

Restoring Oak Resilience Through a Collaborative Cross Boundary All-Lands Initiative In Southern Oregon/Northern California



Cascade Prairie-Oak Partnership 2015 Conference

Marko Bey- Executive Director, Lomakatsi Restoration Project



Restoring Ecosystems, Sustaining Communities

Klamath-Siskiyou Oak Network

Mission Statement

KSON is a collaborative regional partnership.

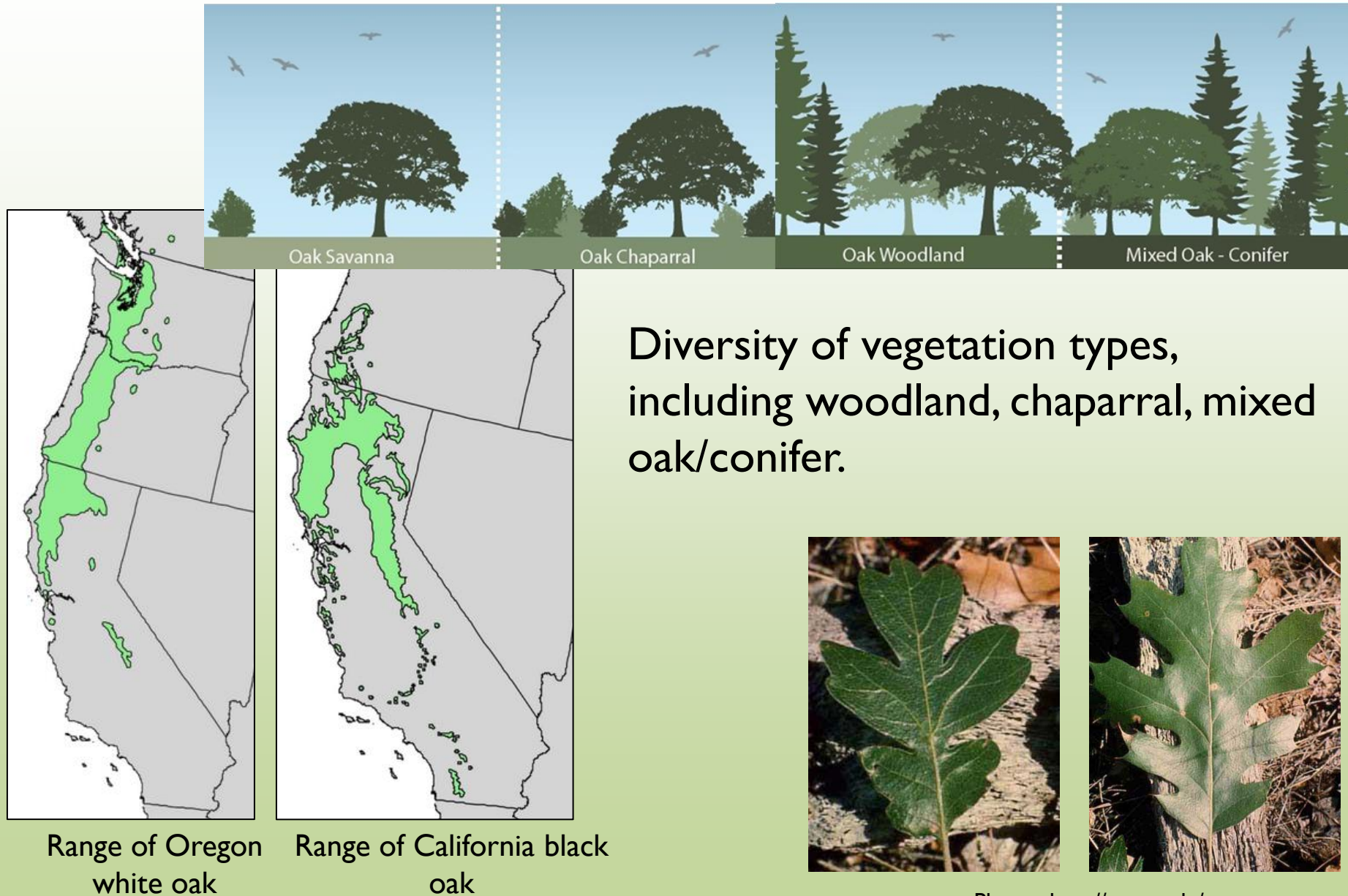
Our mission is to conserve oak habitats on private and public lands in southern Oregon and northern California.



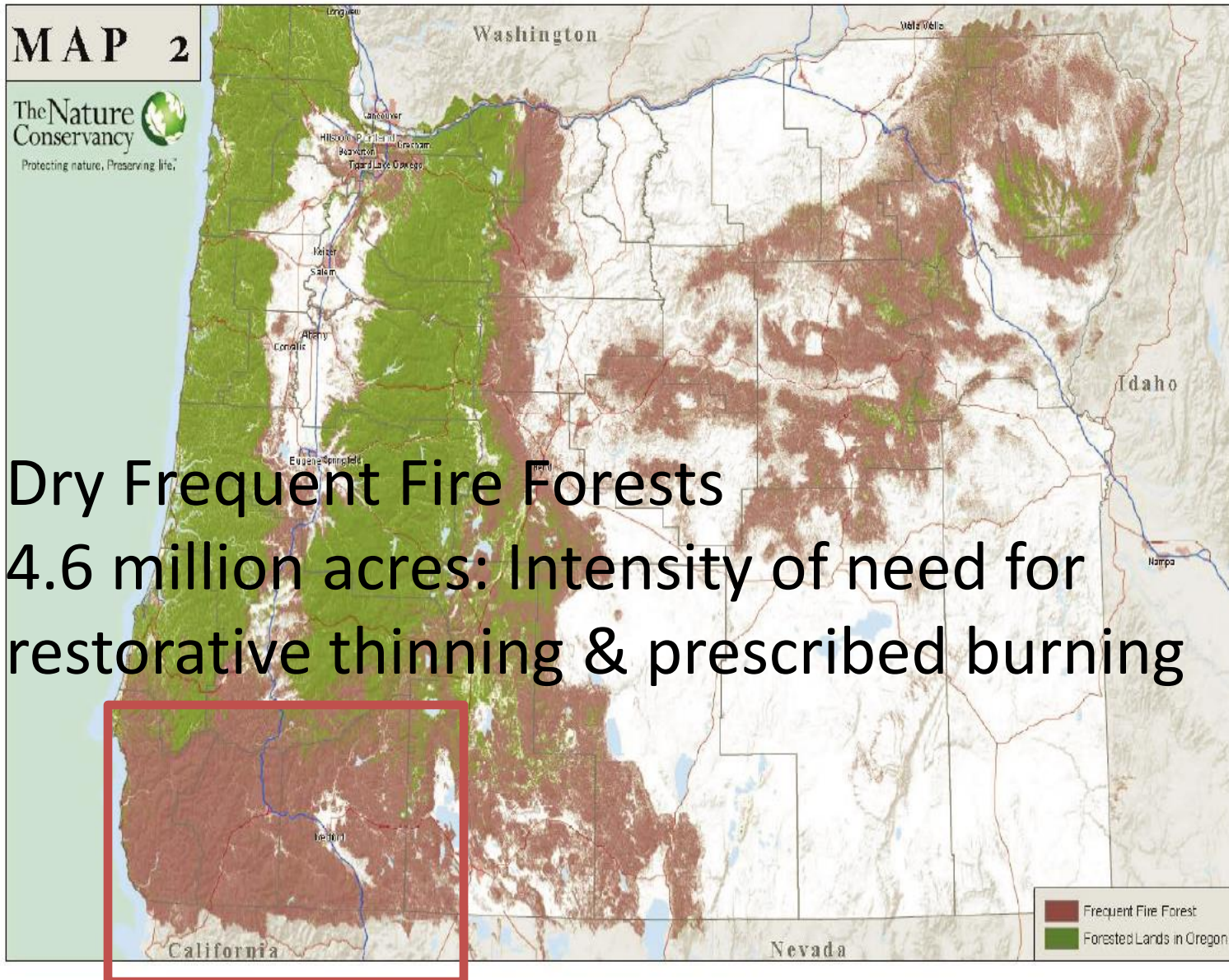
Tribal Partners



Oaks in the Klamath-Siskiyou



Oaks in the Klamath-Siskiyou



Oaks in the Klamath-Siskiyou

- Contain some of the most biodiverse habitat in southern Oregon and northern California (many endemic plants, >300 vertebrate species).
- Oak woodlands are an Oregon Conservation Strategy Habitat (ODFW 2006).



Photos: BLM.gov



Photo: backyardnature.net



Photos: Jim Livaudais

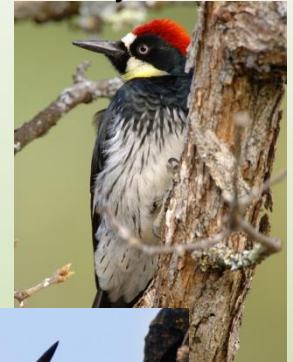


Photo: BLM.gov



Photo: Kate Halstead



Photo: wikipedia.org

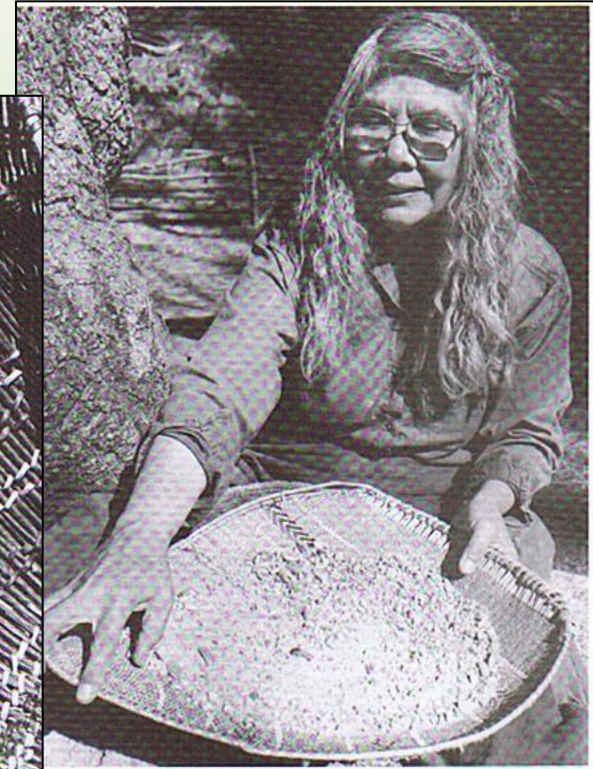
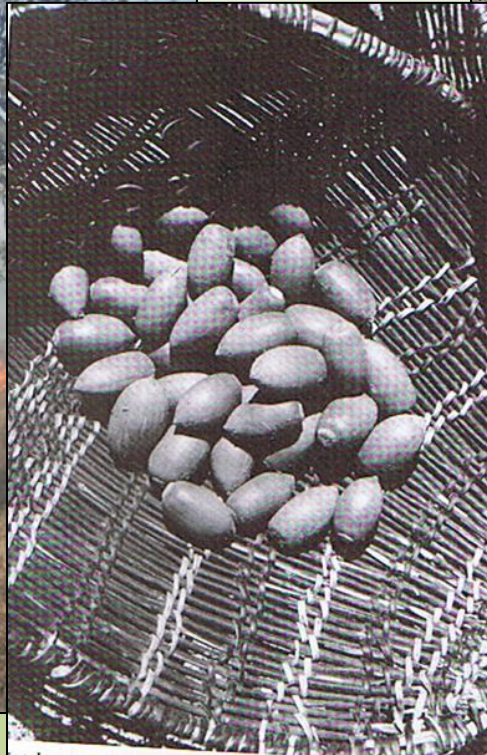


Oaks in the Klamath-Siskiyou

- Oaks provided critical physical and cultural resources for native people and tribal communities.
- Fire-adapted; were maintained using burning as a management tool.

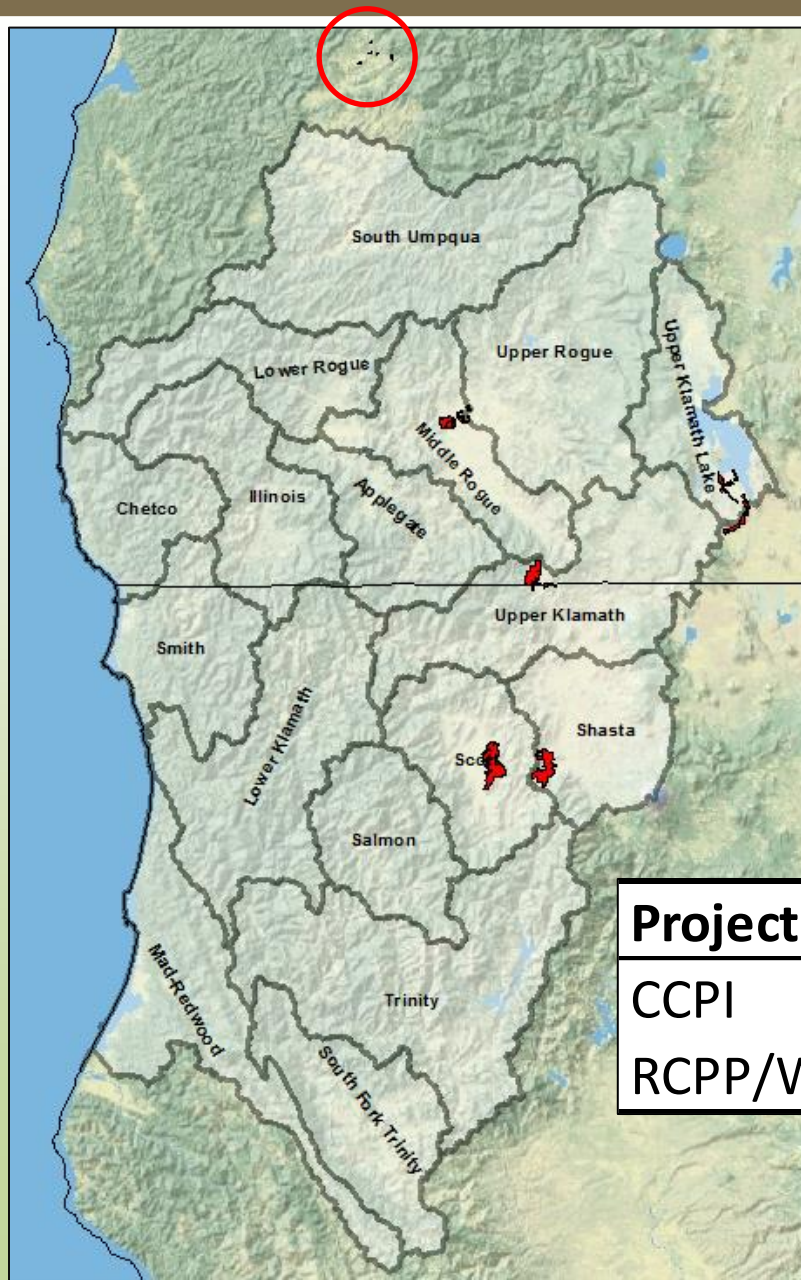


Photo: Lomakatsi Restoration Project



Julia F. Parker

Achievements: Oak Restoration Project Areas



Project	Acres treated	Funds leveraged
CCPI	3,000	3,000,000
RCPP/WCS	3,400 (proposed)	4,650,000



Oak Restoration Implementation

Photos: Lomakatsi Restoration Project



1) Thinning, Weed Control



2) Slash Treatment

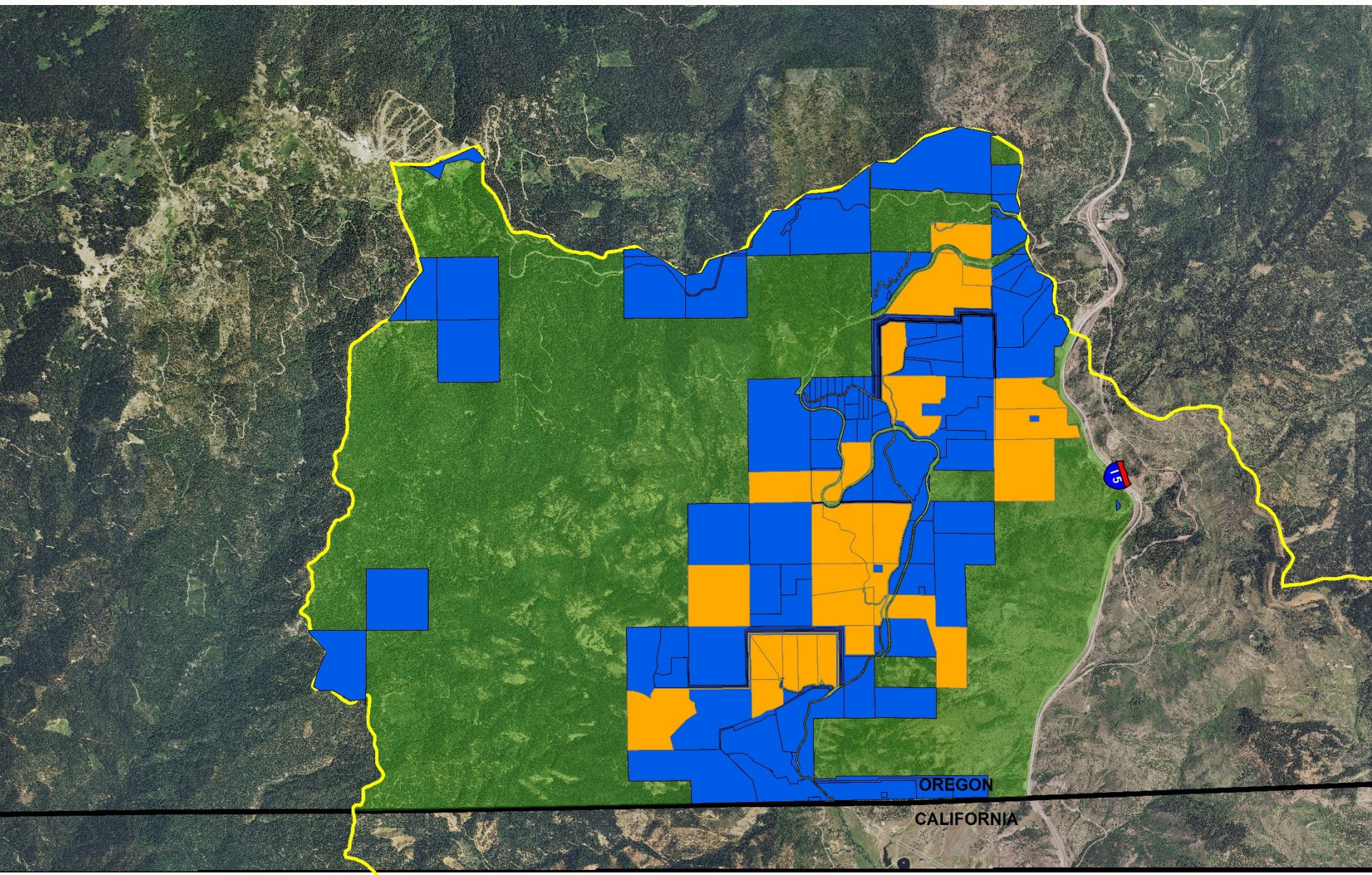


3) Prescribed Underburning



4) Herbaceous Recovery

Oak Project Highlight: Coleston Valley



Legacy Tree Conservation /Protection



Oak Restoration Implementation

Photos: Lomakatsi Restoration Project



Before



After

Workforce Training & Employment

Oak Restoration Jobs

- 80 personnel employed
- 6 contractors hired
- 5 counties served
- \$6 million infused into communities

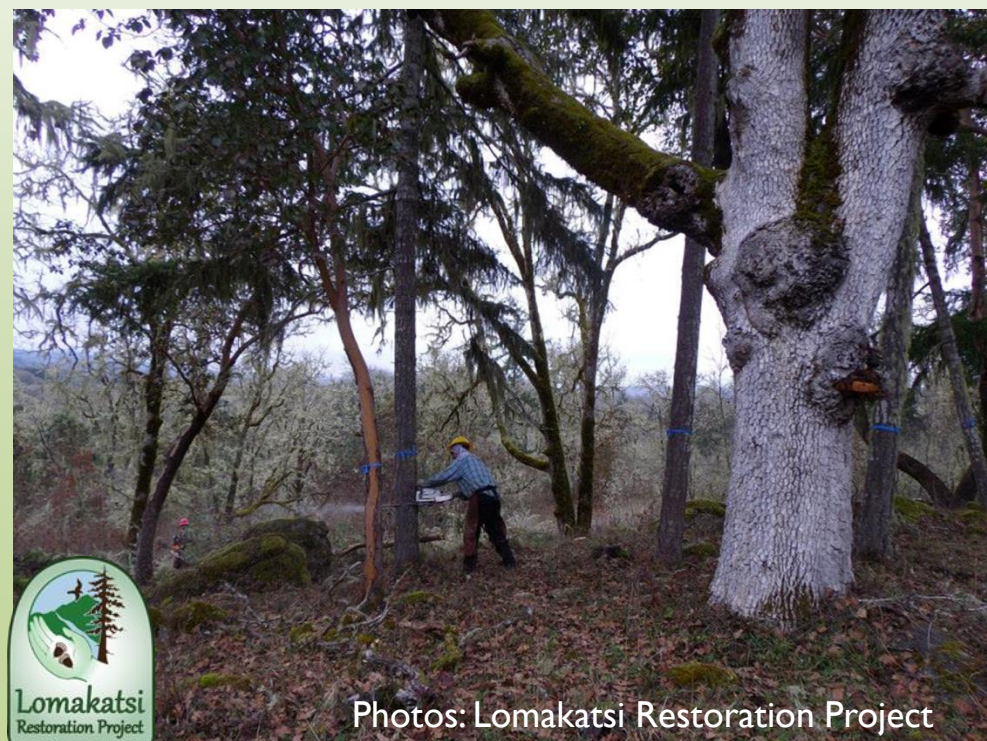
Photos: Lomakatsi Restoration Project



Oak Restoration Implementation

Restoration By-product Utilization:

- saw logs
- biomass
- firewood
- special forest products



Photos: Lomakatsi Restoration Project

Brewer's Oak Prescribed Fire Treatments



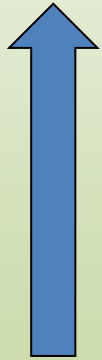
Quercus garryana breweri

Brewer's Oak Prescribed Fire Treatments

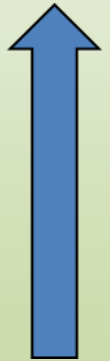
Colestin Valley, Fall 2011
Cottonwood Creek
Mid Klamath Watershed
60 acres



Brewer's Oak Prescribed Fire Treatments 2011



High



Low

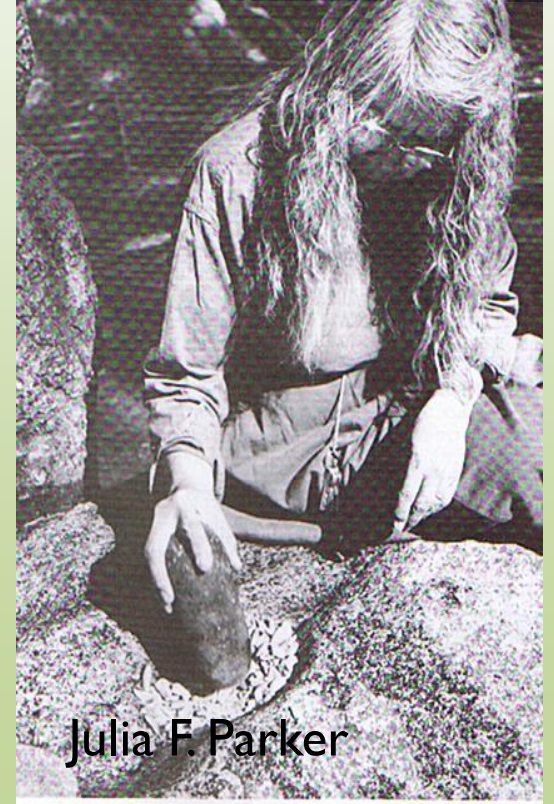
Maintaining the Mosaic



Reintroducing the Eco-cultural fire process



Photo: Lomakatsi Restoration Project



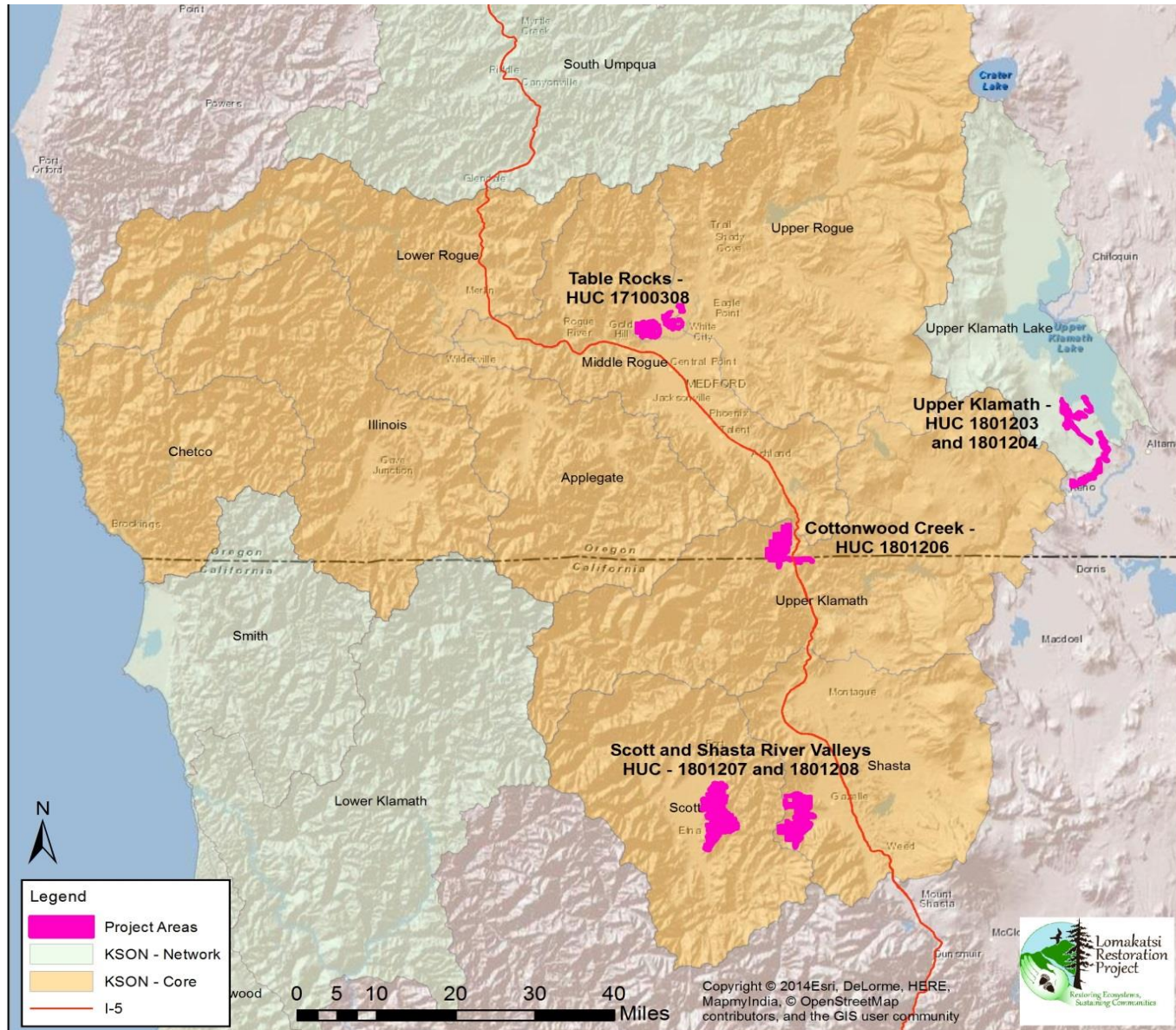
Julia F. Parker

Ecological Prescribed Fire



OAK WOODLAND HEALTH AND HABITAT CONSERVATION

Conservation Implementation Strategy



Restoring Oak Resilience at the Table Rocks



Photos: Lomakatsi Restoration Project

An All-Lands Approach 2014-2019

- Funding acquired to conduct oak restoration across 1,400 acres of federal and private lands.
- Winter / Spring 2015: 200 acres implemented



101

Oregon

Crater Lake NP

Table Rocks

Medford

97

Redwood NP

California

Image Landsat
© 2014 Google

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google earth

395

Imagery Date: 4/9/2013

42°22'43.28" N 122°36'14.97" W elev 2668 ft

Eye alt 177.17 mi



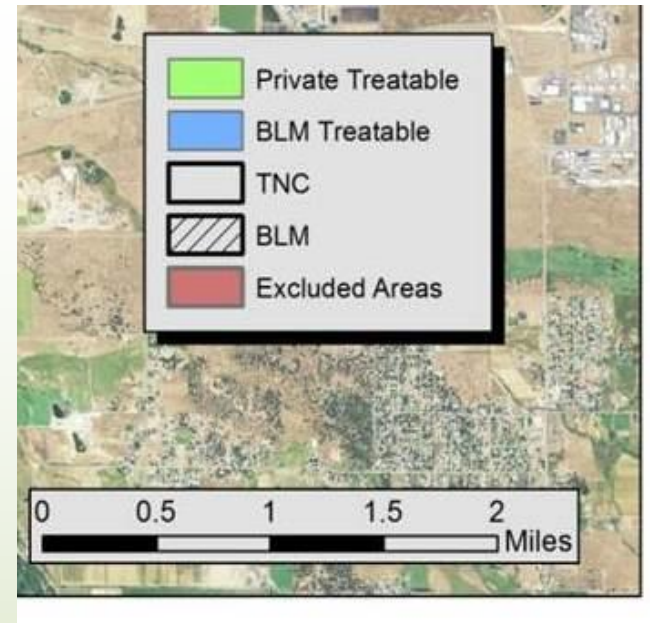
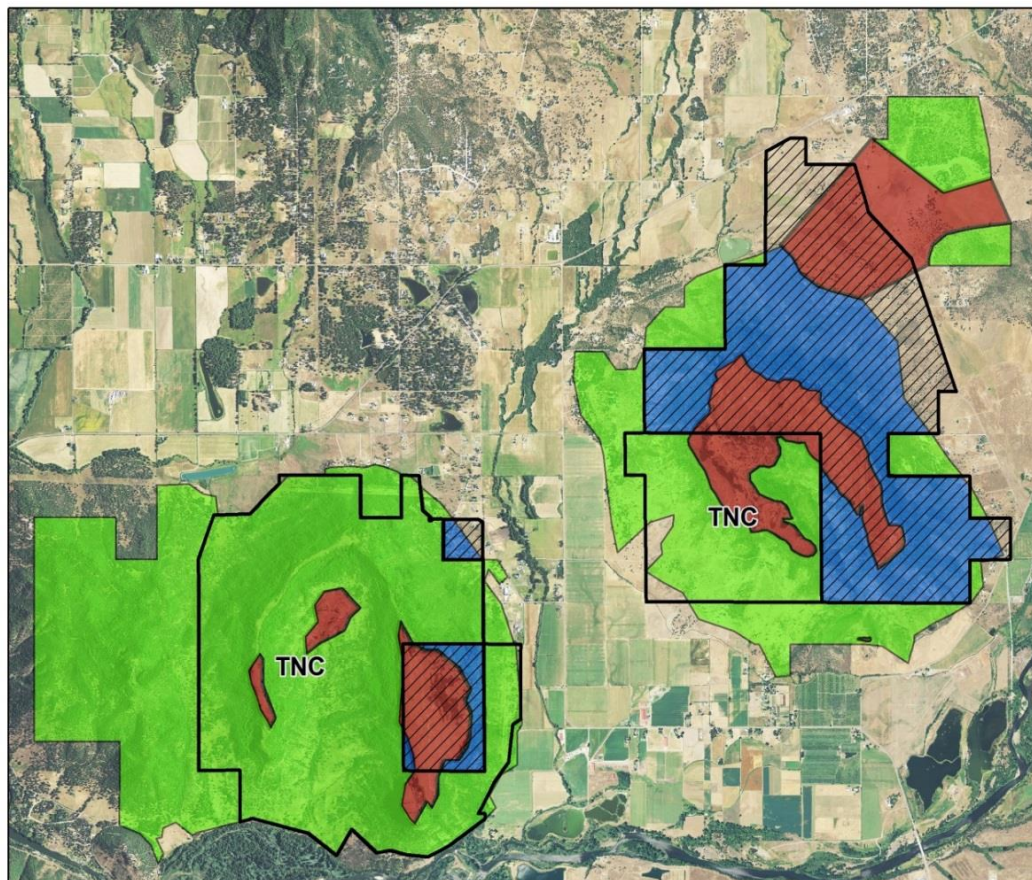
Table Rocks Natural Area

- Designated Area of Critical Environmental Concern in 1984
- America's Great Outdoors site hosting 50,000 visitors annually



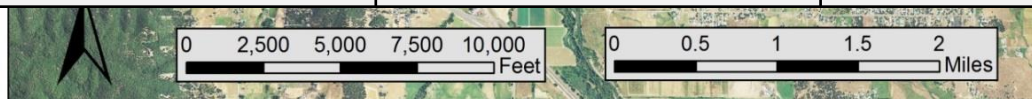
Photo: The Nature Conservancy

Table Rocks Oak Habitat



OAK CONSERVATION IMPLEMENTATION STRATEGY

Geographic Footprint Acres	Included Oak Habitat Acres	Completed	Minimum Desired (20%)	Optimal Desired (50%)
6,787	5,638	200	1,128	2,819



Restoration Planning

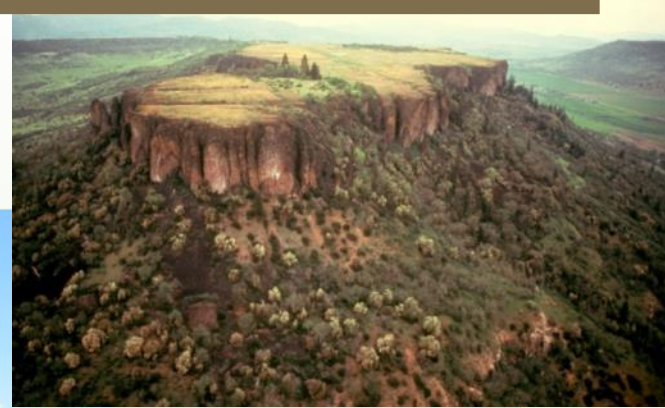
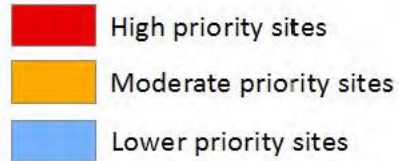


Table Rocks Trees and Shrubs



Tree	Scientific name	Shrub	Scientific name
Oregon white oak	Quercus garryana	Buckbrush	Ceanothus cuneatus
Pacific Madrone	Arbutus menziesii	Mountain mahogany	Cercocarpus betuloides
California black oak	Quercus kelloggii	Whiteleaf manzanita	Arctostaphylos viscida
Ponderosa pine	Pinus ponderosa	Poison oak	Toxicodendron diversilobum
Douglas-fir	Pseudotsuga menziesii	Deerbrush	Ceanothus integerrimus
Incense cedar	Calocedrus decurrens	Klamath plum	Prunus subcordata
		Silk tassel	Garrya fremontii
		Oregon grape	Berberis aquifolium
		Cascara	Rhamnus purshiana
		Western viburnum	Viburnum ellipticum

Climate change high priority sites for restoration



Modeled regional oak distributions under future climate scenarios have elevated the Table Rocks as a high priority area for retaining Oregon white oak under likely future climates (Schindel et al. 2013).

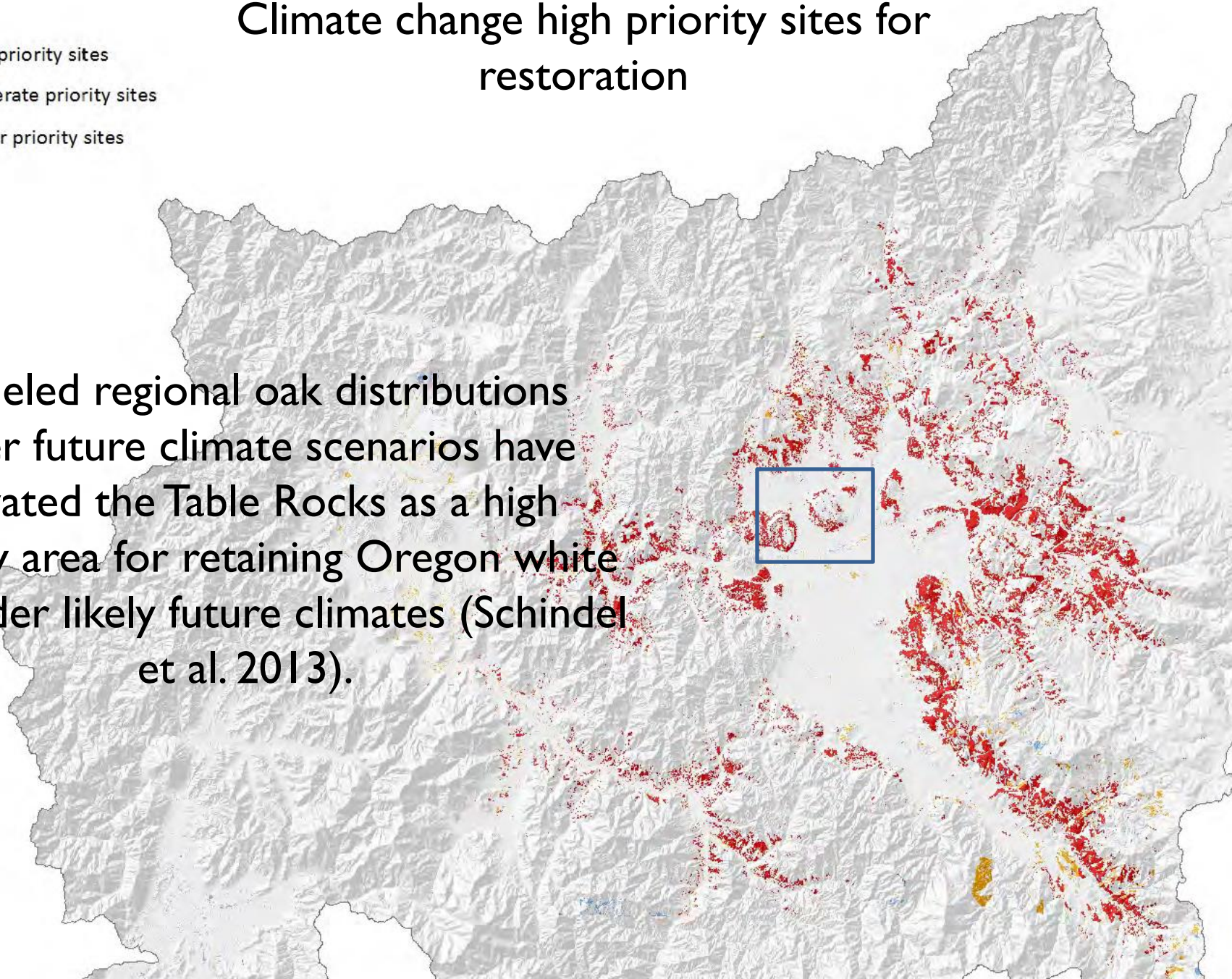
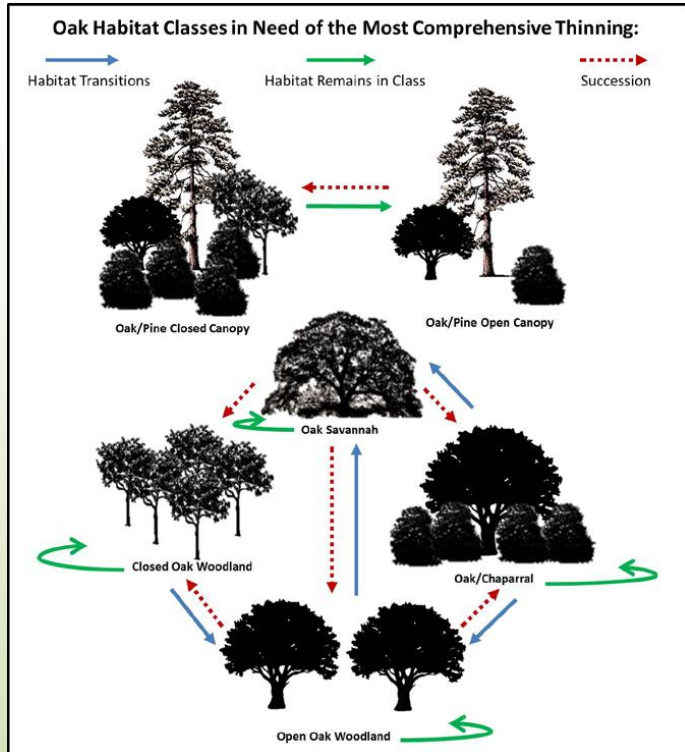
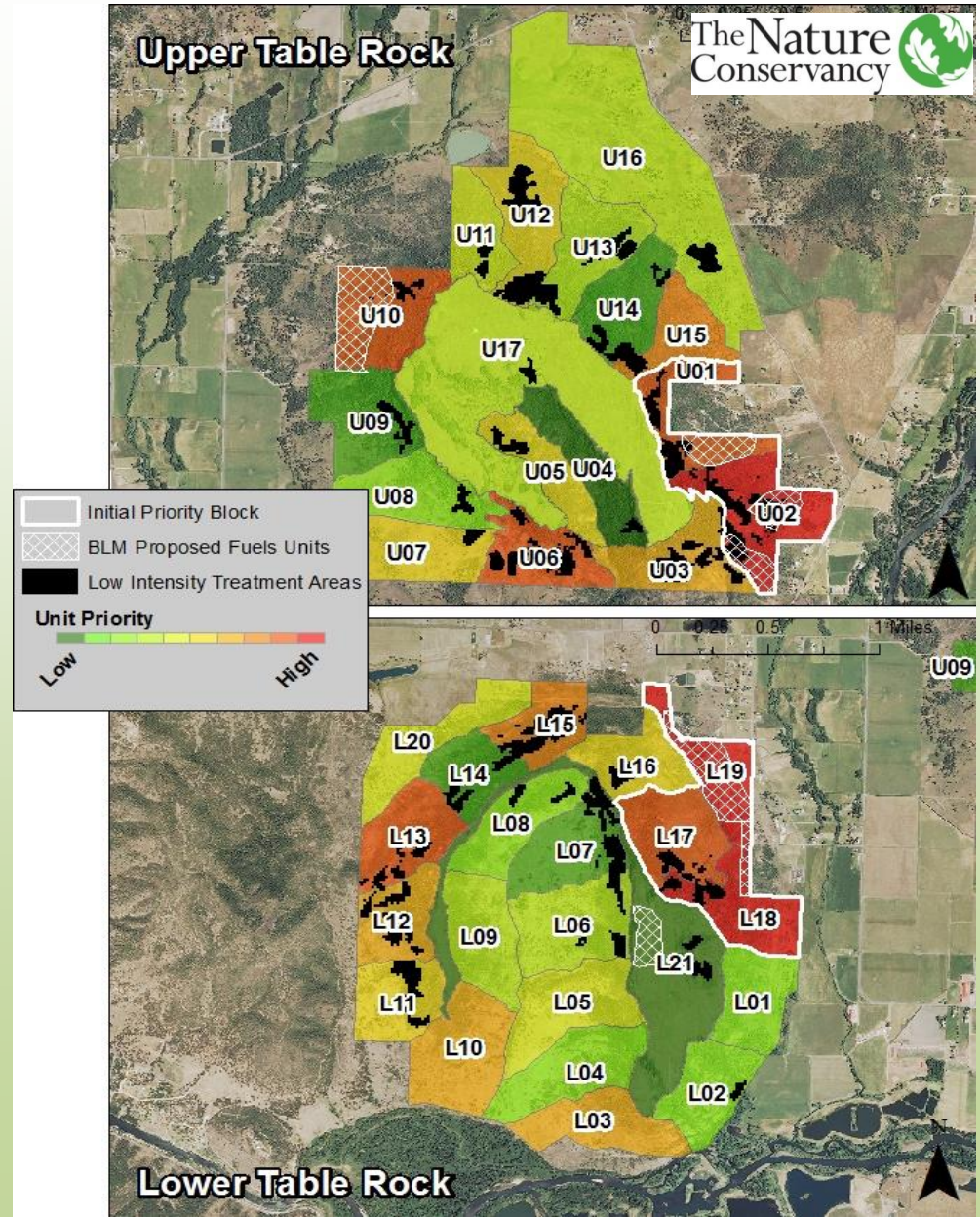


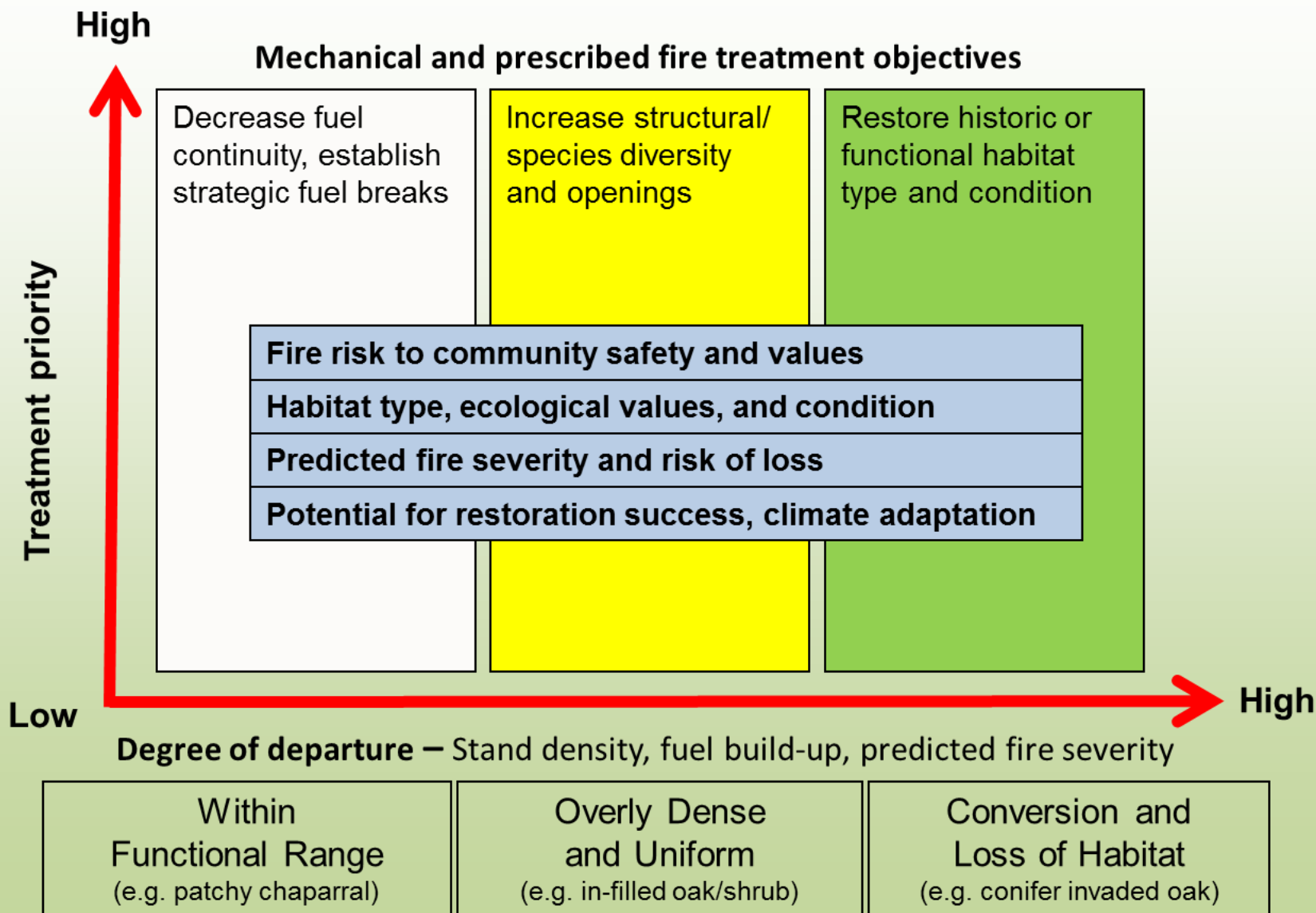
Table Rocks Oak and Vernal Pool Habitats Assessment, 2015



- Kerry Metlen, PhD, Forest Ecologist
- Derek Olson, Spatial Analyst
- Keith Perchemlides, Field Ecologist
- Molly Morison, Stewardship Coordinator
- Darren Borgias, Program Director



Restoration Planning



BLM Table Rocks Unit 1-1



0 200 400 600 800 1,000 Feet

Lomakatsi Restoration Project
Table Rocks Unit 1-1
25 Acres Total
Skips - 5.1 Acres
Mountain Mahogany Zone - 2 Acres
January 28, 2015



Oak Restoration Implementation



Before



After

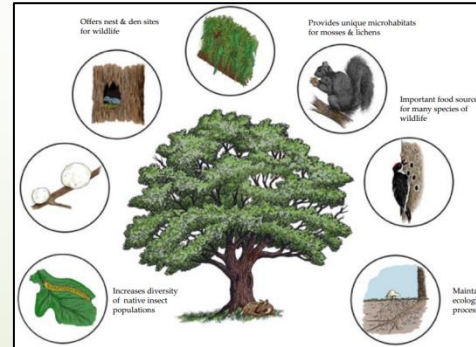


Science and Monitoring

Figures: Vesley and Tucker 2004



Restoration alters forest structure and composition



Benefits include

- Habitat value
- Fire resistance
- Climate resilience
- Ecosystem function



Vegetation monitoring

Bird monitoring



Acknowledgements

Thank you!

- Terry Fairbanks, BLM
- CalLee Davenport, USFWS (OR)
- Dave Johnson, USFWS (Siskiyou Co.)
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- Darren Borgias, TNC
- Marissa Fierro, Pit River Tribe
- Erin Kurtz, NRCS (OR)
- James Patterson, NRCS (CA)
- Ellen Goheen, USFS



Photo: Lomakatsi Restoration Project



Questions?

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