


NORTHWEST CERTIFIED FORESTRY™

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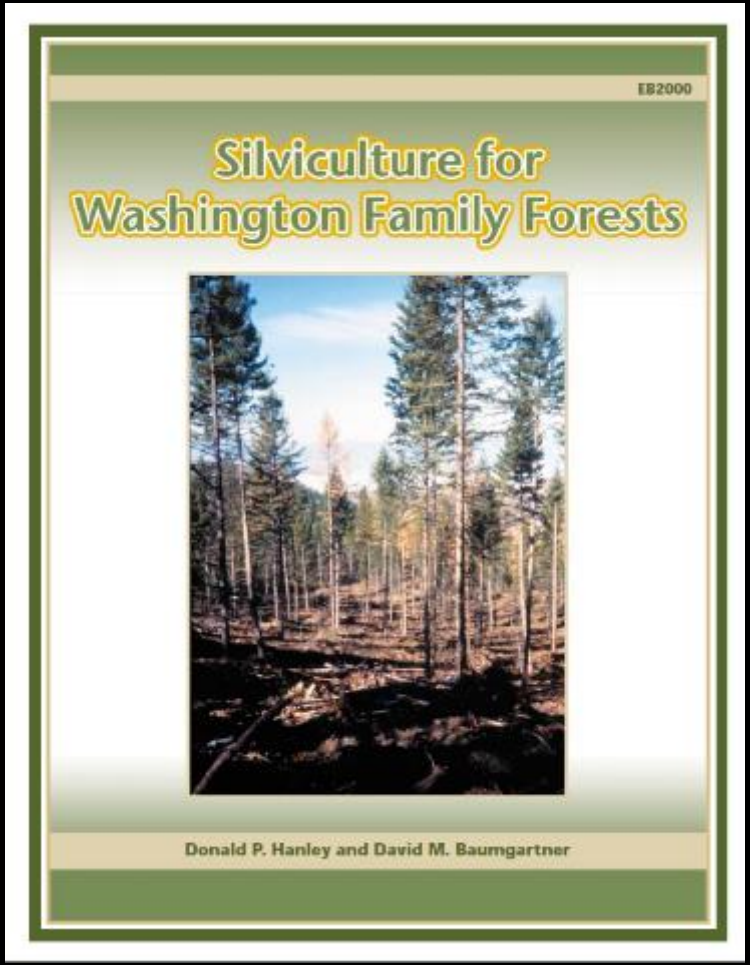
Forest Management Options



Management Objectives

- A healthy forest
- Wildlife
- Stewardship
- Long-term investment
- Legacy
- Periodic income
- Wildlife
- Privacy
- Aesthetics
- Recreation

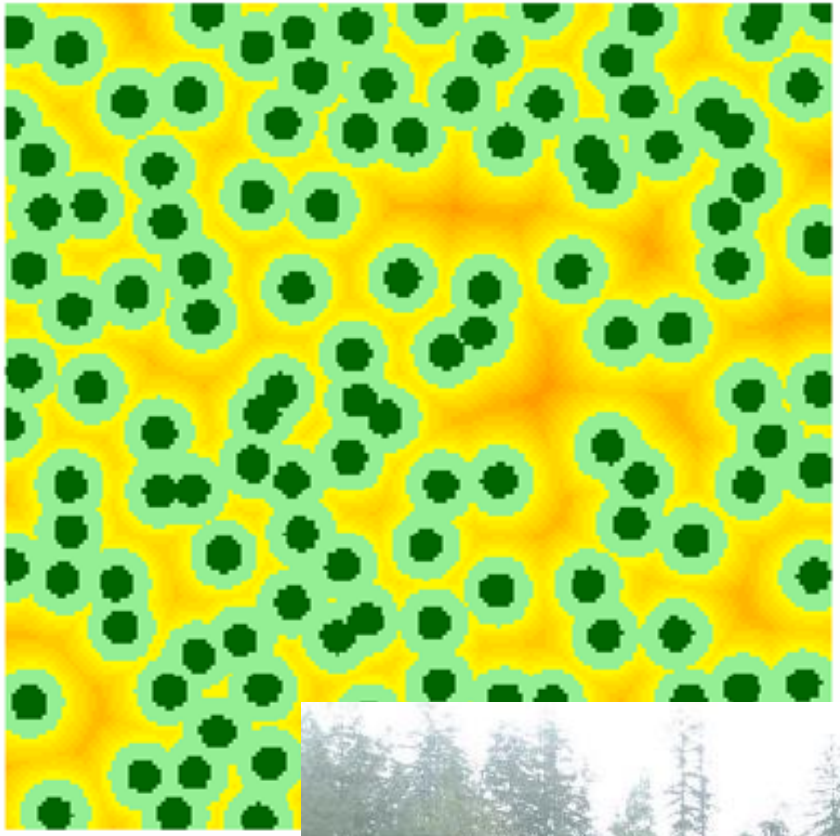
PNW Westside Forests

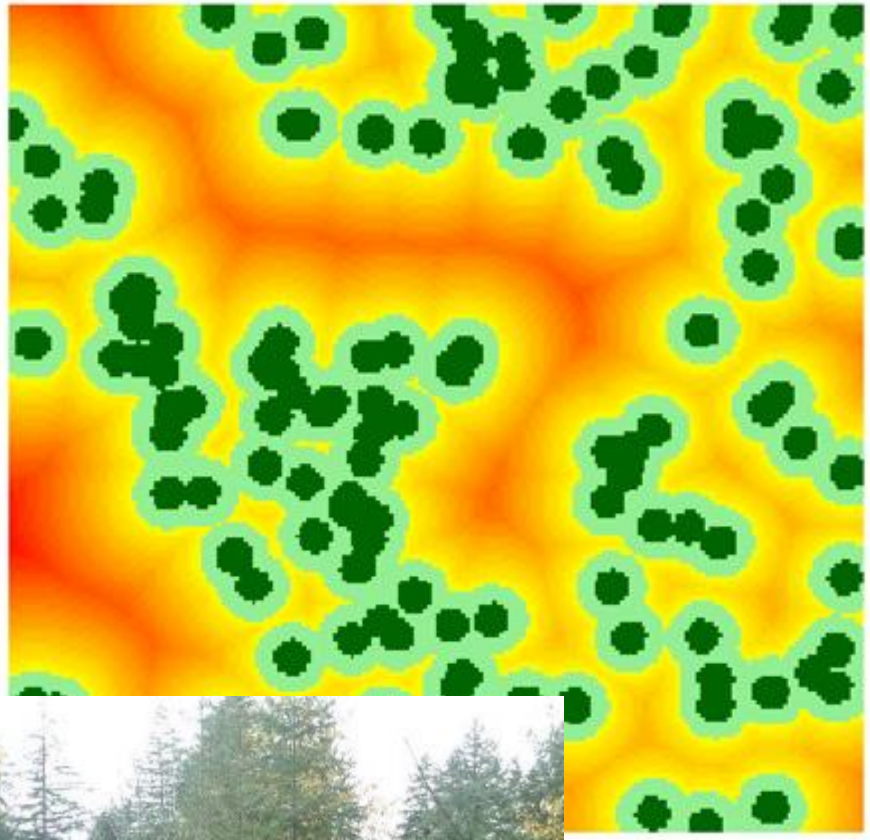
- **Very Young (~0-30 yrs)**
- **Young (~30-60 yrs)**
- **Maturing (~60+ yrs)**

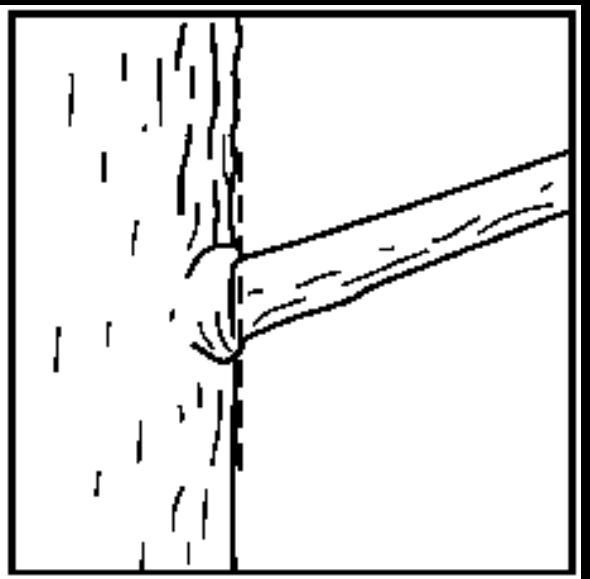
FOREST ASSESSMENT

0-30 YEARS

Access
Stocking
Brush comp.
Browse
Invasive spp.
Habitat
Wildlife use







Management Actions
0-30 years

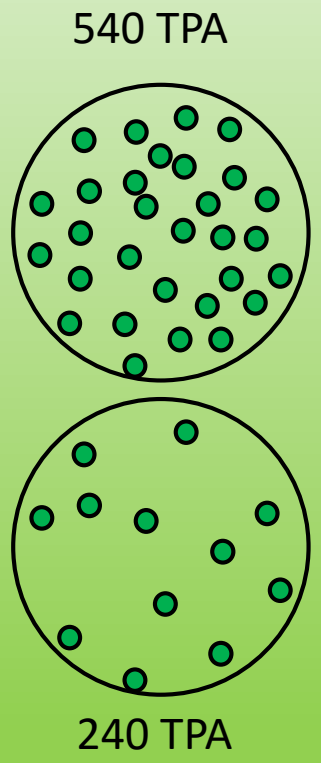
1. Replant large gaps
2. Cut back competing vegetation
3. Cage seedlings
4. Remove invasive species
5. Install bird nesting boxes
6. Inspect and repair forest access roads
7. Pre-commercially thin alder thickets
8. Pre-commercially thin to favor crop trees
9. Prune
10. Monitor!

Pre-Commercial Thinning Strategies

Thinning “from below”

Remove:

1. Most suppressed
2. Smallest diameter
3. Trees with least live crown (<30%)
4. Defective trees (broken tops, wane, forked, etc.)
5. Non-preferred species
6. Spacing
7. “Release” understory trees



FOREST ASSESSMENT

30 - 60 YEARS

Stocking
Crown ratio
Health
Habitat
Merchantability?

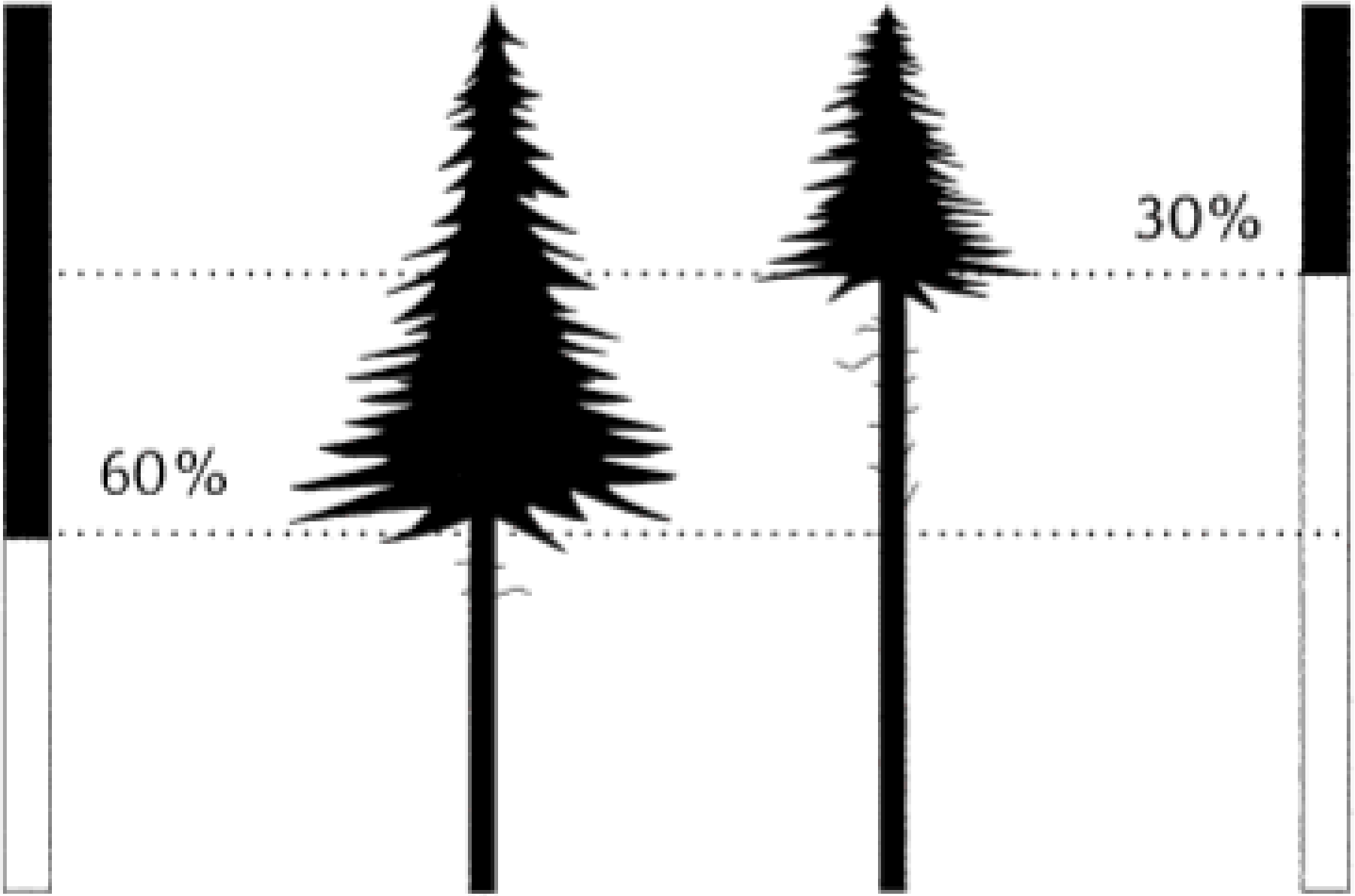


Figure 3-2. Live-crown ratio of a tree.


AARP

Continuous Cover Forestry

Managing Multi- Cohort Stands

Thinning
Reduce density of a cohort to maintain or improve growth and crown development

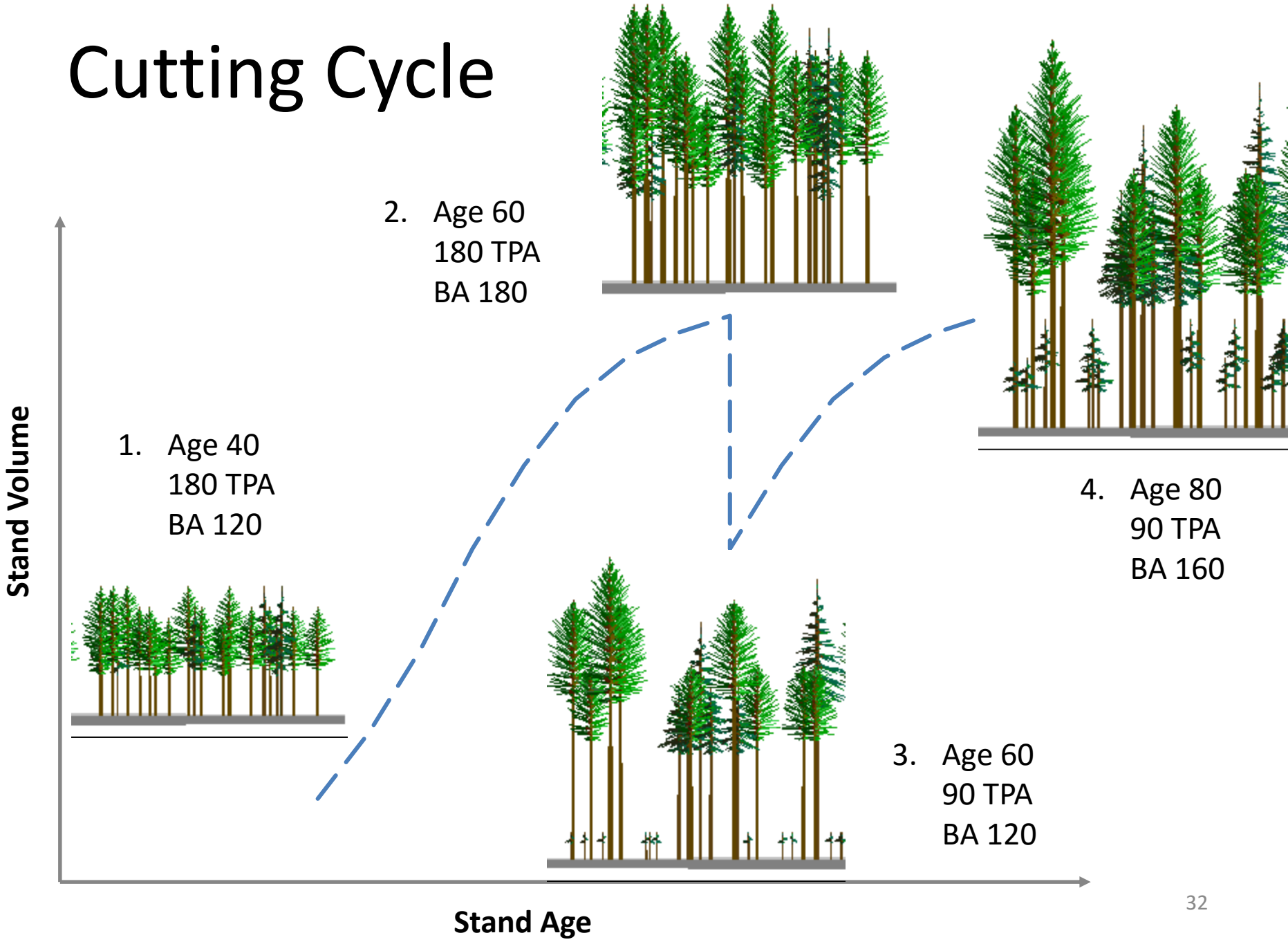
Remove Overstory
Harvest trees for wood & revenue; and open growing space space for lower cohorts

Regeneration
Establish a new cohort

Approaches

- Individual Tree Selection
- Group Selection
- Thin from below
- Variable density thinning
- Variable retention

Cutting Cycle



Management Actions
30-60 years

1. 1st & 2nd commercial thinning
2. Replant understocked areas, disease gaps, hardwood patches
3. Underplant following commercial thinning
4. Create habitat structures
    a. Downed logs
    b. Habitat piles
5. Remove invasive species
6. Monitor!

FOREST ASSESSMENT

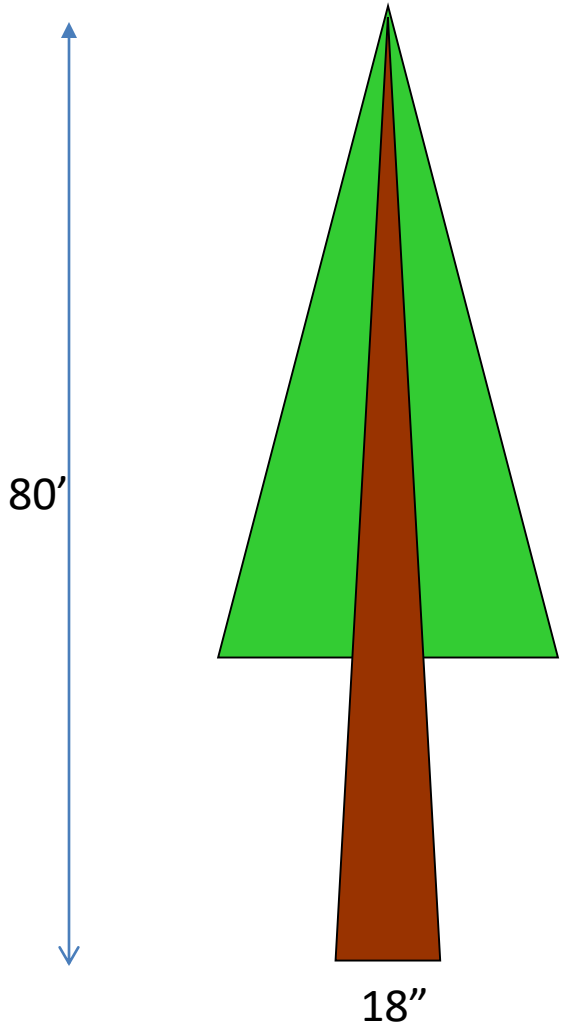
60+ YEARS

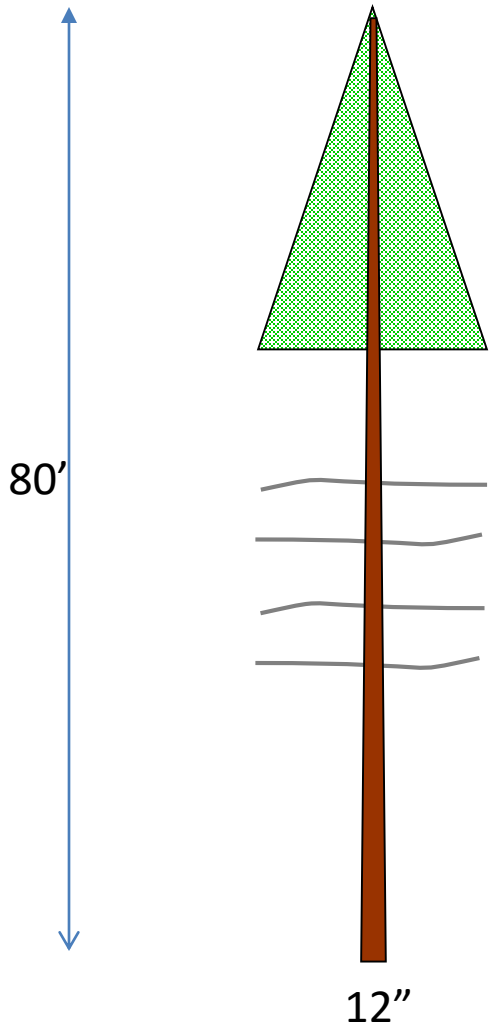
Stocking
Crown ratio
Height-to-diameter
Spp. composition
Understory
Habitat
Merchantability
Disease

Measuring Height to Diameter Ratio

Height (Feet)

Diameter: DBH (Feet)



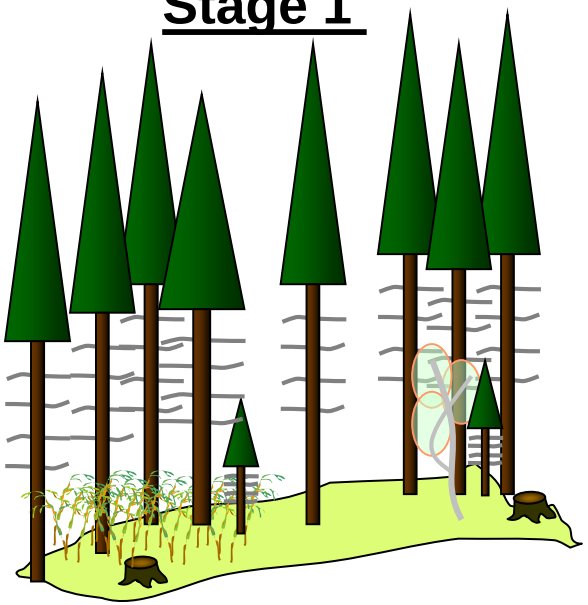


$$\frac{80\text{ (feet)}}{18\text{” dbh}} = \frac{80\text{’}}{1.5\text{’}} = 53$$

$$\frac{80\text{’}}{12\text{”}} = \frac{80\text{’}}{1\text{’}} = 80$$

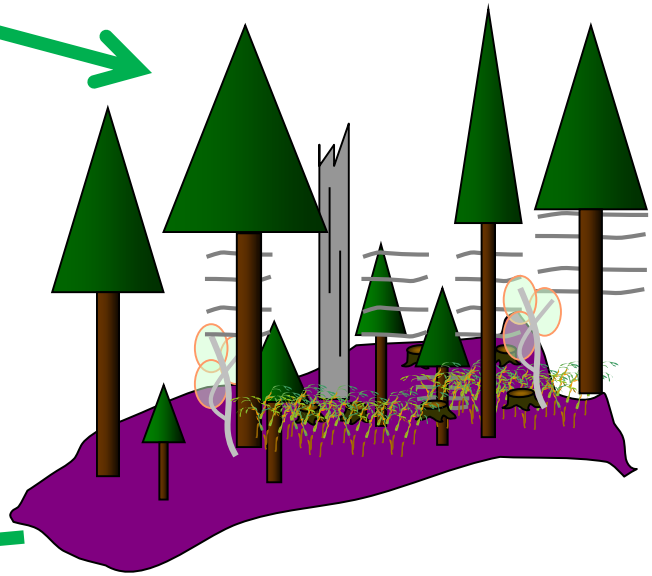
Stage 1

No Mngt or past Commercial Thin
1. Thin Overstory
2. Establish understory

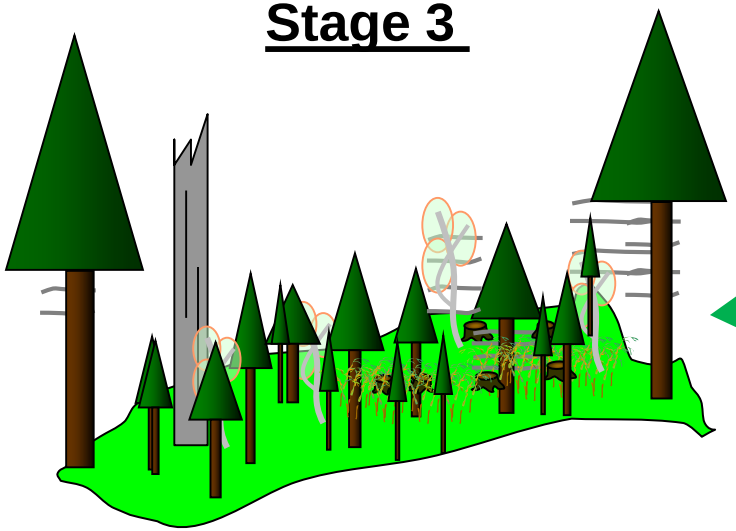


ITS w small gaps or VDT
1. Maintain release potential of understory
2. Harvest portion of overstory

Stage 2

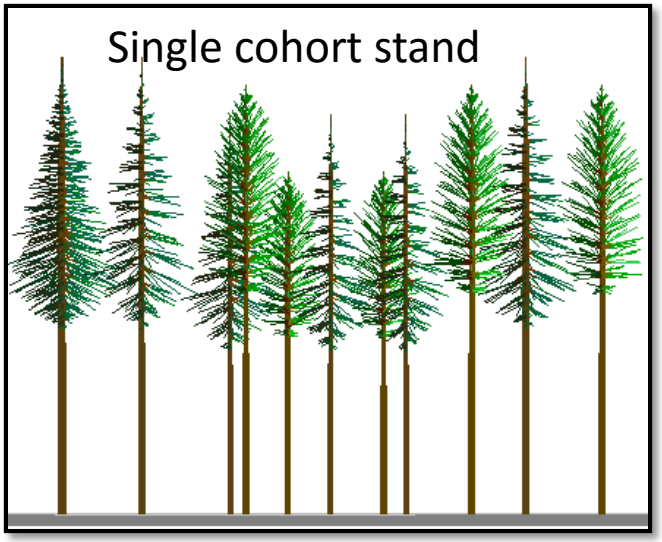


Stage 3

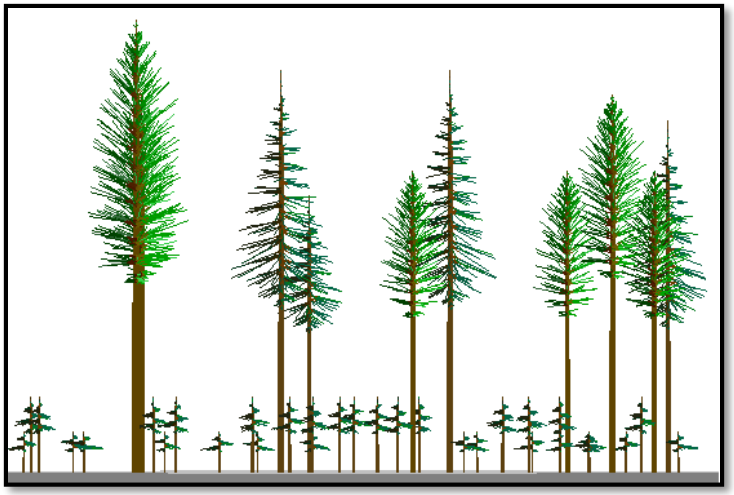


Group Selection
1. Harvest most of overstory
2. Release understory

Understory Establishment – Initiation of Two-cohort Stand

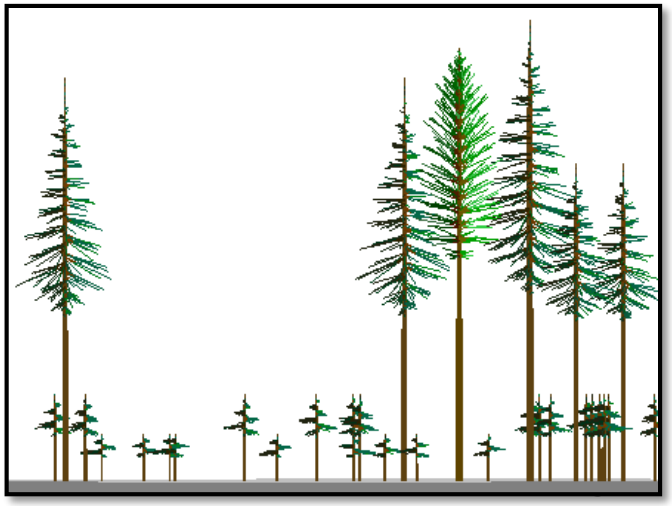


dispersed

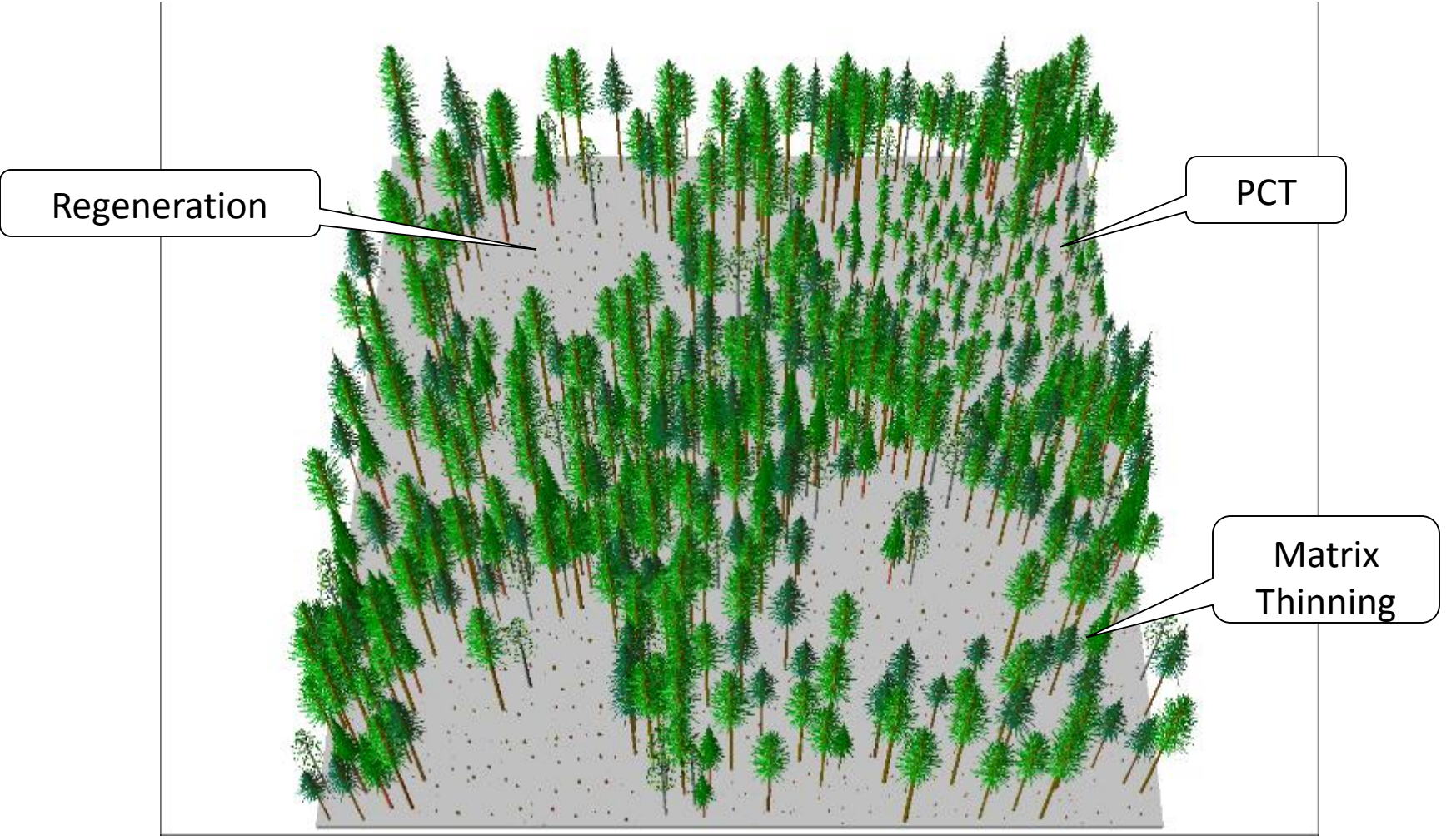


Transformation to two-cohort stand

grouped



Group Selection Structure Types

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