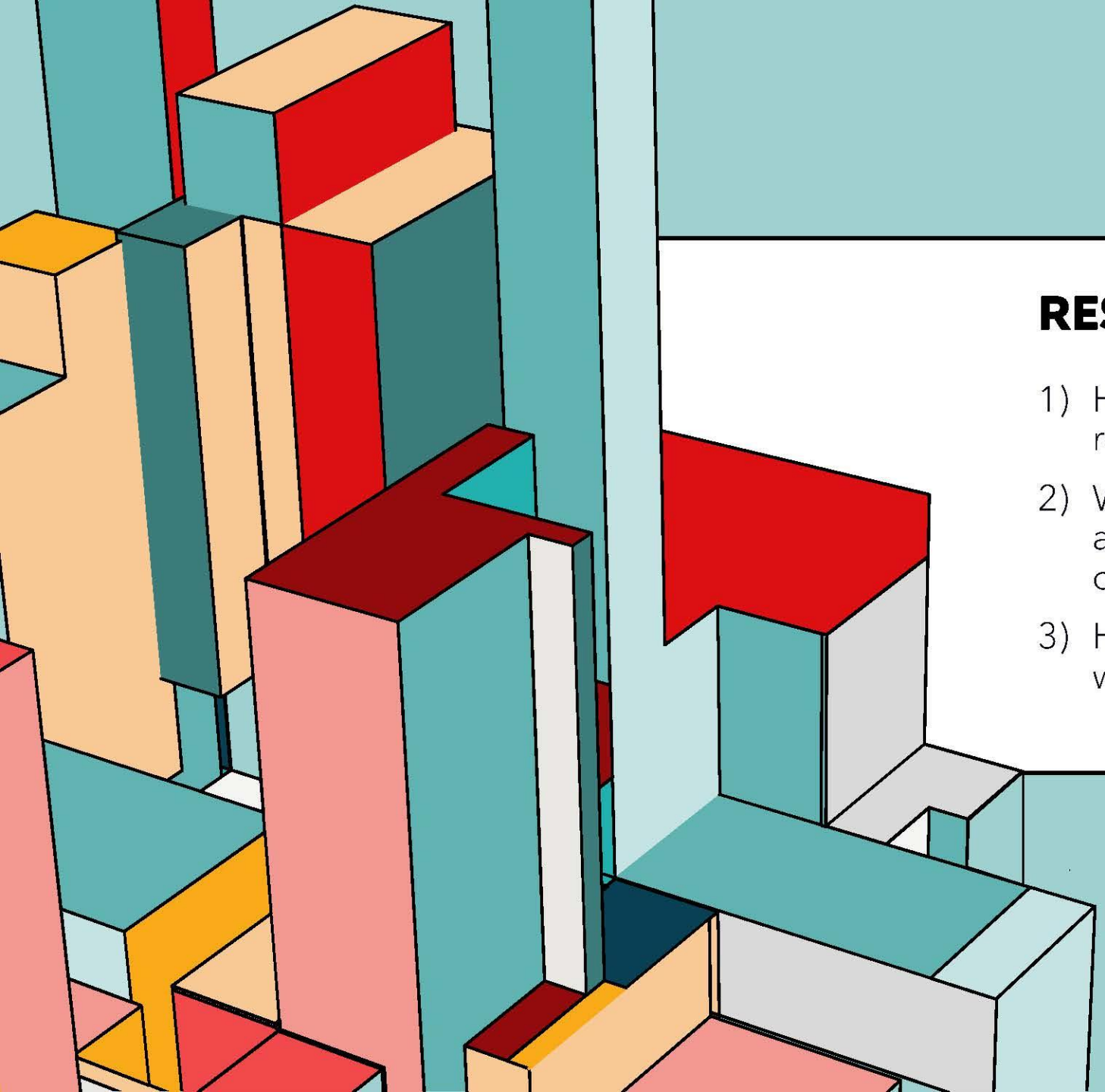
- Requires ODF to collaborate and consult with local stakeholders and Indian Tribes to select projects for treatment.
- Grants state agencies the ability to provide financial assistance to counties to assist landowners with forming or modifying wildfire protection jurisdictions.

WUI WILDFIRE RISK MAP

PUBLISHED JUNE 2022

- Considers **topography**, **climate, weather**, and **vegetation** in determining parcel-level risk classifications.
- Identifies **socially** and **economically** vulnerable communities.
- <u>Informs next steps in the bill.</u>





RESEARCH QUESTIONS

1) How did state agencies interpret their roles and responsibilities in SB 762?
2) What barriers and opportunities have agencies experienced in conducting community outreach for SB 762?
3) How might consensus be achieved in wildfire preparedness state legislation?

MIX-METHODS ANALYSIS

Interviews

- Jackson county residents.
  - 23 participants residing in high or extreme risk zones in Jackson county, Oregon.
- Agency representatives.

Thematic Coding of Wildfire Risk Map Community Information Session: Medford, Oregon.

- Session held July of 2022 via zoom.

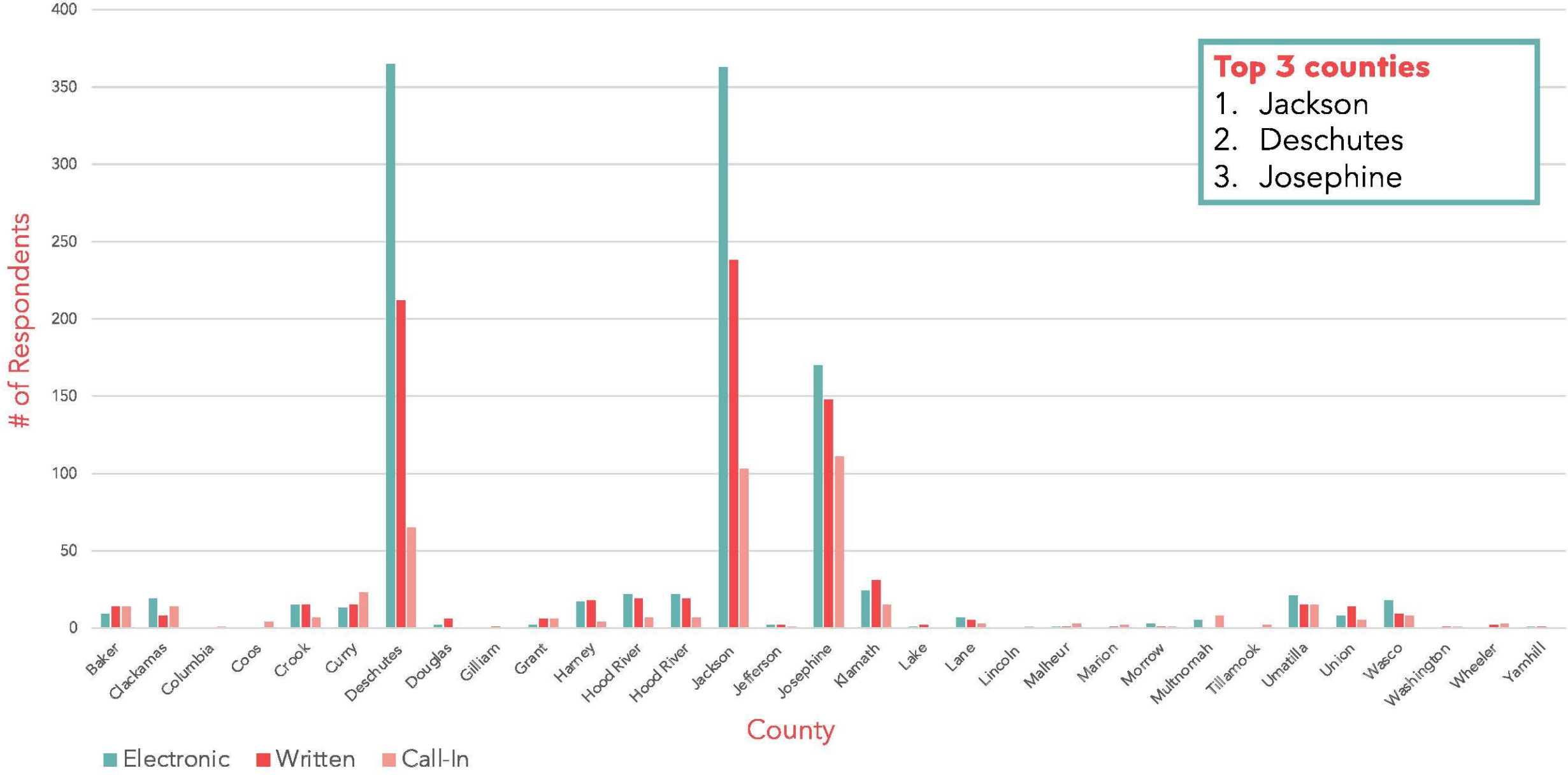
Literature Reviews

- "Best Practices" for CWPP creation publications and >2010 Oregon counties CWPPs.
- Community outreach on SB 762 by selected agencies.
- Cost-Benefit Analysis of SB 762 defensible space and home hardening regulations and requirements.

Quantitative Analysis of ODF WUI Risk Map Appeals

- Thematic codebook consisting of 21 codes.
- Includes Call-Ins, Written and electronic appeals.

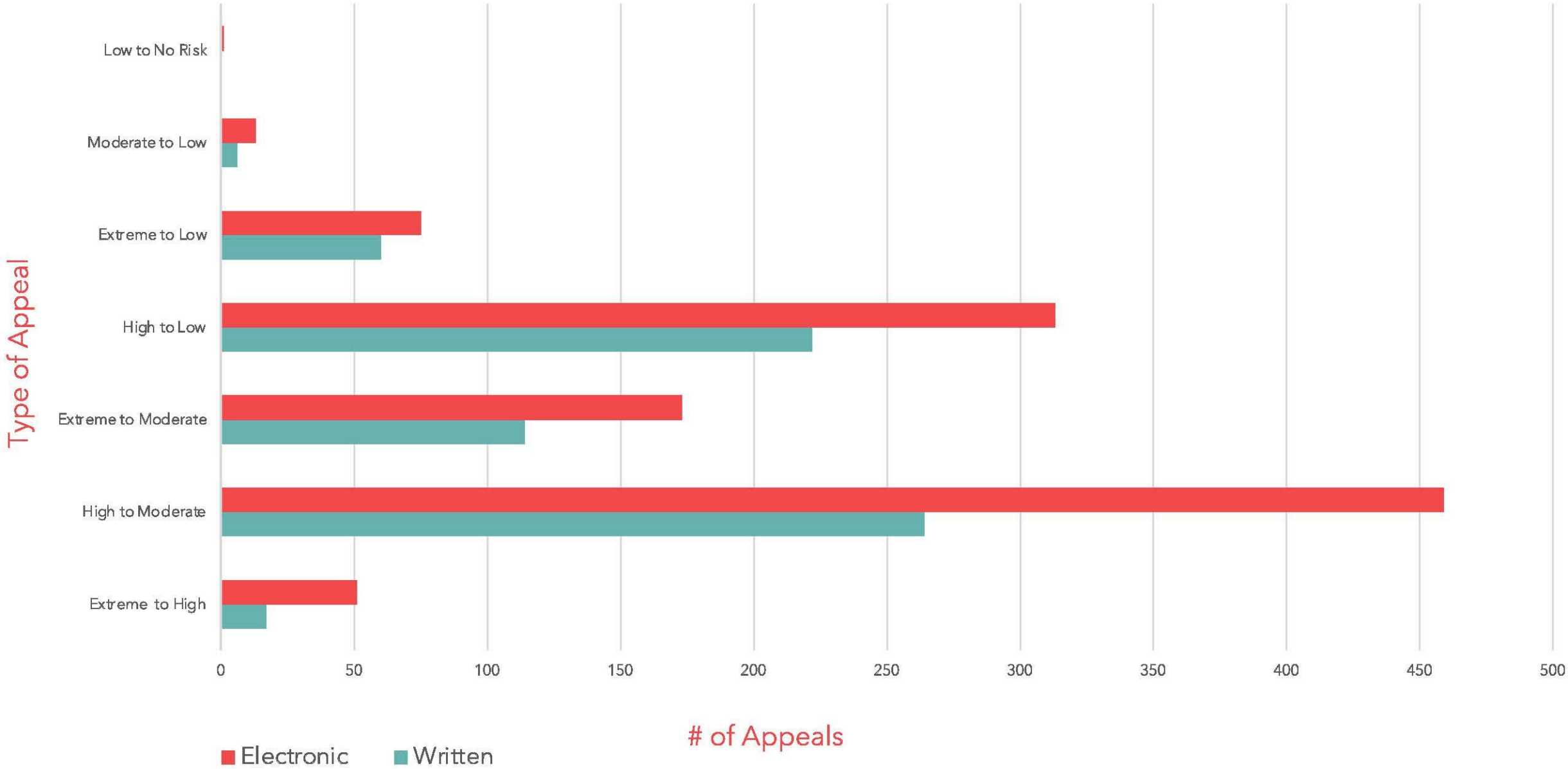
County Tracker for Electronic, Written, and Call-In



Top 3 counties

1. Jackson
2. Deschutes
3. Josephine

Appeal to Change Risk Class



PUBLIC REACTION

Interpretational differences of ***risk***

"Arson and poor forest management, which are the two largest causes of fires in Oregon recently, especially in Southern Oregon, and where the people who are going to face the brunt of this."

Distrust in government management

"Federal lands are not adhering to defensible space, but the constituents are."

Insurance Concerns

"Well, it's upsetting because you get a letter in the mail saying that you're in a high-risk category and there's a possibility that your insurance company is not going to cover your homeowner's insurance anymore."

Distrust in Science

"[…] there was no analysis, there was no study."

"[…] The layers just show basic colors, but not the actual formulas or designations."

JACKSON COUNTY INTERVIEWS

Regulatory Impact

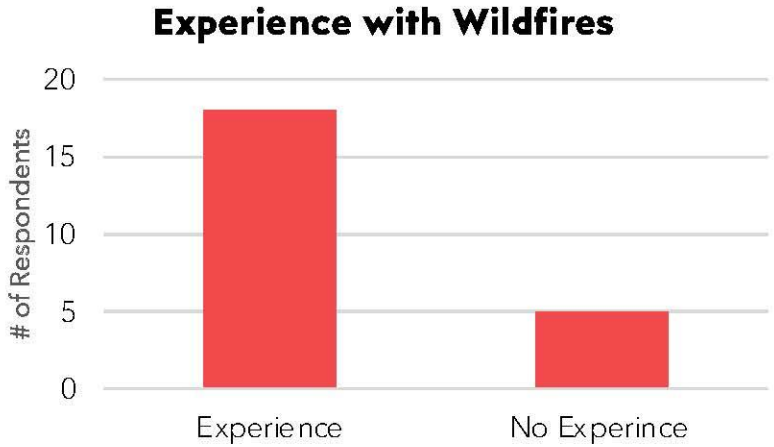
Not Applicable	Doesn't Think They Will Help	Unsure	Thinks They Will Help
26%	30%	13%	30%

Awareness of Programs or Regulations

N/A	Unaware	Partially Aware	Very Aware
17%	26%	17%	39%

Seeking Assistance

Not seeking Assistance	Neighbor Assistance	Government Land Assistance	Neighbor + Government Land Assistance
30%	35%	13%	22%



Wildfire mitigation

- 95% of participants conduct fuel management practices on their property.

Investment in Defensible Space

- The range for initial investment was $100 to $32,000.

FUTURE CONSIDERATIONS

Reactive Community Outreach VS. Proactive Community Outreach

Communication

Audience knowledge, balanced conversation dynamics, framing (e.g., terminology and presentation), and accessibility.

Interagency Collaboration

Improved Social Acceptability

Public trust in agency management, PES, PUS, and community-scale collaborative networking.

THANK YOU!

CORRESPONDENCE:

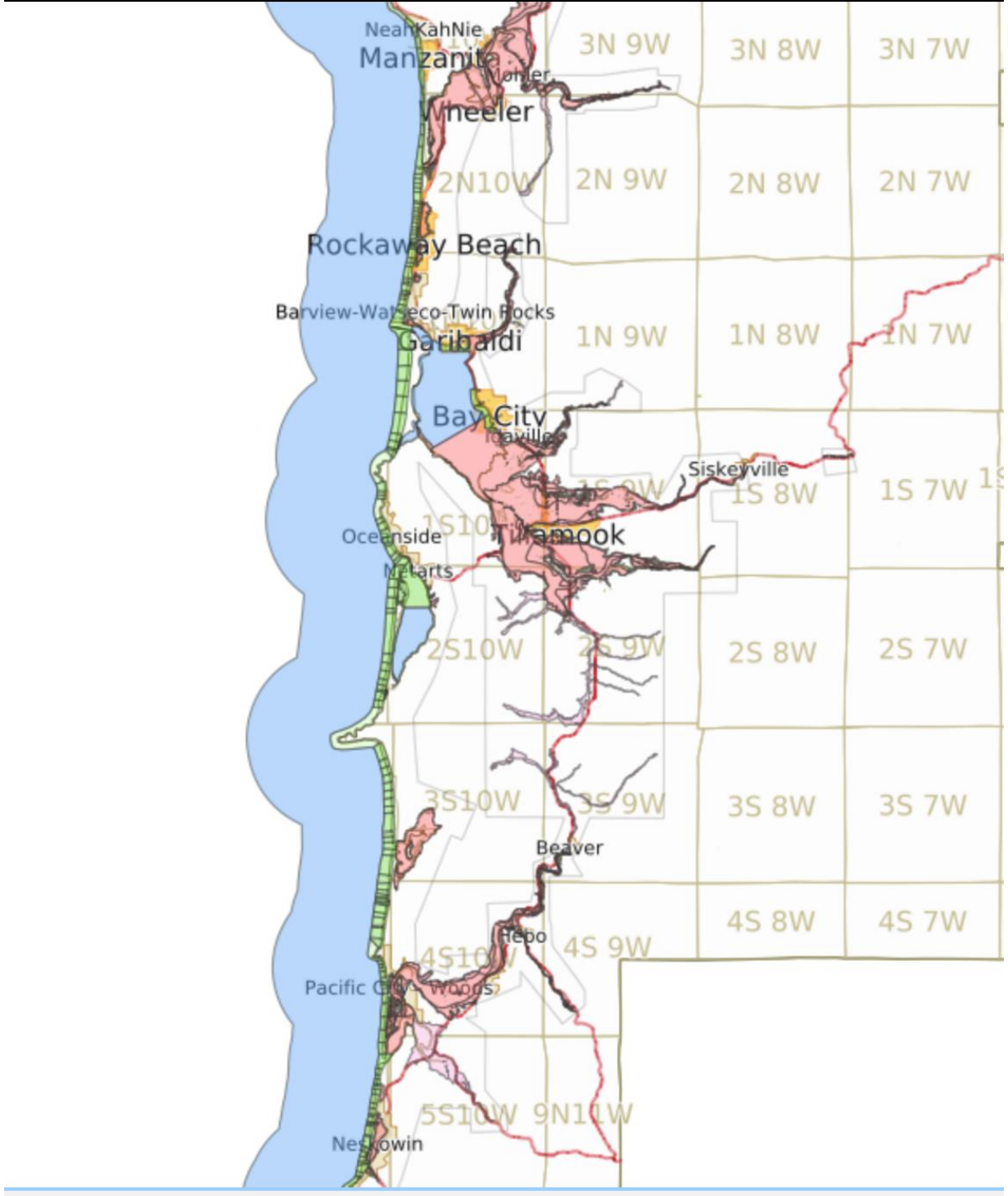
ELENA DOSS

DOSSE@OREGONSTATE.EDU

Graduate Project Assistant - OSU Fire Extension Program

Graduate Project Assistant - OSU Policy Analysis Lab

Insights to Wildfire Preparedness in Jackson County, OR: A Qualitative Approach


NeahKahNie
Manzanita
Wheeler
Rockaway Beach
Barview-Watseco-Twin Rocks
Garibaldi
Bay City
Tillamook
Siskeyville
Oceanside
Beaver
Hebo
Pacific City
Woods
3N 9W
3N 8W
3N 7W
2N10W
2N 9W
2N 8W
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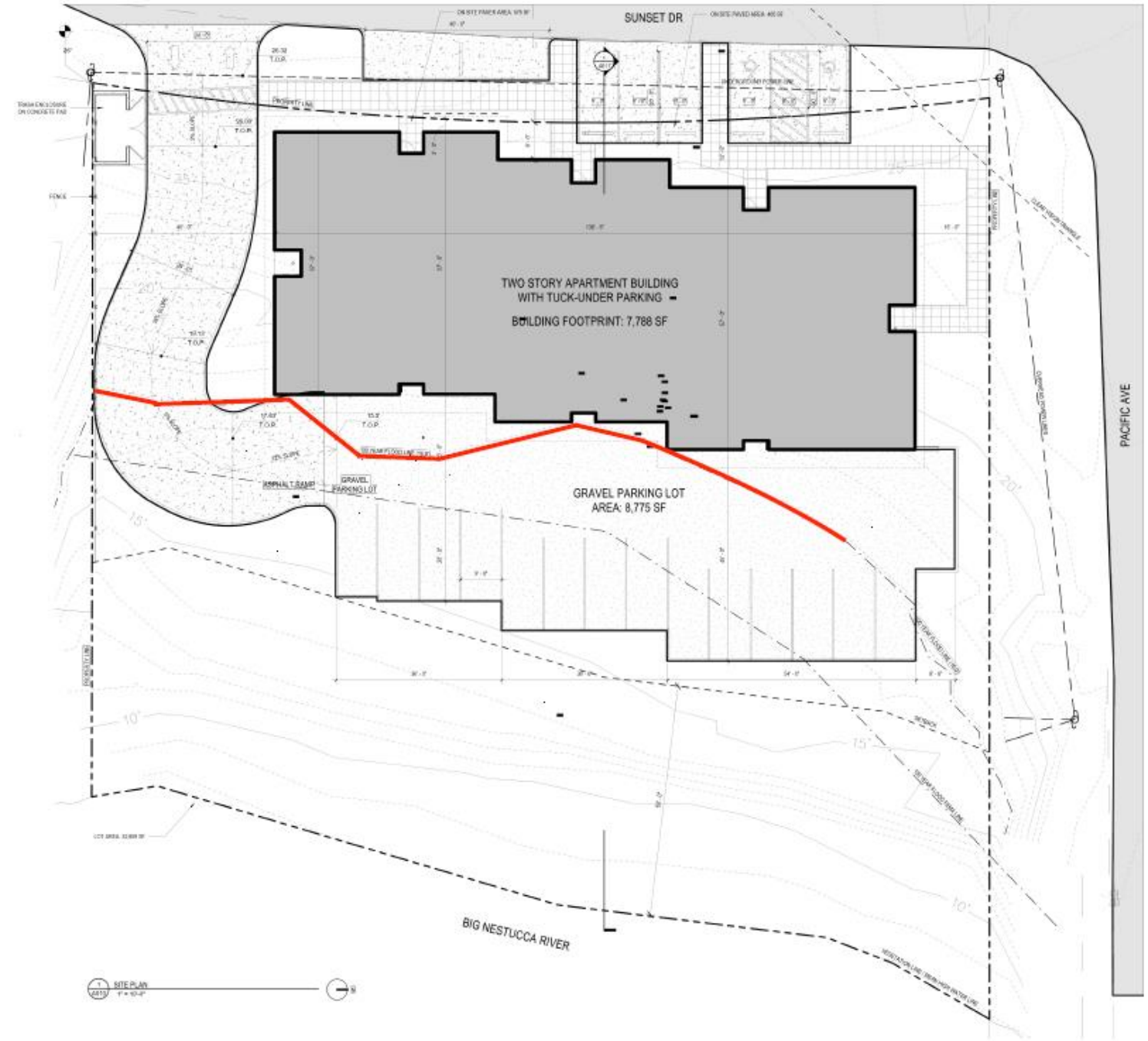


JONES

JONES ARCHITECTURE

120 NW 9TH AVE, STE 210
PORTLAND, OREGON 97209
T 503.477.9160
www.jonesarc.com

KINGFISHER

19-020

PACIFIC CITY

DESIGN
DEVELOPEMENT

Issue Date:
MARCH 03, 2020

REVISIONS

SITE PLAN

A010

NOTES

Pacific City JWSA
P.O. Box 520
Pacific City, OR 97135

RECEIPT

DATE 6-30-22 NO. 058536

RECEIVED FROM Kevin Shukla

ADDRESS

FOR

four hundred ninety four thousand ~~dollars~~ $ 494,148-

one hundred forty-eight and 00/100

CK# 1002

ACCOUNT			HOW PAID		
AMT. OF ACCOUNT			CASH		
AMT. PAID			CHECK	494148	-
BALANCE DUE			MONEY ORDER		

BY

Based upon my investigation and analysis of available information, it is my opinion that the market values, in fee simple, as of the respective valuation dates, were:

MARKET VALUE SCENARIOS	DATE	VALUE
"As Is" Value – Fee Simple	November 5, 2020	$415,000
Prospective Value At Completion – Fee Simple	March 1, 2022	$4,290,000
Prospective Stabilized Value – Fee Simple	May 1, 2022	$4,310,000
Potential Benefit due to Tax Abatement	May 1, 2022	
Estimated Marketing/Exposure Time	"As Proposed"	$220,000

The development group is anticipating a financial benefit stemming from a property tax abatement program that would commence following completion of construction. Because the tax abatement is uncertain at this time, the benefit is not included in the calculation of value at stabilization. Rather, it is reported as a separate line item. If the abatement is secured, the tax savings would result in a higher stabilized value, commensurate with the benefit reported above.

The concluded values are predicated on the following extraordinary assumptions:

- **The improvements will be constructed as described in this appraisal as of the prospective value date stated herein.**
- **The applicants will receive final land use approval for the proposed apartment use.**

If either assumption is determined to be false, the value conclusions herein will need to be revisited.

Personal property with no accrued depreciation totaling $66,189 is included in the final prospective at completion and stabilized values.

This appraisal is subject to the conditions and comments presented in this report. If any questions arise concerning this report, please contact the undersigned.

Sincerely,

POWELL BANZ VALUATION, LLC

Katherine Powell Banz, MAI
OR State Certified General Appraiser
No. C000897
Expiration Date: August 31, 2022

KJB: sam

Appraisal Report
P201379

housing development. The net present value of the tax abatement will be taken into consideration in our concluded values.

Additionally, the subject will receive a $300,000 grant from the Oregon Housing and Community Services Department (OHCS) for system development charges (SDCs). The grant is related to the operation of the property as workforce housing as well. Based on the data an analysis contained herein, the proposed subject would not be financially feasible without the SDC grant, or a possible reduction in proposed construction costs.

Based on the analysis contained in the following report, the market value of the subject is concluded as follows:

MARKET VALUE CONCLUSION			Value Conclusion
Appraisal Premise	Interest Appraised	Date of Value	
As-Is Market Value	Fee Simple Estate	February 4,	$580,000
Prospective Value Upon Completion	Leased Fee Interest	March 1,	$6,340,000
Prospective Value Upon Stabilization	Leased Fee Interest	April 1, 2	$6,350,000

Compiled by CBRE

The report, in its entirety, including all assumptions and limiting conditions, is an integral part of, and inseparable from, this letter.

The following appraisal sets forth the most pertinent data gathered, the techniques employed, and the reasoning leading to the opinion of value. The analyses, opinions and conclusions were developed based on, and this report has been prepared in conformance with, the guidelines and recommendations set forth in the Uniform Standards of Professional Appraisal Practice (USPAP), and the requirements of the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute. It also conforms to Title XI Regulations and the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA) updated in 1994 and further updated by the Interagency Appraisal and Evaluation Guidelines promulgated in 2010.

The intended use and user of our report are specifically identified in our report as agreed upon in our contract for services and/or reliance language found in the report. As a condition to being granted the status of an intended user, any intended user who has not entered into a written agreement with CBRE in connection with its use of our report agrees to be bound by the terms and conditions of the agreement between CBRE and the client who ordered the report. No other use or user of the report is permitted by any other party for any other purpose. Dissemination of this report by any party to any non-intended users does not extend reliance to any such party, and CBRE will not be responsible for any unauthorized use of or reliance upon the report, its conclusions or contents (or any portion thereof).

It has been a pleasure to assist you in this assignment. If you have any questions concerning the analysis, or if CBRE can be of further service, please contact us.

RESOURCE ZONES

- 3.002 F-1 Farm
- 3.004 F Forest
- 3.006 SFW-20* Small Farm Woodlot -20
- 3.008 SFW-10 Small Farm and Woodlot-10 acre

RESIDENTIAL ZONES

- 3.010 RR-2, RR-10 Rural Residential 2 Acre and Rural Residential 10 Acre
- 3.011 CSFR Community Single Family Residential
- 3.012 CR-1 Community Low Density Urban Residential
- 3.014 CR-2 Community Medium Density Urban Residential
- 3.016 CR-3 Community High Density Urban Residential
- 3.018 RMH Residential Mobile Home

COMMERCIAL ZONES

- 3.020 RC Rural Commercial
- 3.022 CC Community Commercial
- 3.024 CP Community Public Use

INDUSTRIAL ZONES

- 3.030 RI Rural Industrial
- 3.031 CI Community Industrial
- 3.032 M-1 General Industrial

RECREATIONAL/RESORT ZONES

- 3.040 RM Recreation Management
- 3.042 RN Recreation Natural
- 3.044 RD Recreation Development
- 3.045 PDR Planned Destination Resort
- 3.050 WDD Water-Dependent Development

OCEANSIDE ZONES

- 3.310 ROS Residential Oceanside Zone
- 3.312 COS Commercial Oceanside Zone
- 3.314 POS Park Oceanside Zone

NESKOWIN ZONES

- 3.320 Nesk RR Neskowin Rural Residential
- 3.322 Nesk R-1 Neskowin Low Density Residential
- 3.324 Nesk R-3 Neskowin High Density Urban Residential
- 3.326 Nesk C Neskowin Commercial
- 3.328 Nesk RM Neskowin Recreation Management

PACIFIC CITY/WOODS ZONES

- 3.330 PCW-P Pacific City/ Woods Park Zone
- 3.331 PCW-RR Pacific City/ Woods Rural Residential
- 3.332 PCW-R1 Pacific City/Woods Low Density Residential
- 3.333 PCW-R2 Pacific City/ Woods Medium Density Residential
- 3.334 PCW-R3 Pacific City/ Woods High Density Residential
- 3.335 PCW-AP Pacific City/ Woods Airpark Zone
- 3.337 PCW-C1 Pacific City/ Woods Neighborhood Commercial
- 3.338 PCW-C2 Pacific City/ Woods Community Commercial

NETARTS ZONES

- 3.340 NT-R2 Netarts Medium Density Urban Residential
- 3.342 NT-R3 Netarts High Density Urban Residential
- 3.344 NT-RMD Netarts Residential Manufactured Dwelling
- 3.346 NT-PRD Planned Residential Development Overlay Zone
- 3.348 NT-C1 Netarts Neighborhood Commercial

The Housing-Hazards Nexus: Resilient Coastal Housing Strategies

Trisha Patterson, MPP

Cascadia CoPes Hub
THE CASCADIA COASTLINES AND PEOPLES HAZARDS RESEARCH HUB

Oregon State University

Land acknowledgement

The Portland Metro area rests on traditional village sites of the Multnomah, Wasco, Cowlitz, Kathlamet, Clackamas, Bands of Chinook, Tualatin, Kalapuya, Molalla, and many other tribes who made their homes along the Columbia River. Indigenous people created communities and summer encampments to harvest and enjoy the plentiful natural resources of the area since time immemorial.

I acknowledge this land, it's original stewards, and my status as a settler among these lands. This violent history, and ongoing settler-colonialism, and its impacts on the land, people, and kin relationships is acknowledged in this panel.

Why study housing and hazards?

Climate change,
Cascadia Subduction Zone earthquake & tsunami,
Statewide housing shortage

Oregon Housing Needs Analysis
Legislative Recommendations Report:
Leading with Production

Marking the anniversary of the last "Big One," Cascadia earthquake overdue, officials say

by KATU Staff | Wednesday, January 25th 2023

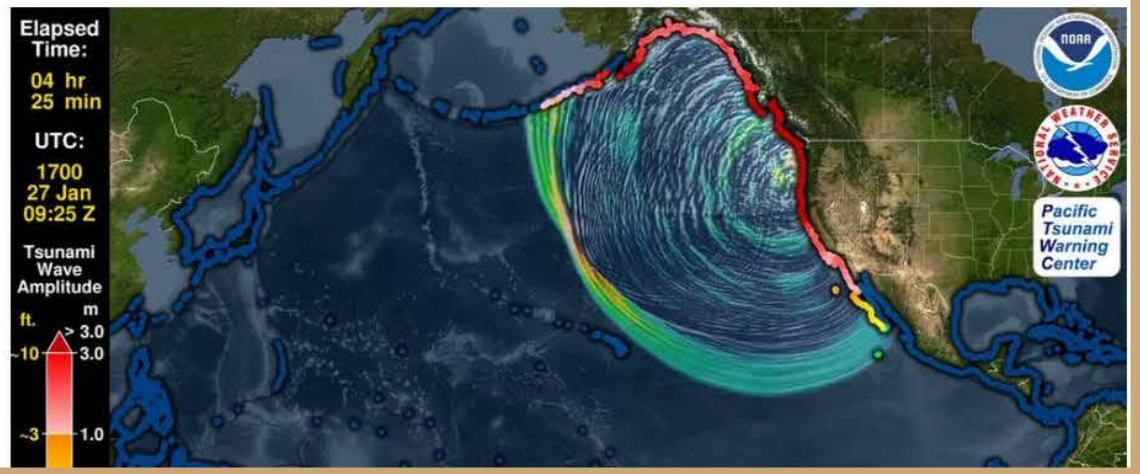


Image from the Tillamook Headlight Herald, 1964 earthquake damage

Context of governance

- Political science and public policy
- Institutions influence community adaptation
  - New Institutional Economics
- “A core goal of public policy should be to facilitate the development of institutions that bring out the best in humans.” –

Context of Governance

- Political science and public policy
- Institutions influence community adaptation
  - New Institutional Economics
- “A core goal of public policy should be to facilitate the development of institutions that bring out the best in humans.” – Elinor Ostrom

Astoria, Oregon


The Kingfisher in Pacific City

Hazards are a part of coastal living. Are there resiliency-driven housing production strategies, and do our institutions enable these strategies to be used?

Research Questions

- How are coastal planning institutions enabling adaptation to environmental and social pressures?
- What is the relationship between coastal hazard mitigation planning and comprehensive planning?
  - How do these planning spheres consider each other?
  - Do planners look at hazard mitigation plans?
- Are there housing strategies that are safe(r) in a hazard, and meet coastal housing needs?

This Fall, I conducted 20 guided interviews between 4 stakeholder groups:

- Planners
- Hazard mitigation specialists
- Developers, 1 architect
- Housing advocacy nonprofits

Policy scan of mitigation and comprehensive planning documents

The Adaptive Capacity Wheel

To analyze my interviews and policy documents, I used the Adaptive Capacity Wheel (ACW)

This is a framework of adaptive capacity, and a method to assess institutional characteristics that enable adaptive capacity in society

Caption: Dr. Joyeeta Gupta, University of Amsterdam

Effect of institution on adaptive capacity	Score	Aggregated scores for dimensions and adaptive capacity as a whole
Positive effect	2	1.01 to 2.00
Slightly positive effect	1	0.01 to 1.00
Neutral or no effect	0	0
Slightly negative effect	-1	-0.01 to -1.00
Negative effect	-2	-1.01 to -2.00

Caption: The Adaptive Capacity Wheel

6 domains, 22 subcategories

- Characteristics of institutions that *enable society* to cope with climate change
- Degree to which such institutions allow and encourage actors to *change these institutions* to cope with climate change

Preliminary findings

- Coding interviews according to the institutional adaptive capacity wheel (ACW), created by Dr Joyeeta Gupta as an evaluative tool
- Institutional adaptive capacity to steer resources and policy to meet both needs: safe, and affordable housing
- Looking back to original plans to validate these findings

What makes resilient communities?

- “4 L’s”
  - Land, labor, lumber, and laws
- Housing design
  - Architecture
  - Building codes
- Location
- Community characteristics
  - Social capital

Are there resiliency driven housing strategies? (yes)

Hold on to what we have:

- Continued explicit integration of natural hazards plans (FEMA) into community comprehensive plans (goal based)
- Denser housing types are safer
  - Triplexes, apartment buildings are built to the commercial code
  - ASCE tsunami resilient building standards available
- Consider updating risk categories to include housing as critical infrastructure
  - All housing in hazard prone areas should be “safe enough to stay”
- Continued outreach and community education
  - Earthquake and tsunami drills

Are there resiliency driven housing strategies? (yes)

Move communities to safer areas:

- Utilize hazard mitigation as a basis for UGB expansion
- Mentorship of coastal developers
  - Meet community housing needs by housing type
- Proactive public facilities planning
- Transfer development rights
  - An incentive to develop outside the inundation zone
- Streamline and simplify zoning codes
  - Introduce more clarity (clear and objective standards) for developers

So we know what we need to do. But will our institutions enable it?

The Kingfisher Apartments

25 unit apartment building located in Pacific City, Oregon

- Workforce affordable apartments
- Flood hazard considerations in siting and design
- Denser, infill homes


It took 4 years to permit and start building the Kingfisher.

Why was the Kingfisher successful?

- Highly localized building team
- Mentorship from other coastal developers
- Mentorship from county community development team
- Thoughtful design of needed housing
- Developer vision and passion

A housing success story that almost didn't happen

- What are the consequences of institutional preference for public involvement?
  - Hijacking of public process
  - Institutional prioritization of Goal 1: Public Involvement, over other goals
  - Inequities in housing choice
- How is this being addressed?
  - OHNA
  - Local advocacy for denser, infill homes
  - Work to codify ASCE tsunami resilient building standards into code

Summary

- Coastal institutions face tough environmental and social challenges.
  - Institutions shape social practices, and social practices shape institutions. Institutions change and can be changed.
  - Balance between flexibility and stability
  - Resilient housing fosters resilient communities
- Stakeholders are already engaging in innovative adaptive actions, but they have hurdles ahead.
  - Institutional trend of prioritizing Goal 1 over other goals
- What's on the horizon?
  - CoPes Hub
  - OSU Extension Services
  - Communities, research hubs, and governments communicating and collaborating to help adapt our land use planning system to climate and geologic hazards

Thank you!

- Funding acknowledgement: Many thanks to the Cascadia Coastlines and Peoples Hazards (CoPes) Hub, National Science Foundation, and Oregon State University

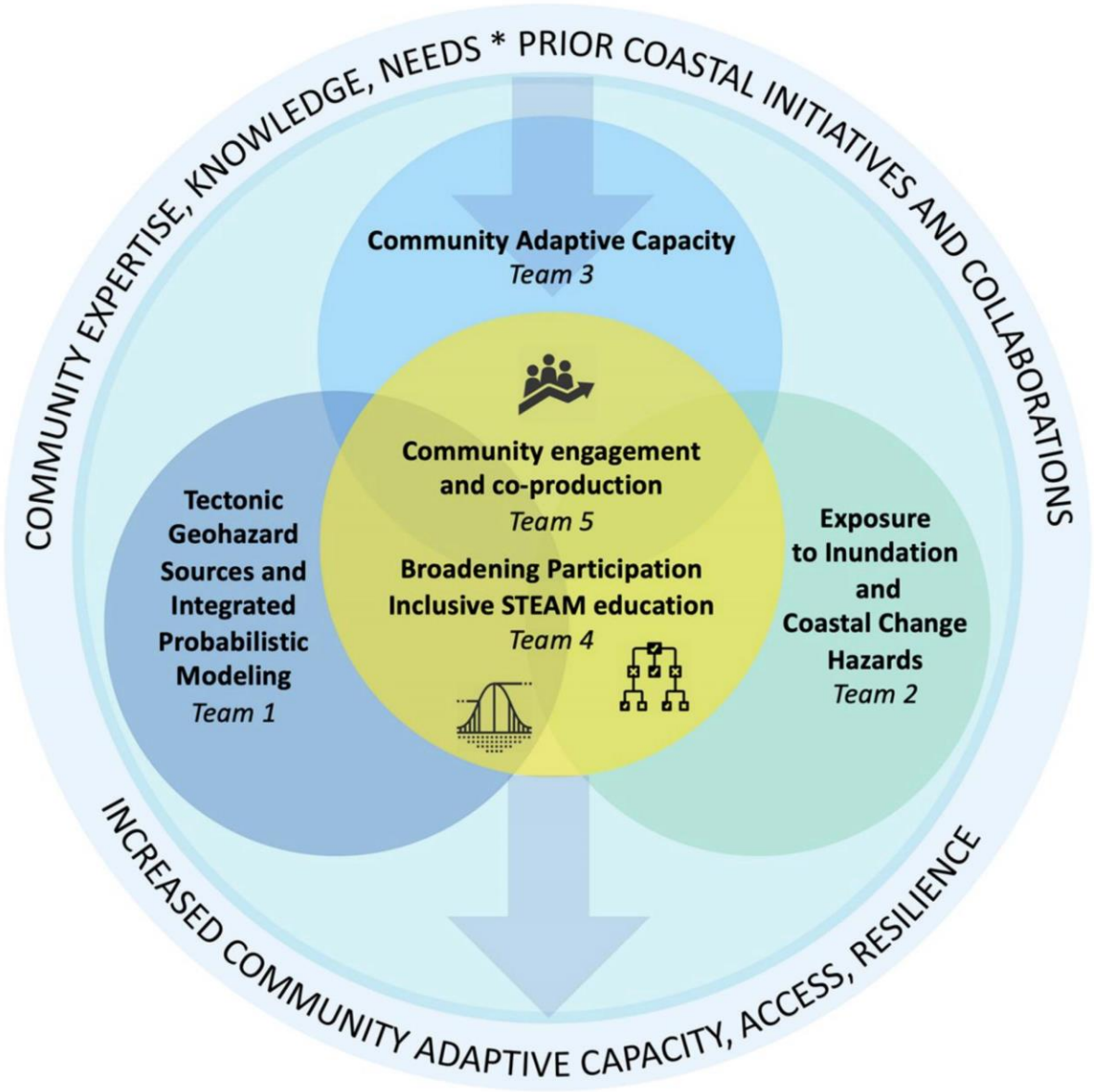
- Action items: HB 2289 (OHNA) updates
- Opportunity: I am looking for a job! Find me after the panel.

The Cascadia CoPes Hub

- Interdisciplinary research hub
- NSF grant funded
- Helping Pacific Northwest coastal communities prepare and adapt to coastal hazards through research and community engagement

Oregon State University
Cal Poly Humboldt.
Sea Grant Washington
University of Washington
The William D. Ruckelshaus Center
Swinomish Indian Tribal Community
Arizona State University
University of Oregon
Sea Grant Oregon
USGS science for a changing world

Cascadia CoPe
THE CASCADIA COASTLINES AN
HAZARDS RESEARCH HUB



Team 3: Community Adaptive Capacity

Research Goal 1: Integrate multiple worldviews and knowledge systems into disaster risk assessment and management.

Research Goal 2: Identify approaches that fortify communities who will likely be isolated following disaster events, while strengthening community equity and livability.

Research Goal 3: Build capacity of local governance systems to create more equitable adaptation strategies and policies.

Research Goal 4: Developing support tools to evaluate local adaptation strategies and support the appropriate decisions.

Team 3: Community Adaptive Capacity

Research Goal 1: Integrate multiple worldviews and knowledge systems into disaster risk assessment and management.

Research Goal 2: Identify approaches that fortify communities who will likely be isolated following disaster events, while strengthening community equity and livability.

Research Goal 3: **Build capacity of local governance systems to create more equitable adaptation strategies and policies.**

Research Goal 4: **Developing support tools to evaluate local adaptation strategies and support the appropriate decisions.**