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Ranking Markets for Timberland Investment: Focusing on the PNW

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Forisk helps the forest industry make better decisions.

- Analysis and forecasts.
  - *Forisk Research Quarterly*
- Price and industry data.
  - **Forisk Wood Fiber Review**
  - North American Mill Database
  - Timberland Owner Database
- Multi-client studies.
  - Timber market rankings
  - Silviculture benchmarking
- Resource studies and consulting.
- Educational workshops.

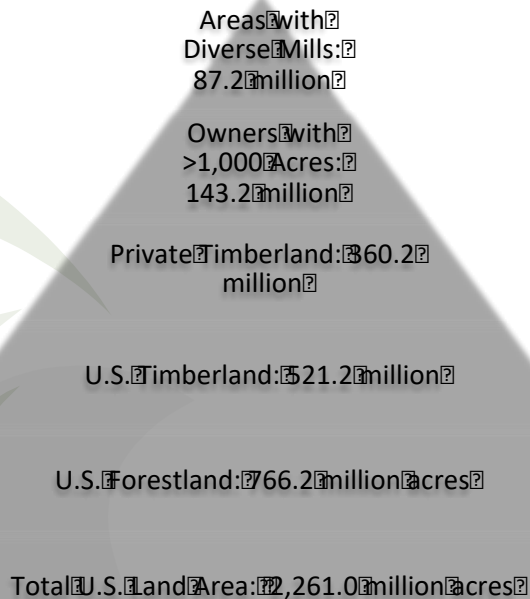<u>Upcoming Events</u>
"Applied Forest Finance"
March 19th, 2020 in Atlanta

"Timber Market Analysis"
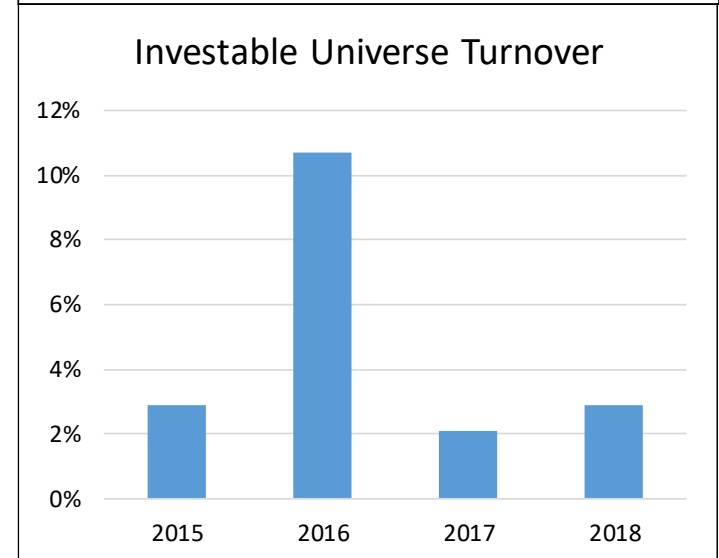June 24th, 2020 in Atlanta

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"What does a normal timberland deal flow look like in the U.S.?"

Forisk estimates an "investable universe" for U.S. timberland of 85-90 million acres.

Areas with
Diverse Mills:
87.2 million

Owners with
>1,000 Acres:
143.2 million

Private Timberland: 360.2
million

U.S. Timberland: 521.2 million

U.S. Forestland: 766.2 million acres

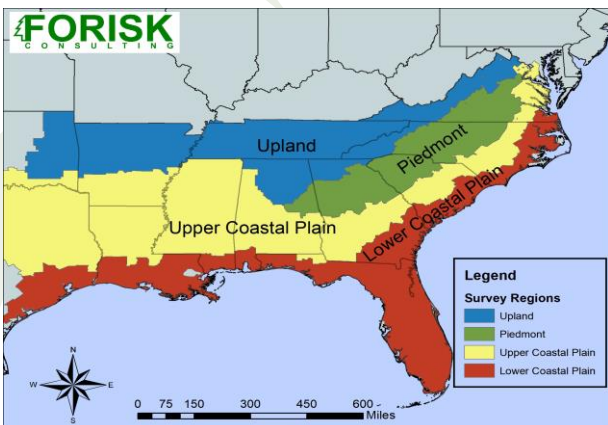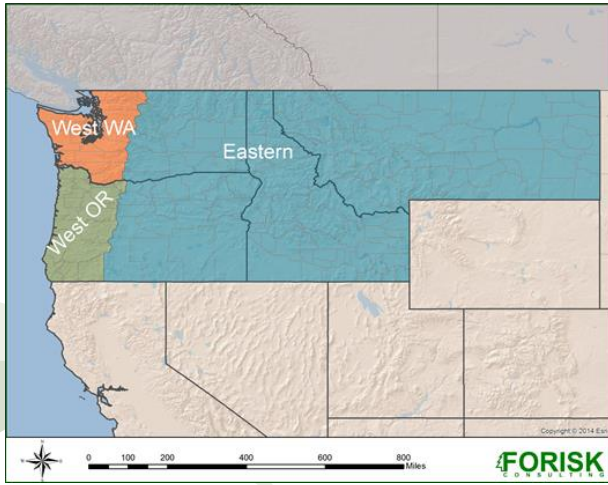Total U.S. Land Area: 2,261.0 million acres

Notes: For the top of the pyramid, Forisk screened out 75% of the private timberlands in the Intermountain and Pacific Southwest Regions, and 50% in the North Central Region due to low mill densities. The "Investable Universe Turnover" uses all Closed Transactions.

	Closed Transactions	Large Deals (>20,000)	*Large Deals*
	acres, millions		*% of closed*
2015	2.5	2.1	*84.0%*
2016	9.3	9.2	*98.9%*
2017	1.8	1.4	*77.8%*
2018	2.5	2.1	*84.0%*

Investable Universe Turnover

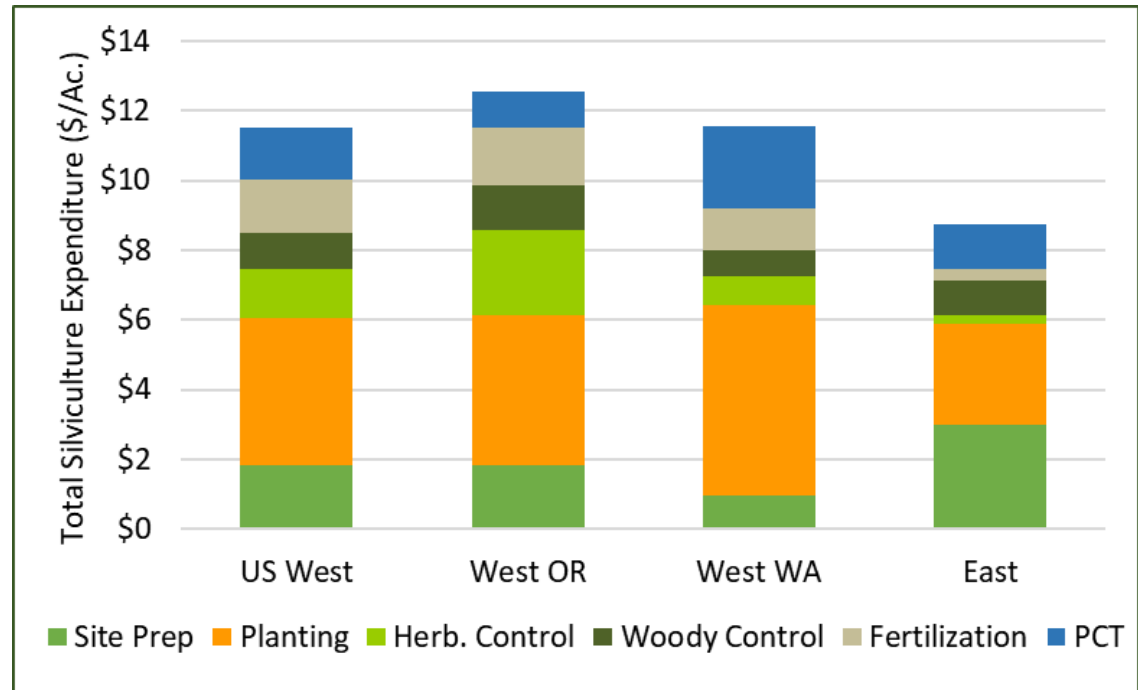Sources: Forisk; USFS 2012; Butler (USFS) 2008

Forisk silviculture surveys confirm commitment to active forest management.

9 million acres in the West; nearly 24 million in the South

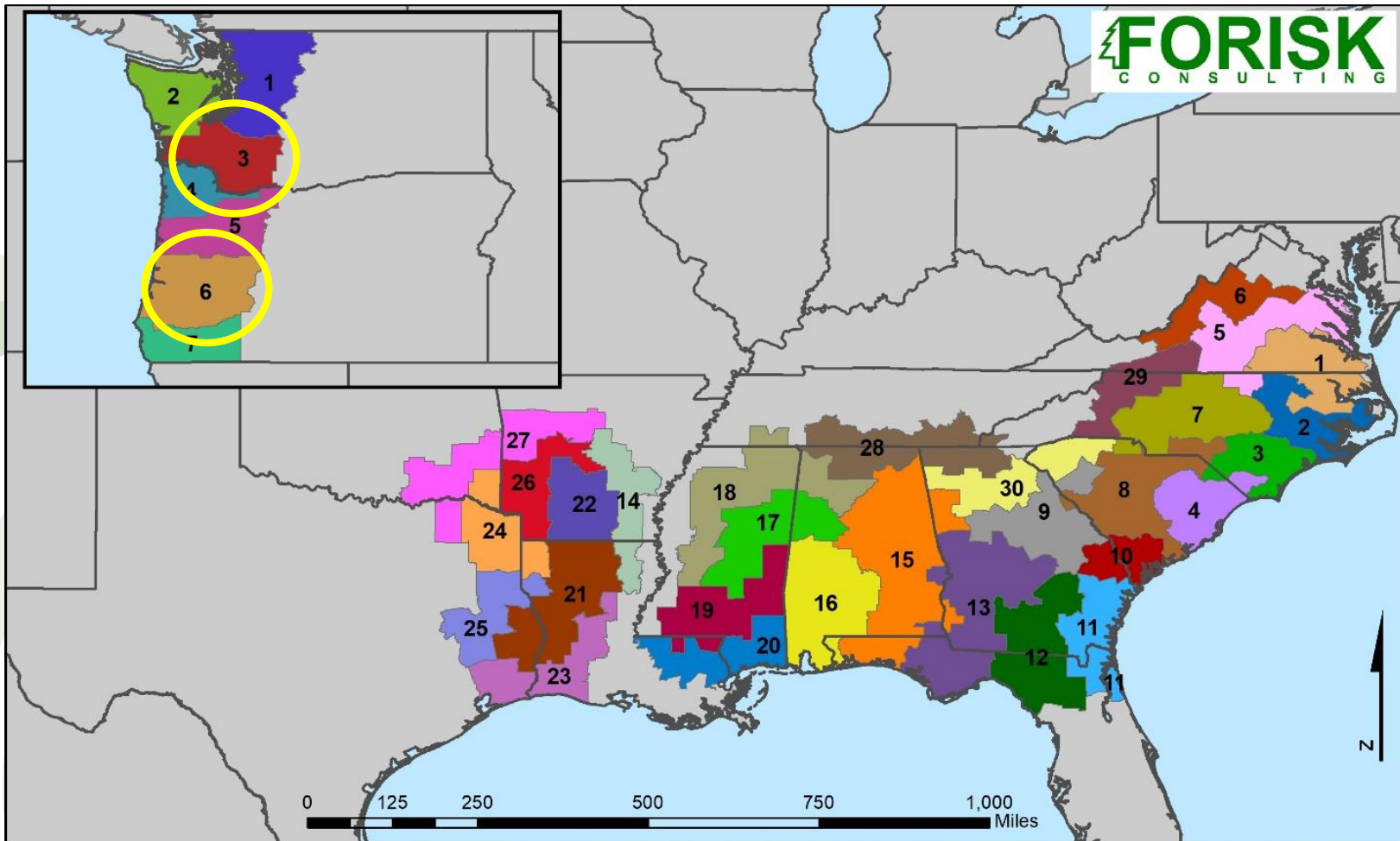**Western Silviculture Expenditure by Treatment**

- East region has lower cost with higher site preparation.
- West invests more in planting and mid-rotation treatments.

What do we want from market rankings?

- Answer the question "Where should you invest?"
  - Account for how markets could look in the future, given what we see today.

- Assign numeric scores based on clearly defined measures;

- Keep scoring simple and as easy to understand as possible;

- Incorporate separate measures for each type of investment decision:
  - Timberland
  - Sawtimber-using mills
  - Pulpwood-using mills

- Account for both current and future conditions.
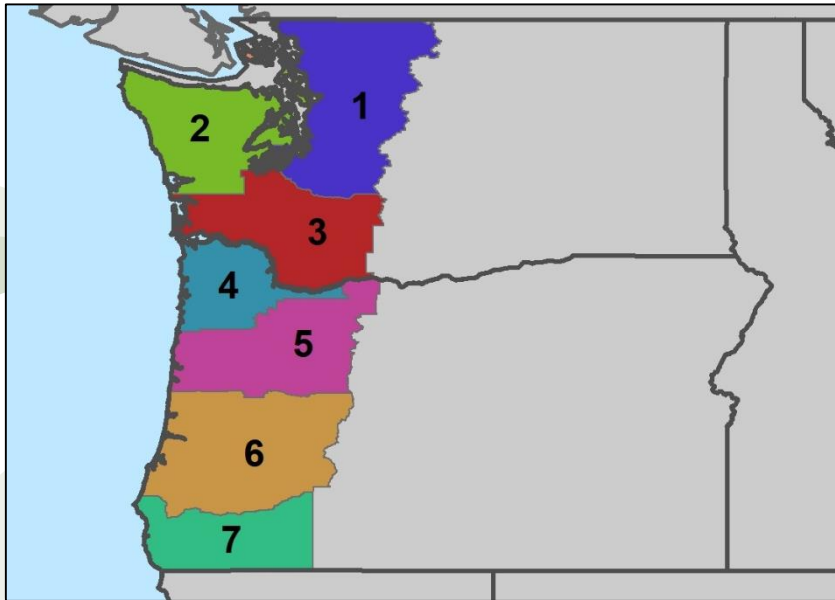
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Market in the Study: Example Rankings

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Market Scoring Criteria: Timberland

Scoring Components and Criteria for Pacific Northwest Timberland Investor Markets				
			Score →	
		Worst		*Best*
	Measure	**0**	**1**	**2**
Supply 40%	Ratio Removals-to-Demand (Private and Public)[1]	> 100% private Only	> 100% private + public	< 100% private + public
	Proportion of Harvest from Public Lands[2]	> 25% high public supply	< 25% low public supply	
	Softwood Sawtimber Inventory (10-Yr CAGR)	> 1% growing	< 1% stable/ declining	
Demand 40%	Current Sawtimber Demand (MBF/Sq. Mi.)	< 75 low demand	> 75 high demand	
	Softwood Sawtimber Demand (5-Yr CAGR)	< 0% declining	0% - 2% moderate growth	> 2% strong growth
	Softwood Log Exports (% Sawtimber Demand)	< 10% low exports	> 10% high exports	
Risk 20%	Firm Market Concentration (Pct. Sawtimber Demand)	> 50% 2 firms low competition	40% - 50% 2 firms moderate competition	< 40% 2 firms strong competition

[1]Removals to demand ratios that exceed 100% indicate that the market is well-supplied with wood and that the market is "exporting" harvest volume to mills outside of the market. In contrast, removals to demand ratios that fall below 100% indicate that mills have to go outside the market to source wood. This is favorable to timberland owners.

[2]The regional average proportion of harvest from public lands is 21%; markets that have lower ratios source more volume from private lands.

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Pacific Northwest

Excerpt of Data Used for Scoring Western Timberland Markets				
Market	**Removals-to-Demand**	**Public Harvest**	**Export Demand**	**Market Conc.**
3	96%	19%	17%	34%
6	103%	14%	3%	36%

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Market Scoring Results: Timberland

Forisk North American Forest Market and Industry Rankings