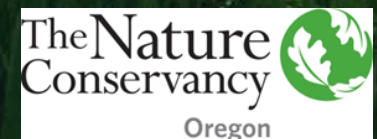


Cultural Diversity Begets Pyrodiversity: TRES, Training, Treatments, and Outreach

Amanda Stamper
The Nature Conservancy in Oregon
Klamath Fire Ecology Symposium
May 11, 2017





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Research/Preview use only

The Walhamette River from a Mountain, Paul Kane, 1847

Pyrodiverse Reasons for When, What, Where, Why, and How

Firewood

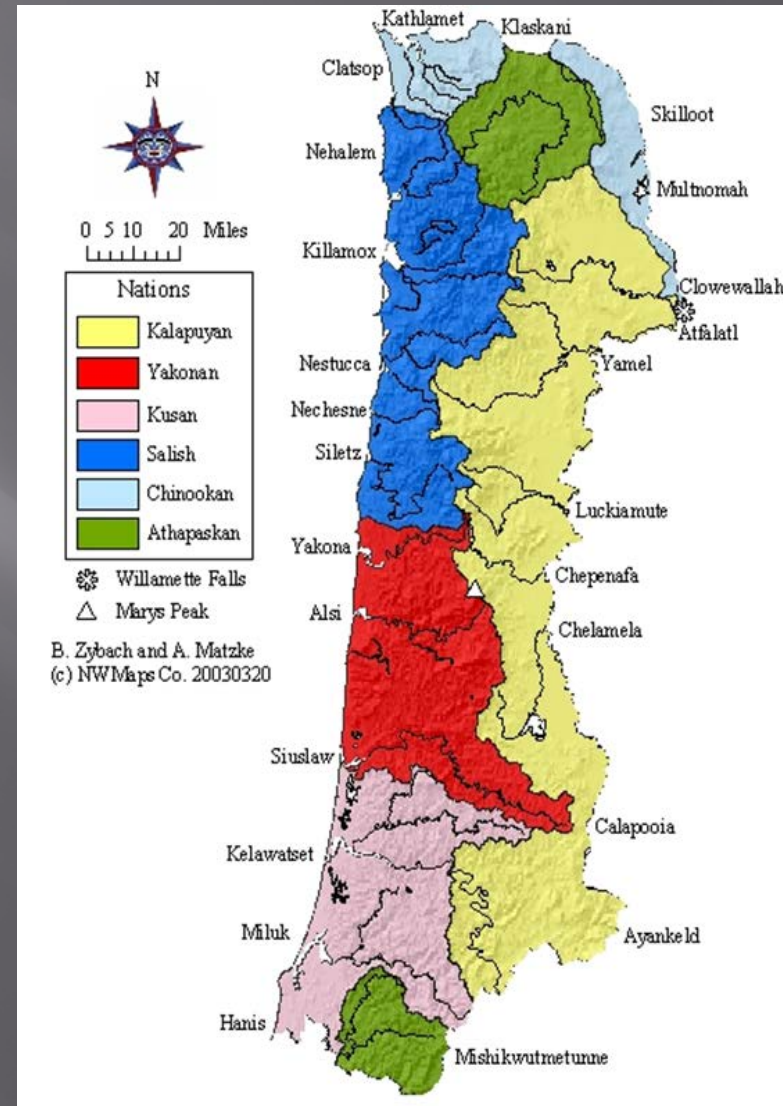
Heat, light, cooking, boiling, cleaning, celebration, ceremony

Patch Burning

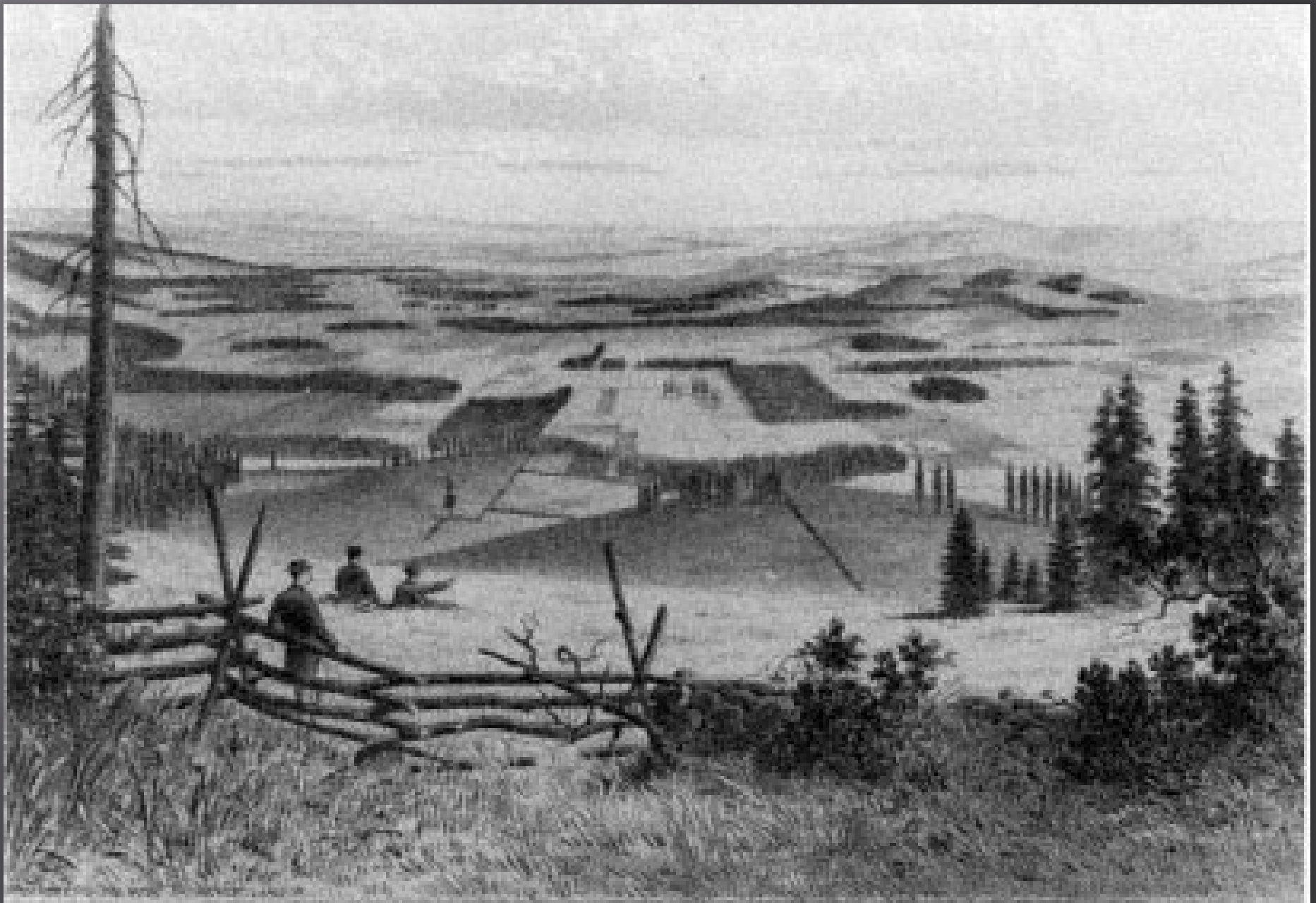
Hunting, berry patches, root harvest, pest control, weaving materials, trail maintenance, seasonal, situational

Broadcast Burning

wildlife habitat; curing seeds; hunting; transportation; weaving materials; acorn harvest, late summer, early fall for grasslands.
(Boyd 1986; Gilson 1989).



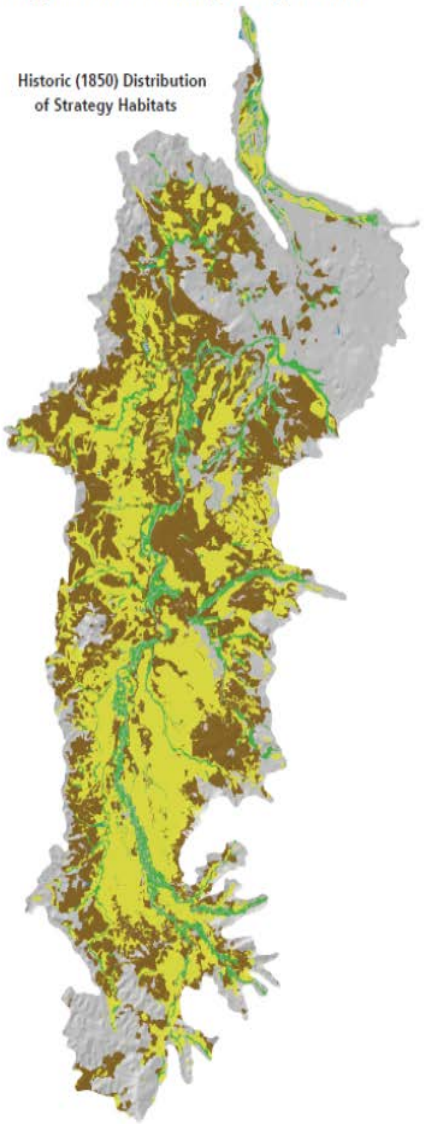
(Zybach and Lake 2003)



UMATILLA VALLEY-THE GREAT FRUIT-GROWING SECTION OF OREGON.

Change in Willamette Valley Strategy Habitats

Historic (1850) Distribution of Strategy Habitats



Current (2004) Distribution of Strategy Habitats

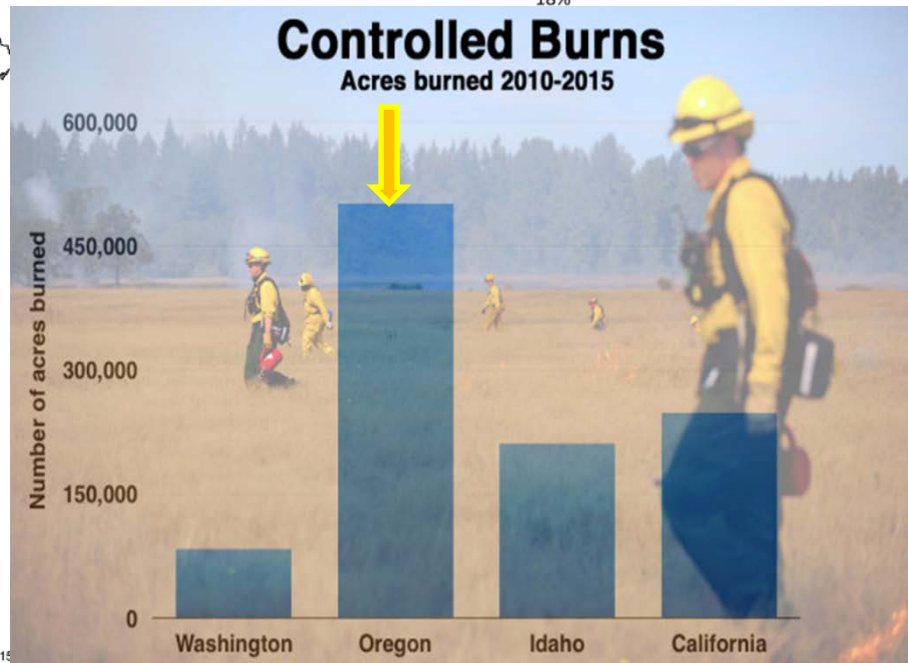
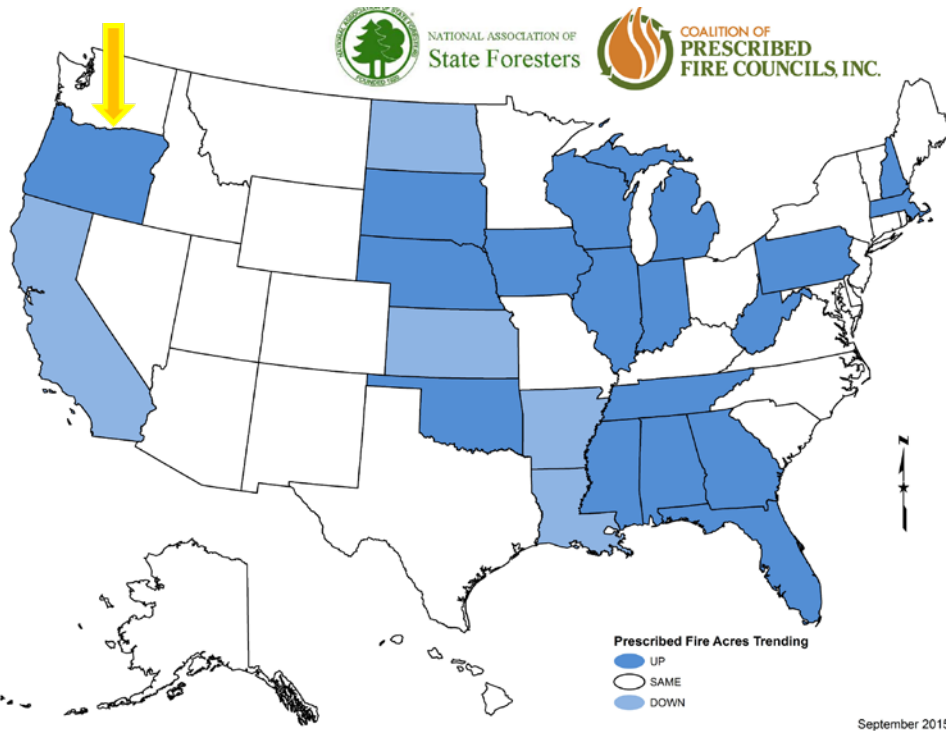
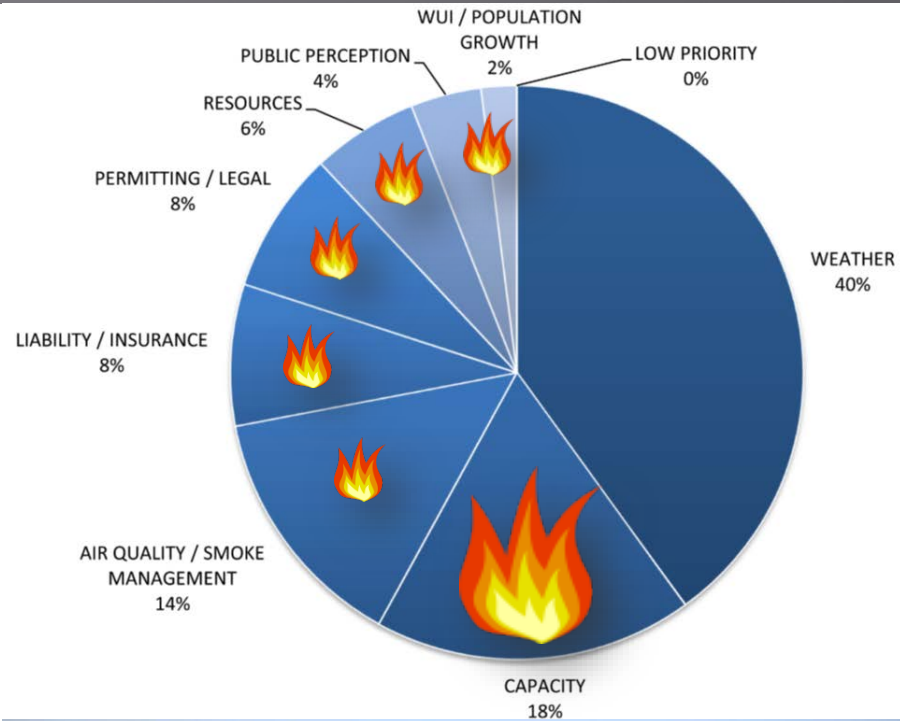
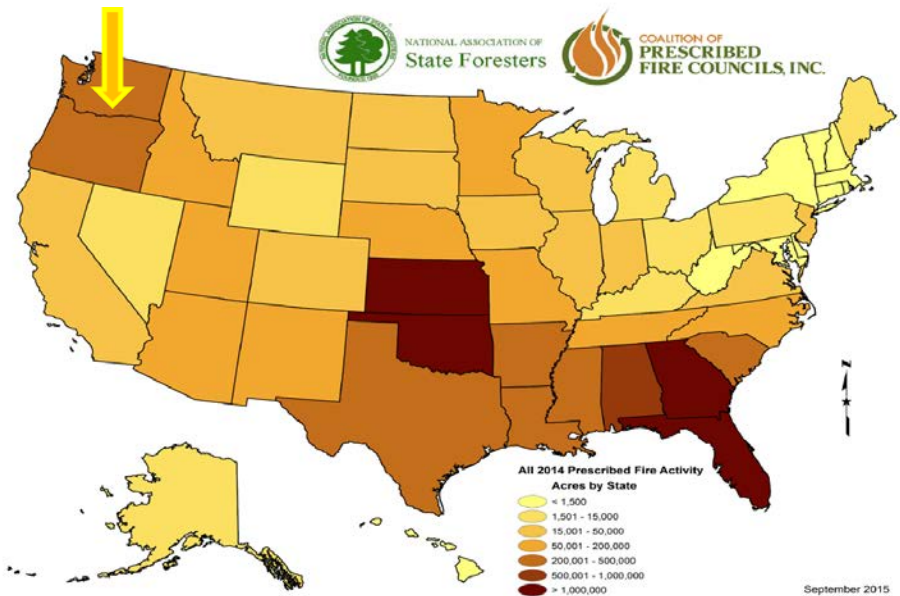


- Grasslands
- Oak woodlands
- Riparian
- Wetlands and wet praries



Data Source: Oregon Natural Heritage Information Center, 2004.





Integration on Fire

FLN, FAC LN, Indigenous Peoples Burning Network,
Burned Area Learning Network,
National/International Wildland Fire Communities,
Coalition of Prescribed Fire Councils

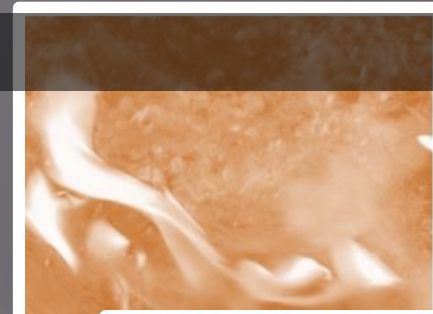
TREX Program

Fire Adapted Communities
RX Fire Councils
Prescribed Burn Associations

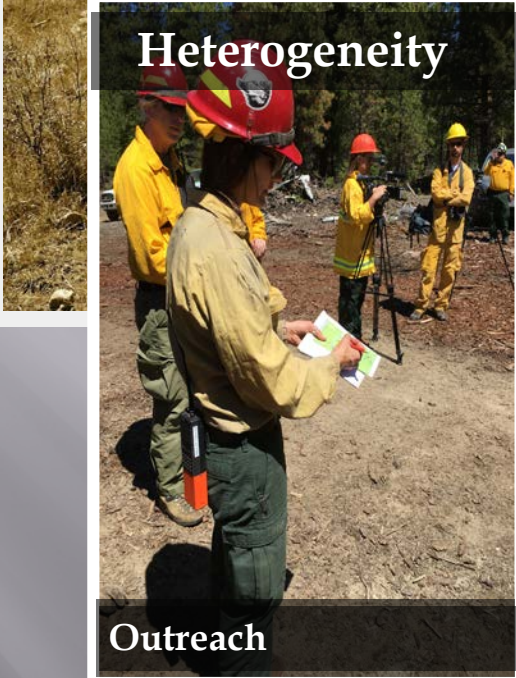
Tribes
Collaboratives
TREX Events
Regional Fire
Management
Partnerships

**National Cohesive Wildland Fire Management
Strategy in Action**

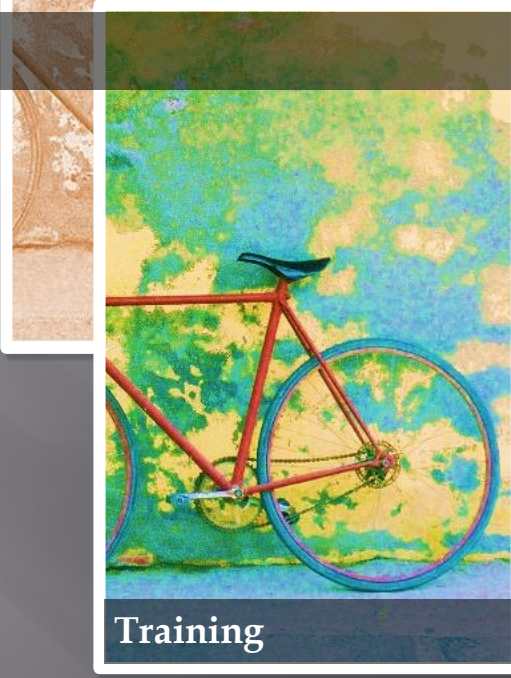
Homogeneity



Heterogeneity



Outreach



Training



Treatments

TREX models the principles of the **Cohesive Strategy for Wildland Fire Management** to enable successful *co-management* of wildland fire through the cultivation of cultural cross-pollination and an adaptive experiential learning and training environment

How is TRES supported?



The Fire Learning Network and TRES are supported by *Promoting Ecosystem Resilience and Fire Adapted Communities Together* (PERFACT), a cooperative agreement between The Nature Conservancy, USDA Forest Service and agencies of the Department of the Interior.

This institution is an equal opportunity employment provider.

TRES events are supported by a Master Participating Agreement between the USDA Forest Service and The Nature Conservancy



In 2008 The Nature Conservancy Fire Learning Network (FLN) designed a program that:

- **Builds Local Capacity for Safer Fire**
- **Helps Communities Become More Fire Adapted**
- **Brings Together Diverse Crews**
- **Gives Participants Hands-On Experience with Ecologically- and Culturally-Appropriate Fire**
- **Supports Interagency Cooperation**
- **Integrates Traditional Burning**
- **Works Through Bottlenecks in RX Workforce and Barriers to Burning**



Flexible Type 3 Incident Management Structure

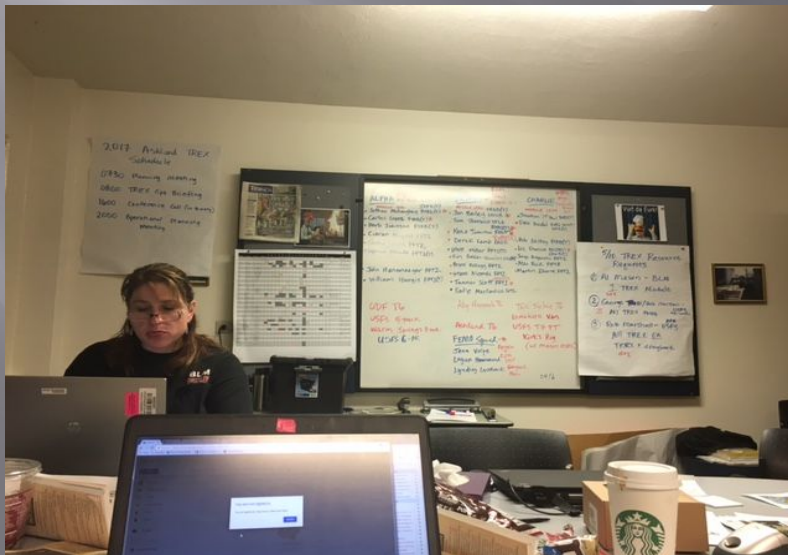
Incident Commander
 Operations
 Planning
 Logistics
 Training Officer
 Situation/GIS
 Public Information Officer



2017 ASHLAND PRESCRIBED FIRE TRAINING EXCHANGE
 INCIDENT ACTION PLAN

Do.
 Or do not.
 There is no try.
 ~ Yoda

DAY 7
 Saturday MAY 6, 2017



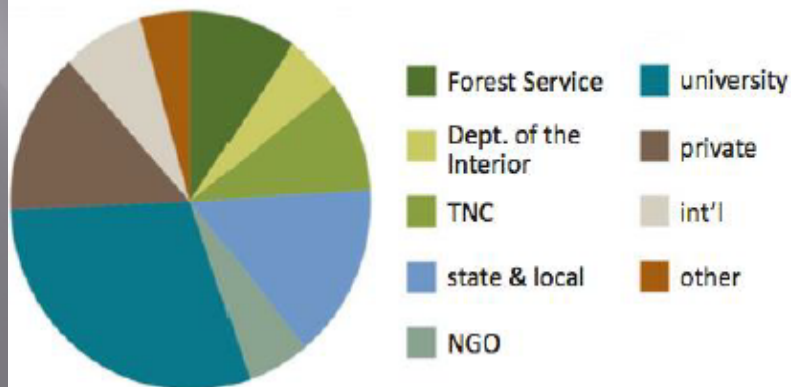
ALPHA	BRAVO	CHARLIE
Herb Johnson ICF2 RXB2(T) LEAD	Jon Bailey TFLD(T) RXB2 LEAD	Jonathan Paul (JP) RXB2(T) LEAD
Jothan McLaughley RXB2(T)/SOPR	Timothy Sherwin RXB2(T)/VFO	Dale Heidal RXB2(D)VS(T)
Carlos Lopez FIRB(T)	Derek Lamb RXB2(T) (Fire Unit Adj)	Robert Laskey FIRB(T)
Sasha White FFT2, FEMO(T)	Koreena Haynes TFLD(T)	Liz Dunson ENGB(T)/COWB(T)
	Brandon Roberson FIRB(T)	Lyman Meade FFT1(T)
Matt Freheit ENGB(T)	William Hargis FFT1(T)	Jorge Anguiano FFT2
Steve Boyersmith ENGB(T)	Matt Miller FFT1(T)	Aldo Ruiz FFT2
Colin Beck FFT2	Logan Hammon FEMO(T)	Martin Ibarra FFT2
Ciaran Nugent FFT2	Thomas Stokely FFT2 W-1	Katho Muckendrick FFT2
John Hanemayer FFT2	Bryce Kellogg FFT2	Doug Kreuzer FEMO(T) W-1
Benjamin Hart FFT2 W-1	Steve Niemela FFT2	
Ashland T/O	FMC "Synic" T/O	Key Peninsula T/O
ODF T/O	PRIS	Lomakatsi TH (1000 gal)
Wagon Springs 3-pack	USFS 6-pack X2	USFS PT
USFS 5-pack	ES - 2-pack X2	

Meeting a Diversity of Training and Ecological Needs

- Professional fire practitioners gain experience
- Less traditional training partners gain skills to work more safely and effectively
 - Private contractors, ranchers, landowners, students, scientists, researchers, regulators
- Diversify the workforce
 - Work with practitioners from other places and diverse backgrounds

- Variety of ecological and social goals across a wide range of landscapes
- Monitor fire behavior and effects and write reports
- Regional fire ecology and local socioeconomic impacts of fire management
- Work with groups like prescribed fire councils and landowner associations
- Fire adapted community concepts

TREX PARTICIPANT AFFILIATIONS (SPRING 2014)



Washington Dry
Forests FLN

Oregon FLN

Island Park
Sustainable
Fire Community

W. Klamath Mountains FLN
California Klamath-Siskiyou FLN

FireScapes
Mendocino
FLN

Pike's
Peak
FLN

Great
Plains
FLN

Central
Appalachians
FLN

New Mexico
FLN

South
Central
FLN

Southern Blue
Ridge FLN

8

3

11

14

4

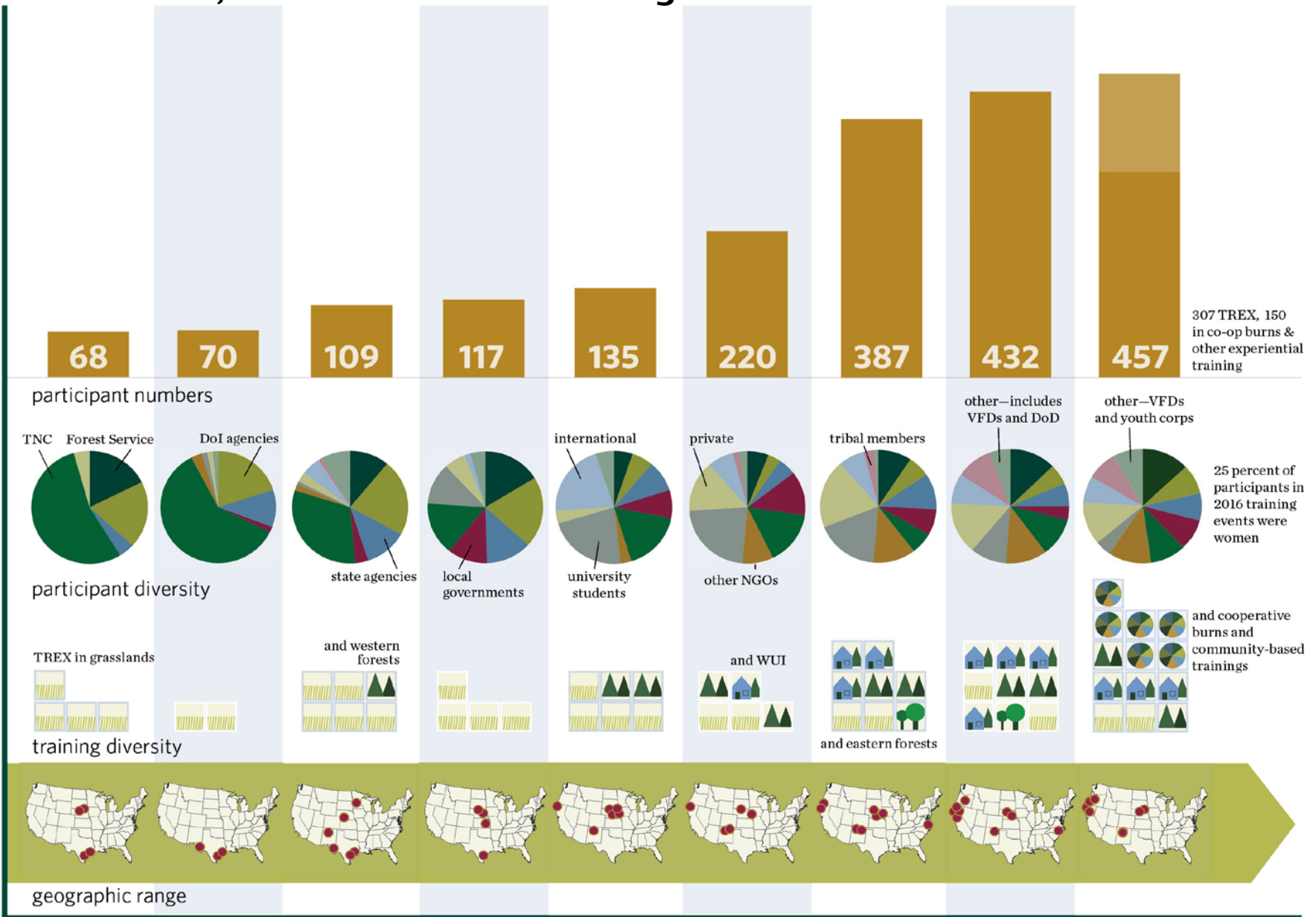
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1

Over 82,000 acres burned during 50+ TREC events to date



307 TREC, 150 in co-op burns & other experiential training

25 percent of participants in 2016 training events were women

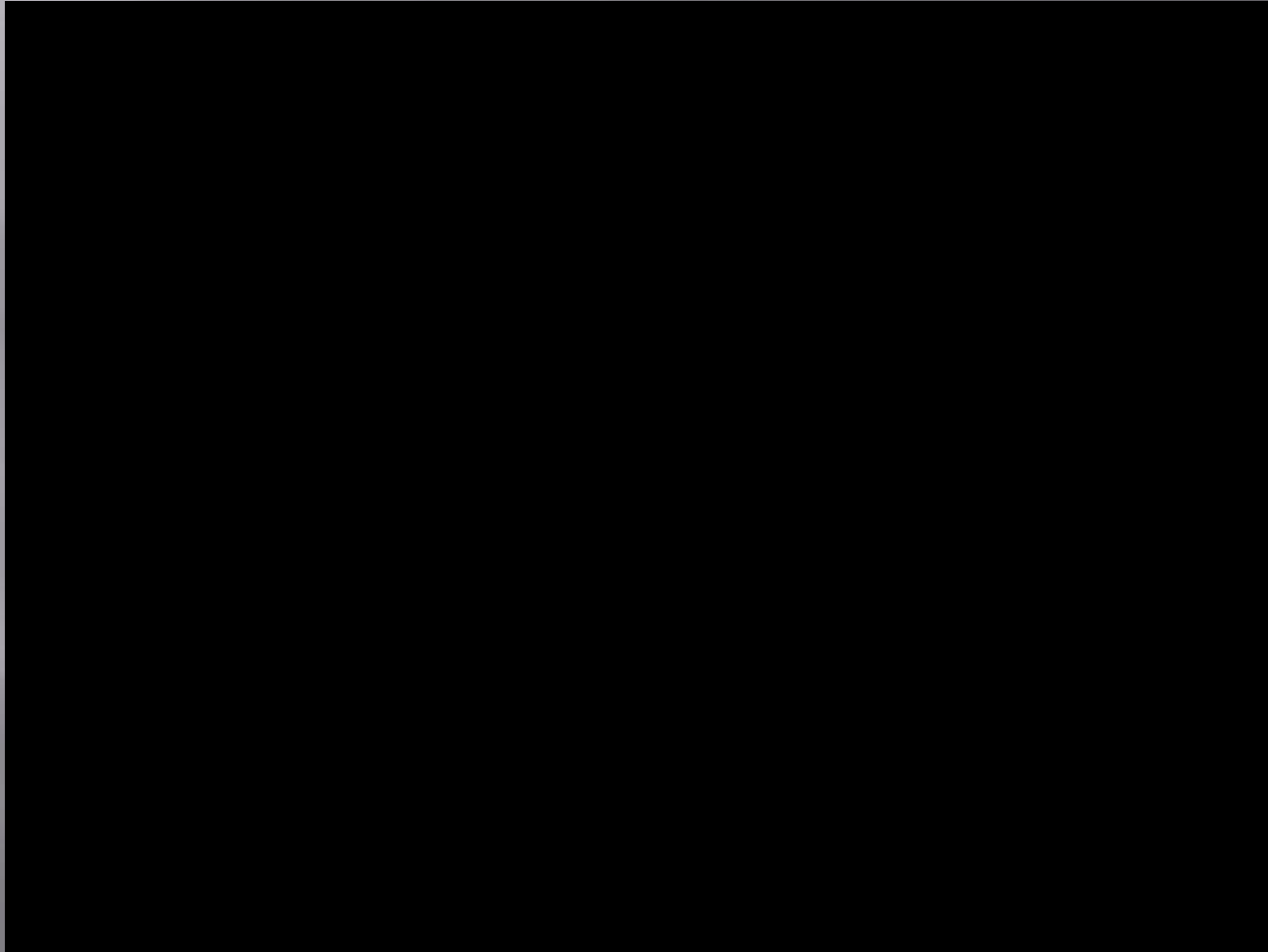
and cooperative burns and community-based trainings

2008 2009 2010 2011 2012 2013 2014 2015 2016

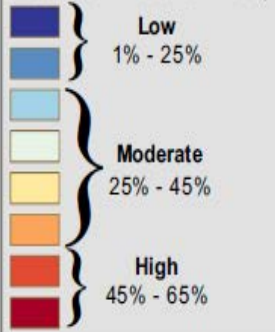
TREX promotes pyrodiverse *co-management* through sharing cultural knowledge and an adaptive experiential learning environment



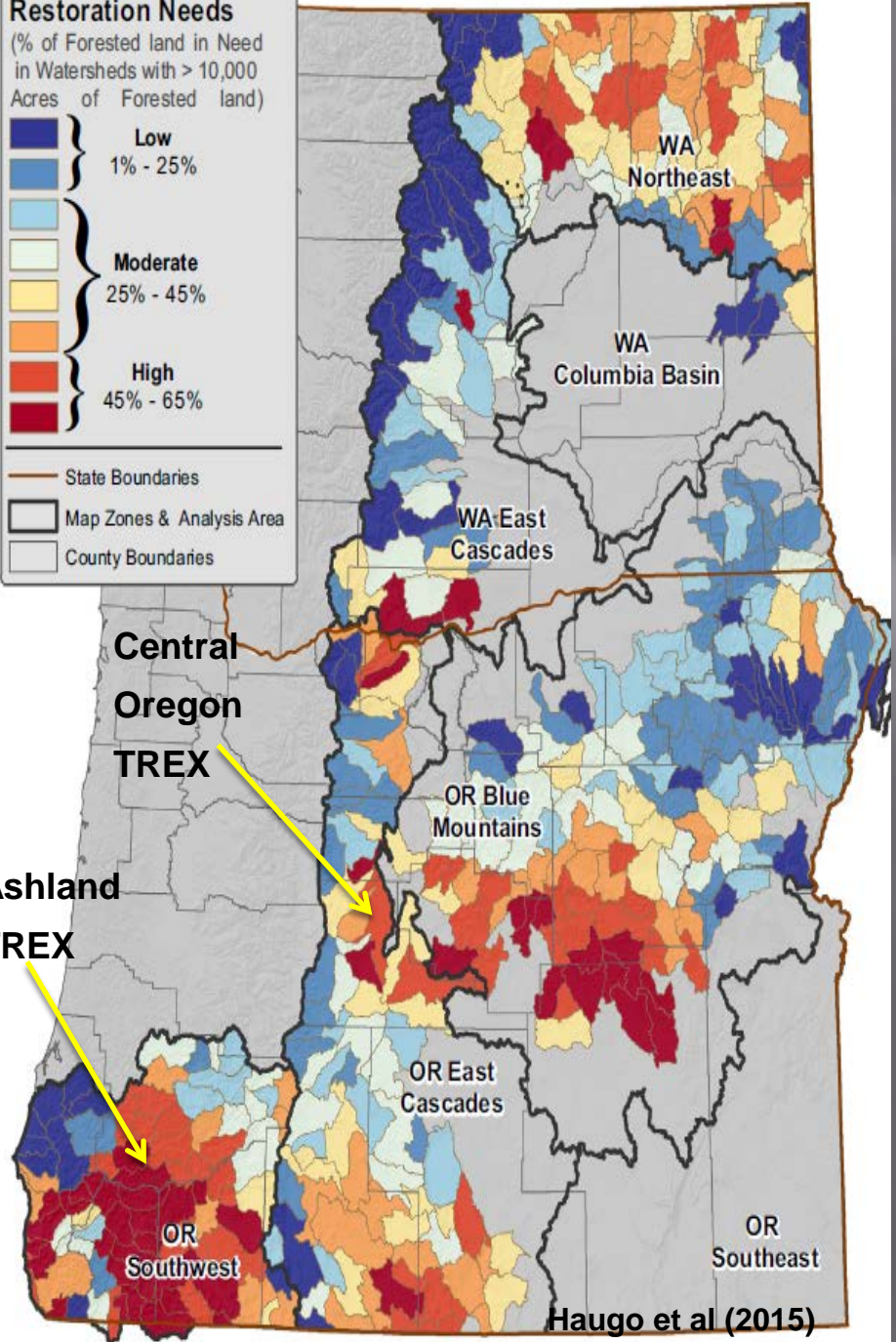
2015 Central Oregon Training Exchange First TREX in Oregon!



**Disturbance
Restoration Needs**
(% of Forested land in Need
in Watersheds with > 10,000
Acres of Forested land)



State Boundaries
Map Zones & Analysis Area
County Boundaries



4.2 million acres at risk in Oregon and Washington

900,000 acres currently *planned* under NEPA for prescribed burning on fire-adapted USFS lands in Oregon

2016 Oregon Prescribed Burning		
Burn Type	Acres Burned	Percent
Broadcast Activity	4,097	4%
Broadcast Natural	4,397	4%
Grapple Pile	17,776	17%
Hand Pile	15,223	15%
Landing Only	26,327	26%
Rangeland	3,252	3%
Tractor Pile	5,812	6%
Underburn Activity	5,729	6%
Underburn Natural	20,407	20%
Grand Total	103,020	

PRESCRIBED FIRE TRAINING EXCHANGES

OREGON 2016



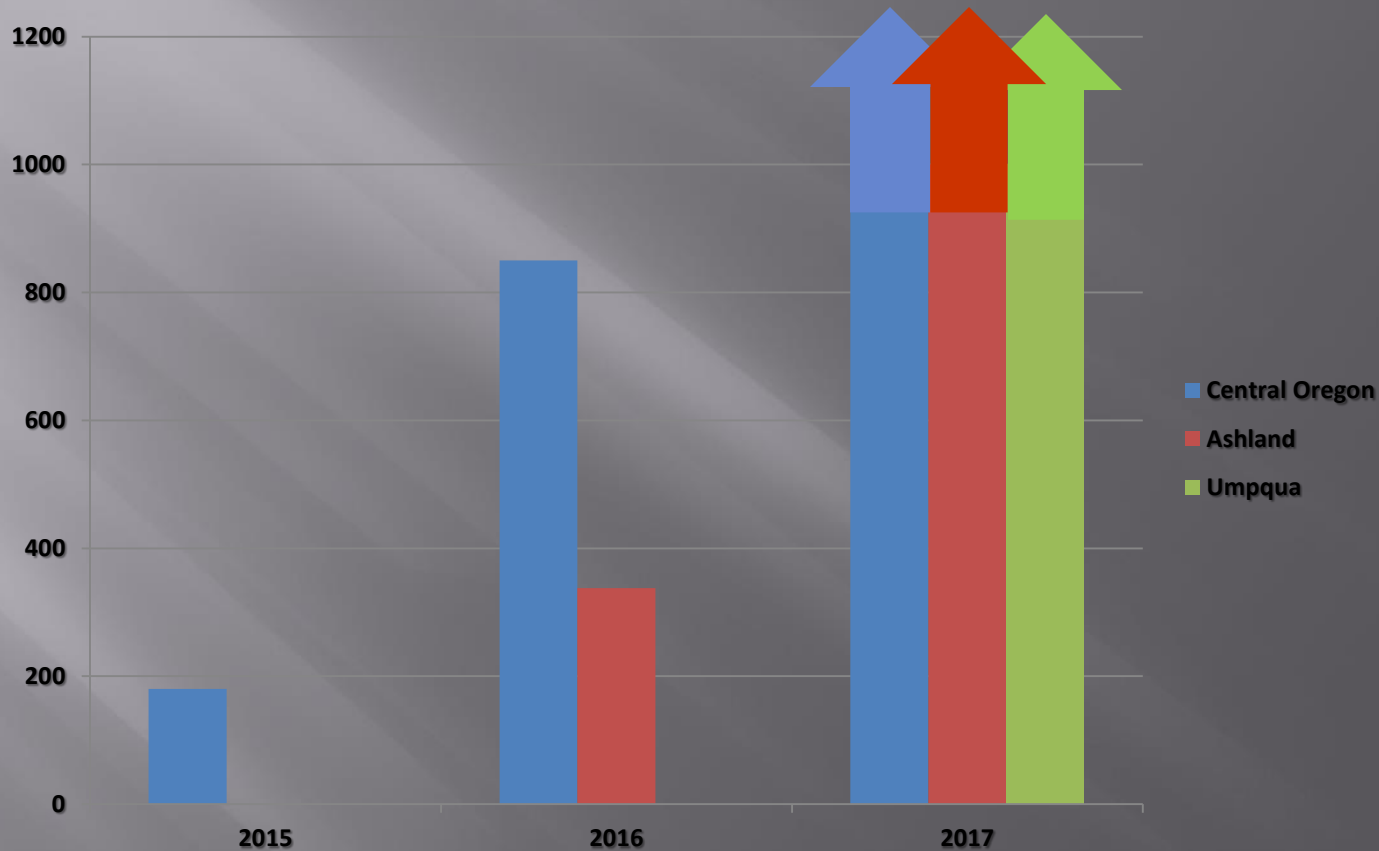
1,188 Acres Burned

2 events in Ashland and Central Oregon in April and May

87 participants from United States, Mexico, Spain & United Kingdom



Prescribed Fire Training Exchanges in Oregon 2015-present



Participants from US, Spain, Mexico, and UK learning and burning together

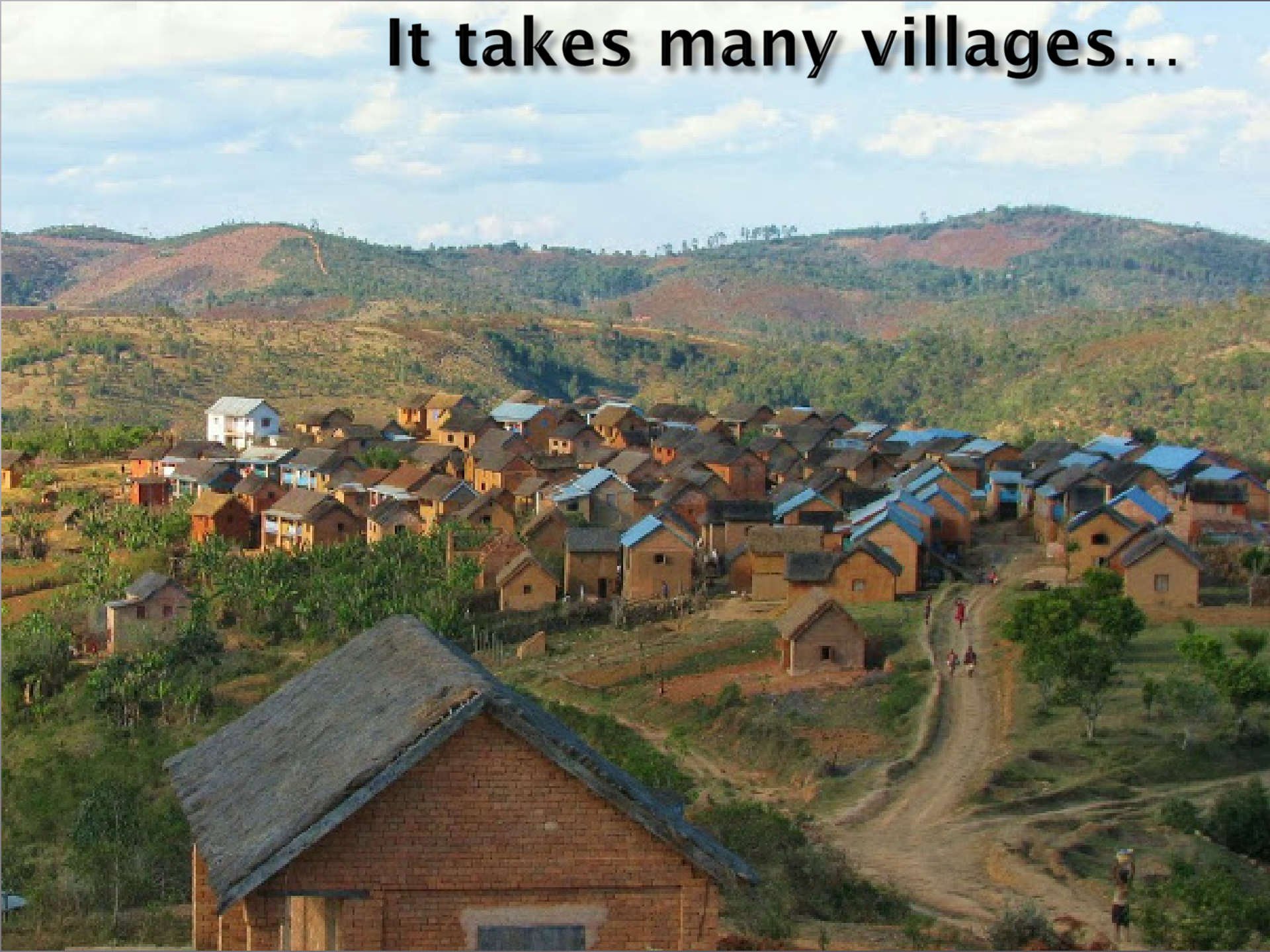


Wildfire \$500-1000+/-acre
→
1099 fatalities since 1910

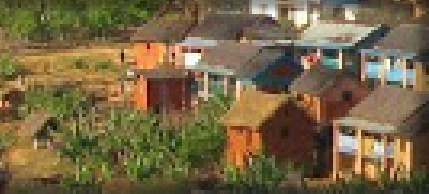


Prescribed Burning \$5-400/acre
→
6 fatalities since 1910

It takes many villages...



It takes many villages... to burn many units!





WE CAN LIVE WELL
WITH FIRE