

# Silvicultural Techniques Growing High Value Timber

November 7, 2015  
Sedro Woolley High  
School

2014.06.25 11:04



# Know origins, Manage in concert with Natural Conditions





# Write up a Forest Management Plan

- Summarize the forest facts: Acreage, Topography, endangered species & fish streams, site indices, unstable slopes, road access, soils and current status of forest like age classes and species.
- Map out the forest.
- Objectives. Why you own a forest and what do you want to do with it. **Values are not always monetized.**
- Strategies. Explain how objectives can be achieved and maintained. For managing forests to create saw timber, growth and yield information is mandatory.
- Keep management plan handy.



# Know your Constraints

- Washington State Forest Practice Rules & Regulations and work strictly within them. Easy to find on line.
- If confused, DNR personnel are knowledgeable and helpful. Locally in Sedro-Woolley.
- DNR is not always regulatory authority. Critical Areas Ordinances – UGA's, Building house.



# Property Size affects Management.

- Smaller parcels not managed on a landscape basis. More intensive, aesthetics, access in the forest. Mechanical brush treatment. Variable species and ages. Individual tree selection. Niche markets more interesting. Monetary values lower priority. Often adjacent to developed properties (e.g. houses)
- Larger parcels can be managed on a landscape basis. More options available.



# Niche Markets

- Niche markets are insignificant to landowner unless you're the operator. Niche timber markets (e.g. veneer, poles)
- Inoculating downed alder with mushroom spores,
- Hunting agreements, firewood,
- Bee Hives / Honey,
- Cedar salvage,
- Green Sales, eg moss & salal, bows,
- Christmas trees, (Nobles)
- Figured Maple,
- Maple Syrup
- Ecosystem Services



# Hunt lease – Weyerhaeuser trialing out in NW





Mushrooms. Niche Markets nice  
but.....





# At the end of the day....it's

- Saw logs
- Pulp logs
- Poles

...unless you're prioritizing low or non market values. Don't be shy...it's OK.



# Managing Your Species Mix

Ecosystems vary, One size doesn't fit all.

Breaking out by site indices a good start. DNR website good source of Site info.

Elevation also a good indicator.

Educate yourself on what works. What are neighbors' (un)successfully doing



# Upper Elevation / Lower Site Management

- >1500'. Shelterwood harvests with 1-2 commercial thins
- Allow natural regen to establish.
- Immediately post harvest, PCT the stand.



# 1990 – First Commercial Thinning in Natural Second Growth Site III





# CT in early '90's w/ Swing Yarder





# Early Post harvest





# Western Hemlock Naturally Seeding in





# Western Red Cedar Naturally Seeding in





# 1932 Origin of Overstory, 1994 Shelterwood Harvest. Photo 2014





Origin 1932, Shelterwood 1994  
Just prior to harvest in 2014





One year later. PCT'd 2015





# Closer Look. Natural WRC, WH & some planted DF





# Advantages of Shelterwood Mgt on Low Site, High Elevation

- Larger average log sizes means fewer logs to handle for more volume
- Head start on next rotation. Hemlock, cedar, silver fir replaces hemlock, cedar & Silver fir
- Green up time eliminated.
- Warmer temps under canopy = longer growing season



# Lower Elevation, Higher Site Management

- <1500'.
- Brush invasion makes natural regen\_very complex. Brush treatments required.
- Commercial thin 1-3 times,
- Can underplant w/\_shade tolerant species but mixed success
- Some low elevation not high site. Gravelly outwash, high water table. Brush\_less of a problem & mechanical PCT used. Consider\_Alder.
- Cross between the two above. Site III ground.



Not nice to fool Mother Nature,  
especially on high sites.





You get this.....interesting, but do you achieve your objectives?





# Treat Maples....or else





Neglected Management means Rehab.  
In this case, to restore fish habitat





High site. Not pretty, but  
natural.....and more manageable





# Starting early 90's - Commercial Thinning





Room to grow, Forest Floor re-vegetated, Another species?





# From Above





# Underplanting with Western Red Cedar





Pruning creates Clear Wood, but at High Cost. No Premium.





# 1990 July 18<sup>th</sup>



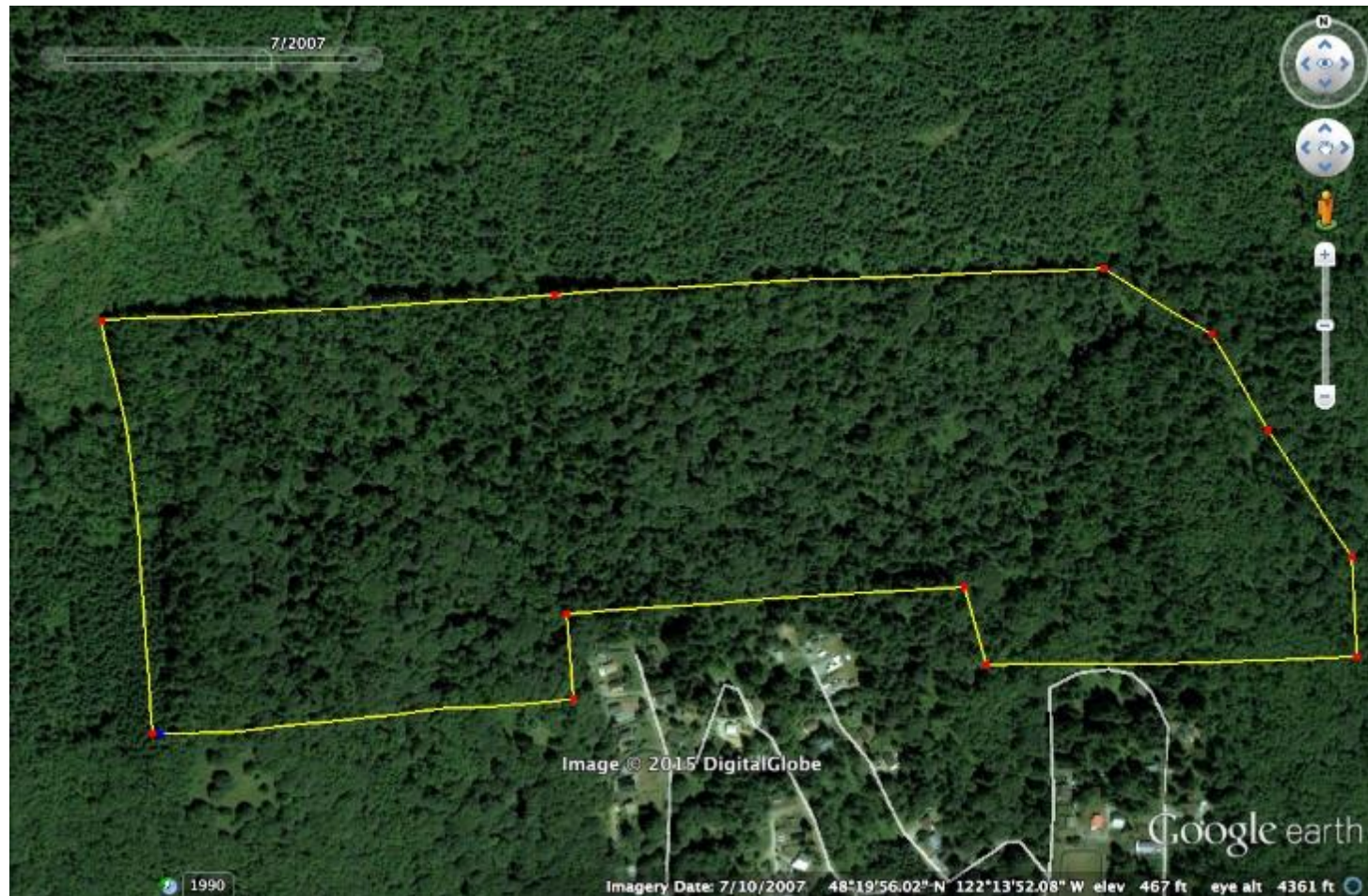


# 2003 November



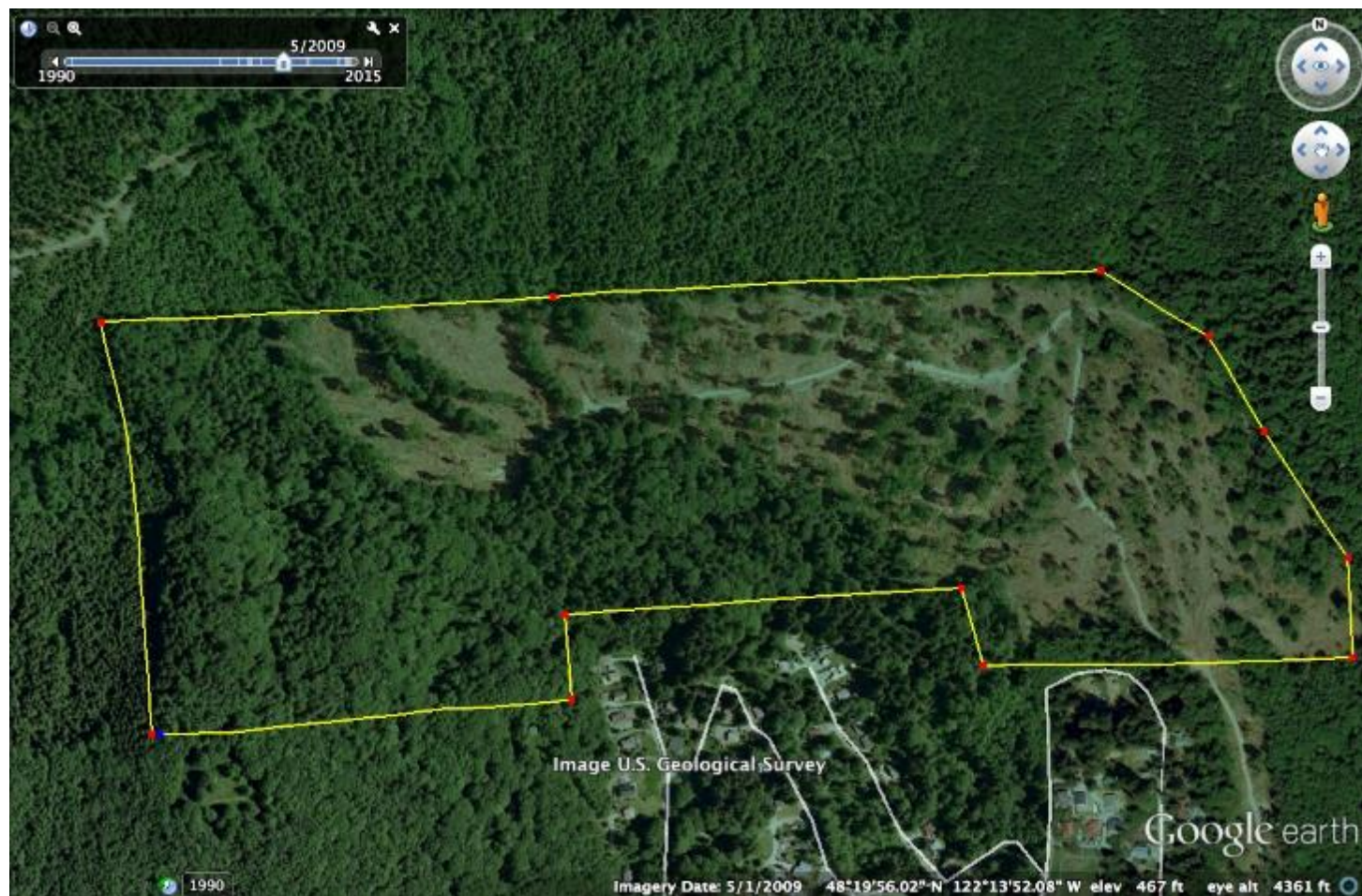


# 2007 July 10th



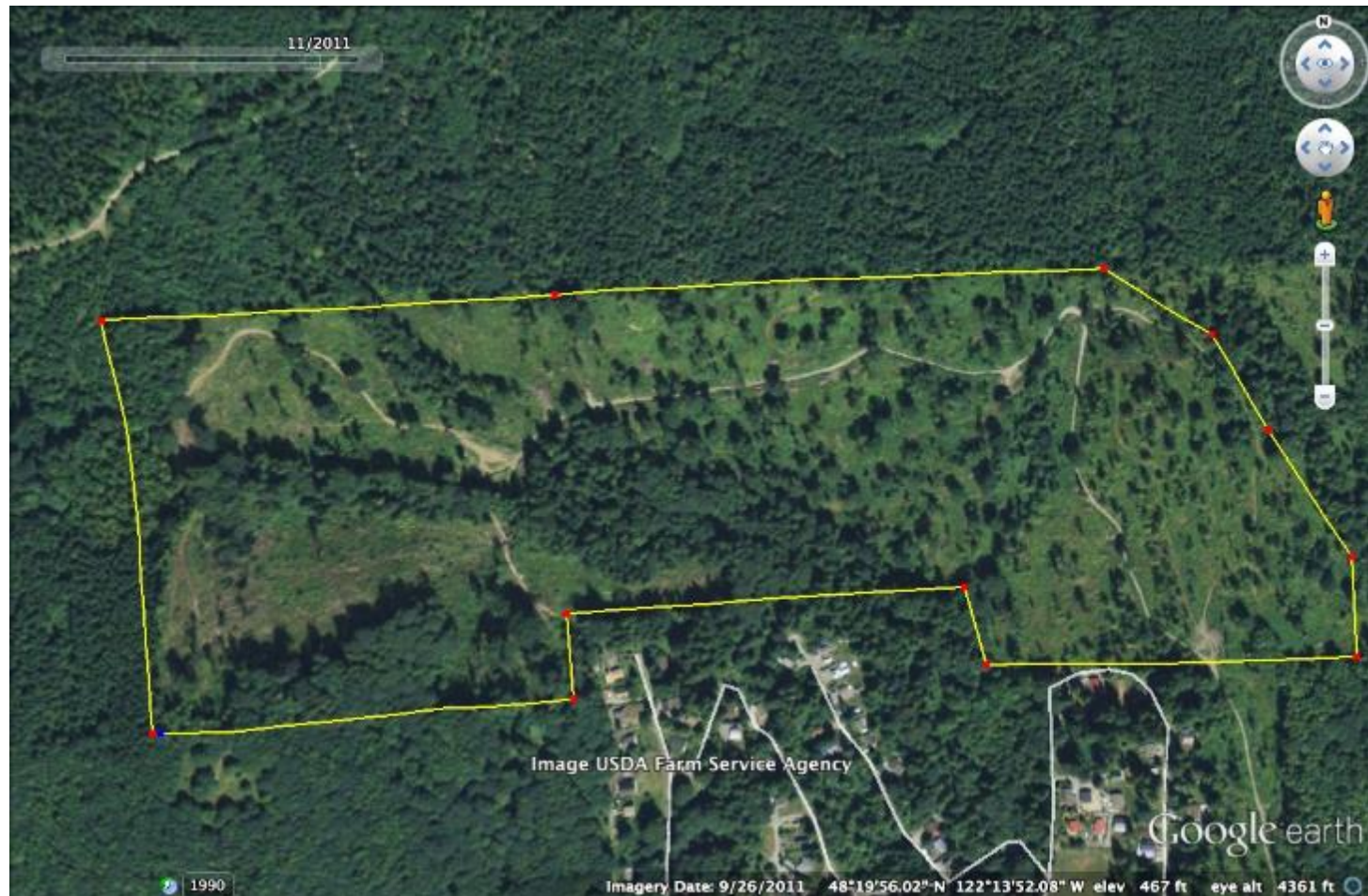


# 2009 May 1st





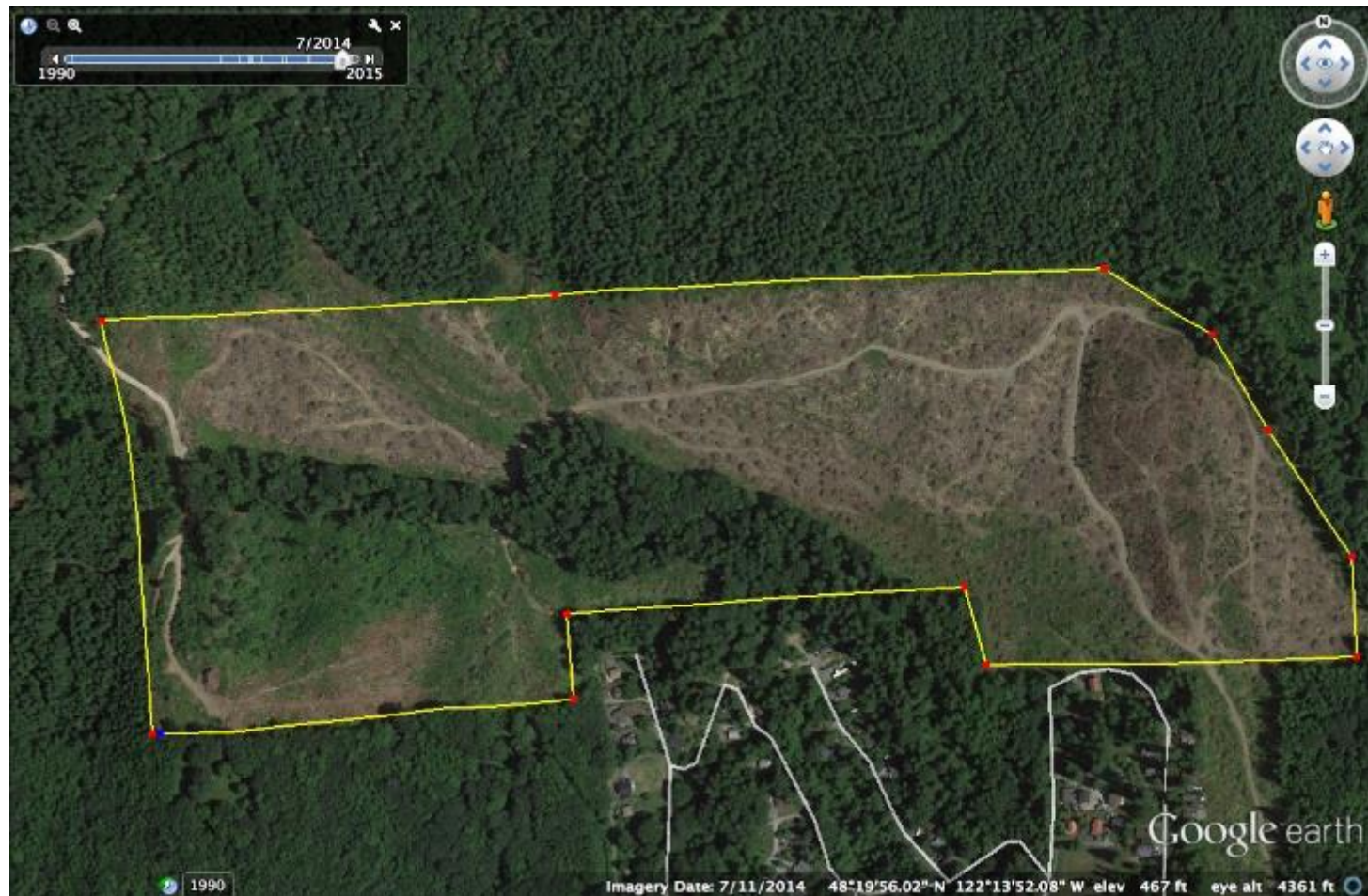
# 2011 Sept 26th





2014 July 11<sup>th</sup>

A better imitation of natural conditions







Selective Oak & Beach





## HORSE LOGGING – 2 YR COURSE

Even aged commercial thin



# Spacing out stands in naturally even-aged ecosystems - Austria





## HAND DEBARKING – PREVENT BARK BEETLE





Avoid degrading Site. Raked clean.  
80 year old Red Oak





# So you've got a beautiful stand. What next?

- Identifying timber grades (Log Grade Book)
- Price Variation mostly based on species.  
Variability within species less than in the past.
- Most mills: max butt diameter of ~31". And top end minimum of 5"-6", 16' long, ~12" trim.
- Log buyers will address this later.



280 Yr Rotations. How patient are  
you?





8000 TPH, Red Oak. How much are you willing to invest?



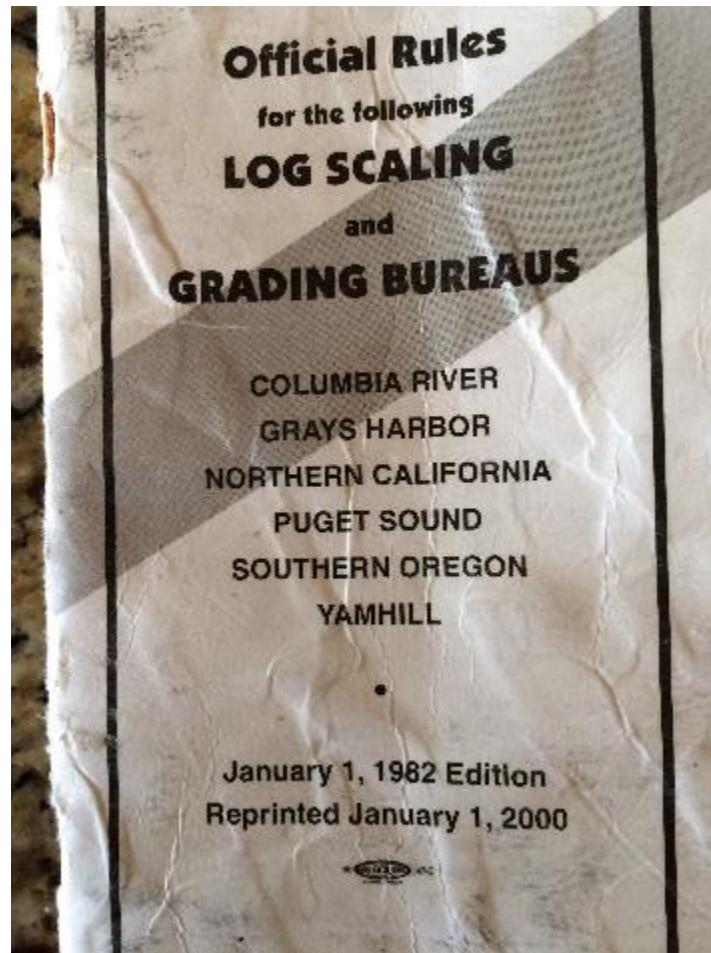


# Manufacturing Logs

- Log manufacturing for highest value
- Length more important than diameter. Taper can influence
- Volume, so often a balance between lower volume & higher
- Price. Many log price lists are a matrix, differing prices
- Depending on length. High quality logs have higher ring counts
- Clearer grain and fewer knots, & larger diameter.

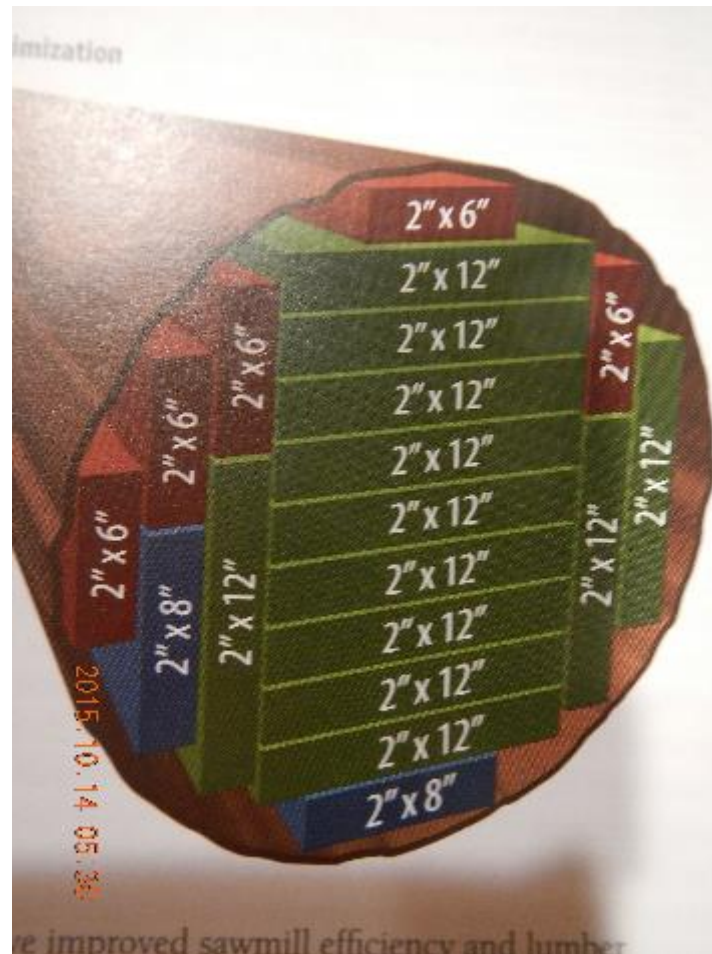


# Log Scale





How Volume is determined. What you can saw out of a log.





# Log Price Sheet

Length & Grade			40'	36'-38'	32'-34'	28'-30'	24'-26'	22'	16'-20'	12'-14'
# 2 Sawmill & BTR.	(32" Butt Dia & Larger)	Oversized	\$ 375	\$ 360	\$ 353	\$ 319	\$ 263	\$ 263	\$ 300	\$ -
# 2 Sawmill & BTR. *	(31" Butt Dia & Smaller)		\$ 600	\$ 576	\$ 564	\$ 510	\$ 420	\$ 420	\$ 480	\$ 357
# 3 Sawmill (10"-11")			\$ 600	\$ 576	\$ 564	\$ 510	\$ 420	\$ 420	\$ 480	\$ 357
# 3 Sawmill (8"-9")			\$ 600	\$ 576	\$ 564	\$ 510	\$ 420	\$ 420	\$ 480	\$ 357
# 3 Sawmill (6"-7")			\$ 600	\$ 576	\$ 564	\$ 510	\$ 420	\$ 420	\$ 480	\$ 357
# 4 Sawmill (5"+)			\$ 600	\$ 576	\$ 564	\$ 510	\$ 420	\$ 420	\$ 480	\$ 357
Oversize # 3 SAW (12"+)			\$ 375	\$ 360	\$ 353	\$ 319	\$ 263	\$ 263	\$ 300	\$ -
Mis-Sorts			\$100							
Short Log, Utility, Foreign Material			NO PAY							

## HEMLOCK/TRUE FIR DELIVERED TO HAMPTON LUMBER - DARRINGTON

Length & Grade			40'	36'-38'	32'-34'	28'-30'	41'-54' 24'-26'	22'	16'-20'	12'-14'
# 2 Sawmill & BTR.	(32" Butt Dia & Larger)	Oversized	\$ 350	\$ 336	\$ 329	\$ 298	\$ 245	\$ 245	\$ 280	\$ -
# 2 Sawmill & BTR. *	(31" Butt Dia & Smaller)		\$ 500	\$ 480	\$ 470	\$ 425	\$ 350	\$ 350	\$ 400	\$ 298
# 3 Sawmill (10"-11")			\$ 500	\$ 480	\$ 470	\$ 425	\$ 350	\$ 350	\$ 400	\$ 298
# 3 Sawmill (8"-9")			\$ 500	\$ 480	\$ 470	\$ 425	\$ 350	\$ 350	\$ 400	\$ 298
# 3 Sawmill (6"-7")			\$ 500	\$ 480	\$ 470	\$ 425	\$ 350	\$ 350	\$ 400	\$ 298
# 4 Sawmill (5"+)			\$ 500	\$ 480	\$ 470	\$ 425	\$ 350	\$ 350	\$ 400	\$ 298
Oversize # 3 SAW (12"+)			\$ 350	\$ 336	\$ 329	\$ 298	\$ 245	\$ 245	\$ 280	\$ -
Mis-Sorts			\$100							
Short Log, Utility, Foreign Material			NO PAY							

\* (#2 Saw up to and including 31" Butt Dia)(Long Axis - Inside Bark)

5" Minimum scaling diameter inside bark


12' Minimum Length

12" Trim required

Prices are per thousand board feet net log scale



# Pole Price Sheet



**THE OESER COMPANY**  
730 Marine Drive  
Bellingham WA 98225


PHONE 360-734-1480 <> FAX 360-671-8785

DATE: \_\_\_\_\_

Company: \_\_\_\_\_

Job: \_\_\_\_\_

Initial: \_\_\_\_\_

CEDAR POLE PRODUCERS										
POLE SIZE	D O R	DAL FT	Cedar \$ Each	Cedar \$ / 100ft		POLE SIZE	D O R	DAL FT	Cedar \$ Each	Cedar \$ / 100ft
2-40	120		\$178	\$1,483		1-75	440		\$821	\$1,866
3-40	120		\$162	\$1,350		2-75	290		\$642	\$2,214
4-40	90		\$126	\$1,400						
						1-80	440		\$863	\$2,030
2-45	150		\$220	\$1,467		2-80	330		\$758	\$2,297
3-45	120		\$190	\$1,583						
4-45	120		\$167	\$1,392		1-85	570		\$999	\$1,753
5-45	90		\$125	\$1,389		2-85	490		\$876	\$1,788
2-50	160		\$240	\$1,500		1-90	590		\$1,083	\$1,636
3-50	140		\$210	\$1,500		2-90	490		\$993	\$2,027
4-50	140		\$180	\$1,280						
2-55	180		\$265	\$1,472		1-95	640		\$1,173	\$1,633
3-55	150		\$220	\$1,457		2-95	540		\$1,055	\$1,954
4-55	150		\$200	\$1,333						
						1-100	660		\$1,251	\$1,695
1-60	290		\$484	\$1,703						
2-60	220		\$374	\$1,700		1-105	740		\$1,419	\$1,918
3-60	190		\$285	\$1,500						
						1-110	780		\$1,553	\$1,991
1-65	320		\$539	\$1,684		1-115	860		\$1,643	\$1,910
2-65	260		\$442	\$1,700						
3-65	210		\$310	\$1,476		1-120	970		\$1,845	\$1,902
1-70	350		\$672	\$1,500						
2-70	270		\$565	\$2,093						

**TERMS:**

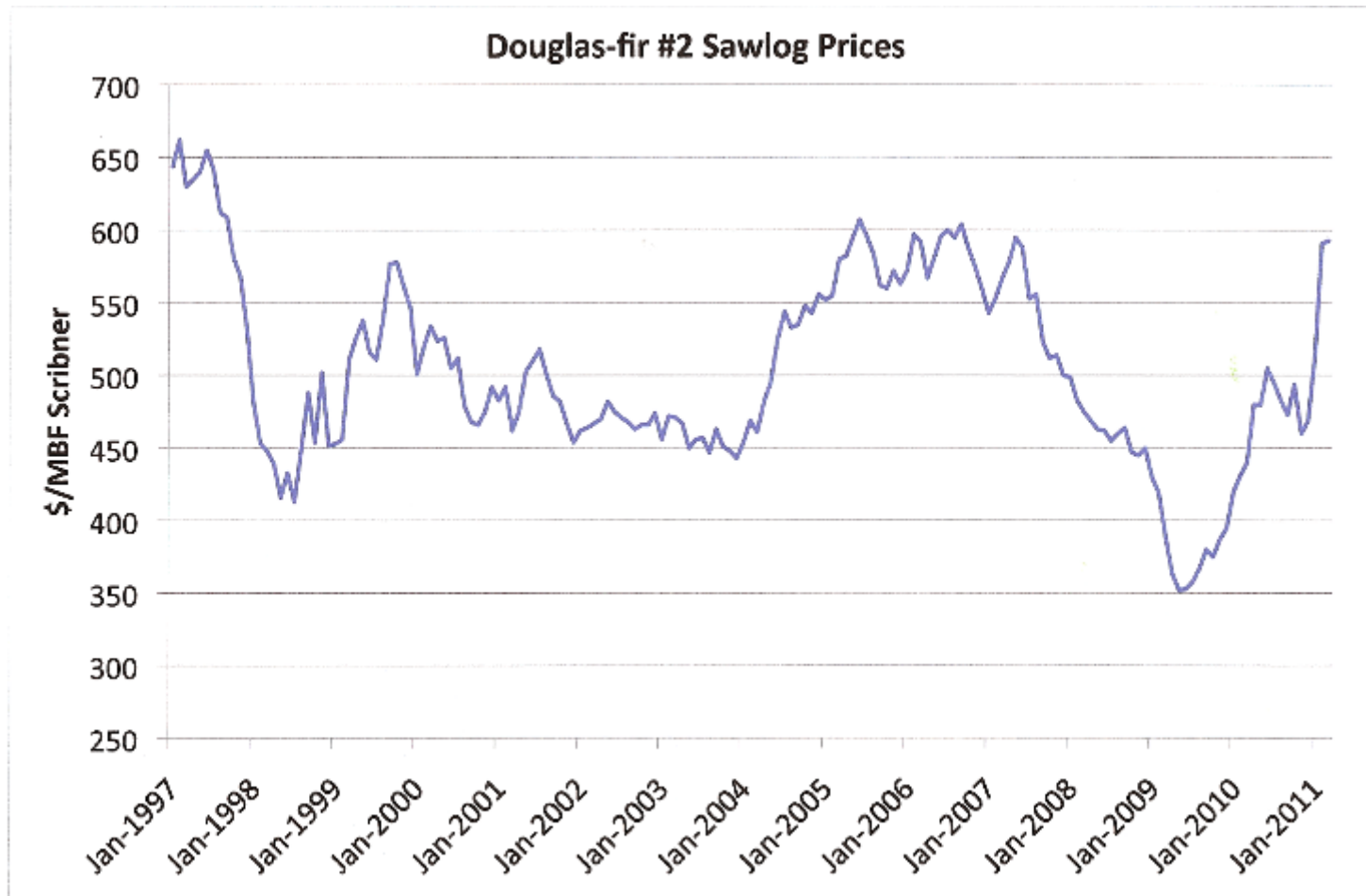
- 1 - Poles will be manufactured to their highest value regardless of delivered length.
- 2 - Pricing to remain current, based on delivery.
- 3 - Prior weeks receipts will be paid each Friday.
- 4 - Calls & Undersize to be paid on log scale, FOB OESER, less \$75/MBF to cover shipping & handling.
- 5 - Sizes larger than shown will be paid at closest size shown unless purchased on special order.
- \* 6 - Sizes with no price shown will be paid at the shorter (cutback) size they will make.

**IF YOU HAVE ANY QUESTIONS CALL:**

Mike Freund - Forester 360.966.7653 / Cell 360.708.4421 or Mark Edick - Manager 360.757.2252 / Cell 360.708.9548



# Markets Fluxuate





# Certification

- Long term commitment to growing trees is required to maximize timber value. Certifying your forest is one way to make a statement.
- Several certifiers. Research and select the one that best fits your situation and philosophy. American Tree Farm, FSC, SFI.
- Make sure you retain enough tools to do what you need to do. IPM – integrated pest mgt.



# Seek Assistance

- Private Educated Foresters
- Membership Society of American Foresters
- WSU Extension Services
- DNR Small Landowner Assistance
- Certifiers (ATF, FSC, SFI)
- Washington Farm Forestry Association