Silvicultural & Harvesting Strategies

Objectives
• Revenue
• Disease
• Storm damage
• Wildlife habitat
• Aesthetics
• Forest composition/structure
• Lumber/building materials
Pre-commercial Thinning
PCT vs. CT

- Overstocked: >350 tpa (11’x11’)
- Small diameter: <10”
- LCR: <35%
- Low value species
- DIY
Clearcut rationale

- Regenerate Douglas fir
- Storm damage
- Poor quality timber
- Disease
- Hardwood Conversion
- Conversion to non-forest use
- Maximize revenue
Managing Multi-aged Stands

Commercial Thinning
Uneven-aged Management

Even-aged “age-class” Forestry

Uneven-aged Management System
Traditional thinning vs. Variable Density Thinning

- Even spacing between trees
- Easier Rx for logger or PCT thinning contractor
- “Reliable” growth & yield
- “Tree Farm” aesthetic
- More common in single-species plantations

- Uneven spacing between trees, gaps
- May require a forester to mark trees for cutting
- Measuring growth is more challenging
- “Natural forest” aesthetic
- More common in multi-species forests
- Promotes natural regeneration
- Better wildlife habitat & forest health

Photos from: http://www.fs.fed.us/pnw/olympia/silv/selected-studies/variable/index.shtml
• Thin 30% of trees (20 – 25% volume)
• Thin from below
• Remove low value/defective timber first
• Thin across diameters and species
• Release understory trees or hardwoods
• Protect sensitive sites (steep slopes, streams & wetlands, talus outcrops, oak, etc.)
• Patch cut disease pockets
Hiring a logging contractor:

Formal Bid Package or “informal”
1. Operational Rx (cutting guidelines)
2. Assessment info: (acres, volumes by species)
3. Bid and payment method:
   • Percentage split at mill (aka scale sale)
   • Landowner pays logger for service: per mbf or ton
   • Logger pays landowner for logs: per mbf/ton or lump sum
   • Trucking (off the top)
4. Who markets & sells logs: purchase agreement with mills
5. Specify equipment types or request proposal
6. Site Visit
Hiring a Logger

- Visit past harvest units
- Residual damage
- Landings & skid trails
- Invasive species
- Slopes, streams & other sensitive sites
Hiring a logging contractor:

Contract
1. Straight from bid package
2. Insurance, Performance Bond?
3. Payment Method:
   • Split, trucking off the top
   • Consultant pass through
4. Decide on markets & sorts

Write field version of Cutting Guidelines
• Special protections
• Bucking & sorting instructions
• Simple! 1 page max
Managing the Operation

Pre-work meeting

- Review contract & cutting guidelines with operator
  - Will operator be subbing anything out?
- Finalize layout with operator: landings, road locations, yarding corridors
Managing the Operation

Supervising the Show!

- Value Maximization: felling, bucking, yarding
Managing the Operation

Oversee log loading, load tickets
Managing the Operation

**Damage**

- Residual trees
- Understory
- Snags
Managing the Operation

Damage

• Soils
Managing the Operation

Suspend Operations?
Finishing Up

1. Load Reports
2. Final Accounting: load summary & cross check with tickets
3. Planting Plan & shrub/invasive control
4. Taxes
5. Set money aside