

ASHLAND FOREST RESILIENCY: AN ALL-LANDS RESTORATION PROJECT



Partnering to Protect the Ashland Watershed– Feb 28th, 2019

Presented By: Chris Chambers-City of Ashland/Ashland Fire & Rescue,

ASHLAND FOREST RESILIENCY STEWARDSHIP PROJECT (AFR)



A 10-year stewardship project to reduce the risk of severe wildfire in the watershed and to protect water quality, older forests, wildlife, people, property and quality of life.



Siskiyou Mountains Ranger District
Rogue River-Siskiyou National Forest

REEDER RESERVOIR – SOURCE OF THE CITY'S DRINKING WATER



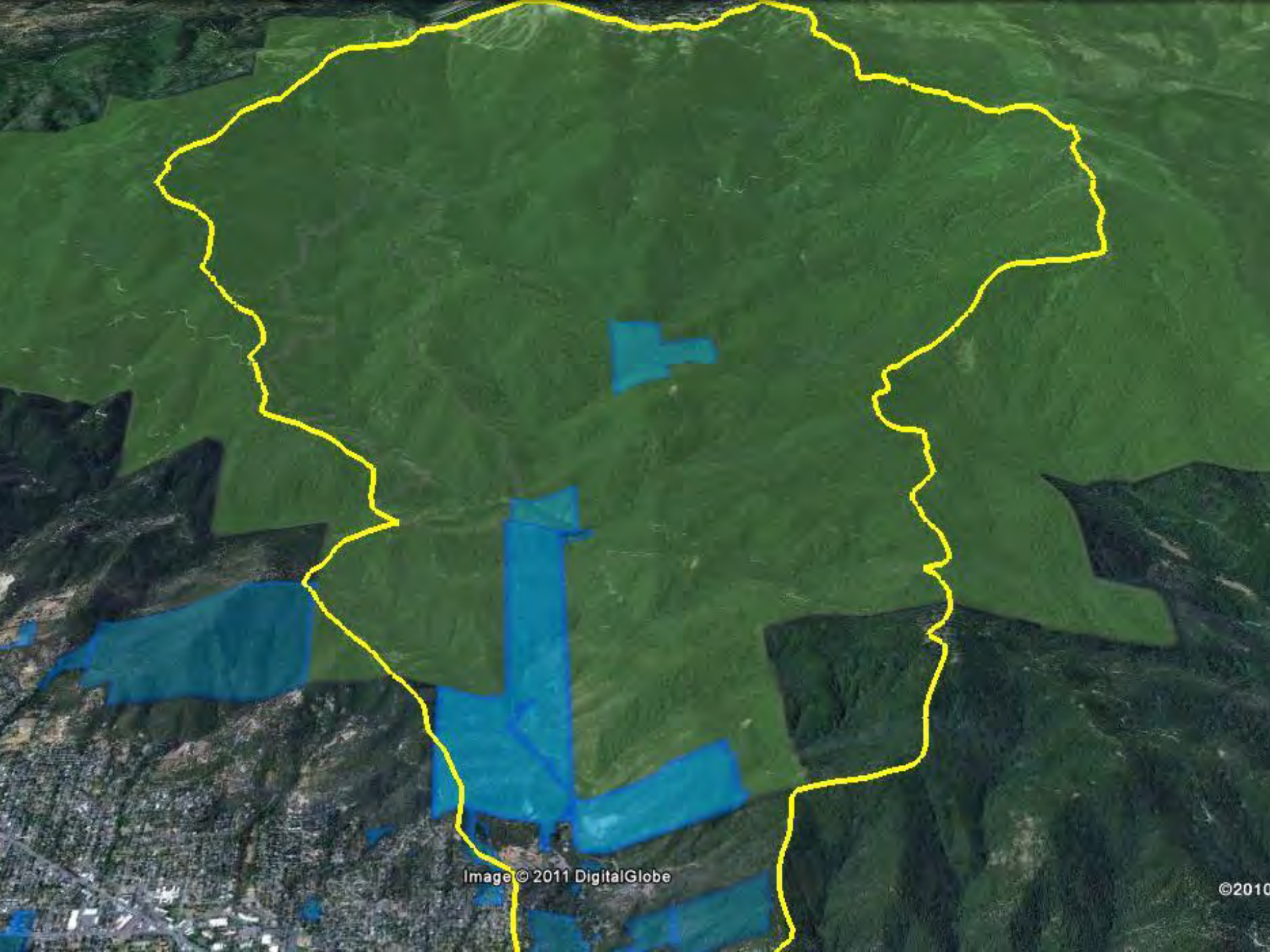


Image © 2011 DigitalGlobe

©2010

THE ASHLAND WATERSHED

THIS AREA OF THE ROGUE RIVER NATIONAL FOREST SERVES AS THE WATERSHED FOR THE CITY OF ASHLAND. THE RAIN AND SNOW THAT FALLS ON THIS GROUND EVENTUALLY FLOWS INTO REEDER RESERVOIR AND THE CITY'S WATER SYSTEM.

HELP KEEP OUR EXCELLENT WATER QUALITY. FOR SANITATION REASONS DO NOT CAMP OVERNIGHT OR DUMP ANY TYPE OF REFUSE.

THE DECOMPOSED GRANITE SOILS ARE EASILY ERODED. KEEP ~~MOTORIZED~~ VEHICLES ON IMPROVED ROADS AND TREAD LIGHTLY WHEN ON FOOT.

THE TERRAIN, WEATHER CONDITIONS AND VOLATILE VEGATATION PRESENT A THREAT OF CATASTROPHIC FIRE, THEREFORE DO NOT BUILD CAMPFIRES.

IF YOU OBSERVE ANY ACTIVITY DETRIMENTAL TO THE WATERSHED, PLEASE REPORT IT TO THE ASHLAND RANGER DISTRICT AT 482-3333.

YOUR COOPERATION IS APPRECIATED. THANK YOU FROM,
U.S. FOREST SERVICE AND WATER USERS OF ASHLAND.



LARGE WILDFIRES IN ASHLAND'S RECENT HISTORY





Wildland Urban Interface

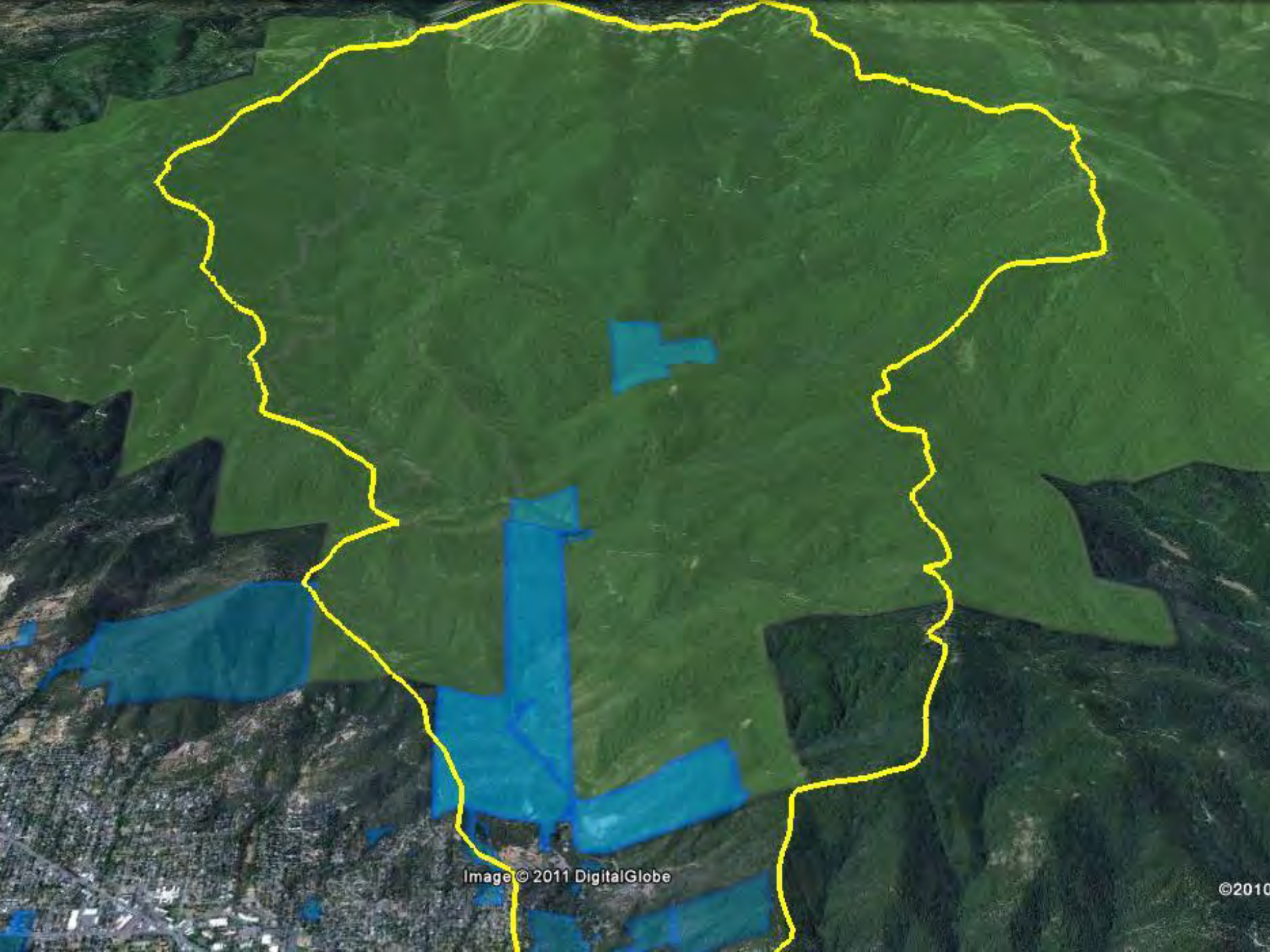


Image © 2011 DigitalGlobe

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COMMUNITY WILDFIRE PROTECTION NATIONAL FIRE PLAN: 2000-2006



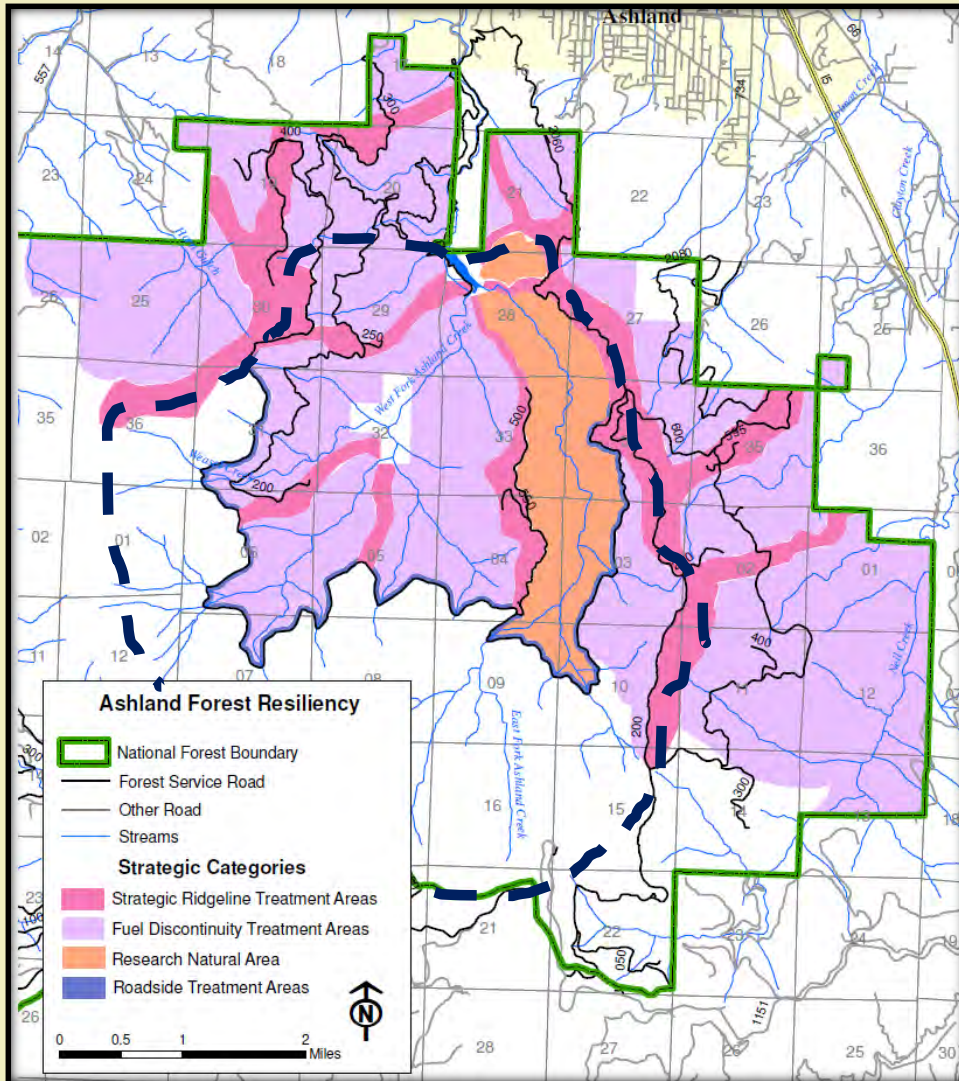
Strategic Landscape Fuels Reduction Treatments

- Leveraging private, state and federal Funding
- Ecologically-based fuels treatments to reduce risk of wildfire to homes, municipal watershed, infrastructure and public safety.
- Supporting the local economy: job creation, workforce development, business incubation



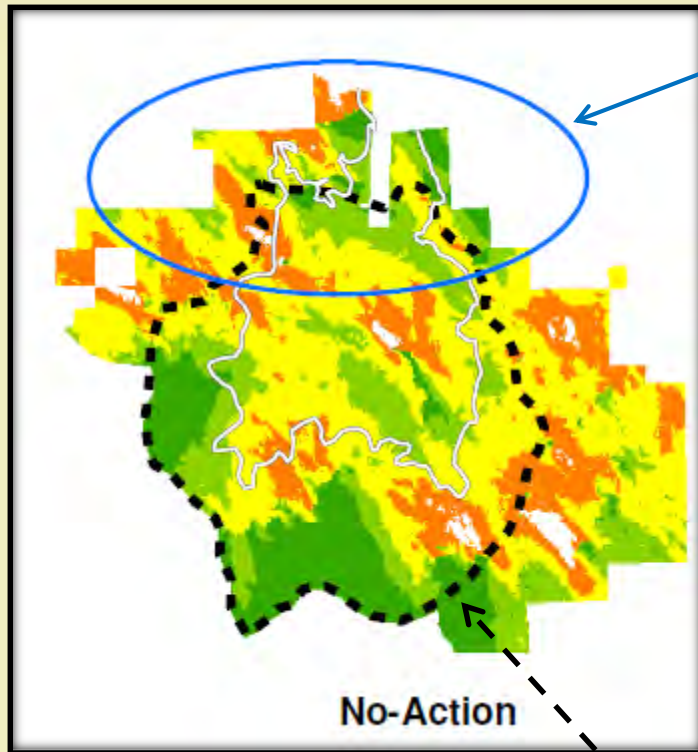


PREFERRED ALTERNATIVE



- A strategic approach
- Treats 7,600 acres of National Forest lands
- Utilizes a combination of:
 - Surface and ladder fuel treatments
 - Density management
 - Prescribed Underburning

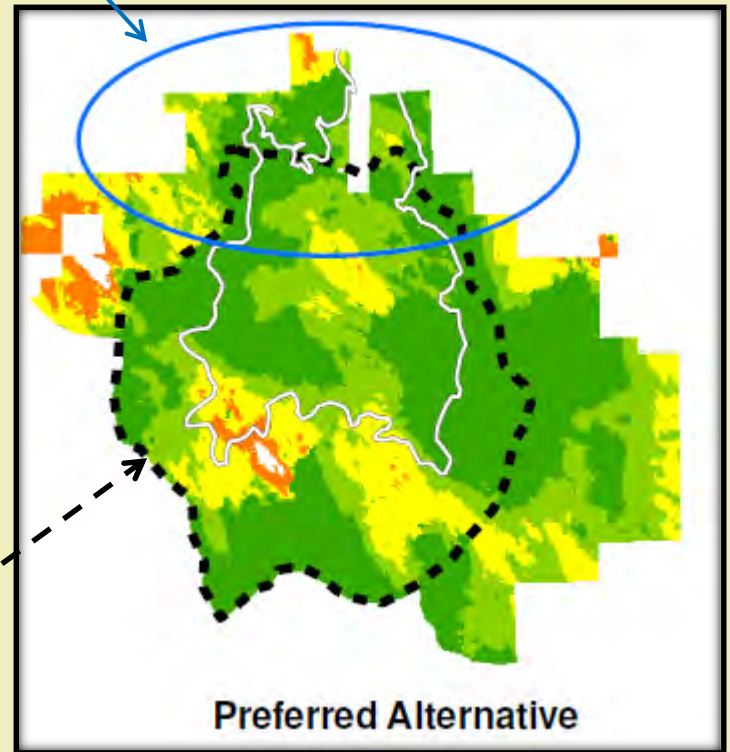
BURN PROBABILITY ANALYSIS



Interface Area

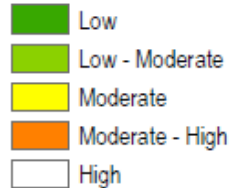
No-Action

Municipal Watershed Boundary

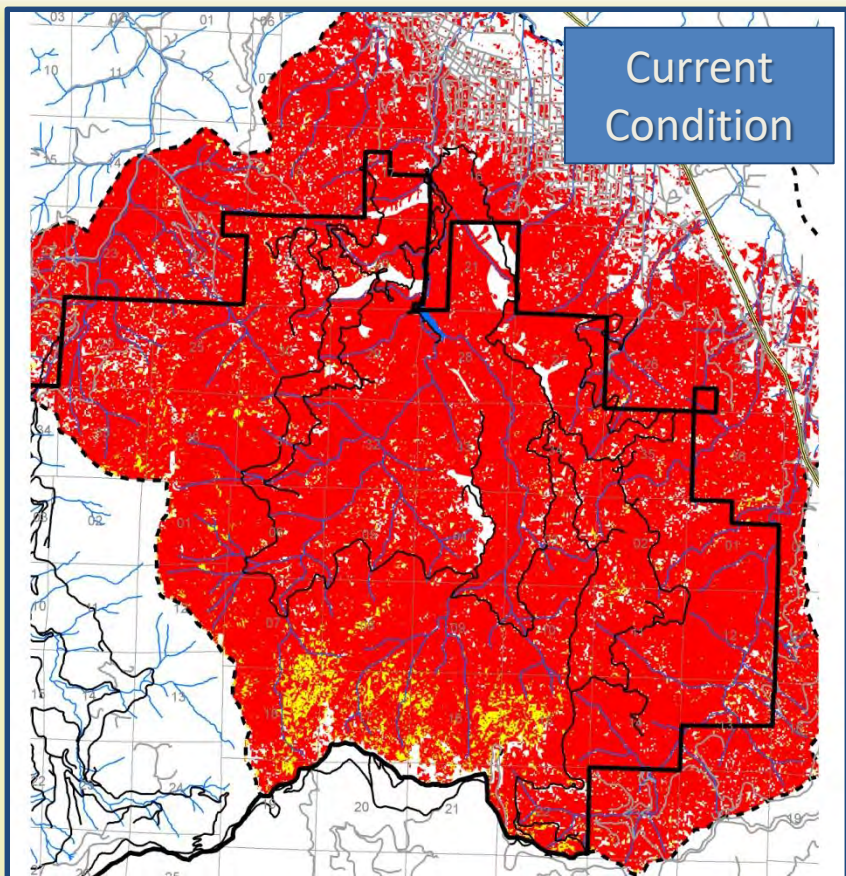


Preferred Alternative

Probability Classification

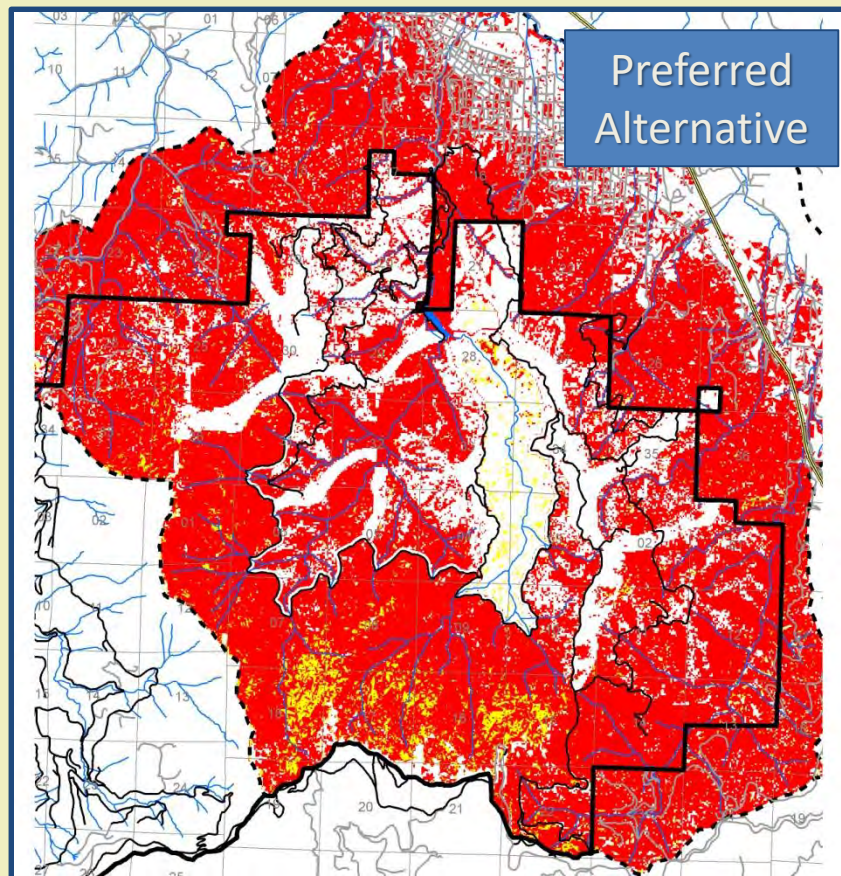


FLAME LENGTH ANALYSIS



Flame lengths <4 feet – fires can generally be attacked at the head or flanks by persons using hand tools

Flame lengths >4 feet – fires are too intense for direct attack on the head



90th percentile weather conditions:

- Temperature – max 93°, min 58°
- Winds – ave 5.9 mph, gusts 15 mph (N/NW)
- Humidity – max 53%, min 15%

RECORD OF DECISION



Signed October 8, 2009

“The Final EIS presents a Preferred Alternative which was designed specifically to represent the goals, objectives, and desired outcomes expressed by the Community Alternative, developed by the City of Ashland, yet also meet agency goals for the Upper Bear Analysis Area.”

PREFERRED ALTERNATIVE



Stewardship Authority

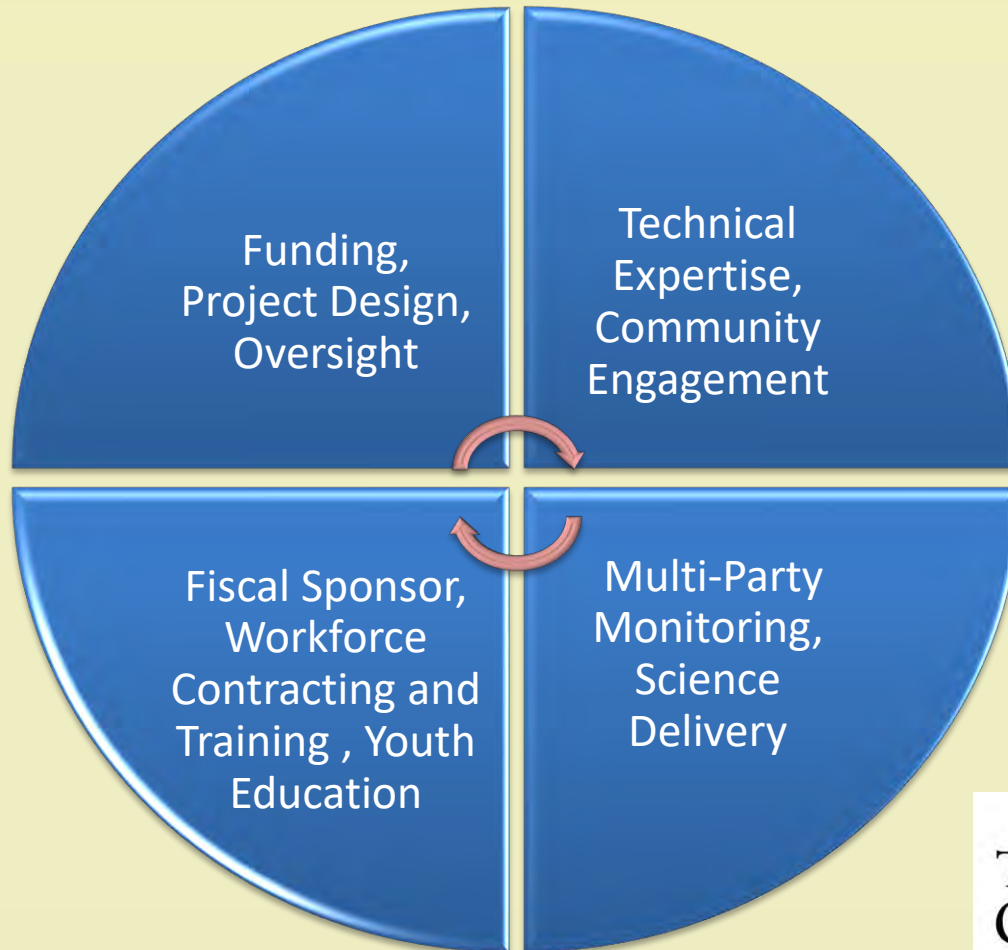
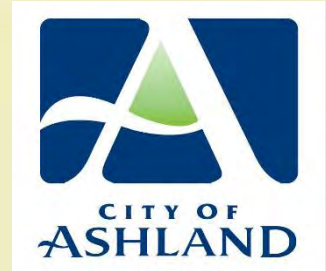
“Stewardship contracting is a means for federal agencies to contribute to the development of sustainable rural communities, restore and maintain healthy forest ecosystems and provide a continuing source of employment”.

-U.S Forest Service Contracting Guide



Agencies Appropriations Act of 1999
Section 347 of that bill states the Forest Service may enter into stewardship projects.

ASHLAND FOREST RESILIENCY STEWARDSHIP AGREEMENT

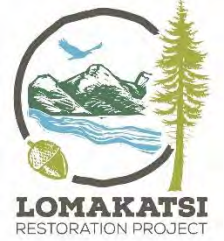


PROJECT STATUS – SPRING 2019

Forest Restoration work completed/in progress on over
6,000 acres



ECOLOGICAL FUELS REDUCTION

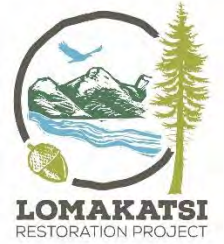


Before



After

ECOLOGICAL FUELS REDUCTION (CONT.)



Before



After

AFR RESTORATION BY-PRODUCTS

2,300 acres Helicopter Thinning



550 acres Ground-Based Thinning

14 million board feet of timber trucked to local mills



Prescribed Fire in AFR



Joint Chief's Landscape Restoration Partnership (LRP)



Vision:

- Restore landscapes regardless of land ownership
- Reduce wildfire threats to communities and landowners
- Protect water quality and supply
- Improve habitat for at-risk species.

Ashland Forest All-lands Restoration



- 52,000 acres
- 14,500 acres treated
- 28% of landscape

ASHLAND FOREST ALL-LANDS RESTORATION PROJECT (AFAR)

Implement forest restoration and fuels reduction treatments through a cross boundary, all-lands approach on federal and private non-industrial lands in and around the Ashland Creek Watershed.



Landowner Outreach

Contact
Lomakatsi Restoration Project
541-488-0208
info@lomakatsi.org
www.lomakatsi.org

Lomakatsi is a 501c3 non-profit organization dedicated to restoring ecosystems and the sustainability of communities, cultures and economies.



Lomakatsi stock photo



**Ashland Forest
All-Lands
Restoration**



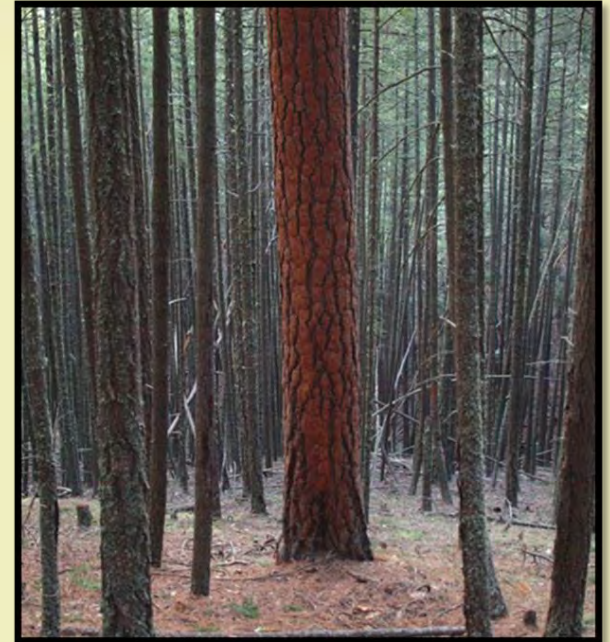
The Nature Conservancy
Protecting nature. Preserving life.



Caring for
Your Land
In the Face
of Wildfire

A Solution for
Landowners

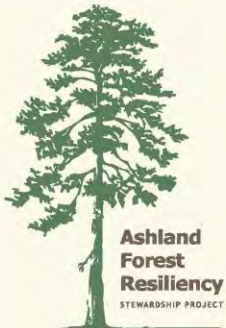
AFR: Engaging Community, Building Social License for Ecological Forest Stewardship



Outreach for Burning/Smoke



Controlled burns protect forests and our watershed.



- ➊ Reduce fire danger to firefighters, residents, and the places we love
- ➋ Reduce the fuels that feed catastrophic fires
- ➌ Produce much less smoke than severe wildfires

When you see controlled burns during the cool time of year, know we are working for healthier forests and community: for today and for future generations.

Burning and Smoke Alerts

Receive AFR Alerts

OnLine

On Facebook:
AFR.project

On Twitter:
@ashlandforest

Web Updates:
[ashland.or.us/
trailinfo](http://ashland.or.us/trailinfo)



Emails

Subscribe to
emails on the AFR
website

ashlandwatershed.org

Or subscribe directly:
afrpartners@ashland.or.us



Text Alerts

To receive text
alerts to your
phone

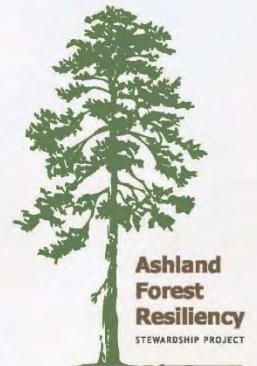
Text
WATERSHED
to 31279



Phone

Call the City of
Ashland Smoke &
Wildfire Hotline

(541) 552-2490



Smoke Sensitive?

Find health recommendations at
ashland.or.us/smoke

Citizen Alert System

Visit ashland.or.us/alert to get
text, email, or phone calls about
evacuations and all emergency
situations that may affect our
community.

AFR STUDENT ENGAGEMENT



Over 4,000 youth received instruction in 7,300 hours of classroom and field sessions



MULTI-PARTY MONITORING



Fire
Histories



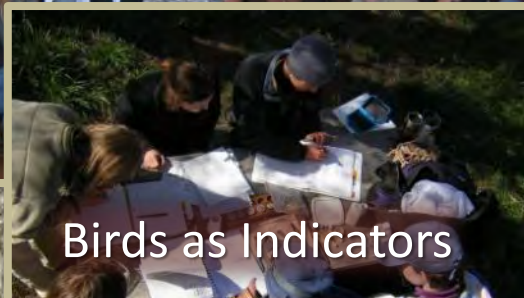
Stakeholder Driven Plan



Water Quality and
Aquatic Habitat



Legacy Tree Retention
and Survival



Birds as Indicators



Late-Successional
Wildlife Habitat



Soils



Herbaceous
Recovery



AFR MULTI-PARTY MONITORING

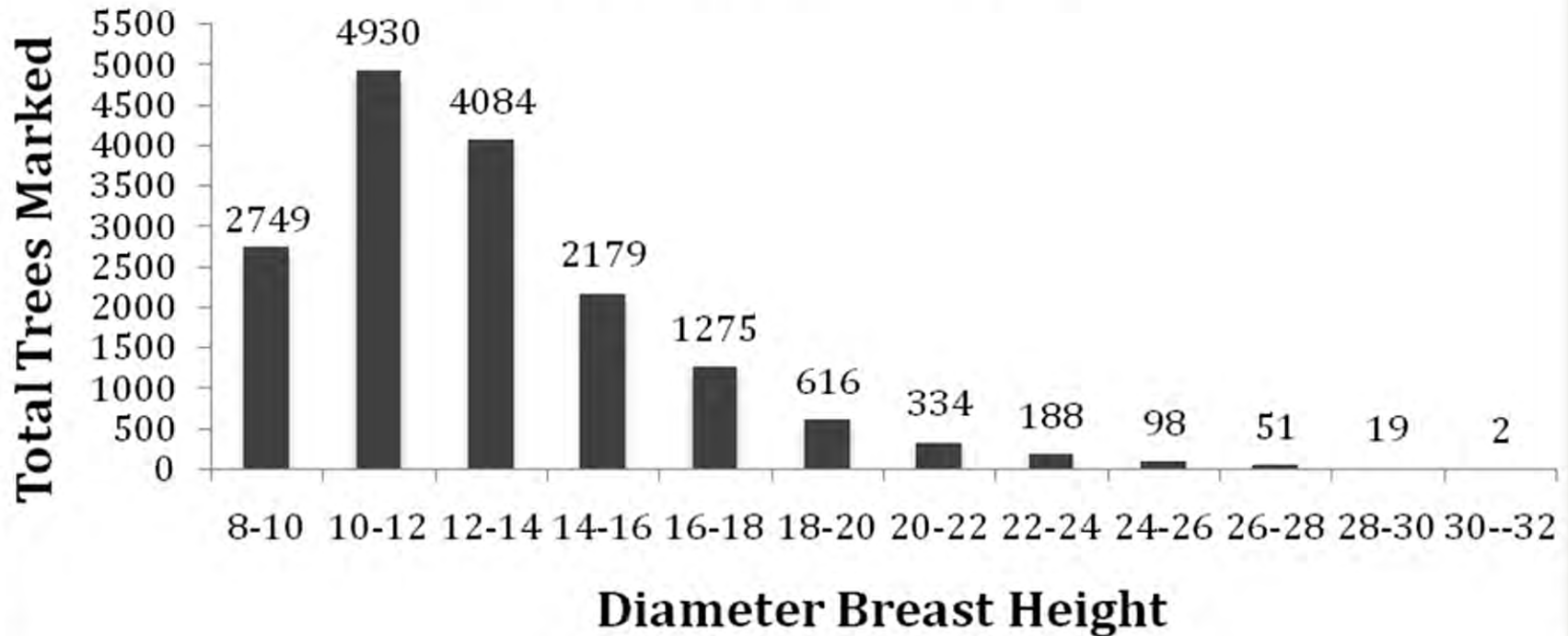


Water Quality Monitoring



AFR DENSITY MANAGEMENT

Block 1 & Block 2 Diameter Distribution All Units: 525 acres



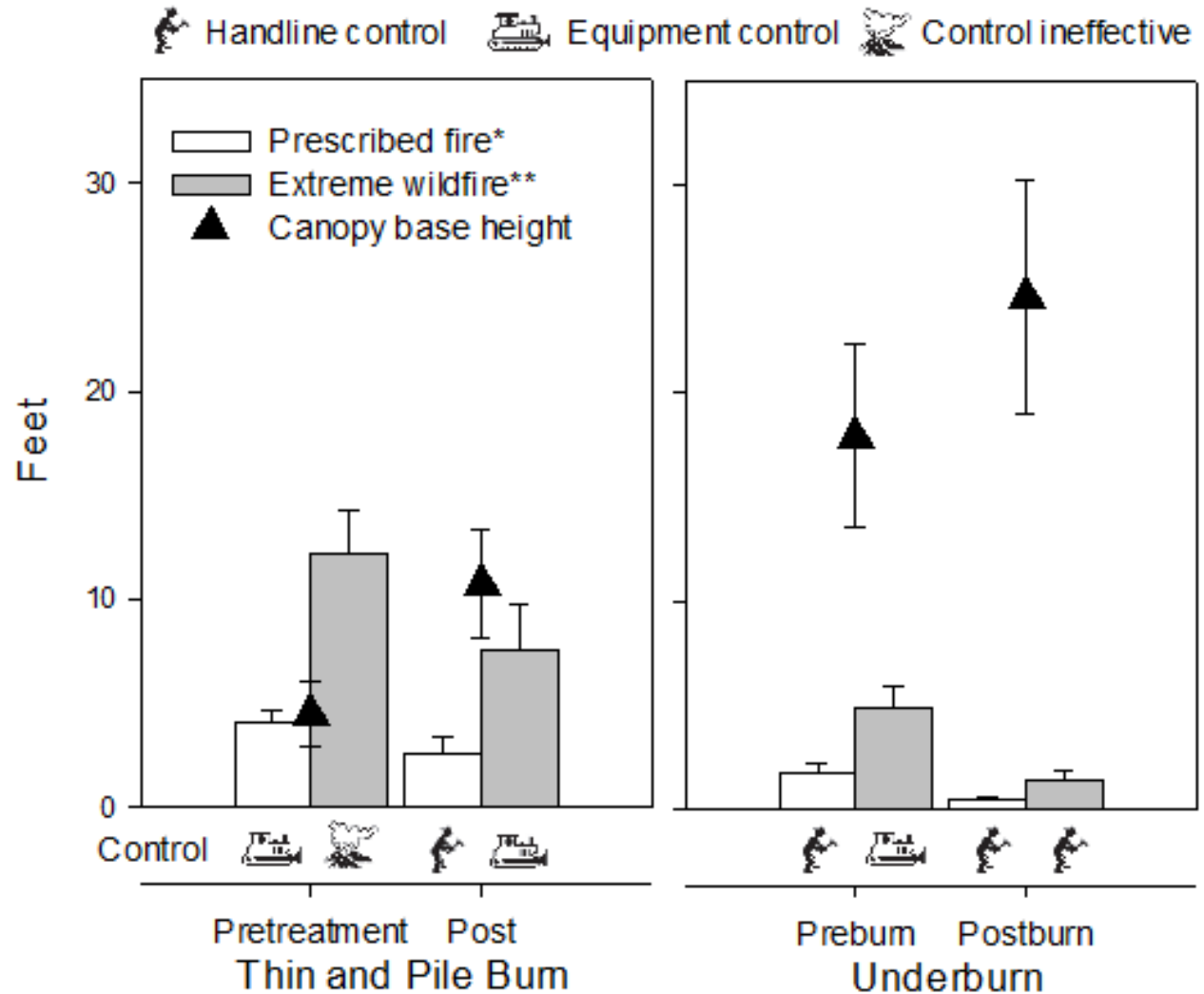
Meeting Competing Objectives

Moderating Wildfire Hazard

FLAME LENGTH And CANOPY BASE HEIGHT

Thinning = 112 ac
Underburns = 118 ac

Pre- and post monitoring
data completed to date,
funded by OWEB



Values are area weighted mean +/- standard error

Flame length (Scott & Burgan (2005) fuel models

Suppression difficulty from Andrews et al. (2011)

*Very low dry fuel moisture (1-hr fuels = 3% moisture content, 10-hr = 4%, 100-hr = 5%) and 14 mph mid-flame winds

**High dead fuel moisture (1-hr fuels = 12% moisture content, 10-hr = 13%, 100-hr = 14%) and 5 mph mid-flame winds

Complexity

moist and dry, low and mixed severity fire



Photo by Rob Bennett

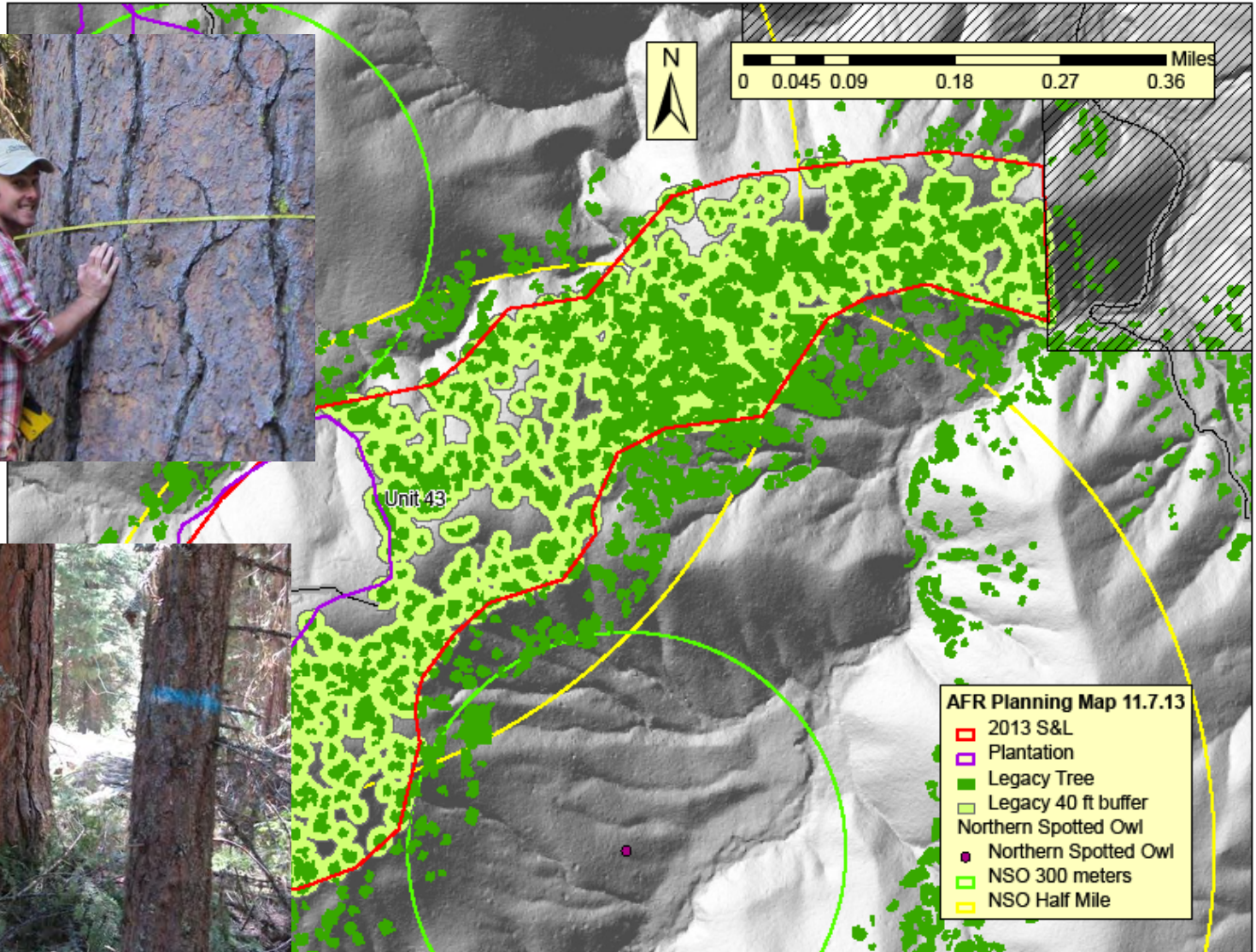


North slopes / bottoms
Shaded, moist, dense



Ridges,
southerly
slopes
Open

Thinning Around Large Old Trees





AFR / AFAR: CREATING JOBS

Lomakatsi
Workforce

Klamath Tribal
Workforce

High Sierra
Enterprises

RB Brown
Trucking

Small Woodland
Services

Forest Energy
Group

High Country
Timber

JD Forestry

Hilltop Logging

Grayback Forestry

Youth
Employment
Programs

Columbia
Helicopters



AFR WORKFORCE TRAINING



Ecological Workforce Training Program



AFAR WORKFORCE TRAINING & EMPLOYMENT

- 17 FTE
- 200 personnel employed
- 15 contractors hired
- \$25 million infused into communities





Tribal Youth Ecosystem Workforce Program





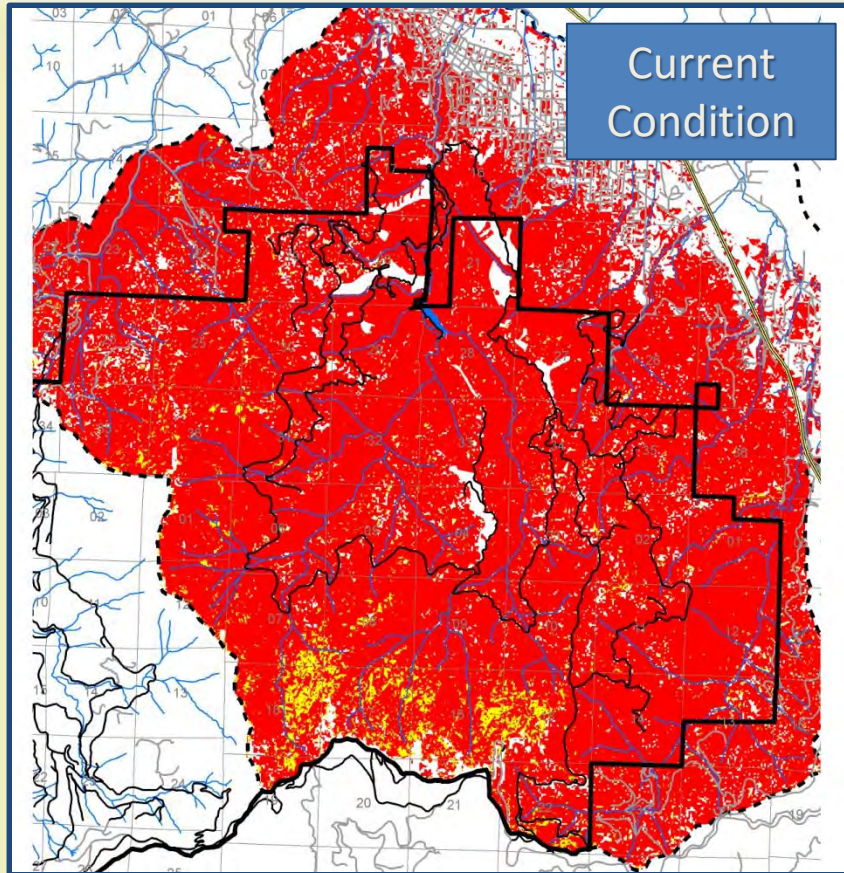


Nationally Recognized Replicable Model



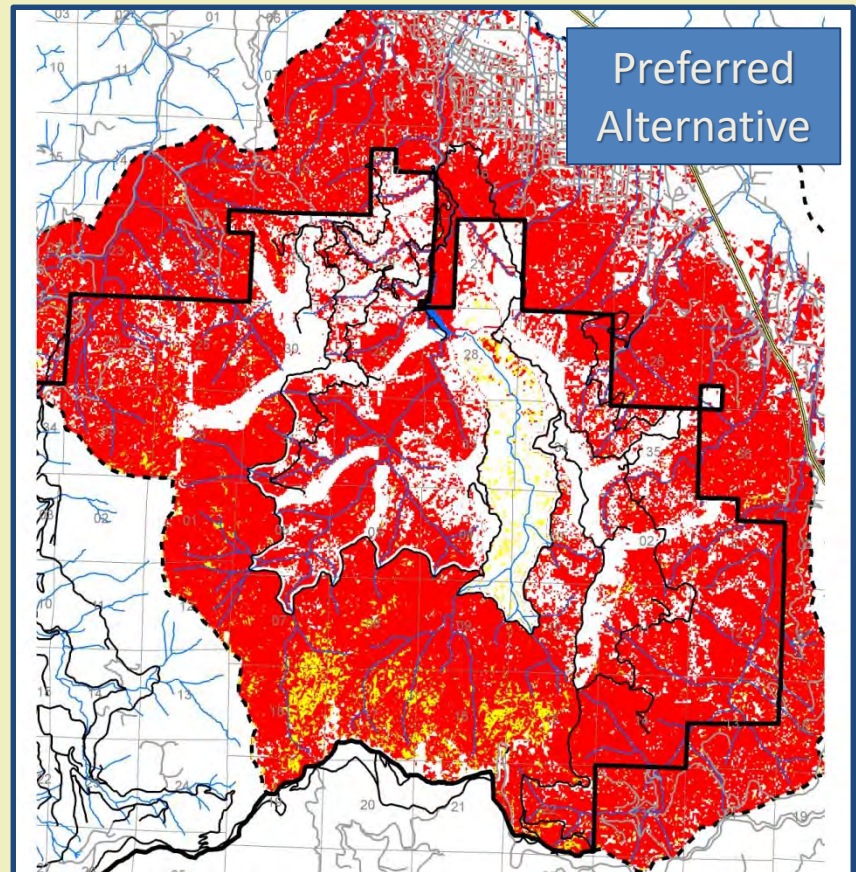
Wildland Fire Leadership Council Visit , July 28, 2015

THE FUTURE?



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Flame lengths >4 feet – fires are too intense for direct attack on the head



90th percentile weather conditions:

- Temperature – max 93°, min 58°
- Winds – ave 5.9 mph, gusts 15 mph (N/NW)
- Humidity – max 53%, min 15%

HOW WILL CLIMATE IMPACT ASHLAND?

Regional projections indicate that by the 2080s, Ashland could experience the following climate-driven environmental changes:⁴



Heavy rainfall and drought risk

+0.8-1.3 in rainfall increase during the heaviest rain days^{*}
+4-6 day increase in the longest dry spells^{*}
More winter precipitation



Temperature increase and extreme heat

+7-12° F increase in the hottest day of the year
+39-90 more days a year of warm spells



Wildfire risk

+30% increase in probability of large wildfires^{**}
-40 year decrease in average time between fires^{**}
Increased burn acreage



Changes to snowpack and water availability

-71 to -86% decline in April 1 snowpack in the Middle Rogue subbasin
More precipitation as rain instead of snow
Earlier spring snowmelt
Higher winter streamflow
Lower summer streamflow

⁴These ranges represent mean projections under the high emissions scenario (RCP 8.5). Source: Oregon State University, 2016

^{*}Some models show decreases

^{**}Source: Stavros, Abatzoglou, Larkin, McKenzie, & Steel (2014).

^{***} Source: Sheehan, Bachelet, & Ferschweiler (2015).

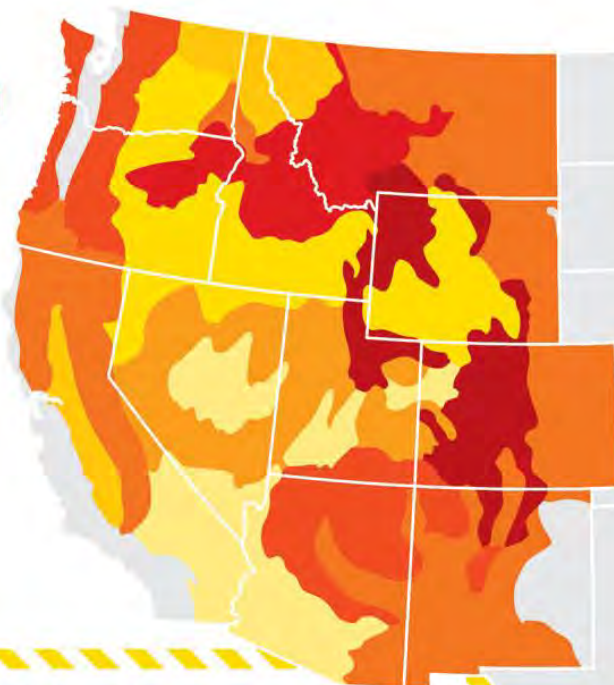
Wildfires are projected to **burn more land** as temperatures continue to rise.

Projected increase in annual burn area

with an additional 1.8° F rise in temperature

0% — 200% — 400% — 650%

By mid-century, temperatures in the Western U.S. are expected to increase even more (**2.5°–6.5° F**) due to heat-trapping emissions from human activity.



The choices we make **today will determine how much temperatures increase this century, how long and damaging wildfire seasons become, and how prepared communities are for the growing risks of wildfires.**

Questions?

