

A photograph of a forest with a woman standing next to a large tree trunk. The woman is wearing a blue jacket and jeans, and is smiling. The forest has many trees with reddish-brown bark and green foliage. The ground is covered in pine needles.

RESTORING THE WEST

RESTORING FIRE AND PEOPLE TO THE LAND: THE 2010 SOUTH UMPQUA STUDY

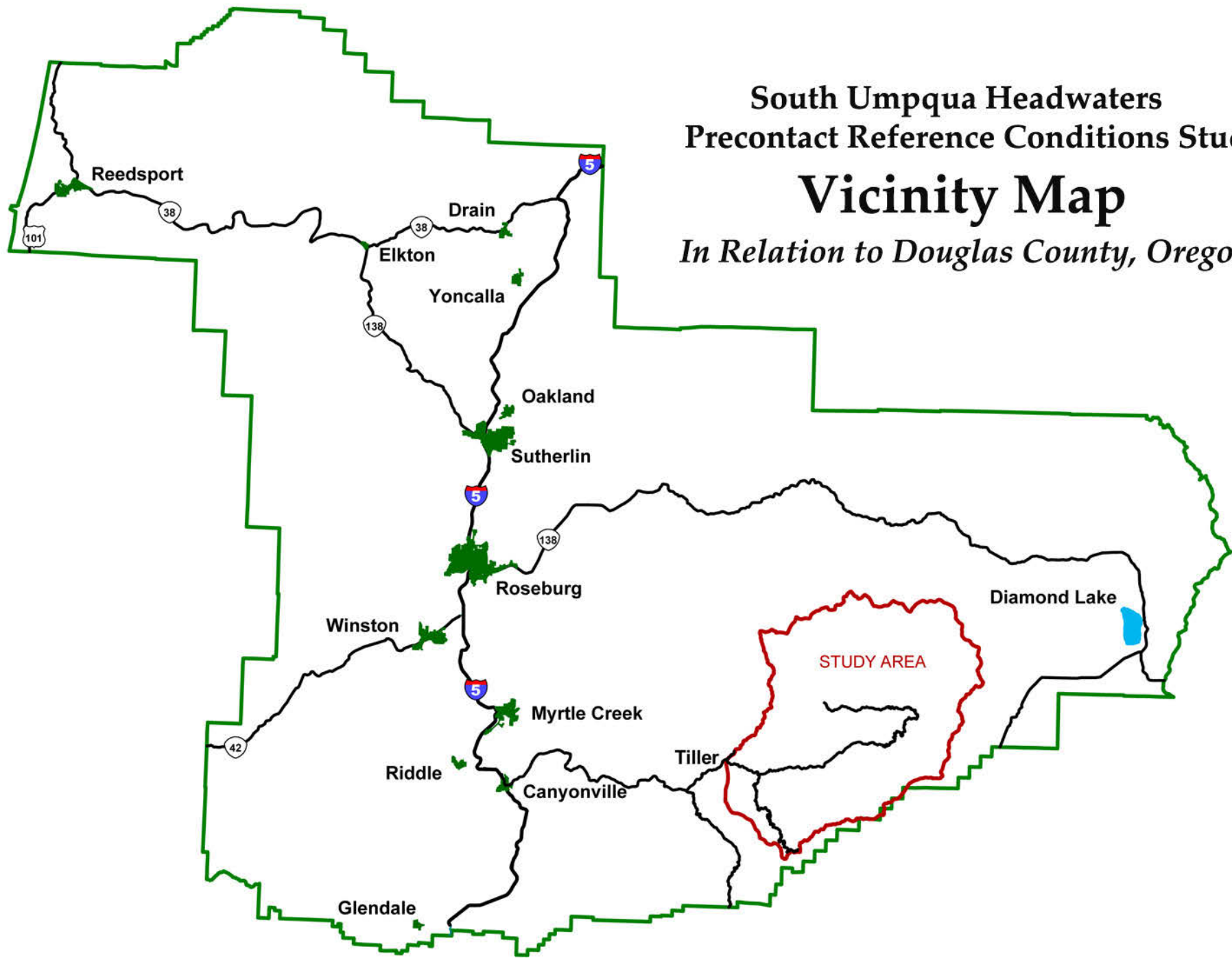
Presentation by Dr. Bob Zybach, www.ORWW.org

Utah State University, Logan Utah
October 19, 2011

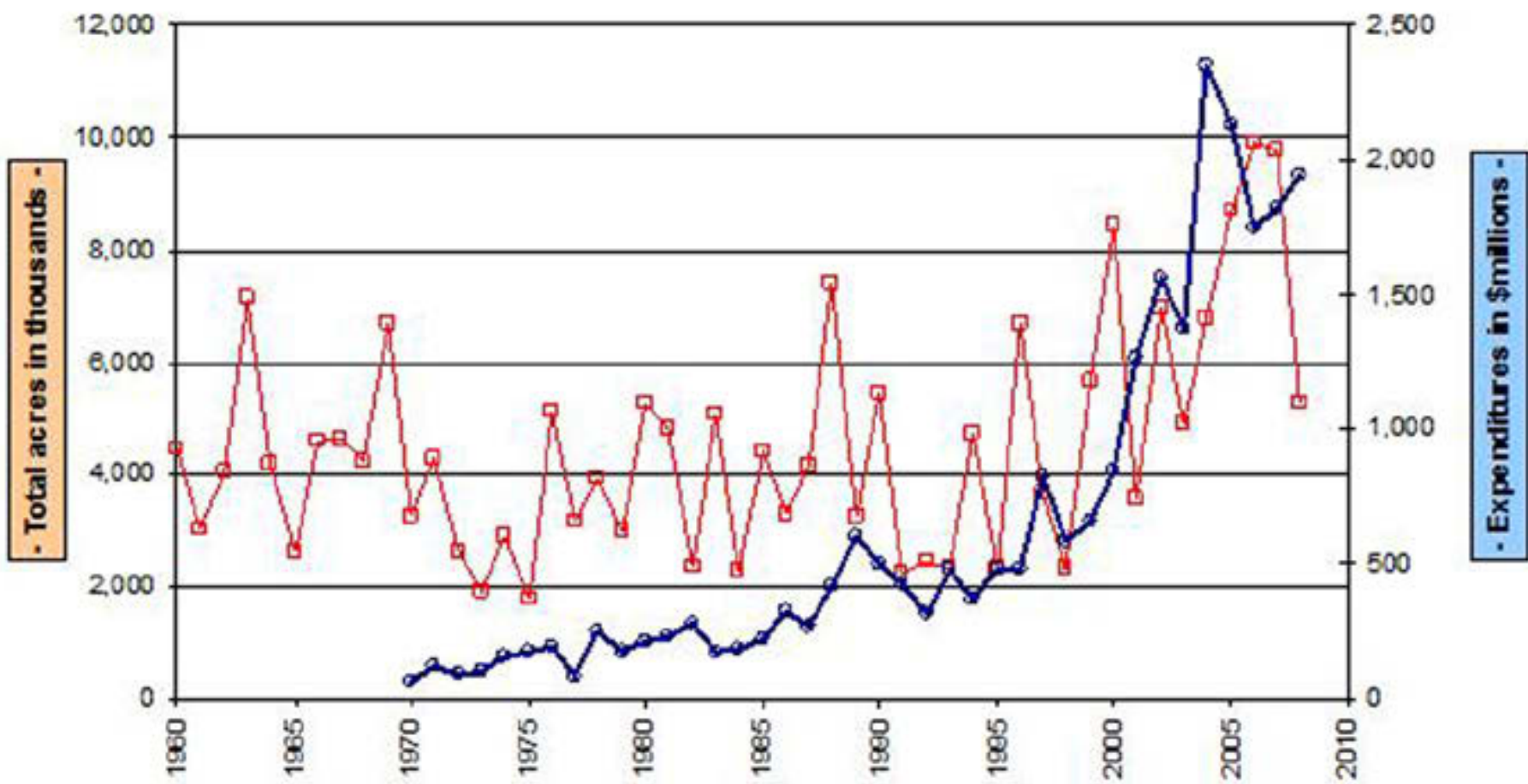
South Umpqua Headwaters
Precontact Reference Conditions Study

Vicinity Map

In Relation to Douglas County, Oregon



Total US Wildfire Acres 1961-2008, and USFS Fire Expenditures 1970-2008



FRCC (Fire Regime Condition Class)

A measure of departure from reference (pre- settlement or natural or historical) ecological conditions that typically result in alterations of native ecosystem components. These ecosystem components include attributes such as species composition, structural stage, stand age, canopy closure, and fuel loadings.

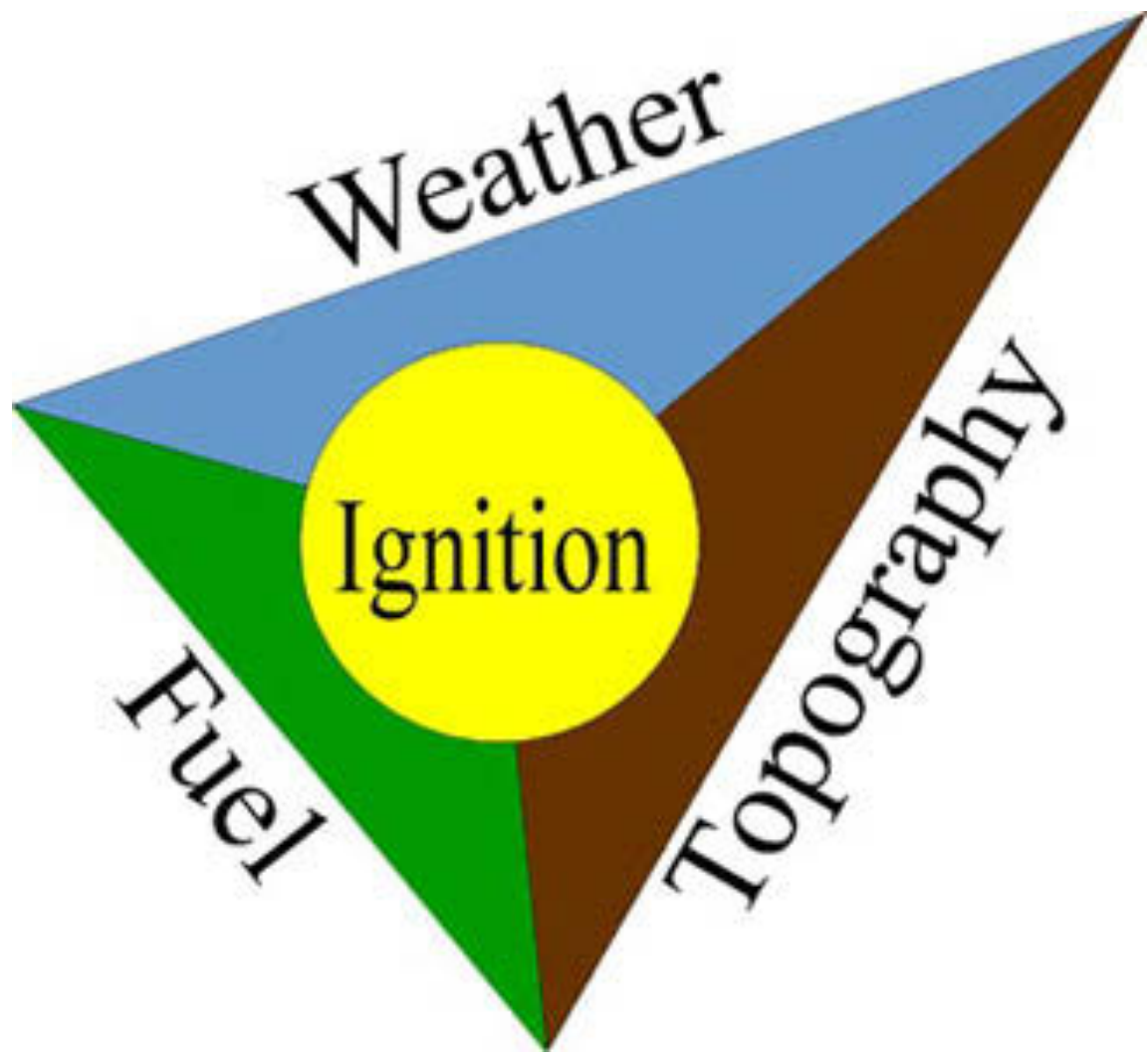
FRCC 3 is defined as:

Greater than 66 percent departure: Fire regimes have been substantially altered. Risk of losing key ecosystem components is high.

Fire frequencies may have departed by multiple return intervals.

This may result in dramatic changes in fire size, fire intensity and severity, and landscape patterns.

Vegetation attributes have been substantially altered.

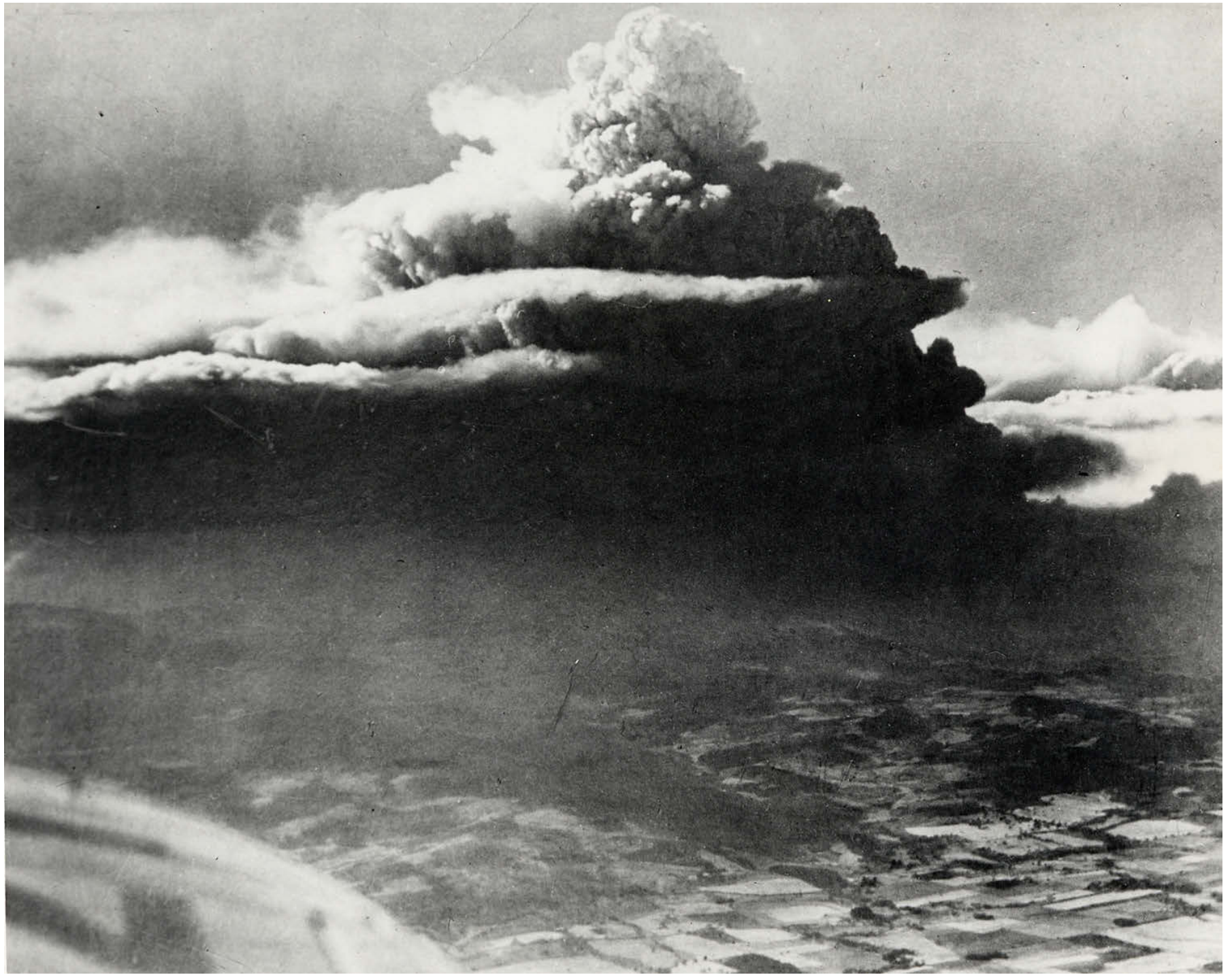




Dead Wood



Wildfire





It would be difficult to find a reason why the Indians should care one way or another if the forest burned.

It is quite something else again to contend that the Indians used fire systematically to "improve" the forest.

Improve it for what purpose?

Yet this fantastic idea has been and still is put forth time and again because somebody's grandfather said that is what happened.

--C. Raymond Clar 1959: 7.

California Government and Forestry: From Spanish Days until the Creation of the Department of Natural Resources in 1927.

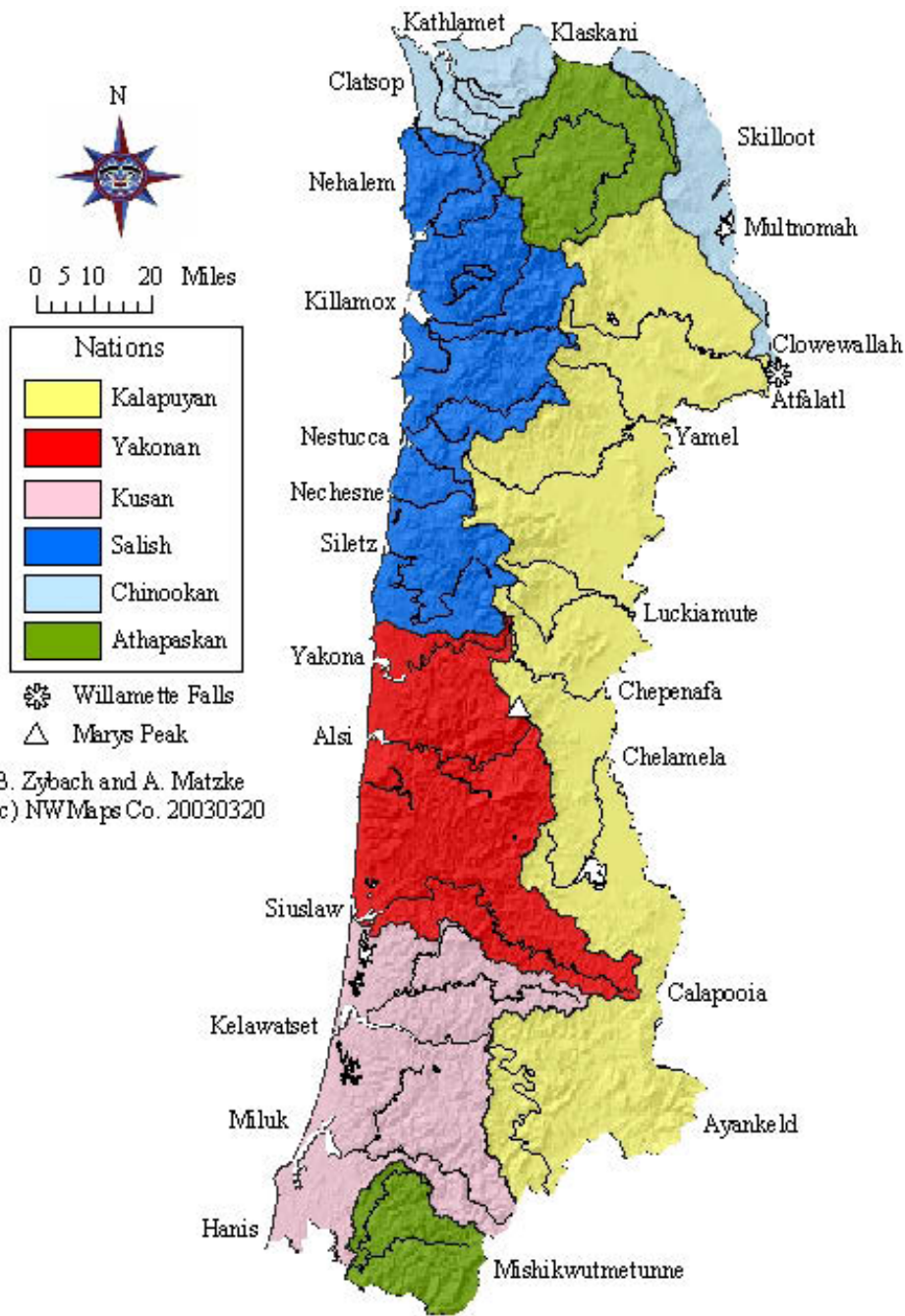
**Division of Forestry, Department of Natural Resources,
State of California, Sacramento, California: 623 pp.**

INDIAN BURNING



this Countray must be thickly inhabited by the many fiers we saw in the night and culloms of smoak we would see in the day time but I think they can derive but little of there subsistance from the sea but to compenciate for this the land was beautyfully diversified with forists and green veredent launs which must give shelter and forage to vast numbers of wild beasts most probable most of the natives on this part of the Coast live on hunting for they most of them live in land this is not the case to the Northward for the face of the Countray is widly different

--Robert Haswell, Oregon Coast, 1788



B. Zybach and A. Matzke
 (c) NWMaps Co. 20030320

Tribe	Language	River
Northern		
<u>Clowewallah</u>	Chinookan	Willamette
Multnomah	Chinookan	Willamette
<u>Kathlamet</u>	Chinookan	Columbia
Clatsop	Chinookan	<u>Youngs</u>
Klaskani	Athapaskan	Clatskanie
Nehalem	Salish	Nehalem
Eastern		
<u>Atfalatl</u>	Kalapuyan	Tualatin
<u>Yamel</u>	Kalapuyan	Yamhill
Luckiamute	Kalapuyan	Luckiamute
Chepenafa	Kalapuyan	Marys
Chelamela	Kalapuyan	Long Tom
Calapooia	Kalapuyan	Willamette
Western		
Killamox	Salish	Tillamook
Nestucca	Salish	Nestucca
<u>Nechesne</u>	Salish	Salmon
Siletz	Salish	Siletz
Yakona	Yakonan	Yaquina
Alsí	Yakonan	Alsea
Siuslaw	Yakonan	Siuslaw
Southern		
<u>Ayankeld</u>	Kalapuyan	Umpqua
<u>Kelawatset</u>	Kusan	Umpqua
<u>Hanis</u>	Kusan	Coos
<u>Miluk</u>	Kusan	Coquille
<u>Mishikwutmetunne</u>	Athapaskan	Coquille



YAGUIRA BAY—INDIANS' FULL DRESS.





Types of Indian Burning Practices

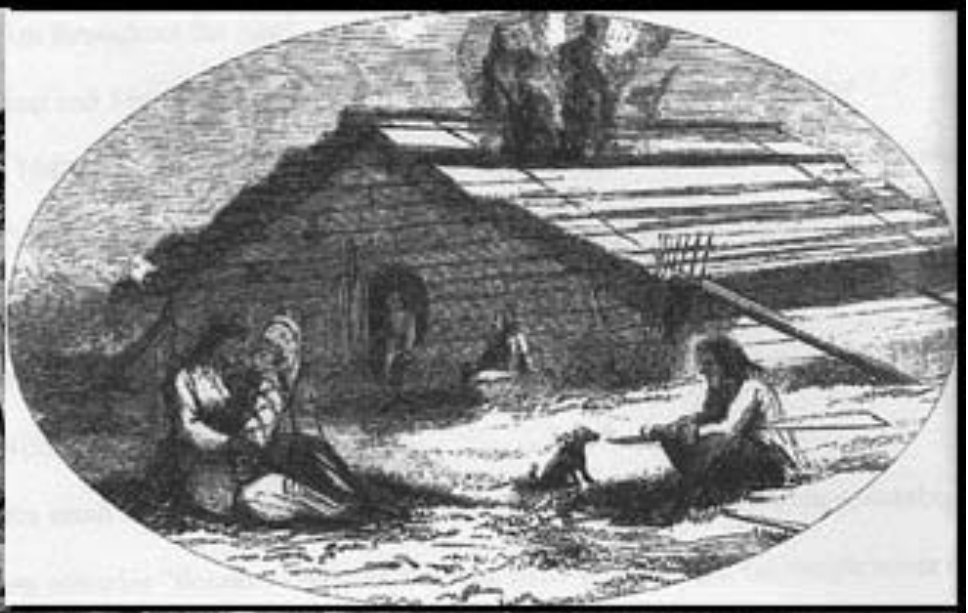
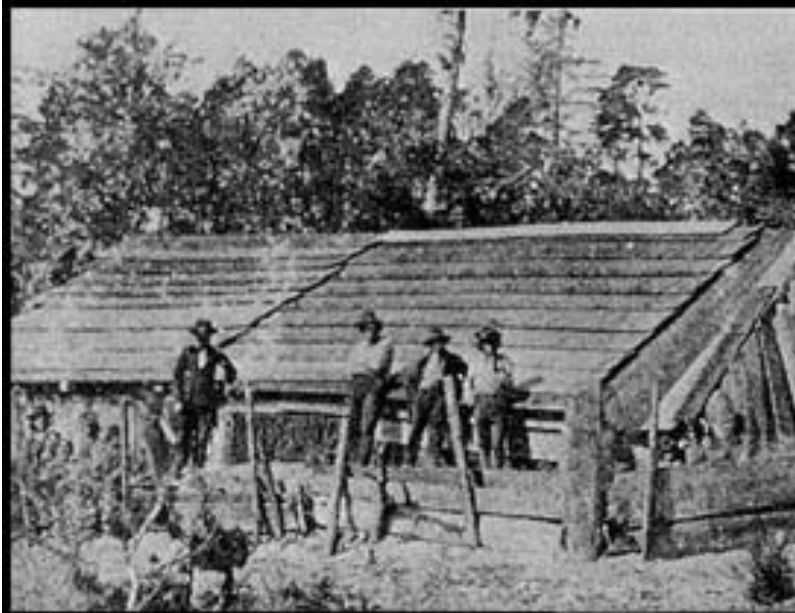
Type of burning	Products and purposes	Timing
Firewood gathering and burning	Heat, light, cooking, boiling, fuel stores, celebration, ceremony, security	Daily, concentrated near homes, trails, settlements and campgrounds
Patch burning	Hunting, berry patches, root fields, pest control, weaving materials, trail maintenance	Seasonal and situational
Broadcast burning	Stable wildlife habitat, curing seeds, hunting, <u>transportation</u> , weaving materials, acorn harvest.	Seasonal: late summer, early fall for grasslands; late winter, early spring for brackenfern



Figure 8.01 GLO Surveyor Norman Price and wife, ca. 1940.

Price helped survey much of the study area in the late 1930s (e.g., Price et al. 1929). His observations regarding his survey of Tsp. 34 S., Rng. 8 W. to the southwest of the South Umpqua River are relevant to the findings of this research:

“Most of the township is covered with such a dense growth of buckthorn, manzanita, lilac, madrona, chinquapin, and sweet acorn that no grasses can thrive. A small area on what is known as Peavine Mountain, in sec. 21, sustains a growth of native peavine sufficient to graze a few head of cattle for about six weeks. It is an historical fact that in the days immediately following the occupation of this country by the Indians this country was all covered with a fine growth of native grasses and practically no underbrush. The Indians accomplished this by setting fire to the vegetation on one side of the river one year and the other side the next year. Thus they kept the country open and clean and were never in danger of a forest fire.”













Traditional Foods







Vision for the Future



Traditional Practices

no walks in his 31st career complete game.

The Angels won their season-best fifth straight, while the

this season," Colon said through a translator. "I've got a sense of responsibility."

Colon was 21:8 with a 3.48 ERA

ing up in the ninth.

"He was still fresh," Scioscia said.

The Angels scored all their runs

Blazers sign Roy, Al



with a 7-2 record on the road trip.

The 33-year-old guard is the seventh star in his career with the Blazers since he was drafted right out of high school in 1988. Understa



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Aldridge and guard Brandon Roy. Terms of the contracts were not disclosed.

Portland Trail Blazers picked out guard and forward Alvin Robertson from the Chicago Bulls on Wednesday. Portland also drafted right guard Viktor Khryapa from the New York Knicks. Thomas, the fourth pick

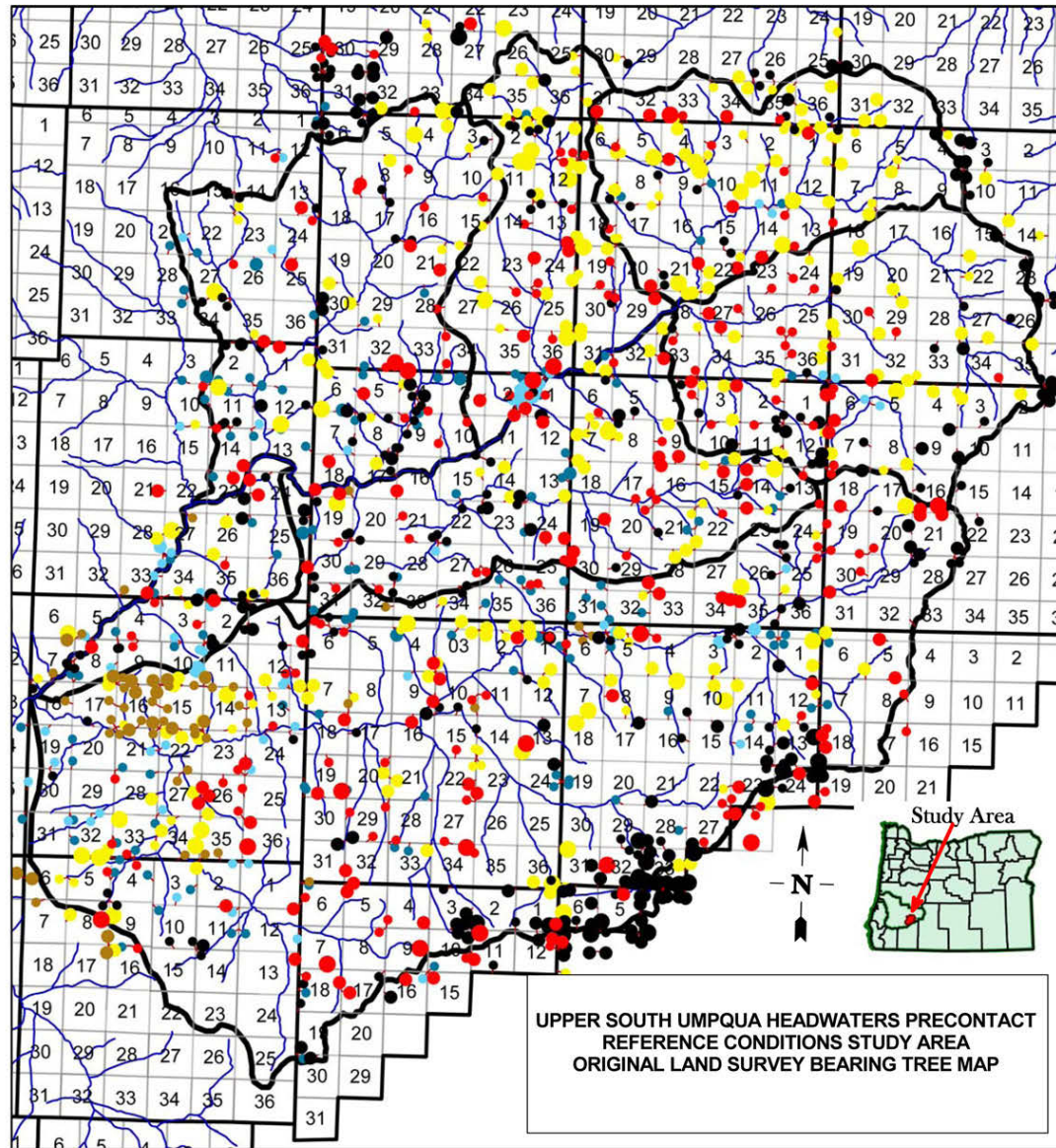
Aldridge, at 6-foot-11, averaged 14.7 points and 8.2 rebounds as a sophomore last season.

Brandon Roy, 20, averaged 16.8 points, 3.1 rebounds and 2.3 assists in a season with the Wolves. He was the first overall pick, and Roy was acquired in a deal with Boston.

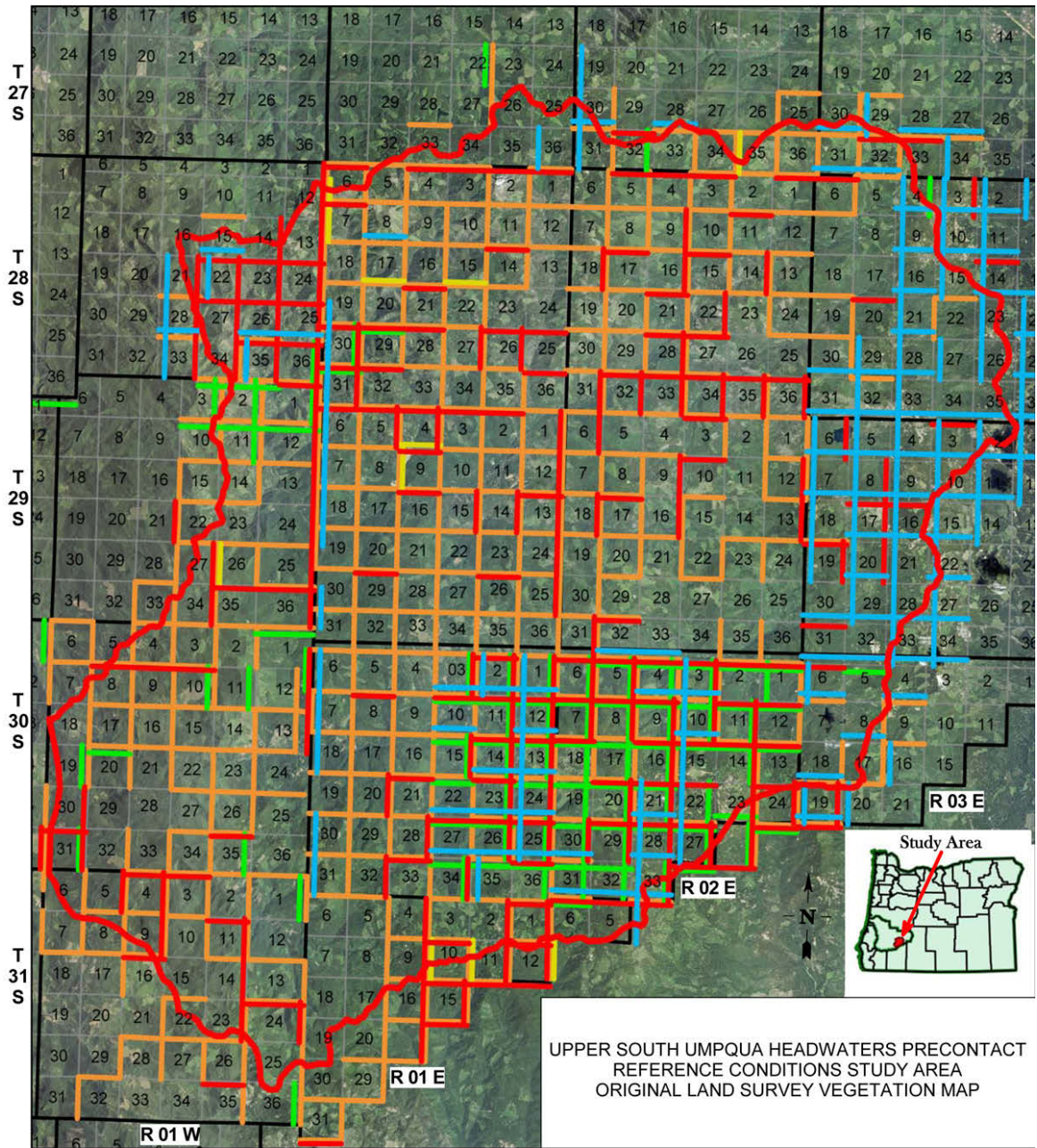
Roy, at 6-foot-6, played four seasons at Washington, averaging 14.3 points, 7.1 rebounds and 1.9 assists per game.

Named Pacific Northwest the Year his season is the Huskies' 10th all-time leading scorer.

"These two represent a strong part of the change in culture we are striving to achieve in Portland and we are looking forward to the of them being part of the Blazers uniform for a long time." D

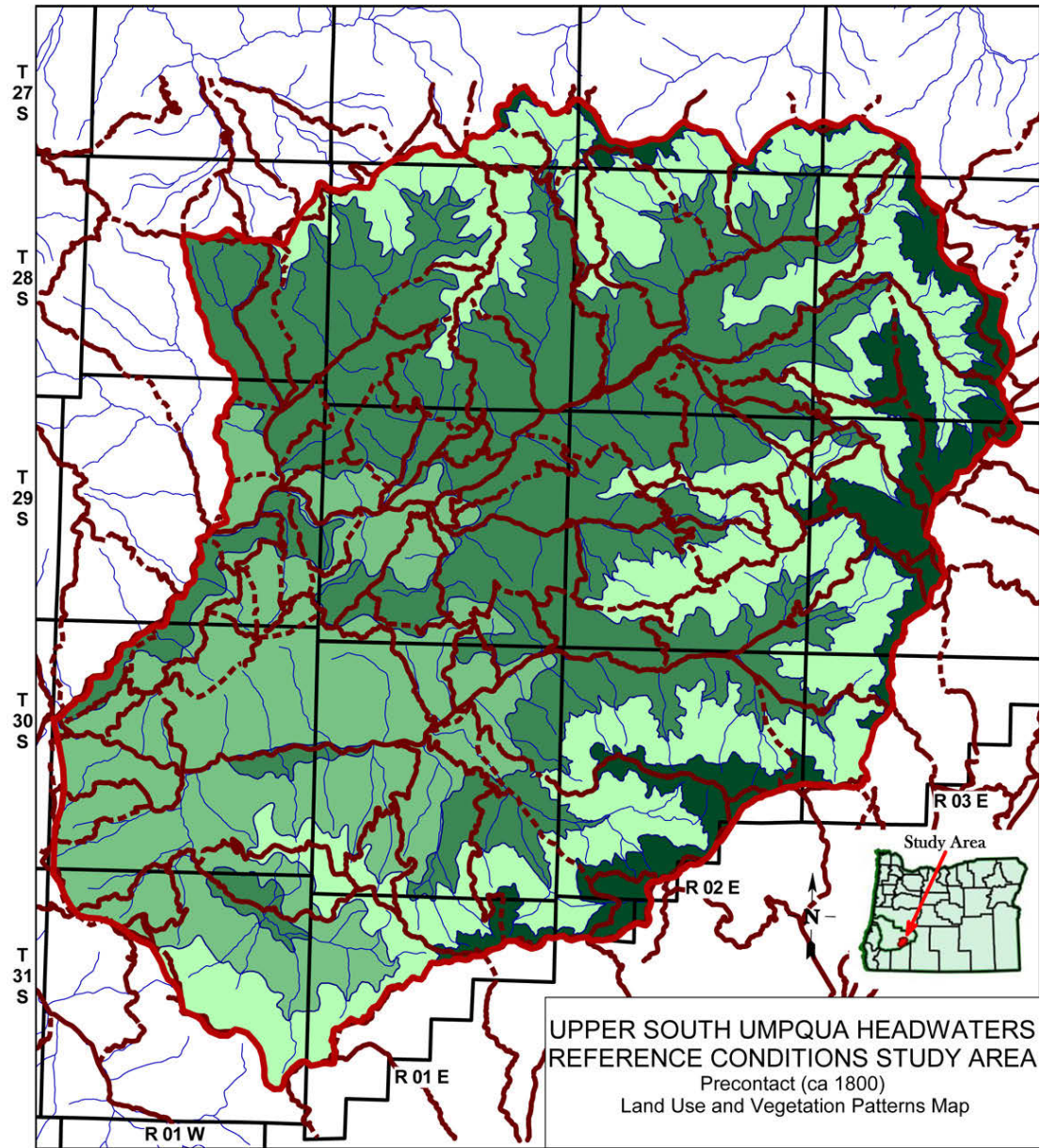


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|--------------------|-------------------|------------------------------|-----------------------------|
| ● Cedar Under 18 | ● Hem-Fir Over 36 | ● Pine 18 to 36 | ● Upland Hardwoods Under 18 |
| ● Cedar 18 to 36 | ● Oak Under 18 | ● Pine Over 36 | ● Upland Hardwoods 18 to 36 |
| ● Cedar Over 36 | ● Oak 18 to 36 | ● Riparian Hardwood Under 18 | ● Upland Hardwoods Over 36 |
| ● Hem-Fir Under 18 | ● Oak Over 36 | ● Riparian Hardwood 18 to 36 | ▭ Subbasins |
| ● Hem-Fir 18 to 36 | ● Pine Under 18 | ● Riparian Hardwood over 36 | |
- 1 = Boulder Subbasin** **3 = Black Rock Subbasin** **5 = Buckeye Subbasin** **7 = Jackson Subbasin**
2 = Quartz Subbasin **4 = Zinc Subbasin** **6 = Castle Rock Subbasin**

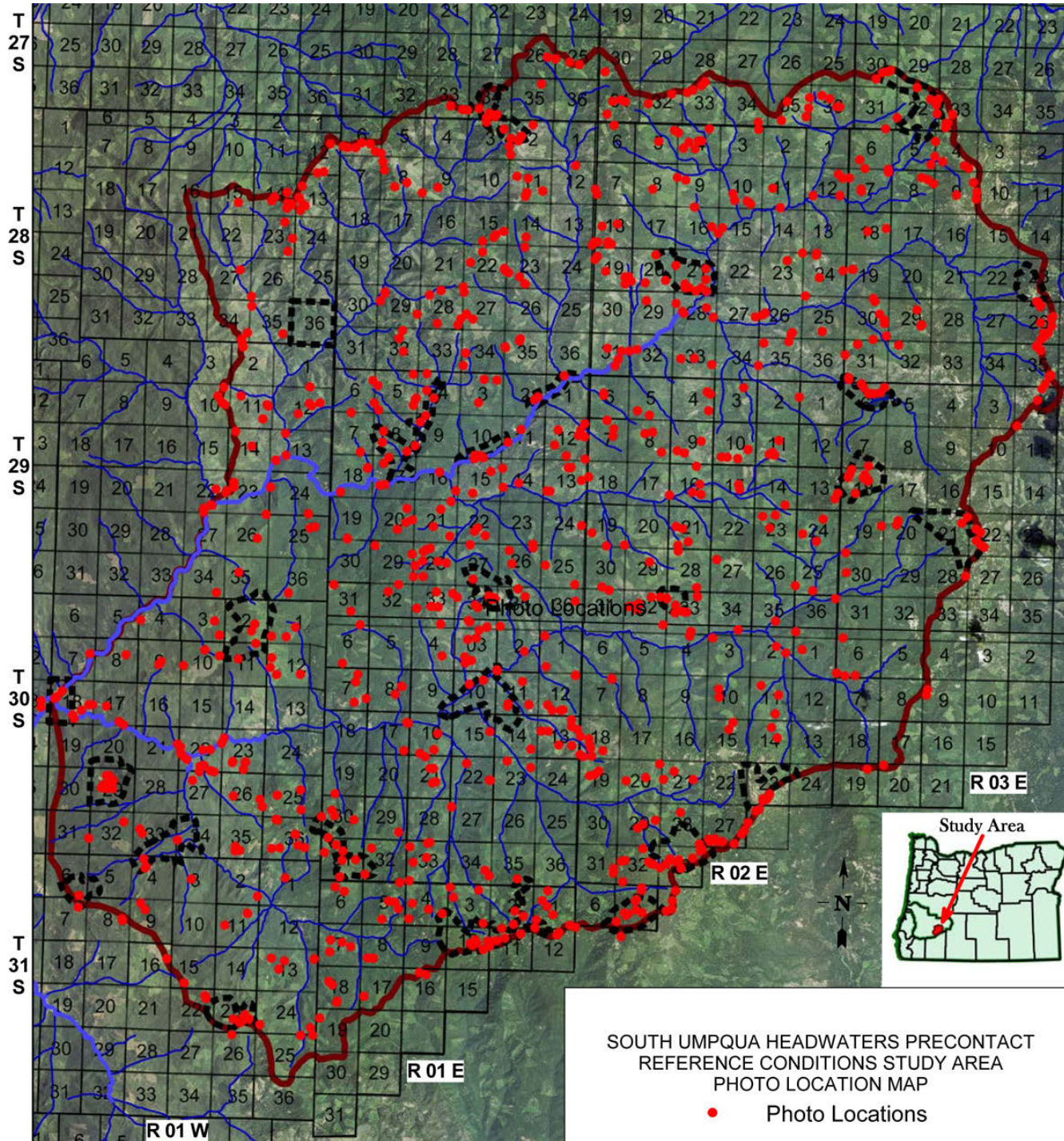


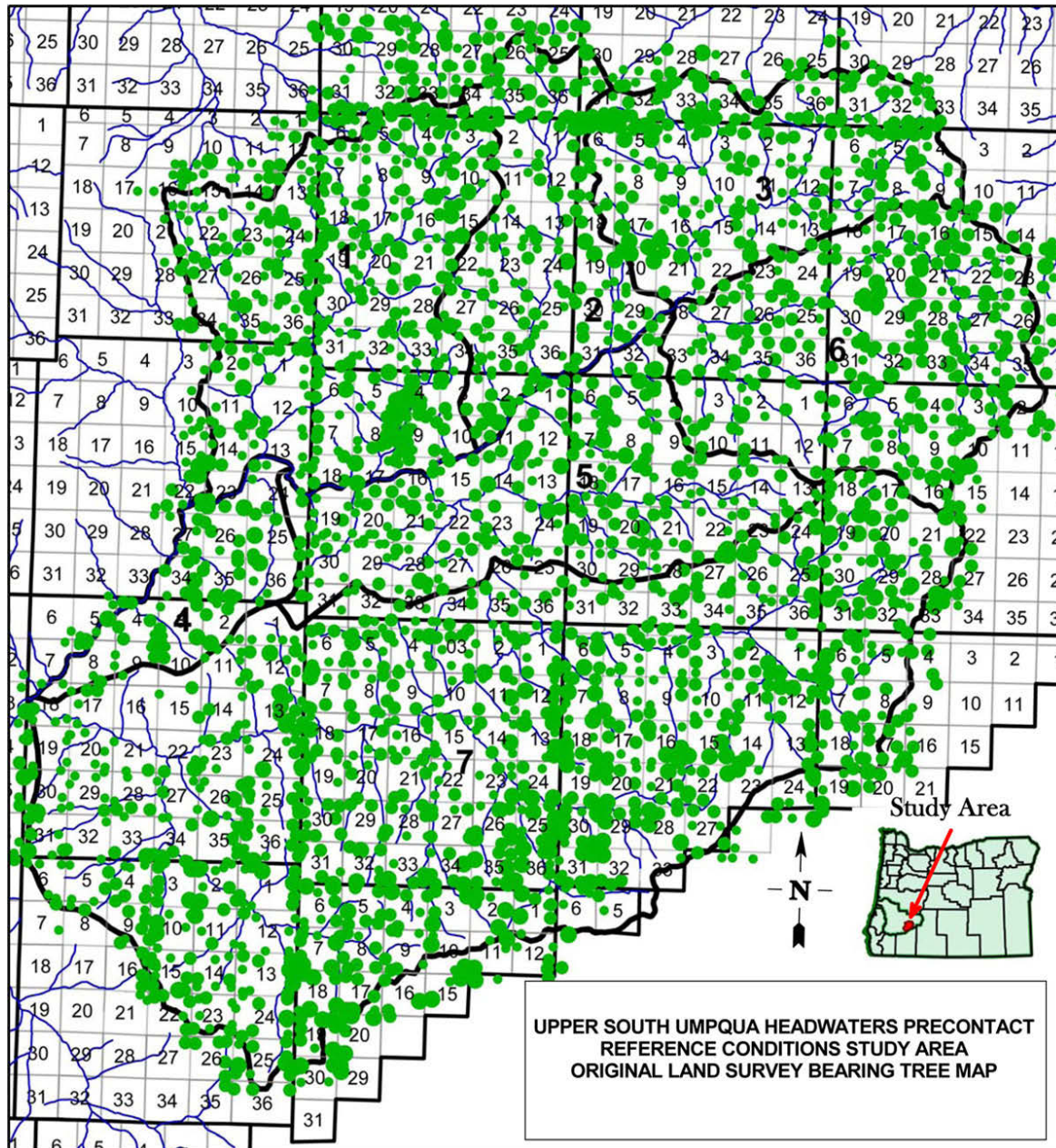
UPPER SOUTH UMPQUA HEADWATERS PRECONTACT
 REFERENCE CONDITIONS STUDY AREA
 ORIGINAL LAND SURVEY VEGETATION MAP

- Understory Huckleberry
 - Understory Salal
 - Study Area Boundary
 - Understory Evergreen
 - Understory Hardwoods
 - Section Lines
 - Understory Nut-Shrubs
 -
 -
- 2009 Aerial Flight



FRCC-1





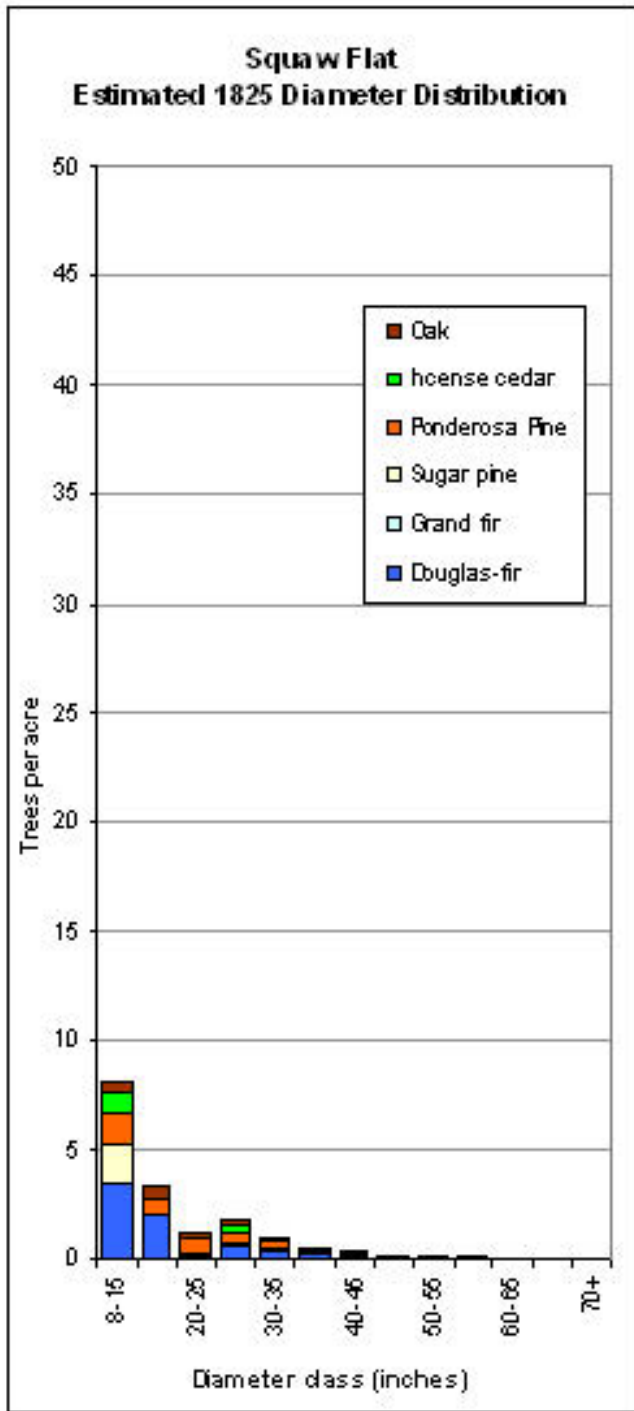
- Doug-Fir Under 18

 Subbasins
 3 = Black Rock Subbasin
6 = Castle Rock Subbasin
- Doug-Fir 18 to 36

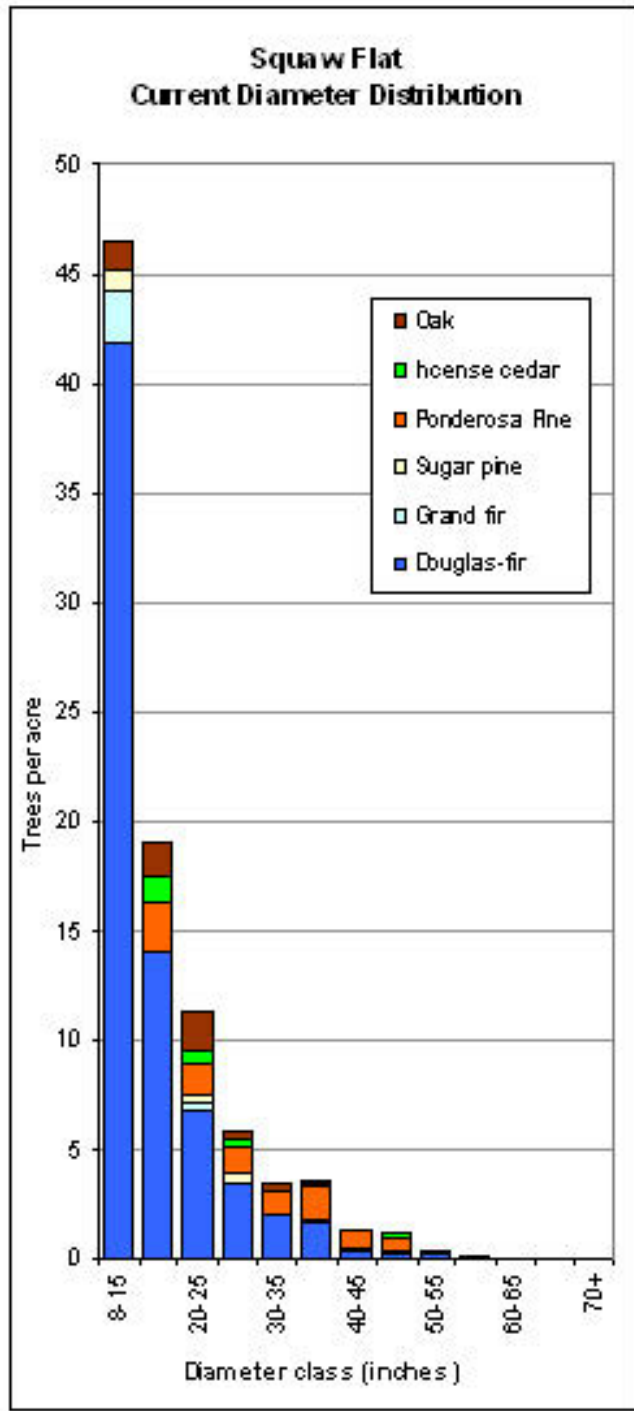
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- Doug-Fir over 36

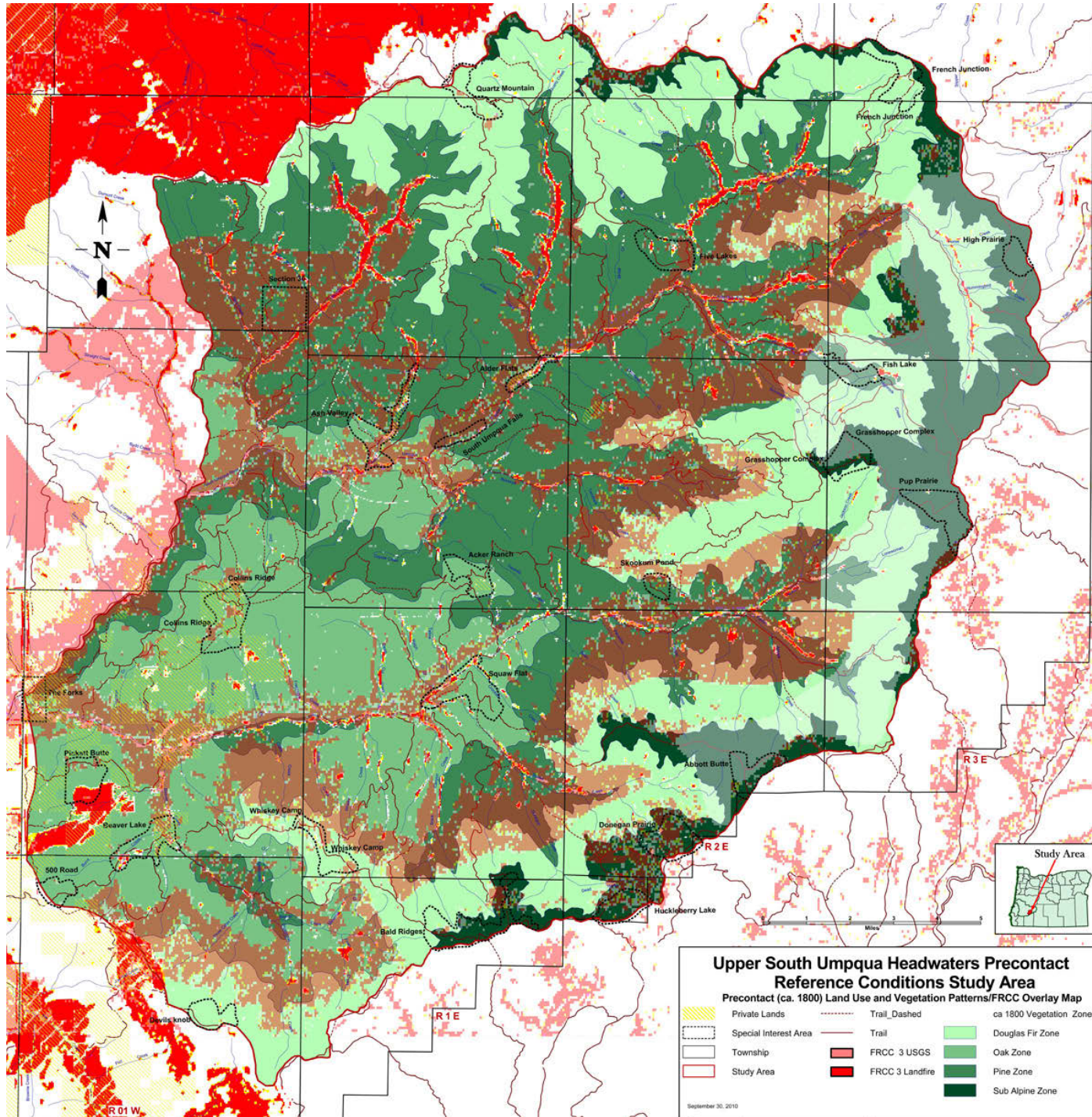
 2 = Quartz Subbasin
 5 = Buckeye Subbasin

1825



2010





Quartz Mountain

French Junction

French Junction



Section 35

Five Lakes

High Prairie

Alder Flats

Fish Lake

Ash Valley

South Umpqua Pass

Grasshopper Complex

Grasshopper Complex

Pup Prairie

Acker Ranch

Skookum Pass

Collins Ridge

Collins Ridge

Square Flat

The Forks

Pickett Butte

Beaver Lake

Whiskey Camp

Whiskey Camp

Abbott Butte

Dobson Prairie

R 3 E

R 2 E

Bald Ridges

Huckleberry Lake

Miles



R 01 W

R 1 E



















Wildfire or Biomass?
(Kulakowski and Jarvis 2011)

Oregon Red Zone: Red Turns to Gray (September 8, 2011)



Conclusions

1. Catastrophic-scale wildfires are deadly, costly, and destructive.
2. Regular landscape-scale prescribed fires, as exemplified by historical Indian burning practices, can significantly reduce the likelihood and severity of modern wildfire risks.
3. Fuel levels must first be greatly reduced before prescribed fires can be safely and effectively reintroduced into the environment.
4. Removing dead trees and shrubs and invasive conifers from forests and grasslands allows the safe and effective reintroduction of prescribed fire. Converting these excess fuels into biomass and other beneficial products helps create healthier forests, make safer environments, protect wildlife and old-growth, and enhance rural economies (“jobs”).
5. *“Landscape restoration” means restoring people to the landscape, including (maybe especially) children.*

Oregon Websites and Watersheds Project, Inc.



www.ORWW.org