

Potential Timber Supply

Chelan County Wood Products Campus

Mike Buffo

November 30, 2023



Mason, Bruce & Girard

Mason, Bruce & Girard, Inc. provides natural resource consulting services to the private and public sectors. Founded in 1921 by David Mason, we have earned the reputation for providing scientific-based cost-effective solutions that meet our clients' long-term goals.

- Forestry (1921)
- Environmental Services (1997)
- Geospatial Services (2010)
- Wildfire Hazard Management and Planning (2020)

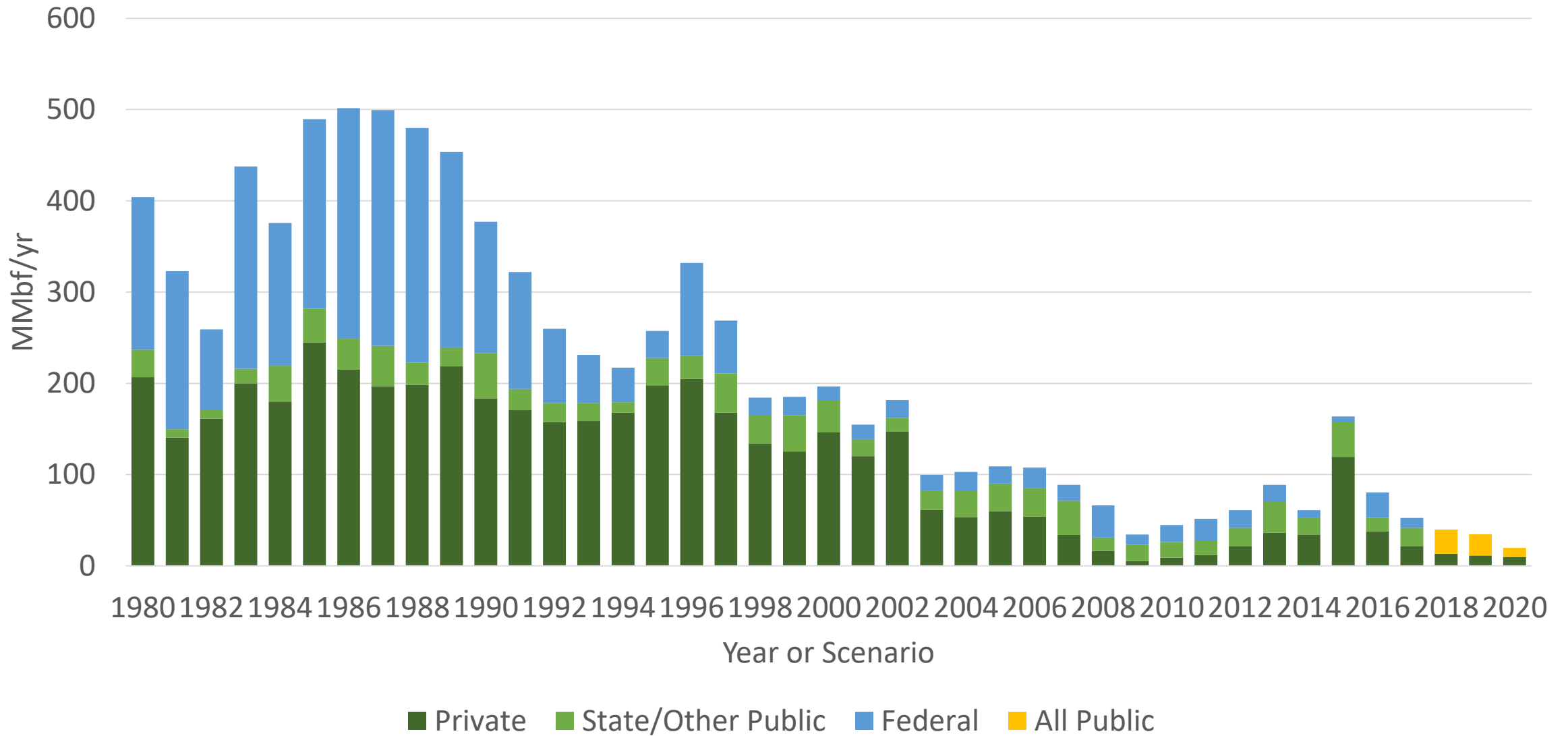


Is there enough timber to support a wood products campus in Chelan County?

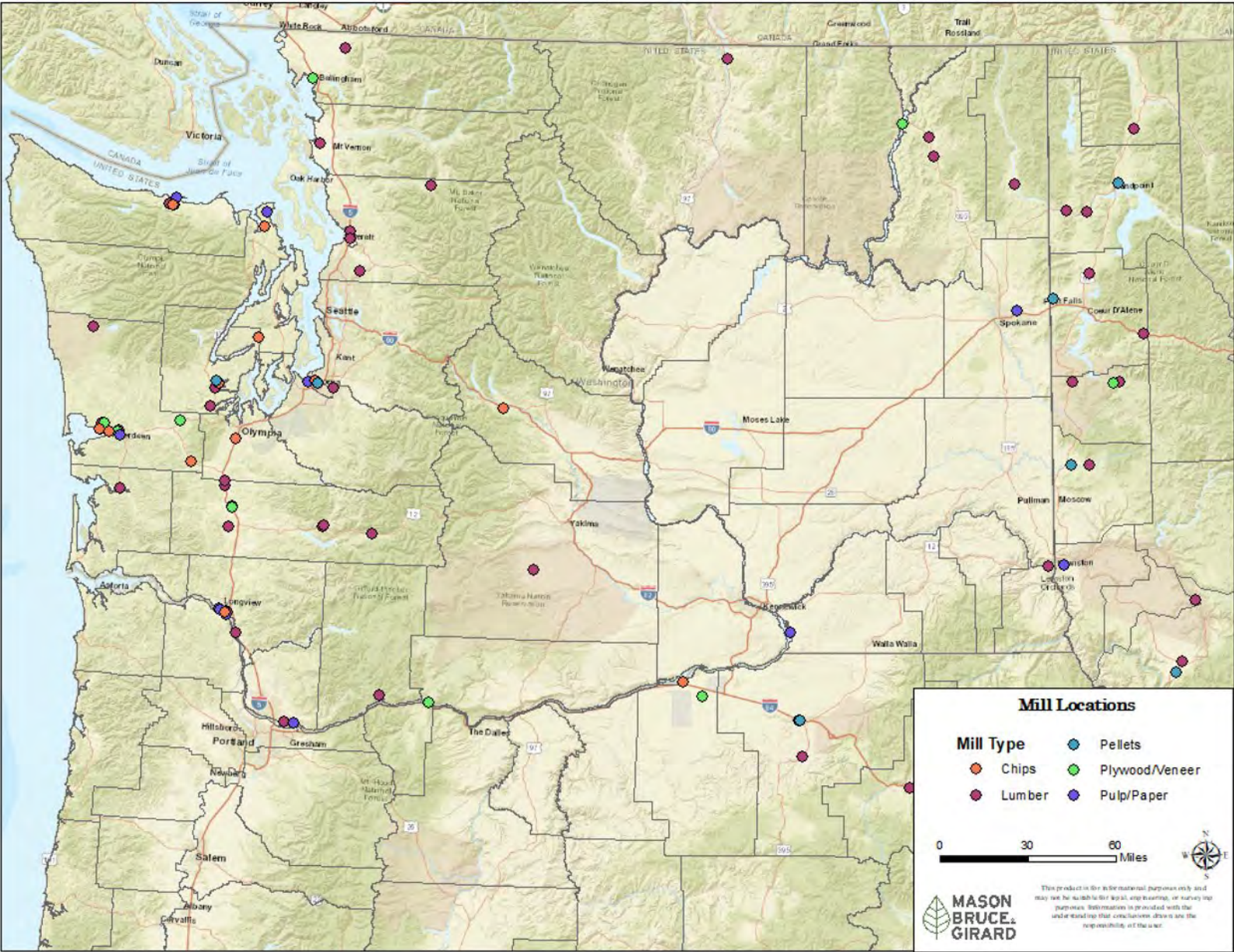
Yes, and a wood products campus would make harvest of this timber more likely.

Background

Timber harvest volume – Chelan, Kittitas, Okanogan counties

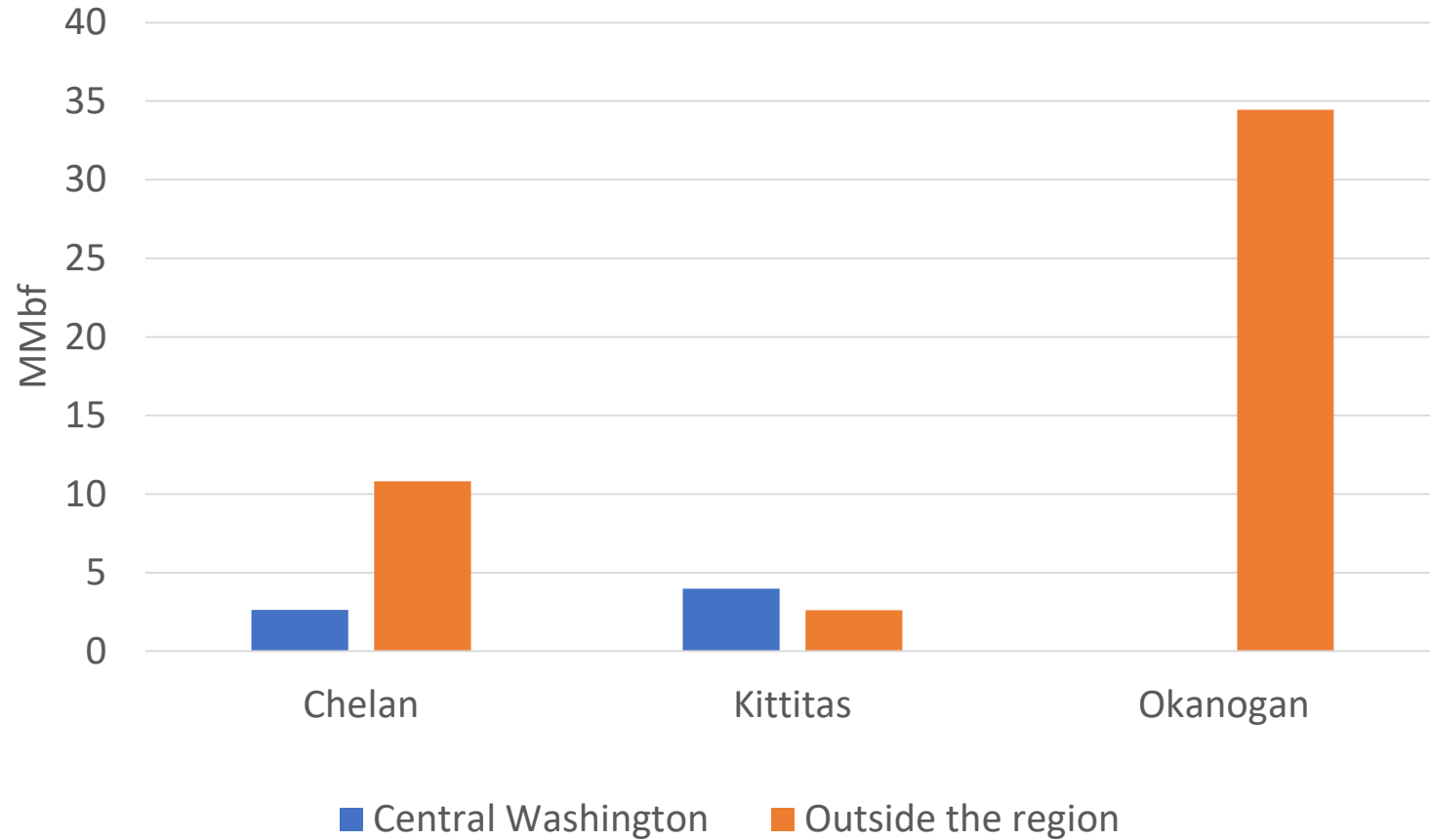


Mill locations

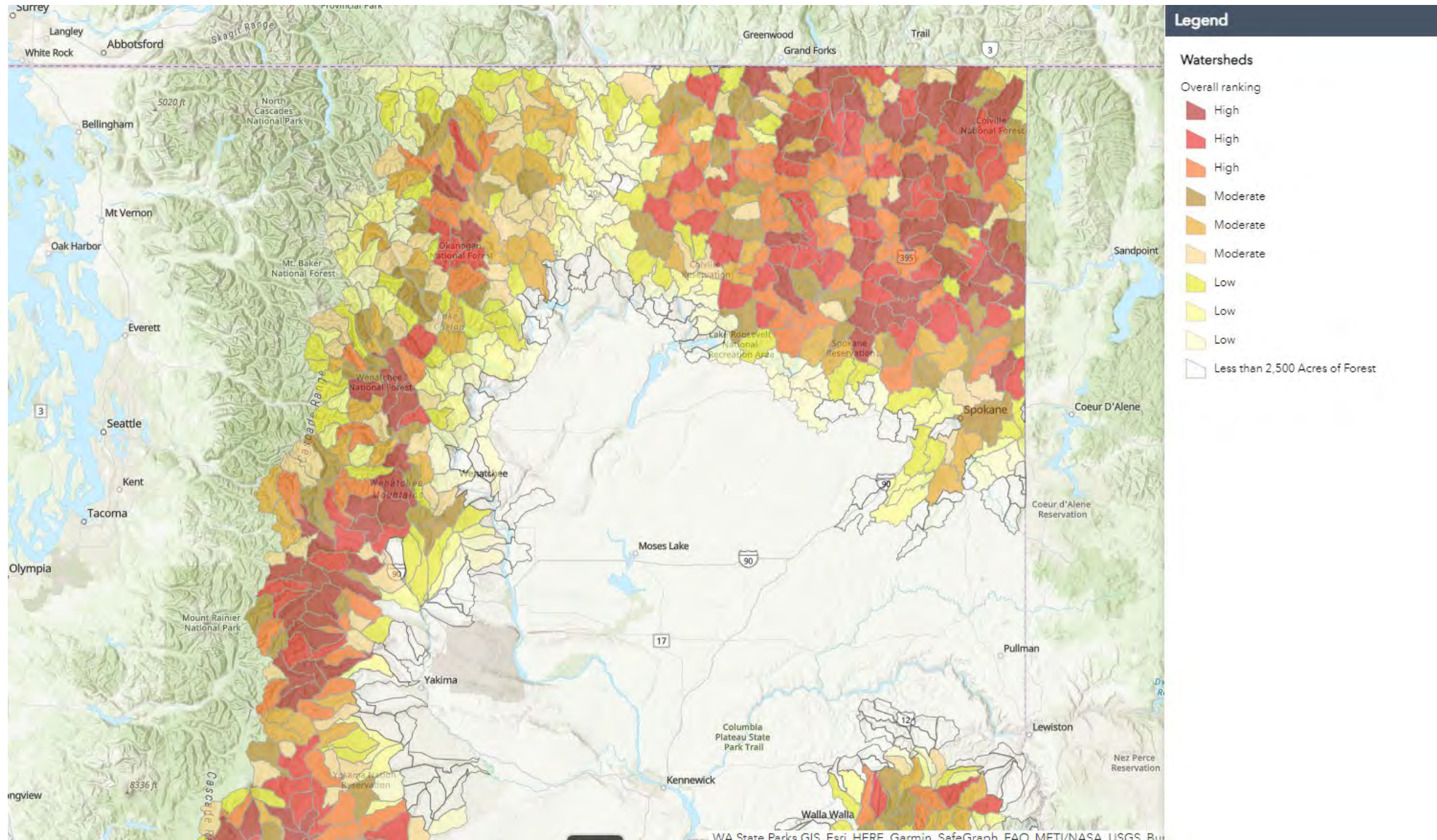


Wood products processing

Most timber harvested is processed outside the region



Restoration need by watershed.

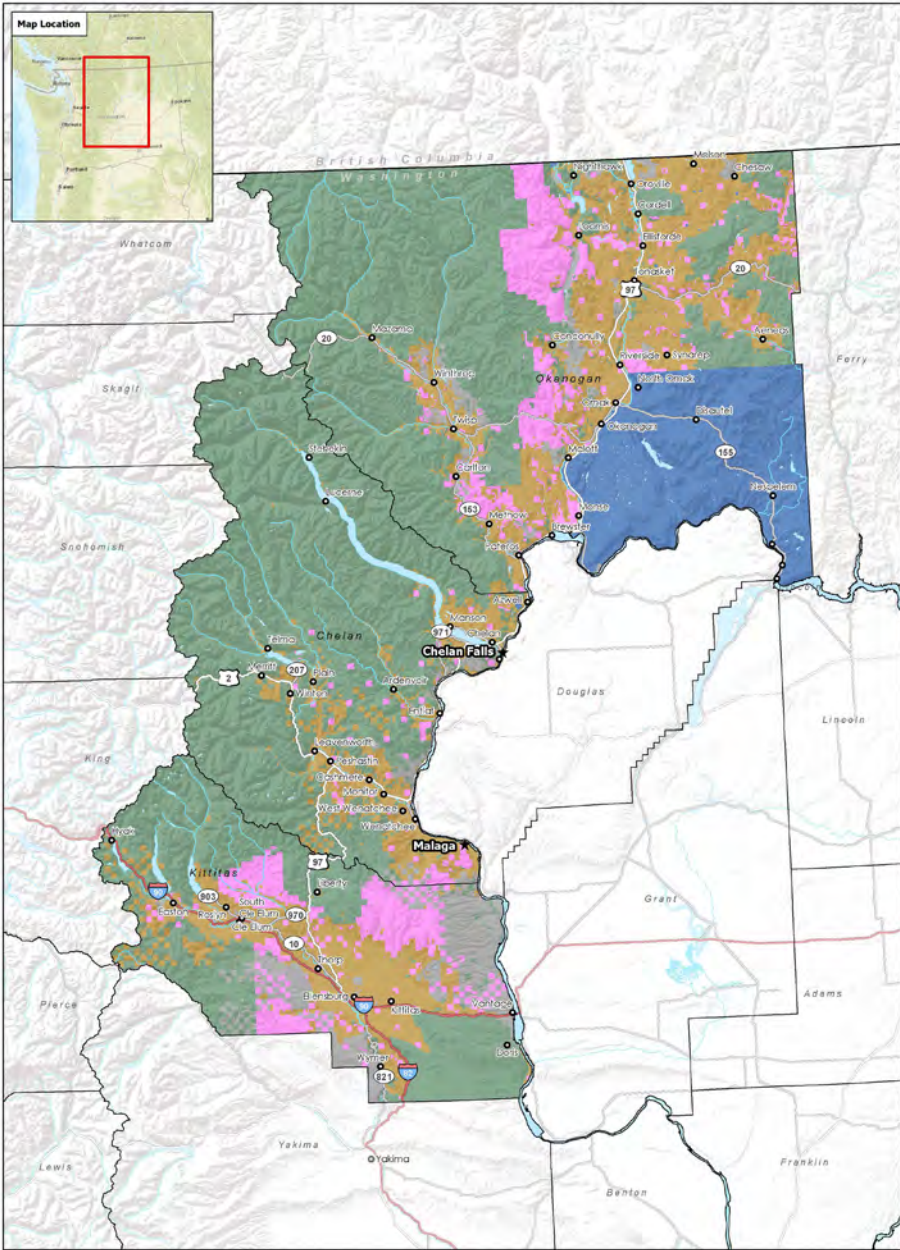


Data needs and key assumptions

1. Land base
2. Forest inventory
3. Harvest prescriptions
4. Logging system
5. Haul cost

Land base

Chelan, Kittitas, and Okanogan counties.



Land Ownership in Chelan, Kittitas, and Okanogan Counties

City or Town	Interstate Highway	Land Ownership	Private
Potential Mill Location	US Highway	USFS	Tribal
Waterbody	State Highway	Municipal or Other State	WA DNR
Major River			

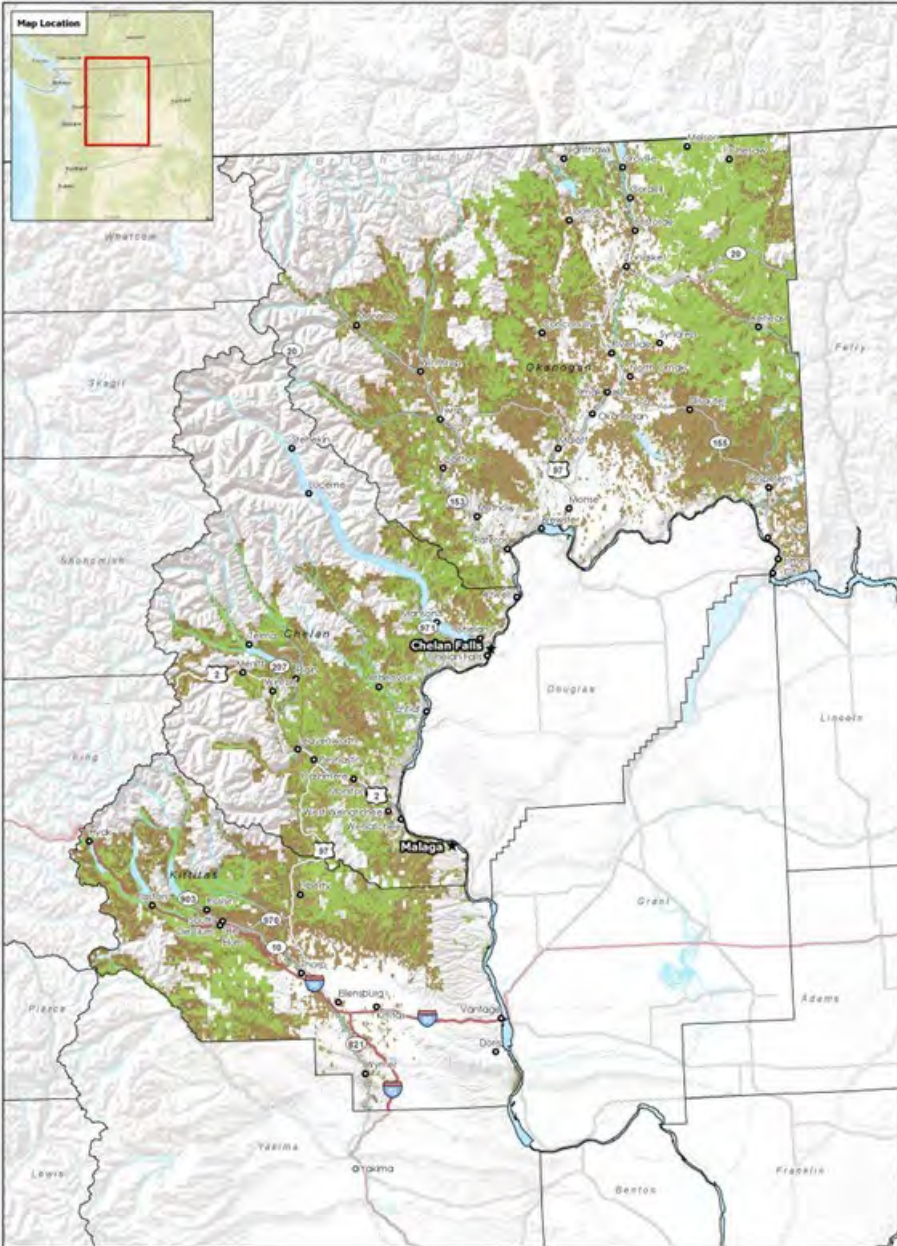
Scale: 0 10 20 30 Kilometers / 0 5 10 15 20 Miles

MASON BRUCE & GIRARD
Natural Resource Consultants

This product is for informational purposes only and may not be suitable for land, engineering, or planning purposes. All drawings are prepared with the understanding that consultation should be the responsibility of the client.
© 2012 Mason Bruce & Girard
Created by: Mike, Todd, & KTM June 2012
Drawing # 077001
06/2012

Land base

- Land use
- Land cover
- Accessibility
- Topography



Operability Classification in Chelan, Kittitas, and Okanogan Counties

● City or Town	— Interstate Highway	Operability Class
★ Potential Mill Location	— US Highway	■ Good
— Waterbody	— State Highway	■ Cats
— Major River		

0 5 10 20 30 Miles

MASON
BRUCE
GIRARD
NATURAL RESOURCE CONSULTANTS

This product is for informational purposes only and does not constitute an offer of any financial product or service. It is not intended to be used as a substitute for professional advice. The user assumes all responsibility for the use of this information. © 2010 Mason Bruce Girard. All rights reserved.

Forest inventory

Current forest inventory

Landscape Ecology, Modeling, Mapping & Analysis (LEMMA), an Oregon State University developed remote sensing inventory with full coverage of the analysis area.

Logging system and haul costs

Logging system

Ground-based

Cable

Haul costs

Based on drive time from the forest to potential campus locations.

Harvest prescriptions

National Forest System lands: Fuel reduction treatments of different intensities.

State lands: Continuation of current management with revenue and conservation objects expressed in various plans.

Private lands: Management for timber production

Tribal lands: No prescriptions developed – Total harvest estimated based the Colville Agency Integrated Resource Management Plan.

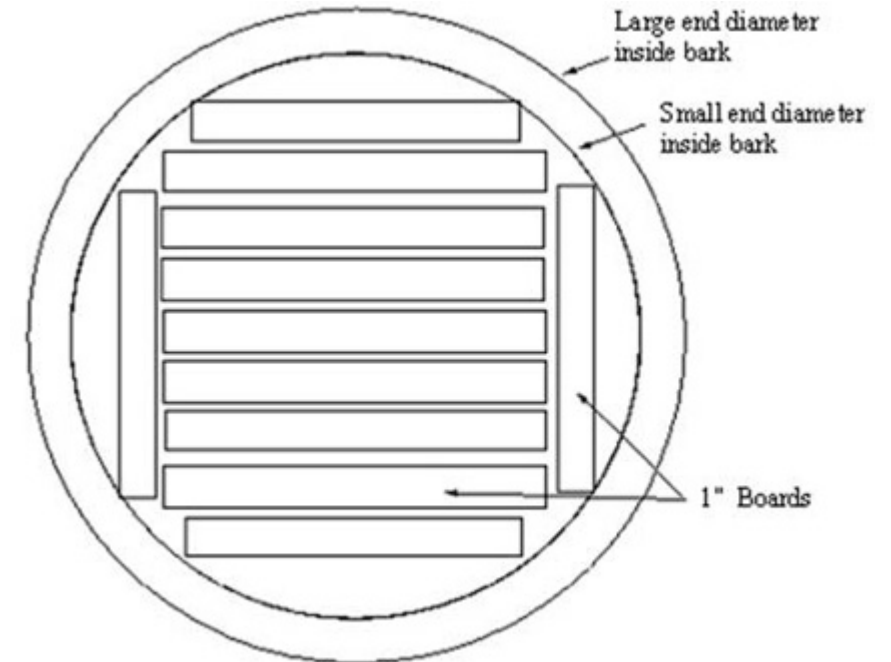
Output

- Volume estimate by log size class
- Cost to log and haul volume to potential locations



What's a board foot

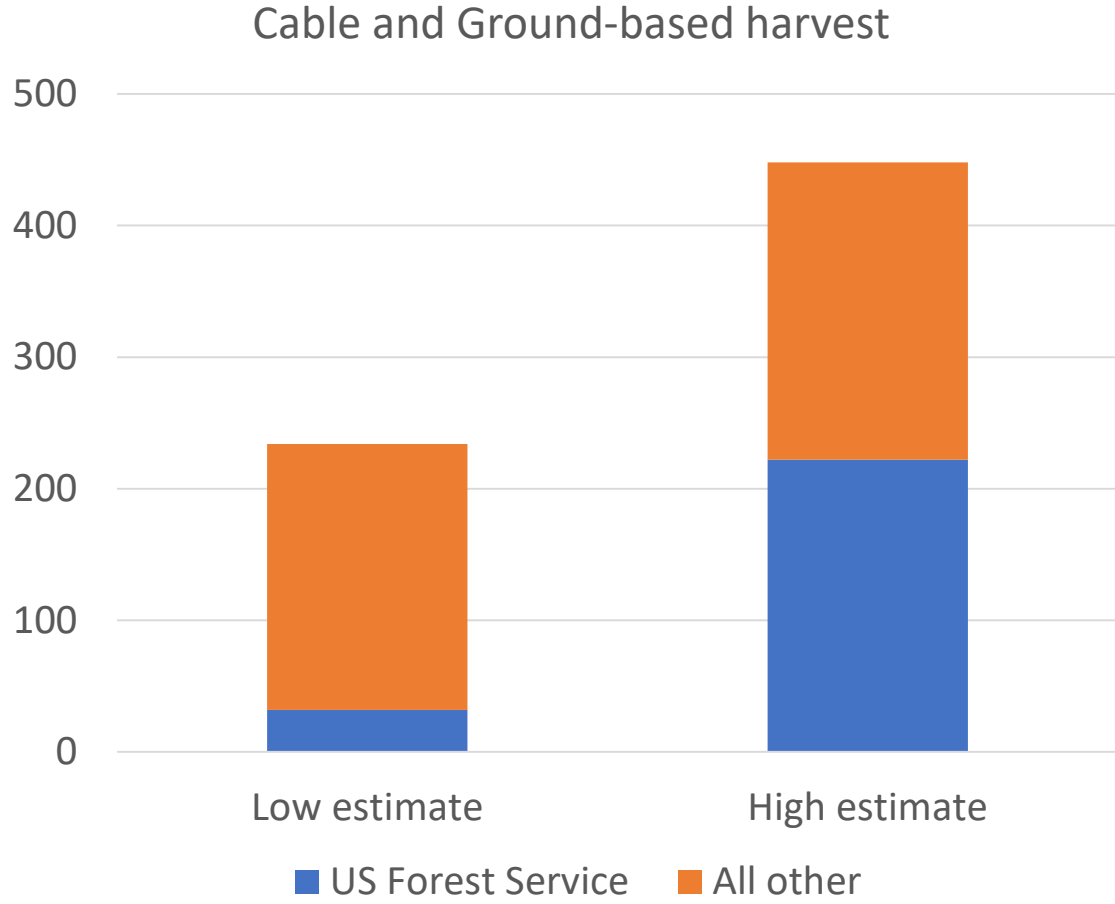
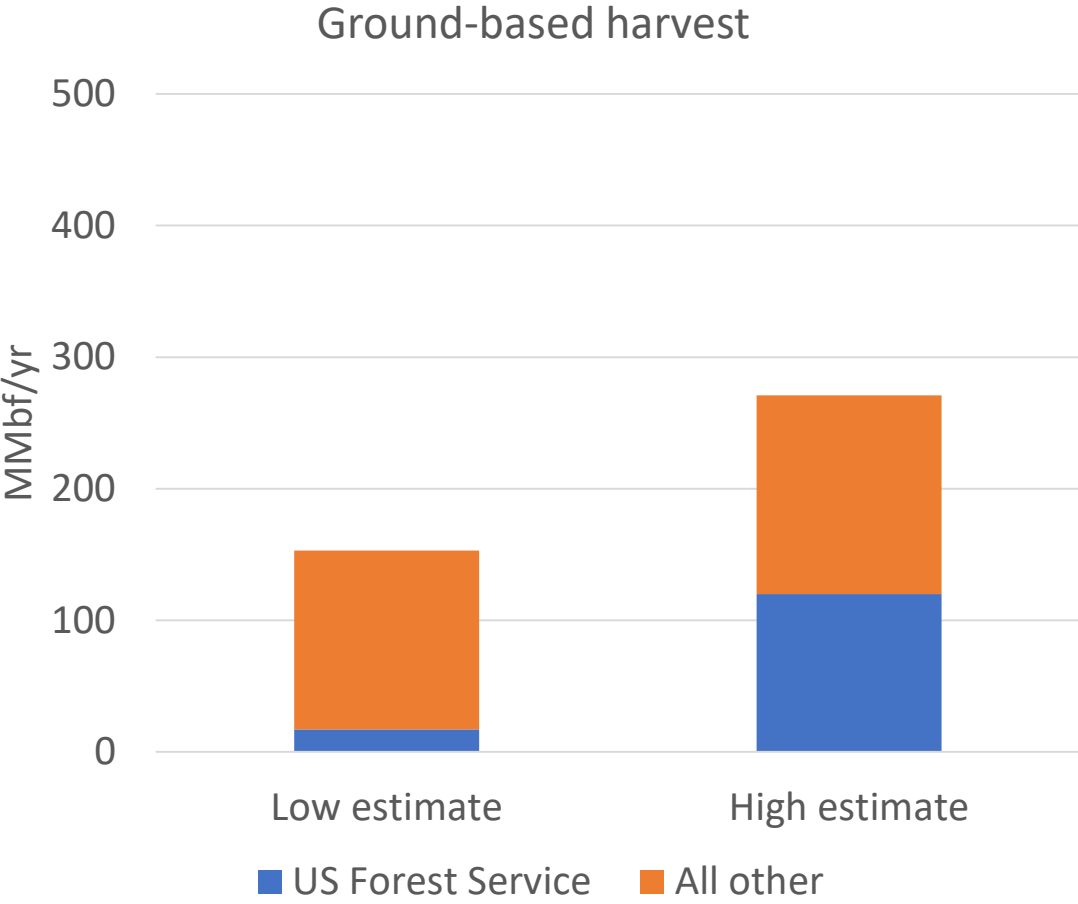
- Board foot:
 - 1 inch x 12 inches x 12 inches
 - Timber: Calculated based on boards that could be made meeting certain specifications
 - Specs depend on the “log rule” used
- Mbf: thousand board feet
- MMbf: million board feet



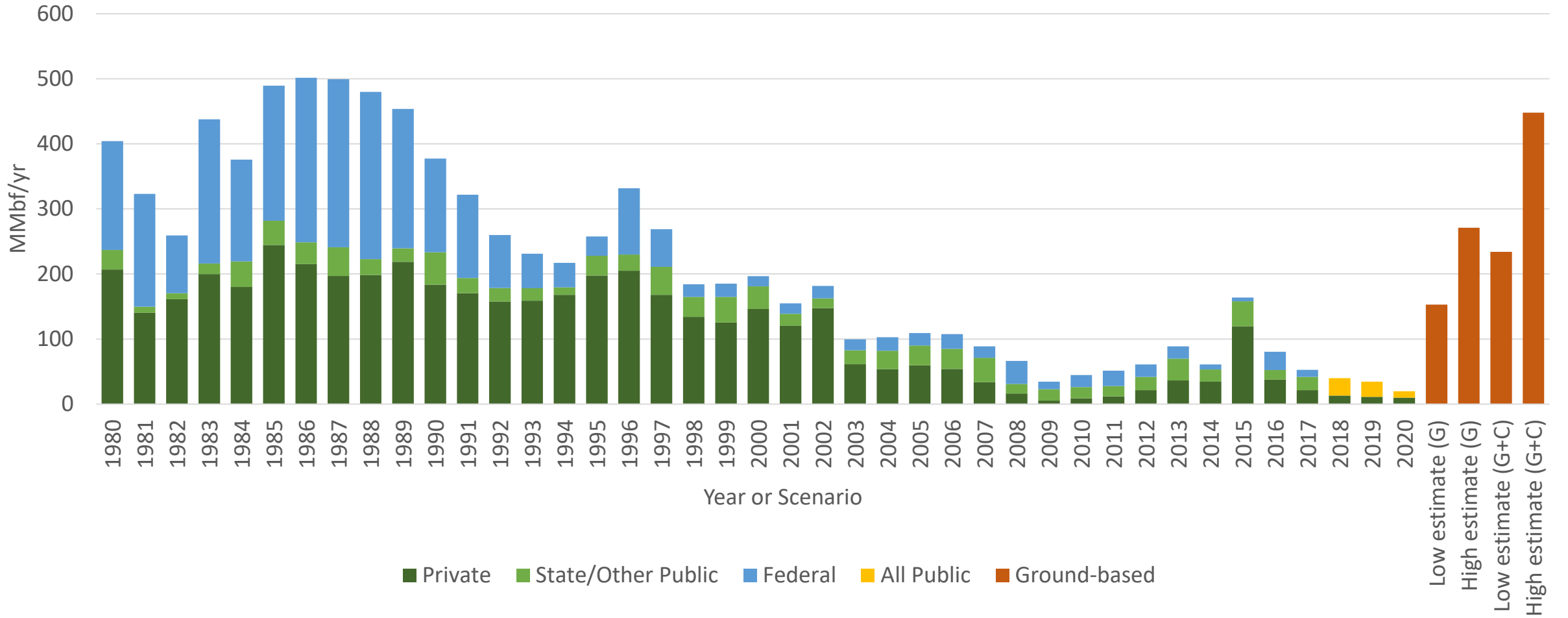
About 15 Mbf in a single-family home

Results

Potential timber supply – impacts of harvest prescriptions and logging systems



Past timber harvest volume and projected annual potential timber harvest



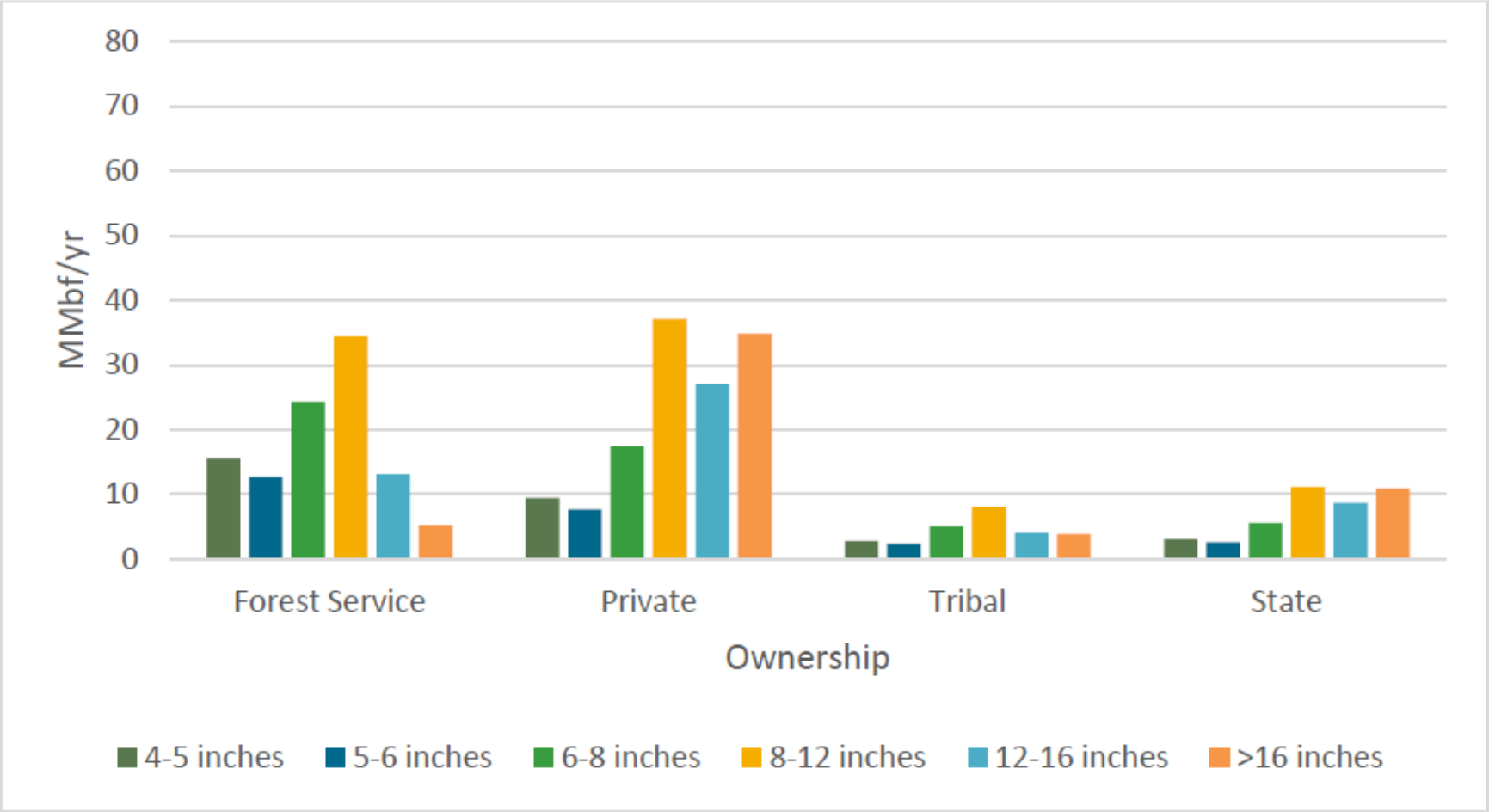
G = Ground-based
G+C = Ground and cable

Logging and haul costs to a potential campus location

	Forest Service (MMbf)	Private (MMbf)	Tribal (MMbf)	State (MMbf)	All lands (MMbf)	All lands cumulative % in each cost class and lower
>\$100-\$150	0	0	0	0	0	0%
>\$150-\$200	20	10	4	10	44	10%
>\$200-\$250	82	70	16	30	197	54%
>\$250-\$300	22	35	4	16	77	71%
>\$300-\$350	78	16	2	8	104	94%
>\$350-\$400	15	3	0	2	20	99%
>\$400-\$450	4	1	0	0	5	100%
>\$450-\$500	0	0	0	0	0	100%
Total	222	134	26	66	448	

Results

Timber could be produced across a range of sizes.



Is there enough timber to support a wood products campus in Chelan County?

Yes, and a wood products campus would make harvest of this timber more likely.