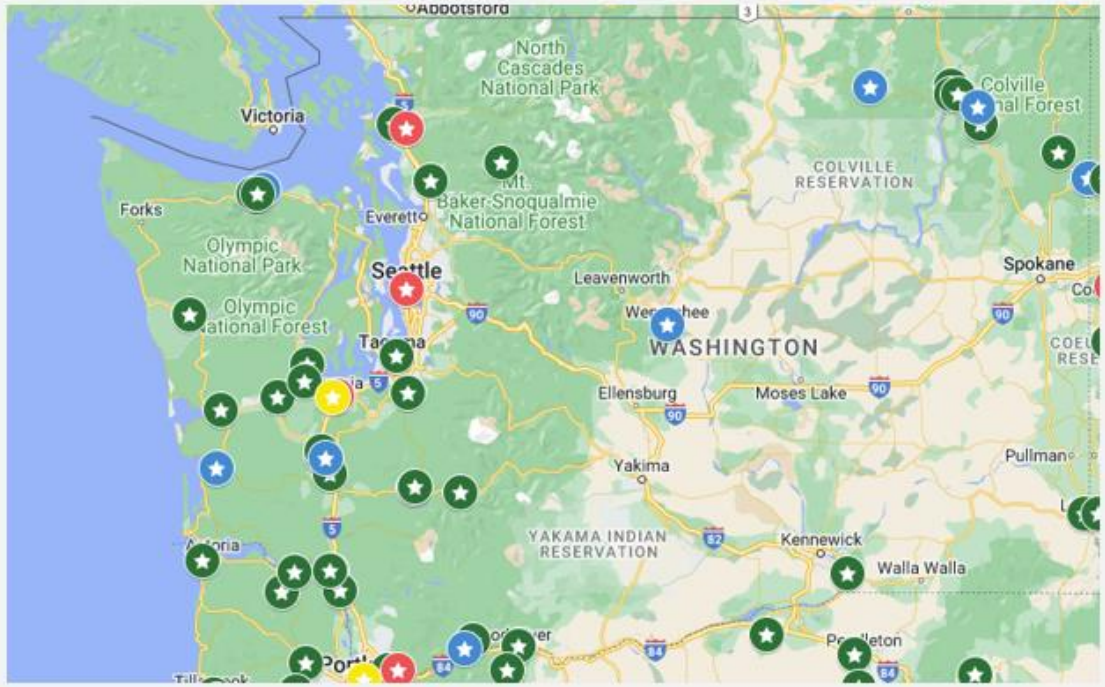
AFRC



Sierra Pacific Industries

SDS Lumber Company

INTERFOR

CASCADE HARDWOOD GROUP

NWH Northwest Hardwoods

Columbia Cedar

Vaagen

Boise Cascade

WFP

Rainier Veneer

RSG Forest Products, Inc.

ALTA Forest Products

Bell Lumber & Pole

Stella-Jones

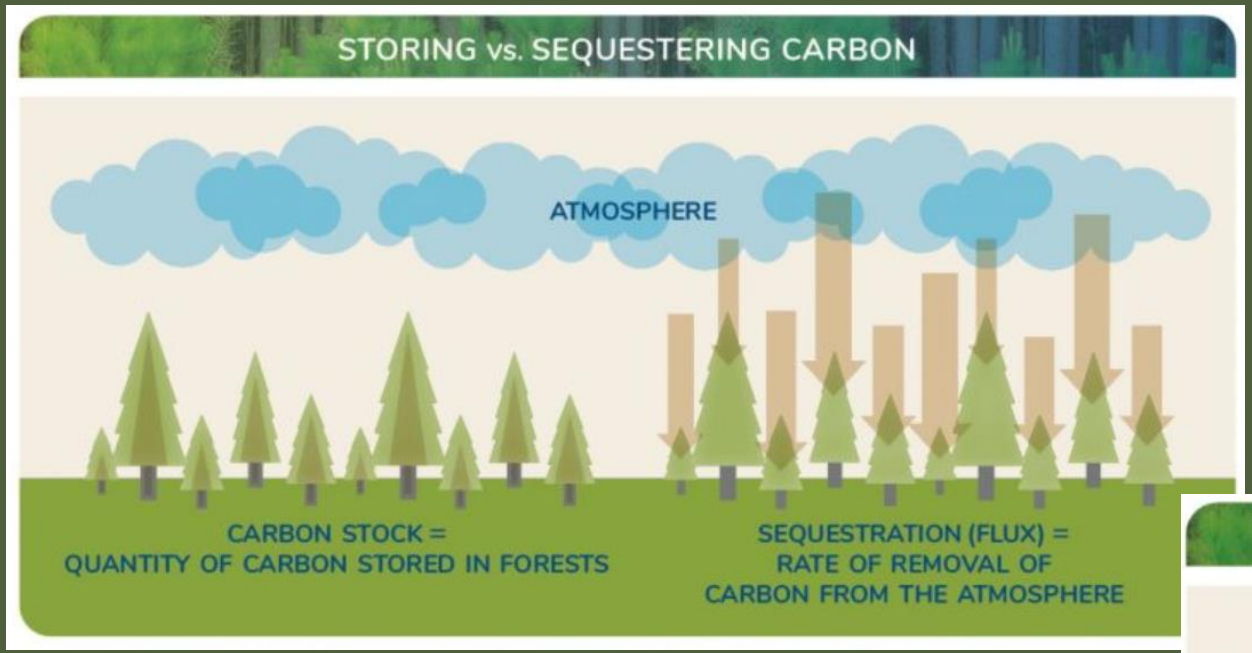
Canyon The Premium Choice for Douglas Fir Since 1907

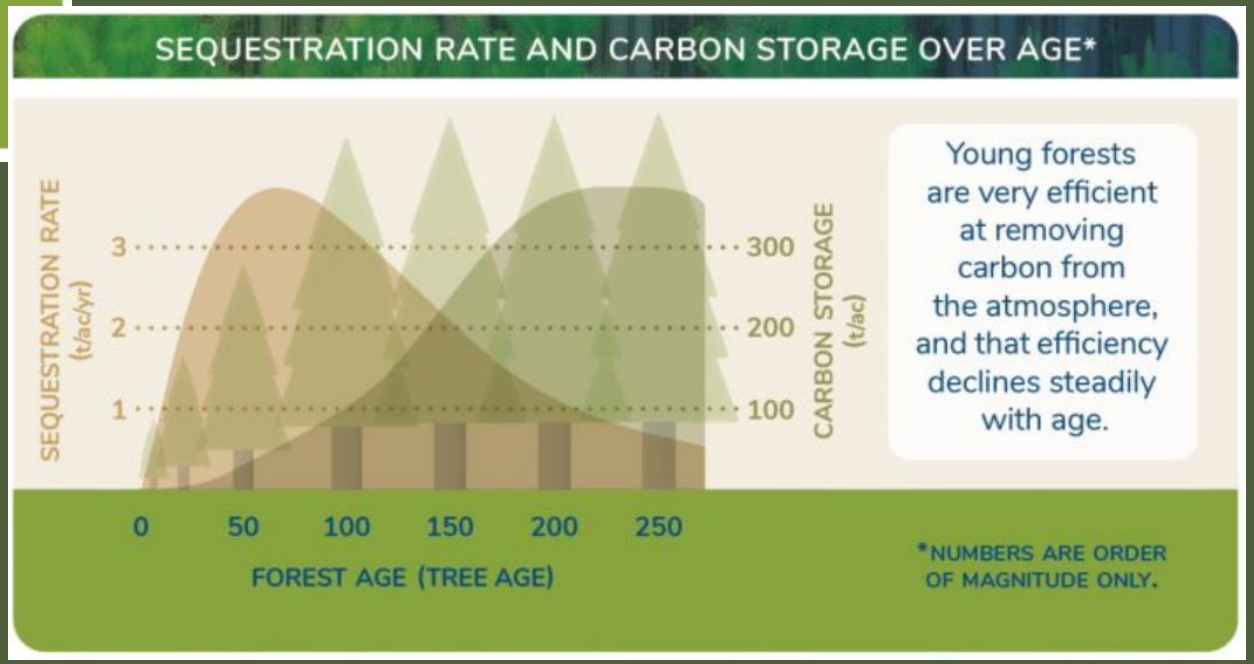
MURPHY

WKO Est. 1962

American Forest Resource Council AFRC

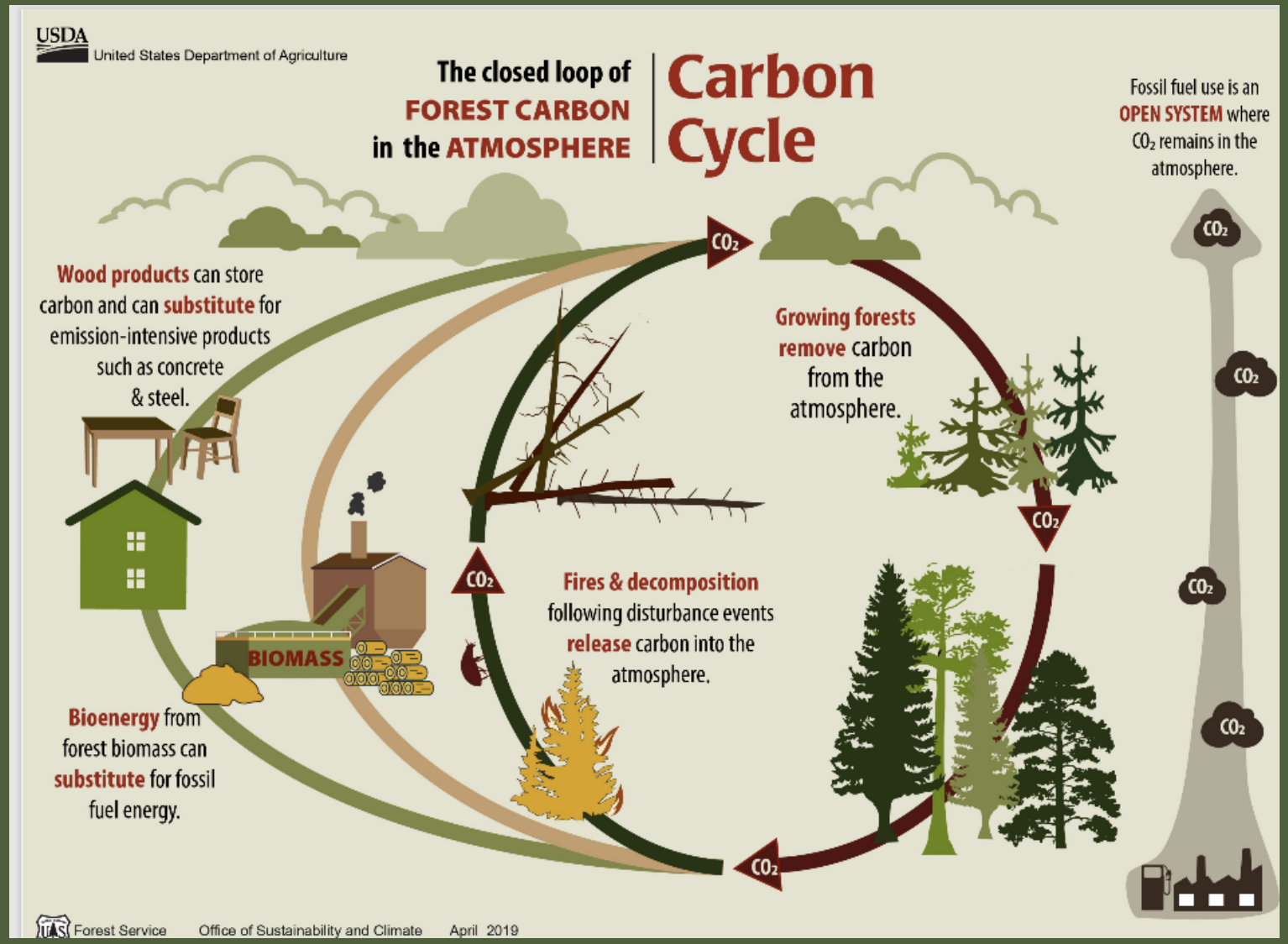
CARBON STORAGE vs SEQUESTRATION





Source: https://www.ncasi.org/wp-content/uploads/2021/01/NCASI22_Forest_Carbon_YoungVsOld_print.pdf

CARBON, FORESTS AND WOOD



Source: https://www.fs.usda.gov/sites/default/files/TimberHarvest-Carbon-3pg-v3.pdf

IPCC Special Report (2019) - *"Sustainable forest management can maintain or enhance forest carbon stocks, and can maintain forest carbon sinks, including by transferring carbon to wood products, thus addressing the issue of sink saturation. Where wood carbon is transferred to harvested wood products, these can store carbon over the long-term and can substitute for emissions-intensive materials reducing emissions in other sectors."*

https://www.ipcc.ch/site/assets/uploads/2019/11/SRCCL-Full-Report-Compiled-191128.pdf - *page 21*

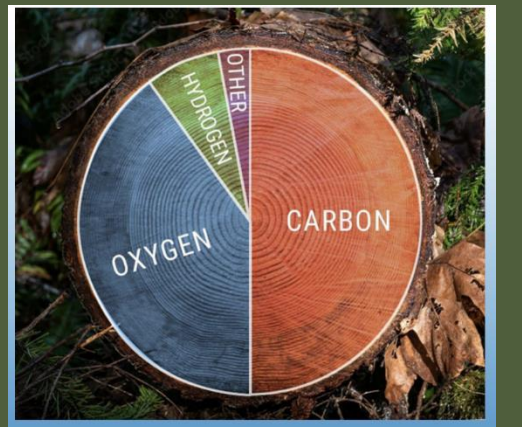
CARBON, FORESTS AND WOOD

International Scientific Consensus

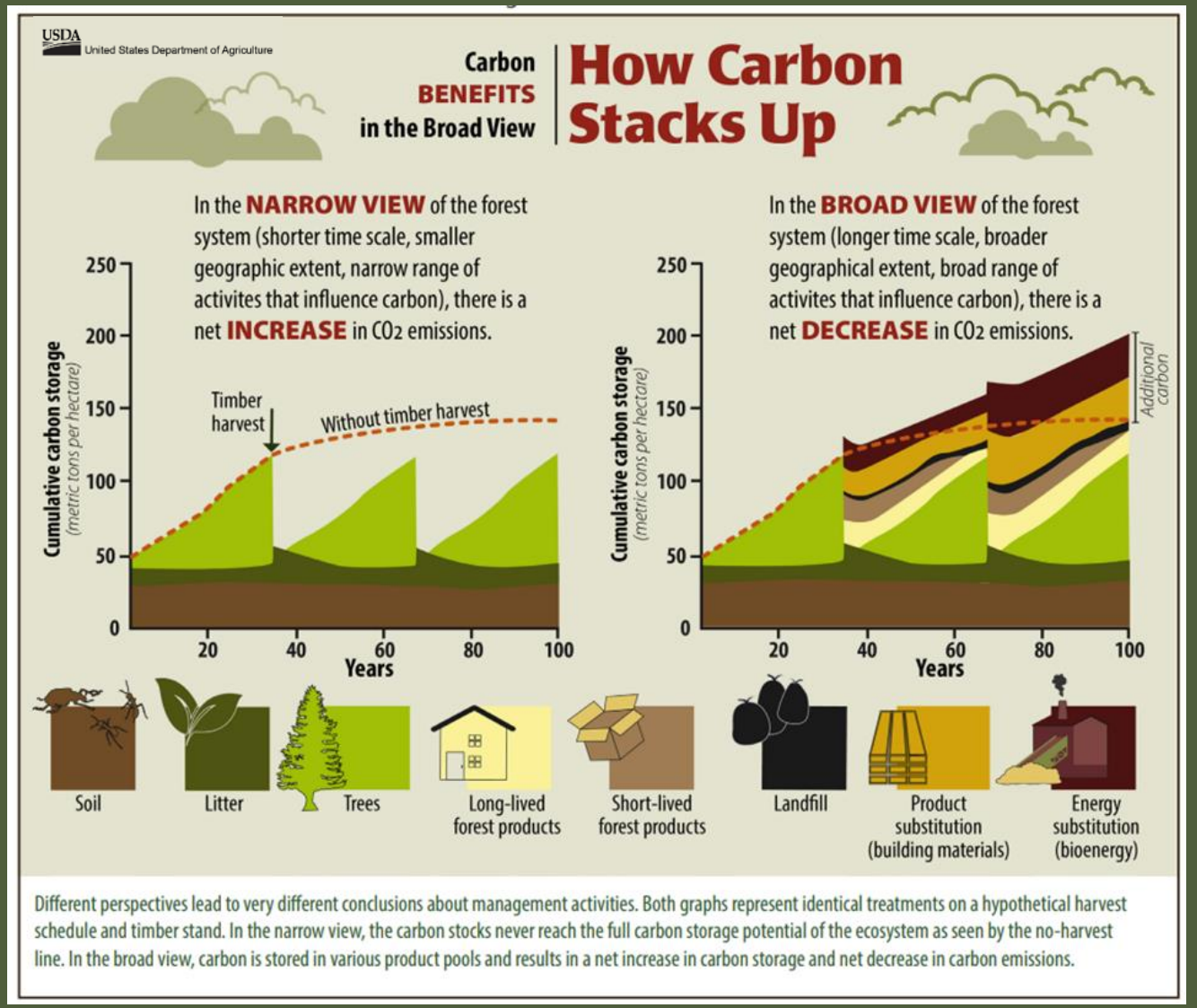
IPCC (2007): "In the long term, a sustainable forest management strategy aimed at maintaining or increasing forest carbon stocks, while producing an annual sustained yield of timber, fiber or energy from the forest, will generate the largest sustained mitigation benefit." https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg3-chapter9-1.pdf - *page 543*

IPCC (2022): "…reduced harvest may lead to gains in carbon storage in forest ecosystems locally, but these gains may be offset through international trade of forest products causing increased harvesting pressure or even degradation elsewhere."

https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_FinalDraft_Chapter07.pdf - page 84



The dry weight of tree wood is composed mostly of solid carbon which remains in this solid stored state until the wood decays or is destroyed by burning.



Source: https://www.fs.usda.gov/sites/default/files/TimberHarvest-Carbon-3pg-v3.pdf

GLOBAL RESOURCE NEEDS, CARBON EMISSIONS

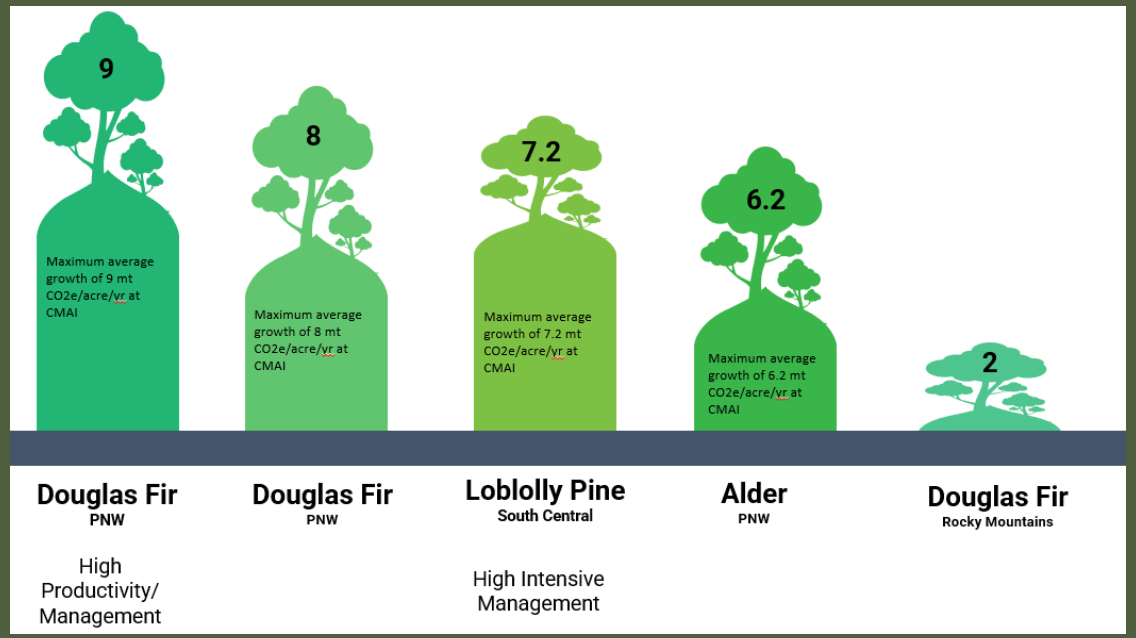
UN FAO State of Forests Report (2022): demand for natural resources will double by 2060 due to increases in population and affluence. Report co-author: *"It is clearer than ever before that the increased utilization of wood products is critical to reducing global greenhouse emissions…..Wood products over their life cycle are linked to lower levels of greenhouse gas emissions than products derived from materials that aren't renewable."*

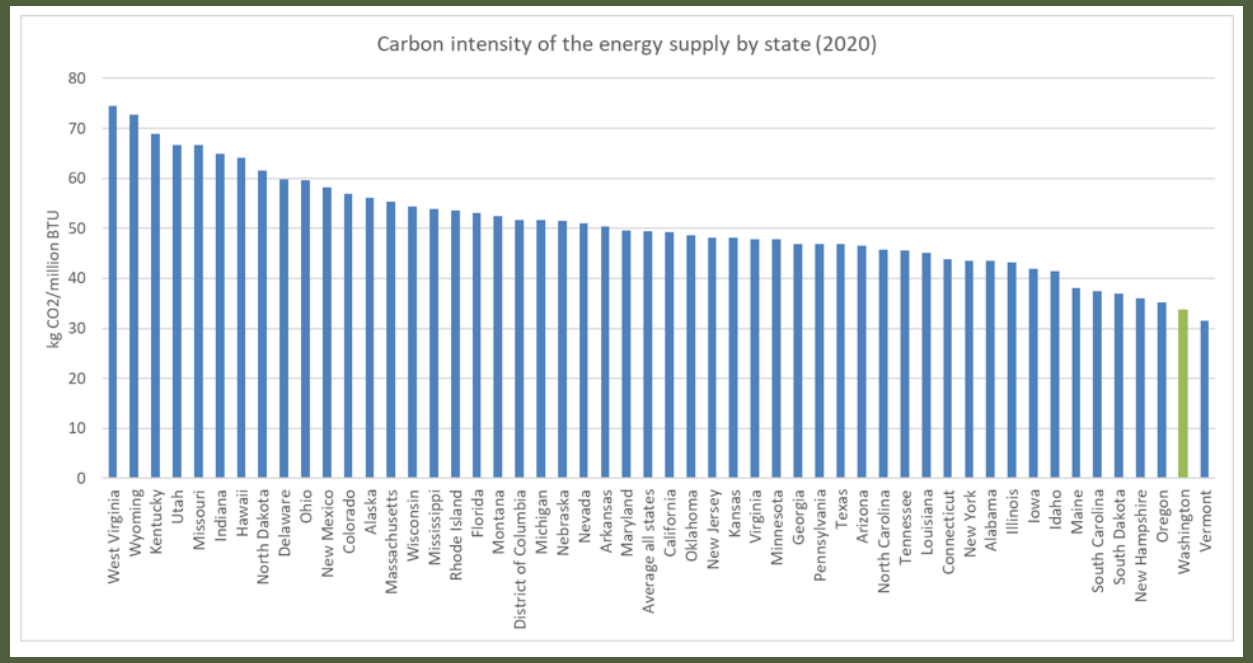
Source: https://today.oregonstate.edu/news/un-report-co-authored-osu-researcher-advocates-big-increases-sustainable-wood-production

- ~ 40% of global energy consumption attributed to the construction sector.
- On average, the embodied energy of wood buildings is 20–60% lower than for concrete and steel buildings.
- 8% of global emissions come from concrete.

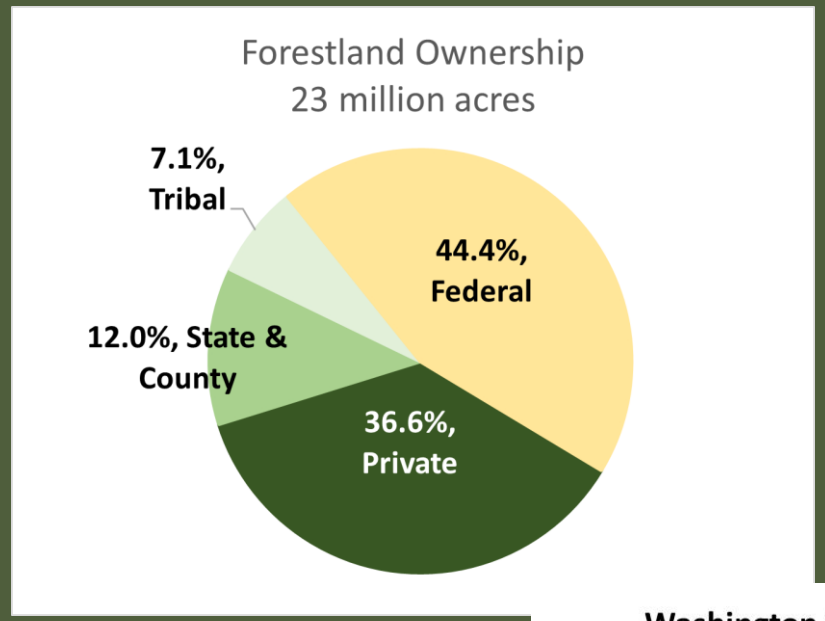
GLOBAL RESOURCE NEEDS, CARBON EMISSIONS

Washington State:
Ideal For Growing Forests and Producing Wood Products w/ Strong Environmental Protections

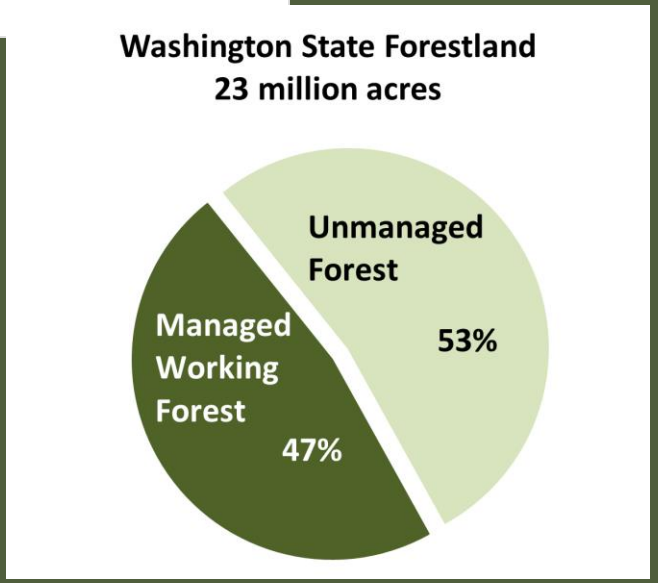


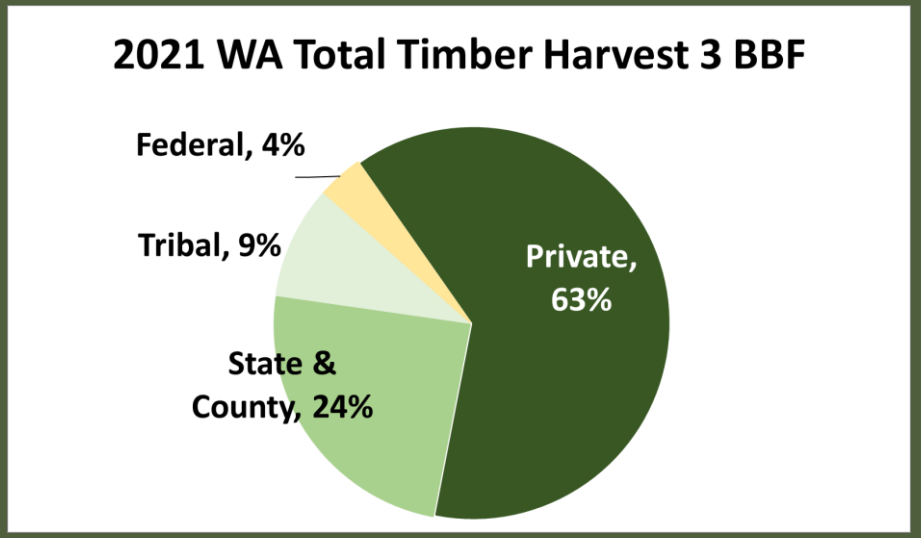


WASHINGTON FOREST LAND

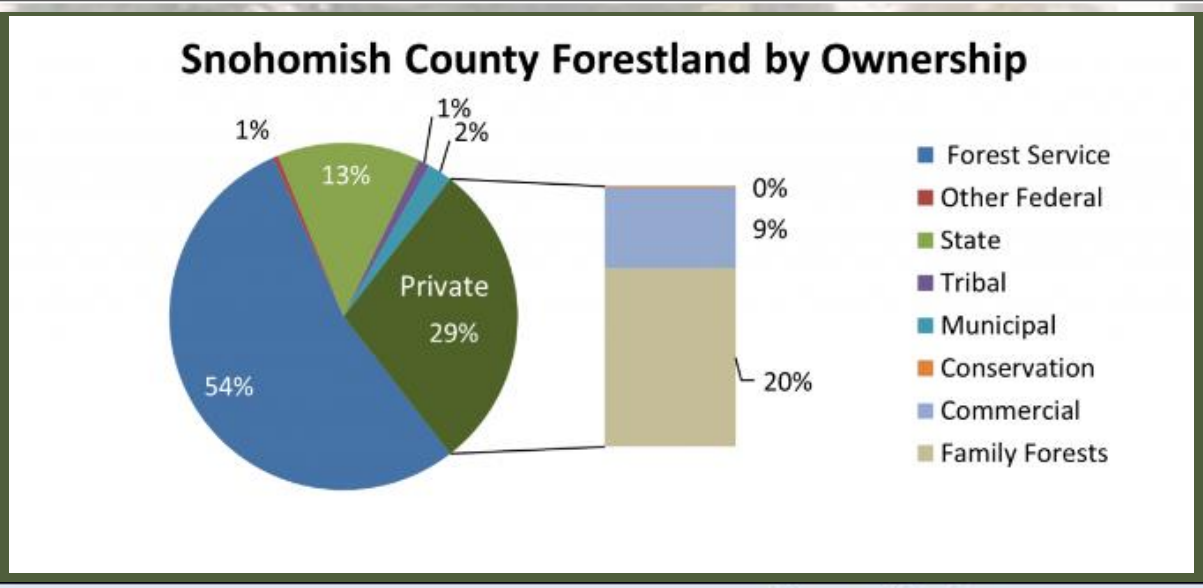


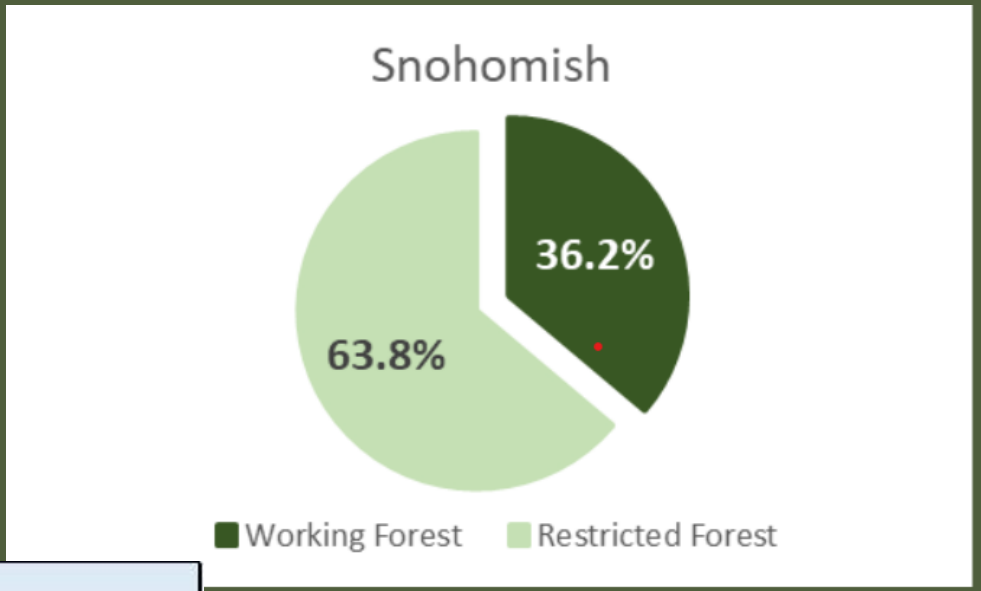
WA STATE	Total	National Forest	National Parks and Other	State, County & Local Govt	Private/Tribal
Average age of forest	92	126	192	69	53
Acres	22,983,438 100%	8,362,390 36%	1,839,558 8%	2,751,704 12%	10,029,784 44%
Number of standing dead trees	650,559,477 100%	358,974,213 55%	55,911,365 9%	78,844,200 12%	156,829,700 24%
Number of live trees	9,214,190,443 100%	3,840,224,388 42%	754,905,993 8%	1,015,349,742 11%	3,603,710,321 39%





SNOHOMISH COUNTY FORESTLAND

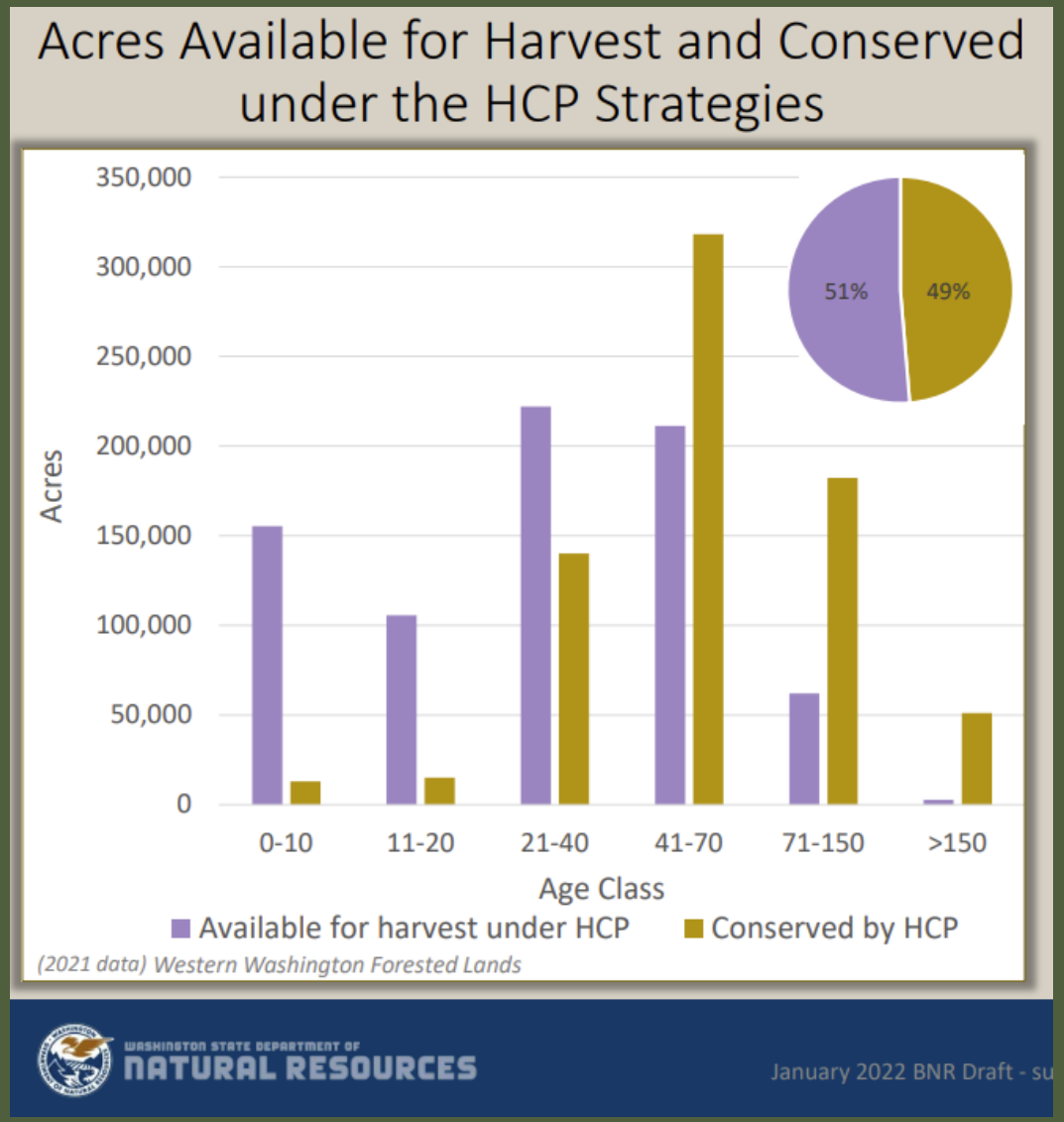




Snohomish County	Total	National Forest	National Parks and Other Federal	State, County & Local Govt	Private
Average age of forest	138.2	194.5	51.9	63.5	47.9
Acres	1,065,150	573,878	4,849	166,175	320,248
Number of standing dead trees	20,293,253	11,978,846	378,652	4,087,806	3,847,949
Number of live trees	403,060,371	269,898,974	2,944,139	54,829,848	75,387,411

Source: [County Carbon Charts – Washington Forest Protection Association (wfpa.org)]

OLDER FORESTS AND THE HCP



- State Forest Practice Rules
- 1997 State Lands Habitat Conservation Plan
  - Clean Water Act approval
  - ESA approvals
- 2006 Riparian Strategy
- 2019 Murrelet Amendment
- Policy for Sustainable Forests
  - Protects all old growth on DNR lands
  - Structurally unique stands

CONSERVATION & PRESERVATION OF OLDER FORESTS

Age Groups Summary	Acres	Percentage of Age Group
Pre-1900 in Conserved	67,500	93%
Pre-1900 in Managed	5,100	7%
TOTAL Pre-1900 Landbase	**72,600**	**100%**
1900-1944 in Conserved	100,400	72%
1900-1944 in Managed	39,500	28%
TOTAL 1900-1944 Landbase	**139,900**	**100%**
All Pre-1945 Conserved	167,800	79%
All Pre-1945 Managed	44,600	21%
TOTAL All Pre-1945 Landbase	**212,500**	**100%**
Younger Forest in Conserved	585,000	43%
Younger Forest in Managed	780,600	57%
TOTAL Younger Forest in Landbase	**1,365,600**	**100%**
TOTAL CONSERVED ACRES	752,900	48%
TOTAL MANAGED ACRES	**825,200**	**52%**
Grand total acres	1,578,100	100%

93% of Pre-1900 acres are conserved

79% of all Pre-1945 acres are conserved

*Values were rounded to the nearest hundredth acre and may not sum to totals due to rounding

DNR FOREST MANAGEMENT

How DNR implements VRH

- DNR among first to operationalize at scale
- Complex shapes/edges
- ~30% average retention in and around harvest units
  - Not a specific objective; rather the outcome of retention/buffer guidelines (riparian, unstable slopes, leave trees/clumps, etc.)
- Riparian buffers & leave tree #'s exceed Forest Practices minima
- Some of this stand-scale retention is separate from (complements) the 48% of conserved lands at landscape scale: Welker/Wells BNR April presentation
- Always prioritize leaving largest and true 'legacy' (older) trees
- Objectives to retain snags & down wood

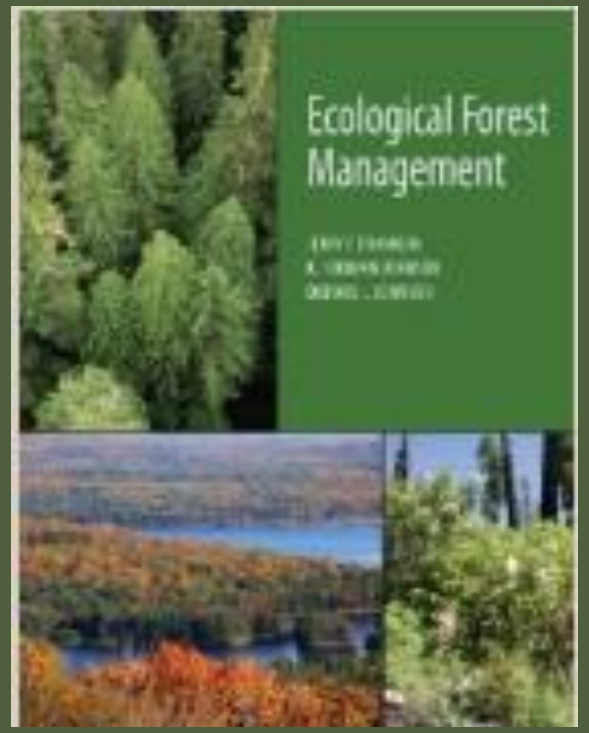

Franklin and Donato *Ecological Processes* (2020) 9:8
https://doi.org/10.1186/s13717-019-0205-5

Ecological Processes

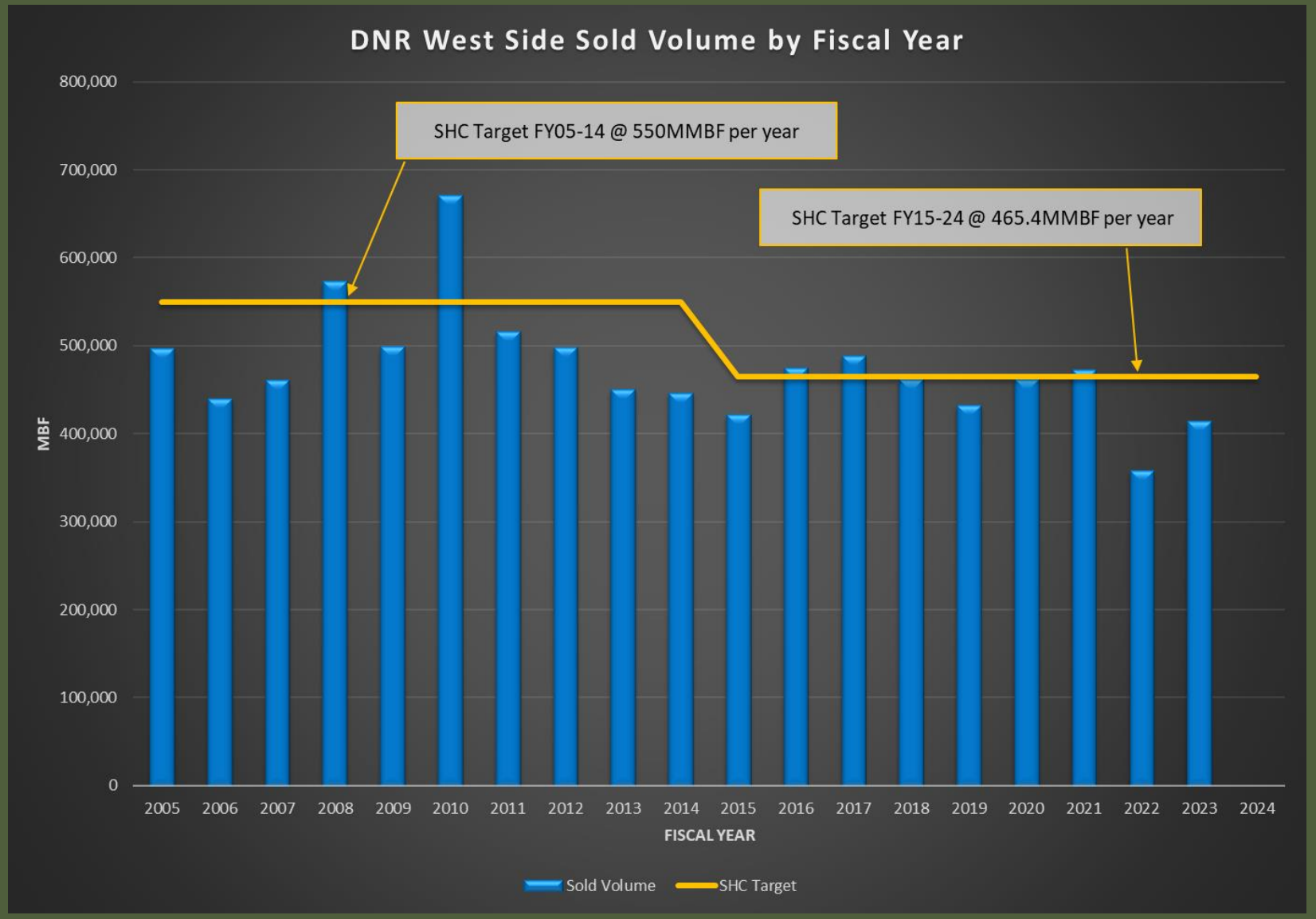
REVIEW Open Access

Variable retention harvesting in the Douglas-fir region

Jerry F. Franklin[1*] and Daniel C. Donato[1,2]



DNR FOREST MANAGEMENT



SNOHOMISH COUNTY FOREST TRANSFER LANDS

2018 - 2022 DNR Sale of Timber Distributions

Fund	Fund/District Name	Amount
2	General Fund	2,555,512.13
102	County Road	4,447,085.14
103	River Management	14.21
124	Human Services	53,714.51
185	Conservation Futures Tax Fund	113,890.85
662	State Schools	11,012,370.98
724	School 16 Arlington Sch	1,650,783.29
726	School 63 Index Sch	174,049.87
727	School 103 Monroe School	416,456.63
728	School 201 Snohomish Sch	4,358,464.26
730	School 311 Sultan Sch	3,890,375.47
731	School 330 Darrington Sch	521,737.55
732	School 332 Granite Falls Sch	712,359.41
773	Fire Dist No 4	350.03
774	Fire Dist No 5	70,574.44
775	Fire Dist No 7	6,454.41
782	North Cnty Regional Fire Auth	114,234.13
784	Fire Dist No 16	70,084.68
785	Fire Dist No 17	71,504.70
789	Fire Dist No 21	102,611.97
792	Fire Dist No 24	215,123.19
793	Fire Dist No 25	1,124.69
794	Fire Dist No 26	585,710.97
796	Fire Dist No 28	304.06
825	Pub Hosp Dist #1 Maint	709,995.61
828	Monroe Lib Cap Fac Area	12,738.43
829	Snohomish Lib Cap Fac Area	36,550.73
830	Pub Hosp Dist #3 Maint	641,098.62
840	Sno-Isle InterCo Rural Library	1,700,401.80
		34,245,676.76

Snohomish			
Age Class	Acres Conserved by HCP	Operable Acres	Total Acres
0-9	525	7,494	8,019
10-19	589	7,956	8,545
20-39	4,923	11,204	16,128
40-69	9,443	6,589	16,032
70-119	8,855	3,204	12,059
120-169	914	283	1,197
>=170	294	51	344
Total	**25,544**	**36,781**	**62,325**

Source: https://www.dnr.wa.gov/publications/em_bc_bnr_op_cons_sf_transferlands.pdf

NEW SECTION. **Sec. 3130. FOR THE DEPARTMENT OF NATURAL RESOURCES**

Carbon Sequestration Forests (40000405)

The appropriation in this section is subject to the following conditions and limitations: $83,000,000 of the appropriation is provided solely for the purchase of property to be managed for increased carbon sequestration and carbon storage through sustainable harvests and as replacement trust lands for existing encumbered forested state trust lands; and for structurally complex, carbon dense, forested state trust lands that may be transferred from trust status. The amount provided in this section is also to be used to carry out additional silvicultural activities on state trust lands, to convene a stakeholder group and conduct additional analysis related to the management of forested state trust lands, and to cover department costs to implement this section. Of the amount provided in this section:

DNR FOREST MANAGEMENT

Pyramid Peak Timber Sale
Clallam County - 32 miles west of Port Angeles
Offered by DNR April 2020
288 Acres
Successful Bid Price $ 1,751,359

DNR Volume Sold	
Hemlock	6,903 MBF
Douglas-fir	2,504 MBF
Red Alder	935 MBF
Red Cedar	505 MBF
Silver Fir	111 MBF
TOTAL	**10,958 MBF**

Destinations of logs from sale	# of Truckloads	# of Employees at location
SPI Shelton	999	293
SPI Burlington via Port of Port Angeles	414	205
Interfor	338	127
Port Angeles Hardwoods	249	92
Alta - PA then transferred to Shelton and/or Morton	70	80
Port Townsend Paper via port Angeles	361	300
Evergreen Fiber (Herman Bros.)	18	120
TOTAL Log truck loads Through 8-15-2023	**2449**	**1217**

Price Paid to get Timber Sale Delivered to Initial Destinatioin of Logs		
Stumpage (price of timber)	$ 1,751,359	
Mandatory DNR Road Fees	$ 284,908	
Road Building/Maintenance (TLC Excavation)	$ 884,428	
Road Use Permit (Merrill & Ring)	$ 30,000	
Professional Services	$ 5,395	
Logging (Oakes Logging)	$ 1,705,781	
Trucking (Various mostly Clallam Based)	$ 1,454,060	
Port of PA/Barge/Everett Log yard	$ 322,850	
Excise Taxes	$ 108,937	
	$ 6,547,718	**TOTAL COSTS THROUGH 8-15-2023**

Lumber and plywood products made by all mills are distributed throughout North America and beyond.

QUESTIONS