Silvicultural Techniques
Growing High Value Timber

November 7, 2015
Sedro Woolley High School
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 in 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)succesfully 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 regeneration very complex. Brush treatments required.
- Commercial thin 1-3 times,
- Can underplant with shade tolerant species but mixed success
- 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?
Underplanting with Western Red Cedar
Pruning creates Clear Wood, but at High Cost. No Premium.
1990 July 18th
2003 November
2009 May 1st
2011 Sept 26th
2014 July 11th
A better imitation of natural conditions
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

Official Rules
for the following
LOG SCALING
and
GRADING BUREAUS

COLUMBIA RIVER
GRAYS HARBOR
NORTHERN CALIFORNIA
PUGET SOUND
SOUTHERN OREGON
YAMHILL

January 1, 1982 Edition
Reprinted January 1, 2000
How Volume is determined. What you can saw out of a log.
# Log Price Sheet

## Length & Grade

<table>
<thead>
<tr>
<th></th>
<th>40'</th>
<th>36'-38'</th>
<th>32'-34'</th>
<th>28'-30'</th>
<th>24'-26'</th>
<th>22'</th>
<th>16'-20'</th>
<th>12'-14'</th>
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</thead>
<tbody>
<tr>
<td>#2 Sawmill &amp; BTR.</td>
<td>$375</td>
<td>$360</td>
<td>$353</td>
<td>$319</td>
<td>$263</td>
<td>$263</td>
<td>$300</td>
<td>$-</td>
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<tr>
<td>(32&quot; Butt Dia &amp; Larger)</td>
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<tr>
<td>#2 Sawmill &amp; BTR. *</td>
<td>$600</td>
<td>$576</td>
<td>$564</td>
<td>$510</td>
<td>$420</td>
<td>$420</td>
<td>$480</td>
<td>$357</td>
</tr>
<tr>
<td>(31&quot; Butt Dia &amp; Smaller)</td>
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<tr>
<td>#3 Sawmill (10&quot;-11&quot;)</td>
<td>$600</td>
<td>$576</td>
<td>$564</td>
<td>$510</td>
<td>$420</td>
<td>$420</td>
<td>$480</td>
<td>$357</td>
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<tr>
<td>#3 Sawmill (8&quot;-9&quot;)</td>
<td>$600</td>
<td>$576</td>
<td>$564</td>
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<td>$420</td>
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<tr>
<td>#3 Sawmill (6&quot;-7&quot;)</td>
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<td>$576</td>
<td>$564</td>
<td>$510</td>
<td>$420</td>
<td>$420</td>
<td>$480</td>
<td>$357</td>
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<tr>
<td>#4 Sawmill (5&quot;+)</td>
<td>$600</td>
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<td>$564</td>
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<td>$420</td>
<td>$420</td>
<td>$480</td>
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<tr>
<td>Oversize #3 SAW (12&quot;+)</td>
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<td>$360</td>
<td>$353</td>
<td>$319</td>
<td>$263</td>
<td>$263</td>
<td>$300</td>
<td>$-</td>
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**Mis-Sorts**
- Short Log, Utility, Foreign Material

**$100 NO PAY**

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

<table>
<thead>
<tr>
<th></th>
<th>40'</th>
<th>36'-38'</th>
<th>32'-34'</th>
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<td>#2 Sawmill &amp; BTR.</td>
<td>$350</td>
<td>$336</td>
<td>$329</td>
<td>$298</td>
<td>$245</td>
<td>$245</td>
<td>$280</td>
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<tr>
<td>(32&quot; Butt Dia &amp; Larger)</td>
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<td>$470</td>
<td>$425</td>
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<td>$350</td>
<td>$400</td>
<td>$298</td>
<td></td>
</tr>
<tr>
<td>(31&quot; Butt Dia &amp; Smaller)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>#3 Sawmill (10&quot;-11&quot;)</td>
<td>$500</td>
<td>$480</td>
<td>$470</td>
<td>$425</td>
<td>$350</td>
<td>$350</td>
<td>$400</td>
<td>$298</td>
<td></td>
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<tr>
<td>#3 Sawmill (8&quot;-9&quot;)</td>
<td>$500</td>
<td>$480</td>
<td>$470</td>
<td>$425</td>
<td>$350</td>
<td>$350</td>
<td>$400</td>
<td>$298</td>
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<td>#4 Sawmill (5&quot;+)</td>
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</table>

**Mis-Sorts**
- Short Log, Utility, Foreign Material

* (#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

### CEDAR POLE PRODUCERS

<table>
<thead>
<tr>
<th>POLE SIZE</th>
<th>D.O.R</th>
<th>Cedar $/Ft</th>
<th>Cedar $/Th</th>
<th>Cedar $/Th/1000</th>
<th>Cedar $/Th/10000</th>
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<td>120</td>
<td>$178</td>
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<td>3-40</td>
<td>120</td>
<td>$182</td>
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<tr>
<td>4-40</td>
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<td>2-45</td>
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<td>$220</td>
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<tr>
<td>4-50</td>
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<td>2-55</td>
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<td>$200</td>
<td>$1,333</td>
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<td>$494</td>
<td>$1,703</td>
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<td>$374</td>
<td>$1,700</td>
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<tr>
<td>3-60</td>
<td>190</td>
<td>$285</td>
<td>$1,500</td>
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<td>3-65</td>
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<td>1-70</td>
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<td>$672</td>
<td>$1,500</td>
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<tr>
<td>2-70</td>
<td>300</td>
<td>$585</td>
<td>$2,090</td>
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</tbody>
</table>

**TERMS:**
1. Poles will be manufactured to their highest value regardless of delivered length.
2. Poles to remain current, based on delivery.
3. Prior weeks receipts will be paid each Friday.
4. Calls & Undercuts to be paid on log scale. FOB OBSER, base $75/MBF to cover shipping & handling.
5. Sizes larger than shown will be paid at closest size shown. Union purchased on special order.
6. Sizes with no price shows will be paid at the shorter ( kuntab) size they will make.

**IF YOU HAVE ANY QUESTIONS CALL:**
Mike Finerud - Forester 360.796.7652 / Cell 360.708.4421 or Mark Saltik - Manager 360.797.2252 / Cell 360.708.3548
Markets Fluxuate

Douglas-fir #2 Sawlog Prices
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