



WESTCARB Phase II Kickoff

**Break-out Session: Afforestation
Pilots in Shasta County, CA and Lake
County, OR**


Nicholas Martin
Winrock International
(510) 524-7174
nmartin@winrock.org

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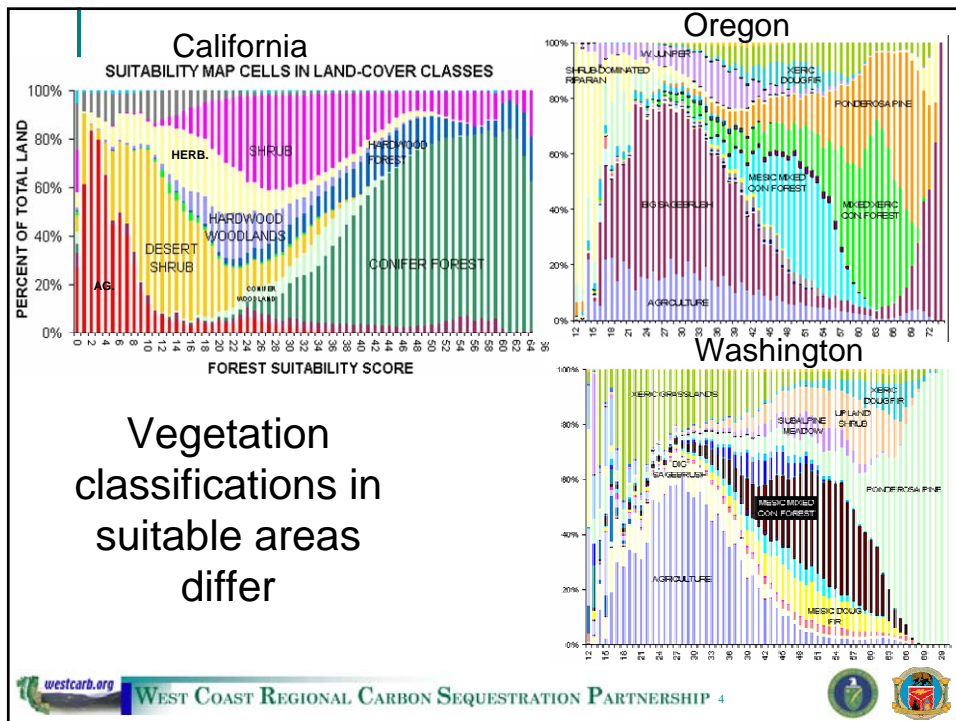
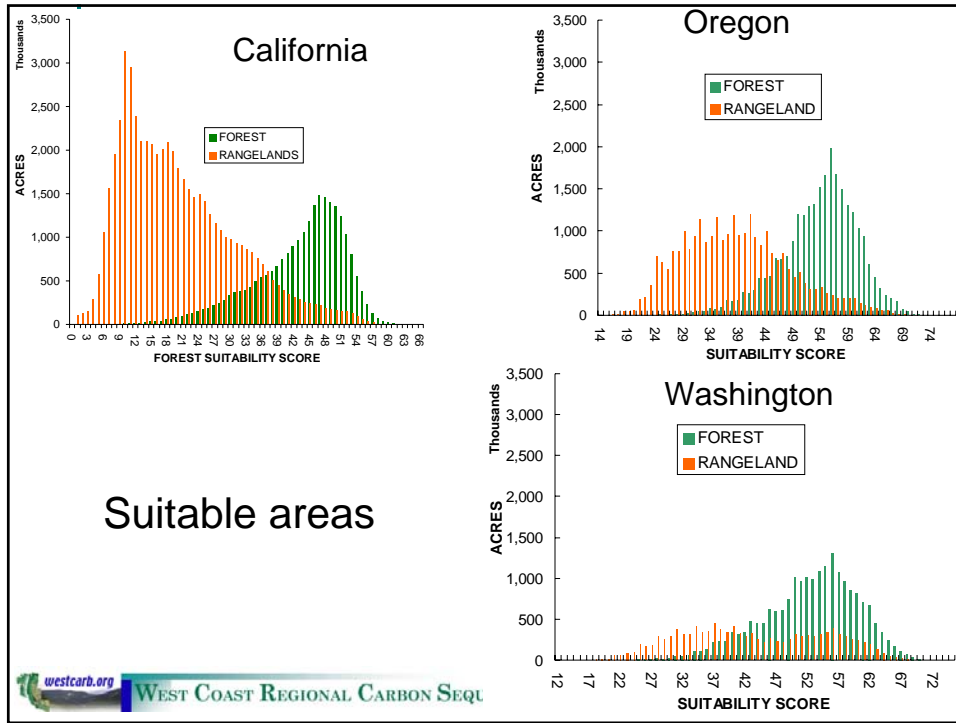
Results after 40 Years

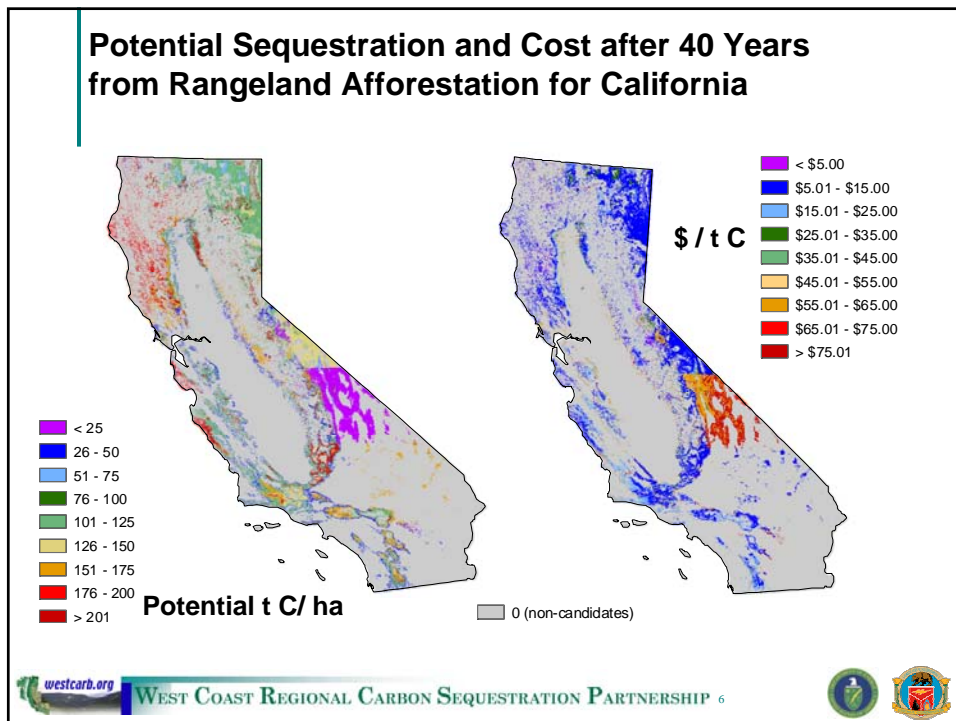
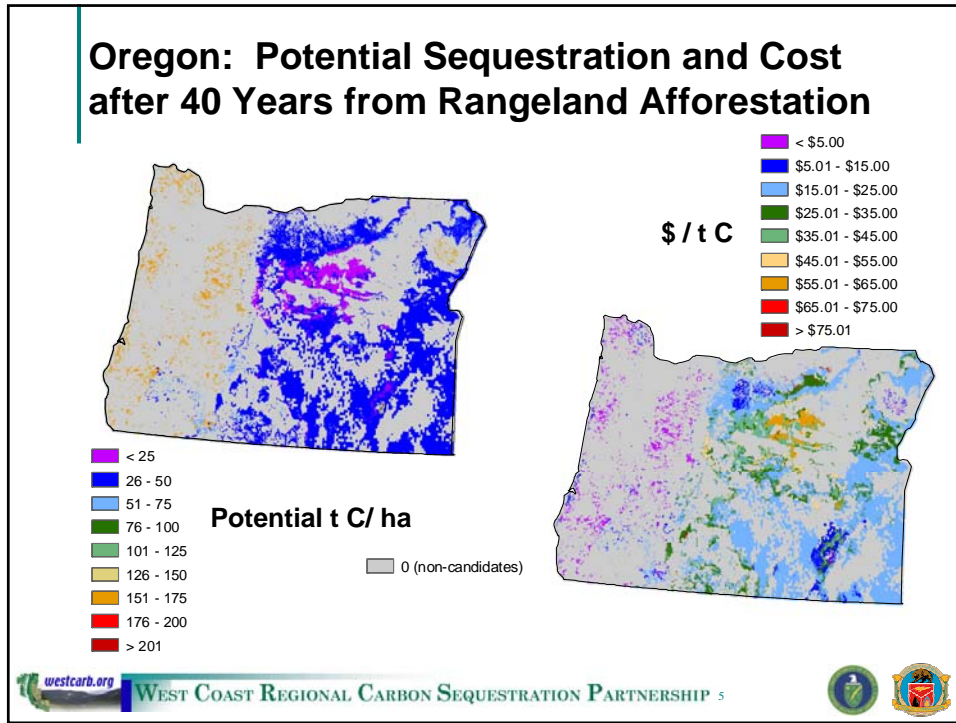
	California		Oregon		Washington	
	Area million acres	Quantity MMT CO ₂	Area million acres	Quantity MMT CO ₂	Area million acres	Quantity MMT CO ₂
Grazing Lands—Afforestation						
< \$2.40/metric ton CO ₂	3.61	1138	0.16	37.5	0.06	14.8
< \$10/metric ton CO ₂	17.1	3228	10.5	1007	6.17	1031
< \$20/metric ton CO ₂	20.1	3347	17.4	1420	9.07	1219
Crop Lands—Afforestation						
< \$2.40/metric ton CO ₂			0	0	0	0
< \$10/metric ton CO ₂			1.91	458	0.26	57.2
< \$20/metric ton CO ₂			3.33	560	3.32	271



WEST COAST REGIONAL CARBON SEQUESTRATION PARTNERSHIP 2





Phase II Terrestrial Sequestration Pilots: Afforestation

- Validate afforestation potential for rangelands
 - Determine baselines
 - Use plantings of native species across suitable rangeland site classes to establish sequestration potential on rangelands
 - Determine growth rates and establishment costs for fast-growing species adapted for dry sites

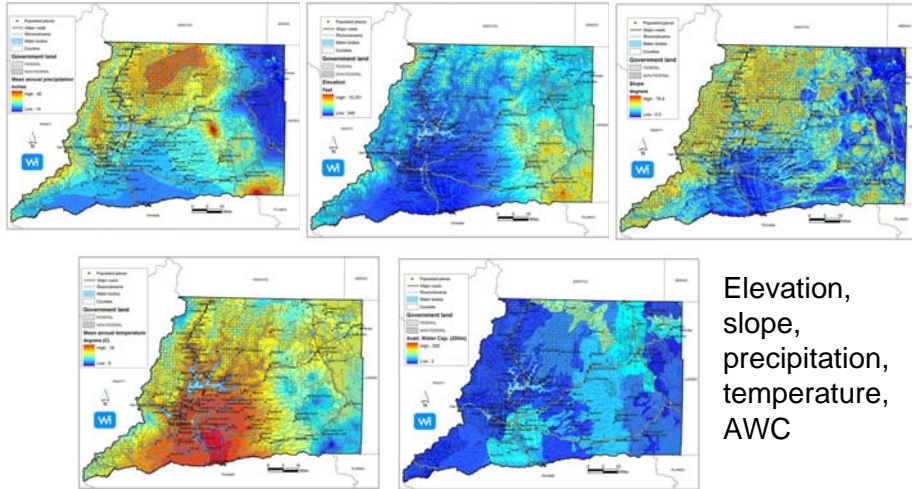


Steps to Validate Afforestation Potential

- Classify lands according to potential for afforestation
- Set criteria for distribution of pilot plantings
- Prepare plan for planting
- Convene technical panel to review choices
- Review site history and take initial field measurements (baseline)
- Collect data on establishment and maintenance costs

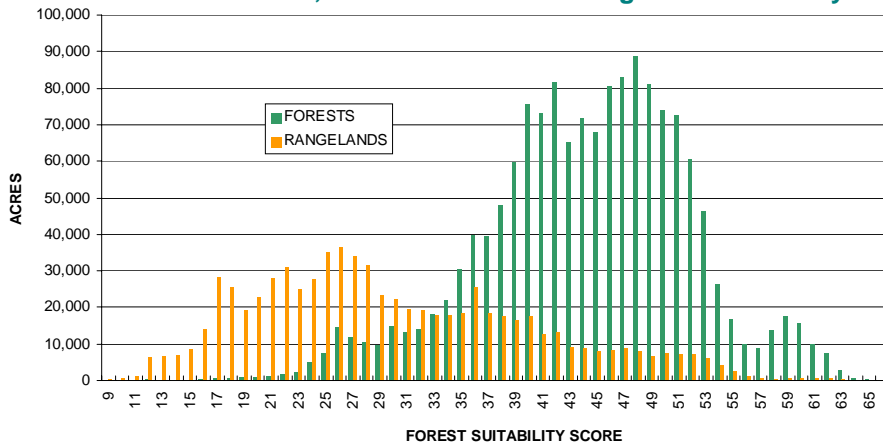


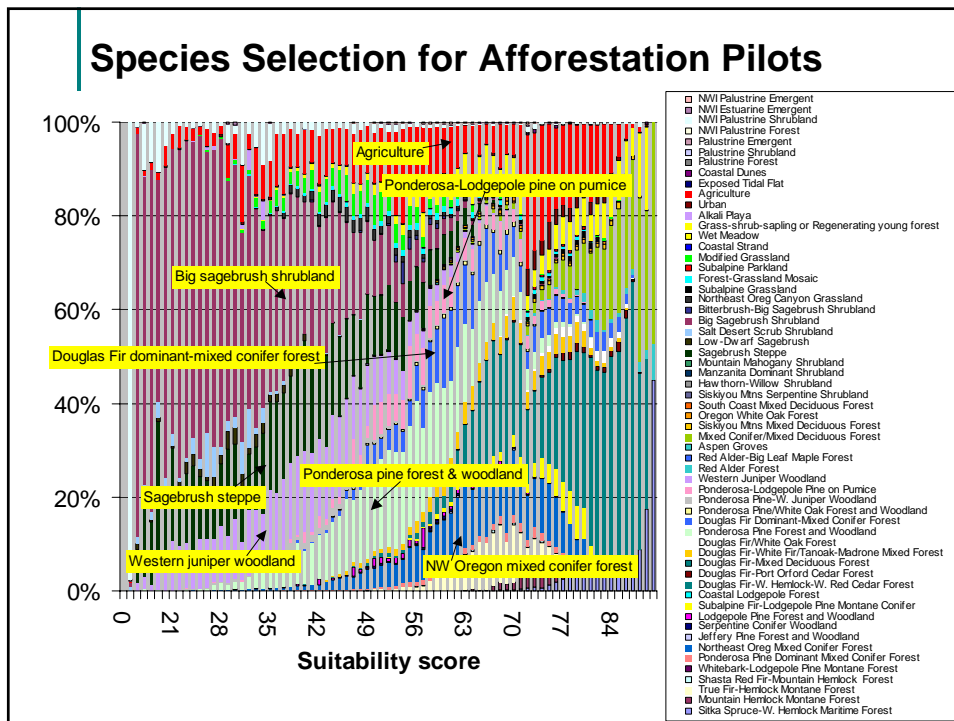
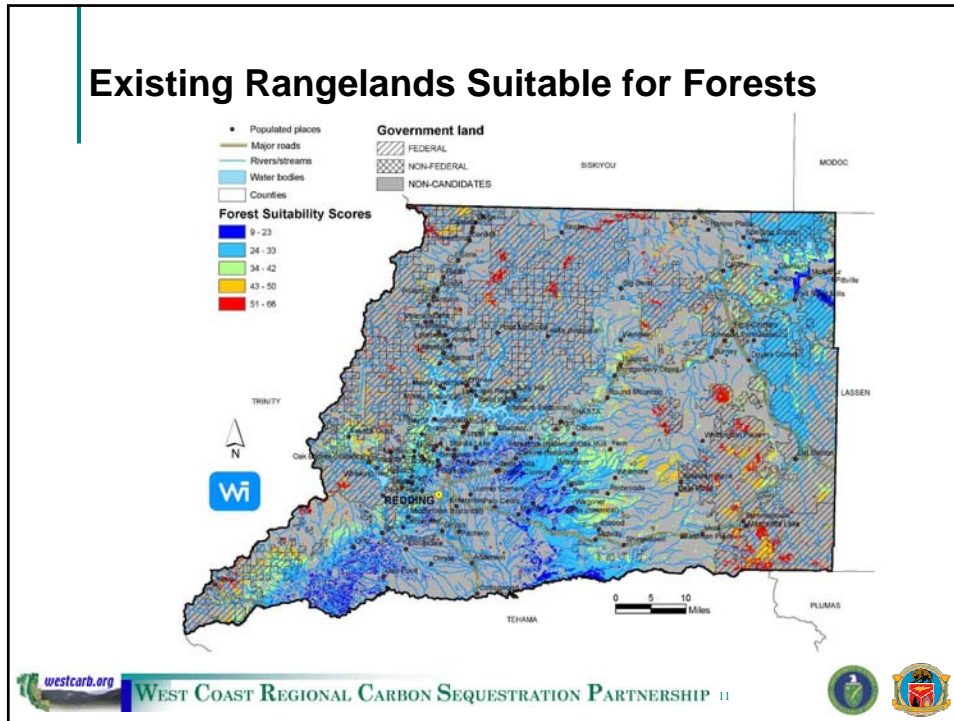
Inputs for Classification

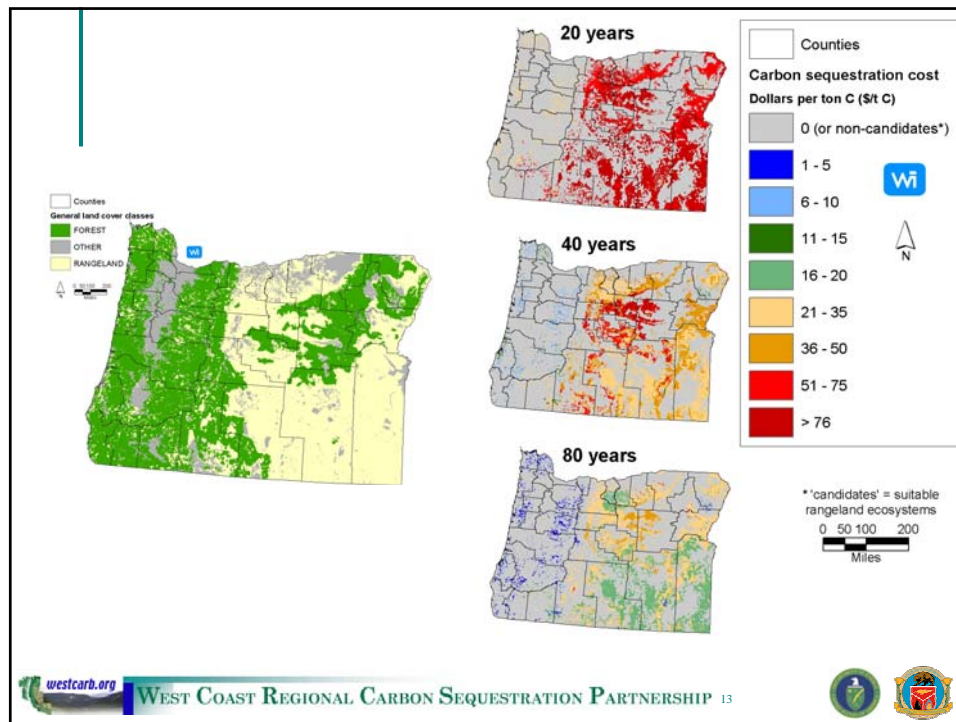


Shasta County Forest Suitability

Overlap of rangeland classes in Shasta County (with canopy closure <40%) that have the same biophysical characteristics as current forests ~550,000 acres or 73% of rangelands in county







Review Site Histories and Conduct Field Measurements for Baseline Carbon Stocks





Initial Steps – early 2006

- **Selection of candidate sites for planting**
 - Validate classification/forest suitability approach
 - Review criteria used
 - Additional data – better soil maps, other important data to incorporate
 - Breadth vs. depth of data
 - Who has data?
 - Refine economic analysis
 - Better opportunity cost data
 - Establishment costs (site prep, planting, post-planting treatment...)
 - Private, federal, state lands
 - NEPA/CEQA considerations
 - Any partners already planning afforestation activities that we can measure?



Initial steps (cont'd)

- **Validation priorities**
 - Establishment costs
 - Growth rates on different sites
 - Survival rates
 - Adaptation issues (precipitation, population, effects on costs...)
- **Planting plan**
 - Timing
 - Species
 - Site preparation (brush clearing, herbicide application...)
 - Total acres/distribution/replications
 - Post-planting treatment options



Initial steps (cont'd)

– Other project types?

- Improve stocking on forest lands
- Reforestation after HFR

