



WSEMA 2024 PRESENTATION

MICHAEL CHIU

PNW Wildfire Fuel Mitigation Coordinator

-
- 1982 - 1986 University of Washington
College of Forest Resources, Forest Resource Mgt
 - 1982 - 1990 USFS (Wenatchee NF, Chelan Ranger District)
US NPS (Mt Rainier, North Cascades, Olympic NP)
Seattle Water Department – Cedar River Watershed
 - 1990 - 2016 Bellevue Police Department
Patrol / Field Operations
Investigations
Community Services
Administration
 - 2020 - 2024 Team Rubicon - Greyshirt and Volunteer Leader
Primary Duty - Planning, Command & General Staff
Training Cadre - Chainsaw Operations
Core Operations (Muck Out)



OBJECTIVES

- Team Rubicon – Our Story. Our History. Our Capabilities.
- How we operate (ICS)
- Current WUI Research – Re-envisioning WUI
- Utilizing Team Rubicon "Before and After the Flames"
- Questions / Discussion

WHO WE ARE

TEAM RUBICON
IS A **VETERAN-LED
HUMANITARIAN
ORGANIZATION THAT
SERVES GLOBAL
COMMUNITIES** BEFORE,
DURING, AND AFTER
DISASTERS AND CRISES.



OUR STORY

In January 2010, a catastrophic 7.0 magnitude earthquake struck Haiti, the deadliest natural disaster in a half-century.

As the magnitude of the disaster unfolded on television, U.S. Marine Corps veteran Jake Wood joined a small team who chose to go to Haiti and do whatever they could to help. They were military veterans and medical personnel, bearing little more than skill and experience *and the will to employ them in the face of tremendous need.*

Team Rubicon was born of this tragedy and defined who we are—that when we are confronted with crisis, we act.

The first Greyshirts did not wear grey shirts. When they embarked, they had no issued equipment, or an operations support team, or even a name; just the yearning to help. They could not turn back from these people in need and named their group after Julius Caesar's decision 2,000 years ago to cross the Rubicon River, to go forward, no matter the cost.

Today, our team has expanded to over 160,000 volunteers, in every U.S. state and territory and dozens of countries around the world, but our mission remains the same: to serve global communities before, during, and after disasters and crises.







14 years (2010-2024)

TEAM RUBICON HISTORY



2010

Earthquake
Haiti

Inception

September 24, 2024



2011

Tornado
Tuscaloosa, AL

**Launched first
domestic operations**



2012

Hurricane Sandy
NY / NJ

First nationwide response

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2013

Tornado
Moore, OK

**Full-scale implementation of
ICS**



2014

Tornado
Faulkner County, AR

**Launch of comprehensive
training pipeline**

8



2015

Flood
Wimberley, TX

**Decentralized
operational response**



2016

Flood
Houston, TX

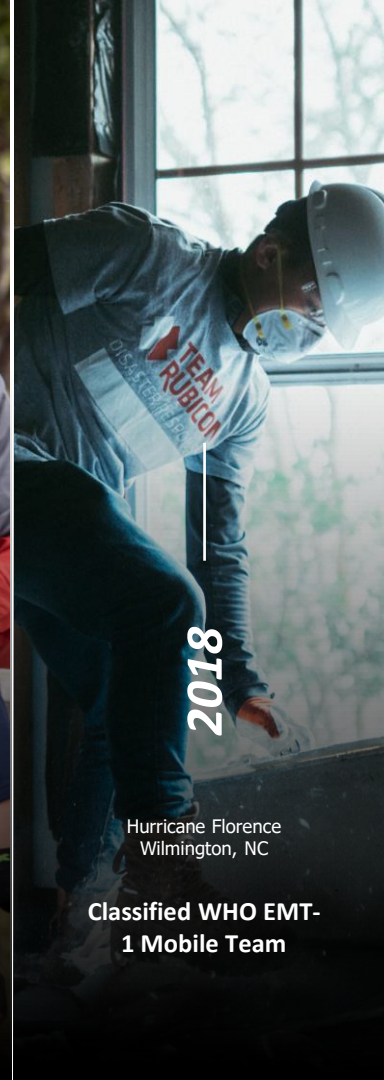
**Opened National Operations
Center in Dallas, TX**



2017

Hurricane Irma
Collier County, FL

**Launch of Rebuild
pilot programs**



2018

Hurricane Florence
Wilmington, NC

**Classified WHO EMT-
1 Mobile Team**



2019

Cyclones Idai & Kenneth
Mozambique

**Completed over
100 Ops/Year**

OVER A DECADE OF SERVICE & GRIT:

1,100+

Operations completed

50,600+

Greyshirt Deployments

692

Homes built

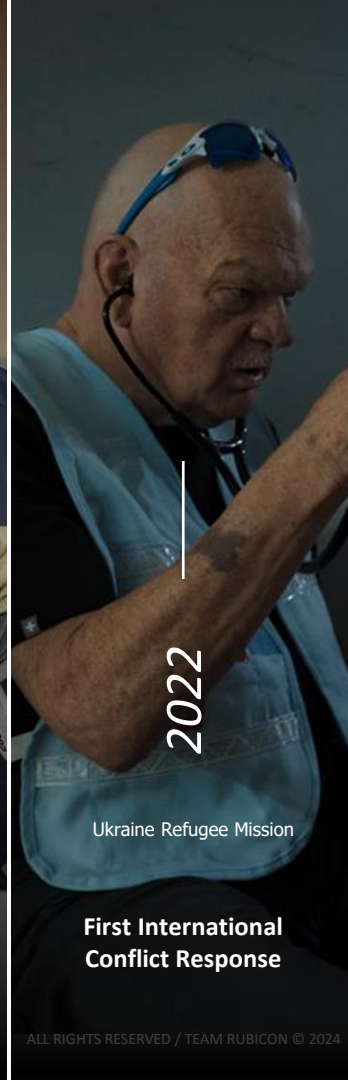
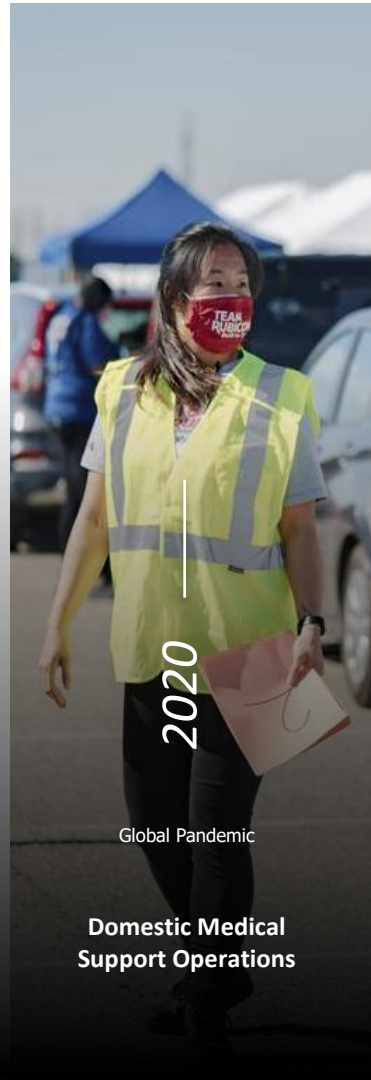
850+

Afghans housed

1.6 million

Vaccines distributed

September 24, 2024

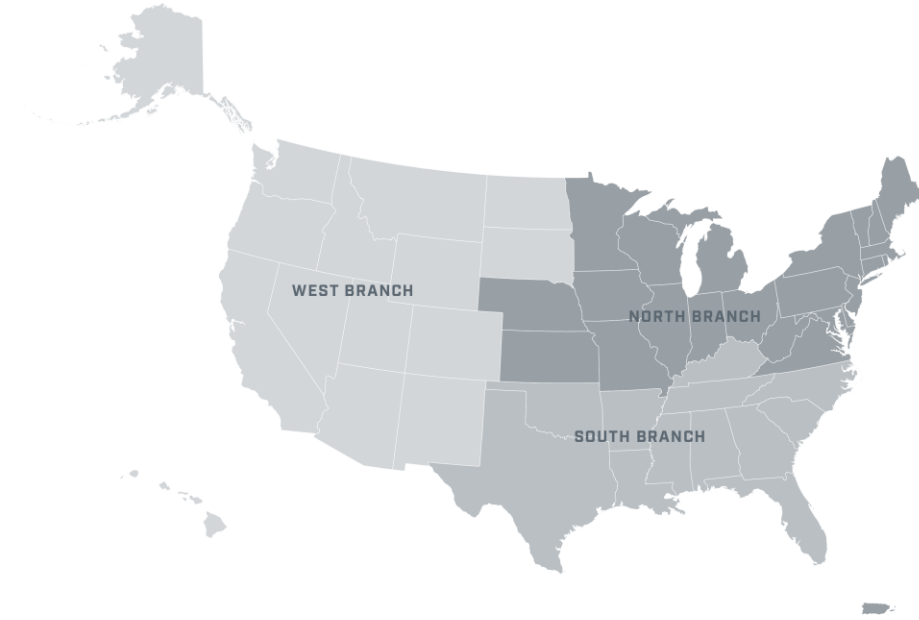


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FREE. NO CHARGE. 100% VOLUNTEER DRIVEN

- Team Rubicon has never sent an invoice, or a bill, for any services rendered. Ever.
- We prioritize vulnerable households and communities.
- Our donated volunteer hours are tabulated, monetized and donated to Emergency Managers to help meet FEMA requirements.

TEAM RUBICON - BRANCHES



- 501(c)(3) non-profit
- Locations:
 - Los Angeles (headquarters)
 - Dallas (national operations support)
 - Chicago (operations support)

TEAM RUBICON – WEST BRANCH



- West Branch (Los Angeles)
- Geographical Area Teams:
 - **PNW – WA, OR, AK**
 - Mountain Gem
 - WyCo
 - Southwest
 - SoCal
 - NoCal

PACIFIC NORTHWEST TERRITORY

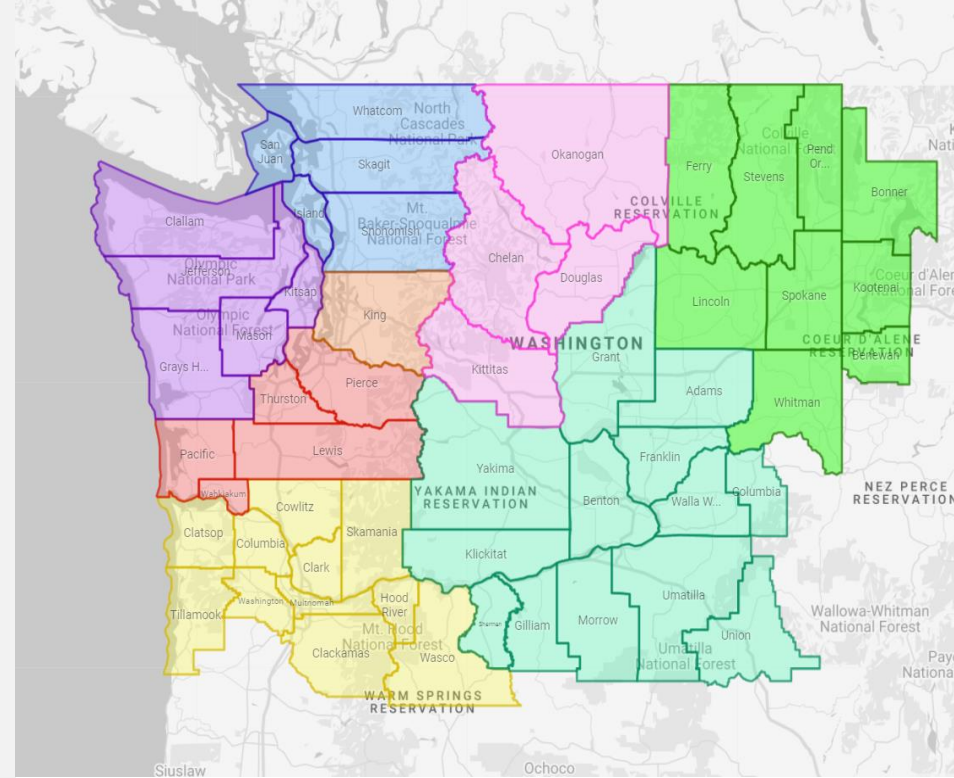


Six geographical districts in WA

- Spokane
- Tri-Cities
- Everett-Bellingham
- Portland
- Kitsap
- King County

Each district has trained personnel

- Administrator
- Planner
- Logistics
- Field Readiness
- Mobilization



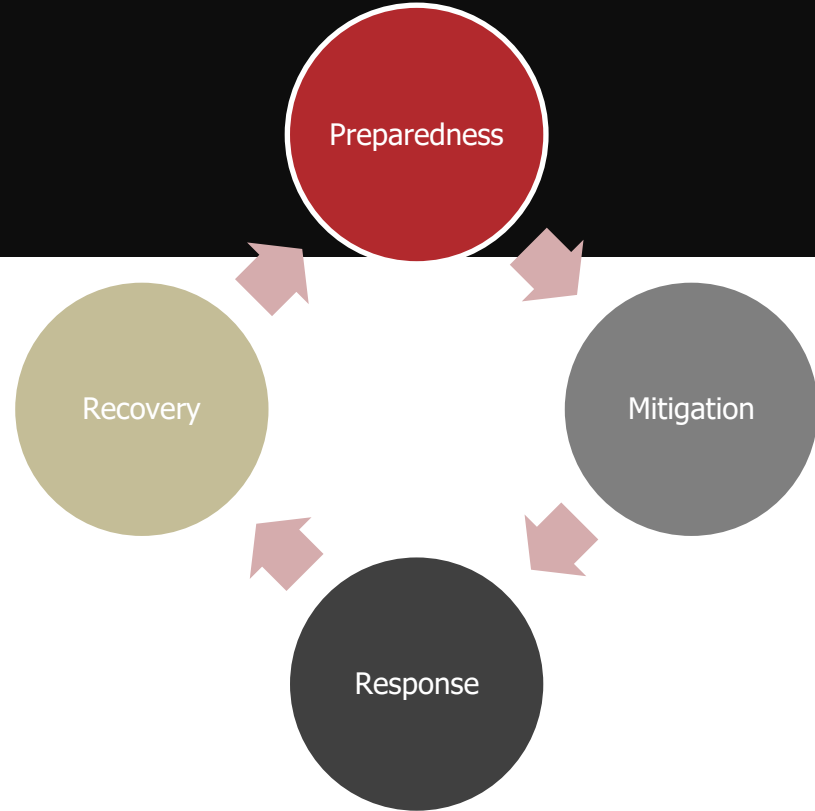


TEAM RUBICON

IMPACT & CAPABILITIES

DISASTER SERVICES

We operate within four areas of disaster services: preparation, mitigation, response, and recovery.



WHAT WE DO

Team Rubicon provides a variety of capabilities and services **at no cost** to at-risk homeowners affected by disasters.



INTERIOR WATER DAMAGE
& MUCK REMOVAL



DEBRIS
REMOVAL



DAMAGE
ASSESSMENT



LONG TERM RECOVERY



DOMESTIC
MEDICAL SUPPORT



EOC
SUPPORT



ROUTE
CLEARANCE



ROOF TARPING &
EXPEDIENT HOME REPAIR



HAZARD
MITIGATION



VOLUNTEER
MANAGEMENT



EXERCISE
FACILITATION

DISASTER RESPONSE

Team Rubicon provides a variety of services, at no-cost, to at-risk homeowners affected by disasters and crises. We implement mitigation efforts before disasters and provide immediate response to communities in need as disasters unfold.



A FIRE ZONE
NEEDS CLEARING; WE
HELP MAKE IT SAFE



A HOME FLOODS,
WE CLEAN UP



A TREE FALLS
ON A HOUSE,
WE CUT IT DOWN



A HURRICANE TEARS
A HOLE IN A ROOF,
WE PATCH IT UP



DEBRIS BLOCKS
A ROAD, WE CLEAR
THE WAY

TEAM RUBICON

LOCAL OPERATIONS



WASHINGTON OPERATIONS 2014 - 2024

Malden – Fire Recovery (Whitman) 4x

Twisp – Fuel Mitigation (Okanogan) 3x

Medical Lake – Fire Recovery (Spokane) 3x +

Elk – RV Skirting (Spokane) 6x +

Omak – RV Skirting (Okanogan)

Pateros – Fire Recovery (Okanogan)

Everson – Flood Recovery (Whatcom)

Forks – Flood Recovery (Clallam)

Seattle – Flood Recovery (King)

Centralia/Chehalis – Flood Recovery (Lewis)

South Bend – Flood Recovery (Pacific)

Kennewick – Fire Recovery (Benton)

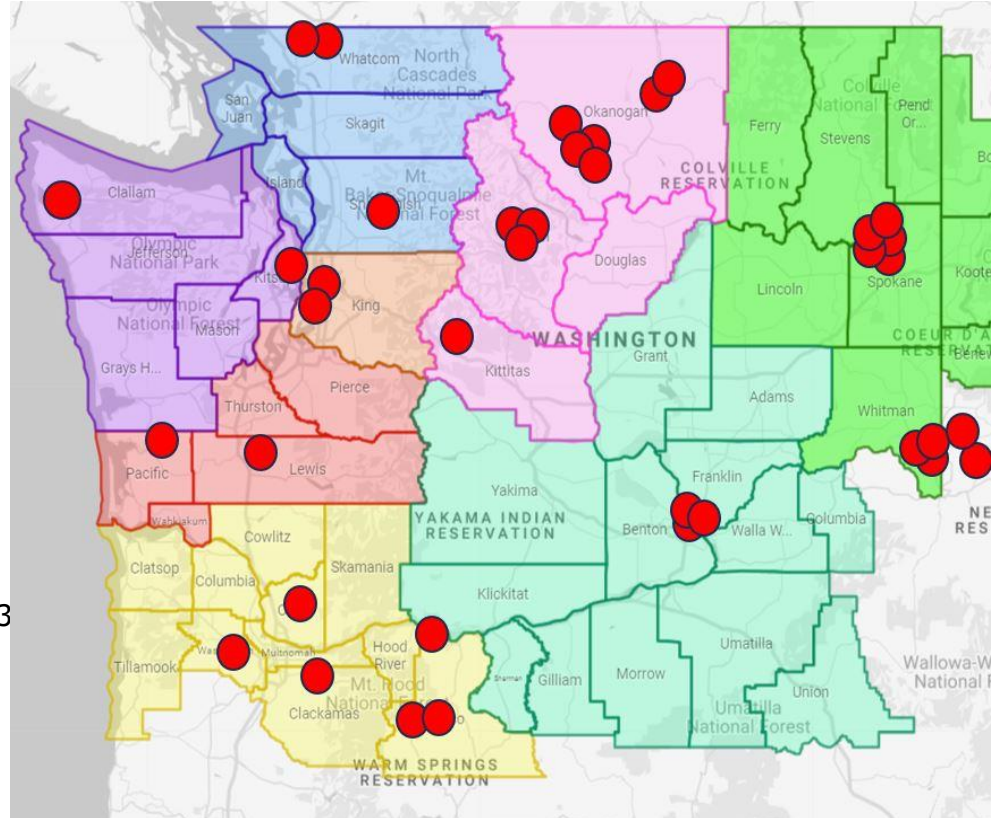
Oso – Landslide (Snohomish)

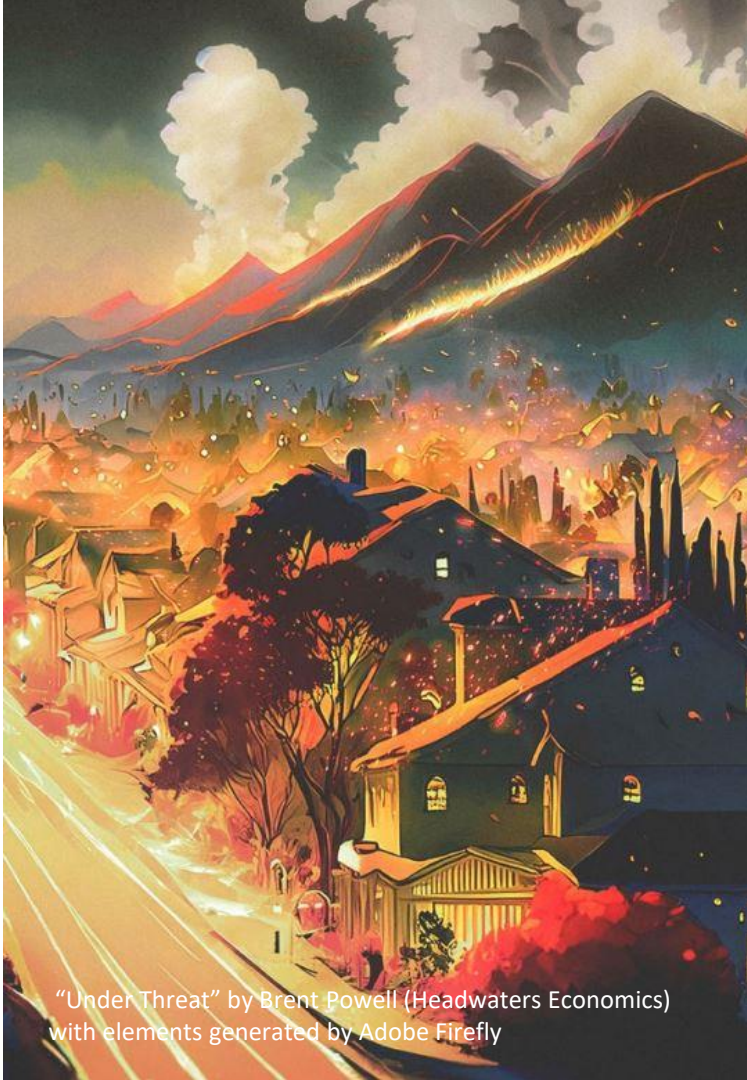
Leavenworth/Plain – Fuel Mitigation (Chelan) 3

Seattle – Afghan Resettlement (King)

Easton – Fuel Mitigation (Kittitas)

Port Orchard – Tornado Recovery (Kitsap)





“Under Threat” by Brent Powell (Headwaters Economics)
with elements generated by Adobe Firefly

WILDLAND URBAN INTERFACE

EMBER STORMS / FIRE PROPAGATION

COMMUNITY WILDFIRE PROTECTION PLANS (CWPP)

WILDLAND URBAN INTERFACE • TRENDING

- Community Wildfire Protection Plan - 15 counties submitted CWPP (Avg **2017**)
- WUI has grown 24% between 2001 – 2020 and WUI fires now account for 9% of all fires (David Hosansky, April 16, 2024)
- Fires that occur in WUI areas increased by about 23% from 2005 to 2020. Even more significantly, the area burned by WUI fires during the same time increased by about 35% as a fraction of all burned areas. (Hosansky, 2024)
- WUI fires emit far more toxins than traditional fires (burning of manufactured materials)

WILDLAND URBAN INTERFACE • TRENDING

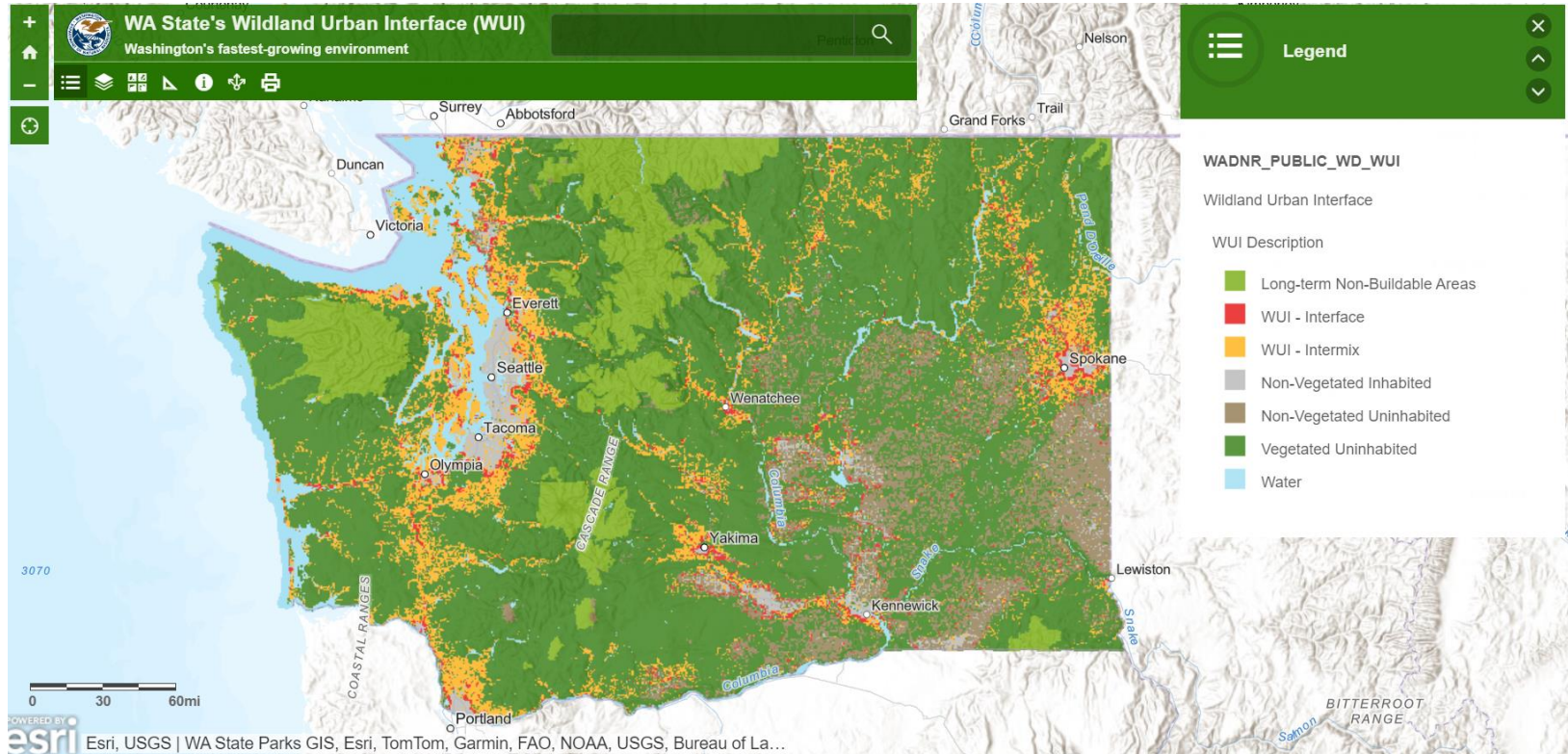
- Increased population density leads to increased fire starts
- Secondary Homes – vacancy and home-owner desire/priorities
- Ingress / Egress – rural roadways not designed for increasing population density
- Rapidly evolving Building Codes
- Rapidly escalating insurance premiums, if insurance is available
- Housing access and Housing equity

2018 International Wildland Urban Interface Code (IWUIC updated every three years: 2021, 2024)

- WUI Area Designation and Requirements
- Building Construction Regulations
- Fire Protection Requirements
- Washington State **Senate Bill 6120** (March, 2024)
"Wildland Urban Interface Code"



WA DNR WUI map: <https://arcg.is/yqbPr>



RE-ENVISIONING W U I

Fire control problem
complicated by
encroaching houses

VS.

Fire-prone / Fire
requiring landscapes
complicated by an
ever-expanding urban
scene

RE-ENVISIONING W U I

Structures built within
or near the edges
of wildlands

VS.

Structures built within
range of windblow
ember storms

"EMBER STORMS"

AN OUTSIZED IMPACT ON LIVES & PROPERTY LOST

Chinook, Foehn, Santa Ana, Diablo, Katabatic...

- Spring and Fall and coinciding with anomalous dry fuels
- High velocity sustained winds caused by large pressure gradients

13% of total number of fires and only 12% of acreage burned (1992-2020)

- 60% of structures lost
- 52% of human lives lost

DOWNSLOPE WIND DRIVEN FIRES



Marshall Fire, December 2021 – Colorado (Patrick Cullis)

- | | | |
|---|----------------|------------------------------|
| • 2023 Hawaii Fires (August - Lahaina, HI) | 102 / 2,207 | Power lines |
| • 2021 Marshall Fire (December – Superior/Louisville, CO) | 2 / 1,084 | Power lines + old embers |
| • 2020 Labor Day Fire (September, Western OR) | 11 / >3,000 | Mostly Human |
| • 2020 East Troublesome Fire (October, Grant/Larimer Co, CO) | 2 / 555 | Human |
| • 2018 Camp Fire (November - Paradise, CA) | 85 / 18,804 | Power lines |
| • 2017 Tubbs Fire (October – Santa Rosa, CA) | 22 / 5,600 | Power lines |
| • 2016 Chimney Tops 2 (November – Gaitlinburg, TN) | 14 / 2,400 | Human |
| • 2014 Carlton Complex Fire (July - Methow Valley, WA) | 2 / 353 | Lightning |
| • 2009 Black Saturday Bushfire (February - Victoria, Australia) | 173 / 2,029 | Power line, human, lightning |

OUTSIZED DIRECT IMPACT OF DOWNSLOPE WIND DRIVEN FIRES

13% of total number of fires

12% of acreage burned (1992-2020)

60% of structures lost

52% of human lives lost

"Downslope wind-driven fires in the western United States"

- **Author(s):** John T. Abatzoglou, Crystal A. Kolden, A. Park Williams, Mojtaba Sadegh, Jennifer Balch, Alex Hall
- **Year Published:** 2023

"REDEFINING THE URBAN WILDFIRE PROBLEM IN THE WEST" - 2024

Co-Authors:

- **Kimiko Barrett**, Headwaters Economics
- **David Calkin**, Forestry Science Laboratory, Rocky Mountain Research Station, USFS
- **Jack Cohen**, USFS
- **Mark Finney**, Fire Sciences Laboratory, Rocky Mountain Research Station, USFS
- **Stephen Pyne**, Arizona State University
- **Stephen Quarles**, University of California

RESILIENT COMMUNITIES

Every response is a local response. Team Rubicon recruits, organizes, equips and trains veteran-led relief teams to provide immediate, local response to more effectively save lives, protect property and get people safely home as soon as possible. The strategy also allows communities to better integrate returning military veterans and empower them to lead locally.



TEAM RUBICON KNOWS FIREWISE



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TEAM RUBICON



DISASTER
RESPONSE

TEAM RUBICON

**UTILIZING VETERANS &
VOLUNTEERS**

BLUE SKY

- Multiple one-day SERVICE EVENTS (chipping events, neighborhood canvassing: outreach, education, and home Firewise assessments)
- Debris Removal Plan(s) - Sorting, Size, Location
- Route Clearance Plan(s) - Wind/Ice storms, Heavy Equip, Utility
- Information sharing policy (FEMA, ARC, NRCC)
- Table-Top exercises
- FUEL MITIGATION Operations – improve egress/ingress routes, strategic fuel break
- FIREWISE Operations – vulnerable homeowners or renters

GREY SKY

- TR Monitoring – Early Engagement / Coordination
- **Request For Assistance (City/County)**
- TR Mission Planning Team
- TR Billeting / Shower / Kitchen
- TR Reporting Metrics / VOAD Hand-Off
- TR Close-out Report (if requested)

SUMMARY

- Team Rubicon a trusted VOAD partner integrated into FEMA
- Re-envisioning a more nuanced WUI
- Revisit CWPP with Downslope Wind Driven Fires awareness
- Firewise / Wildfire Ready Neighbor capable
- Blue Sky and Grey Sky engagement

TEAM RUBICON WORKS WITH THE BEST

Team Rubicon works with strategic partners who have committed to an inspirational purpose. Together with these partners and others, we can create meaningful change for victims of natural disaster, as well as veterans across America.





QUESTIONS?

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