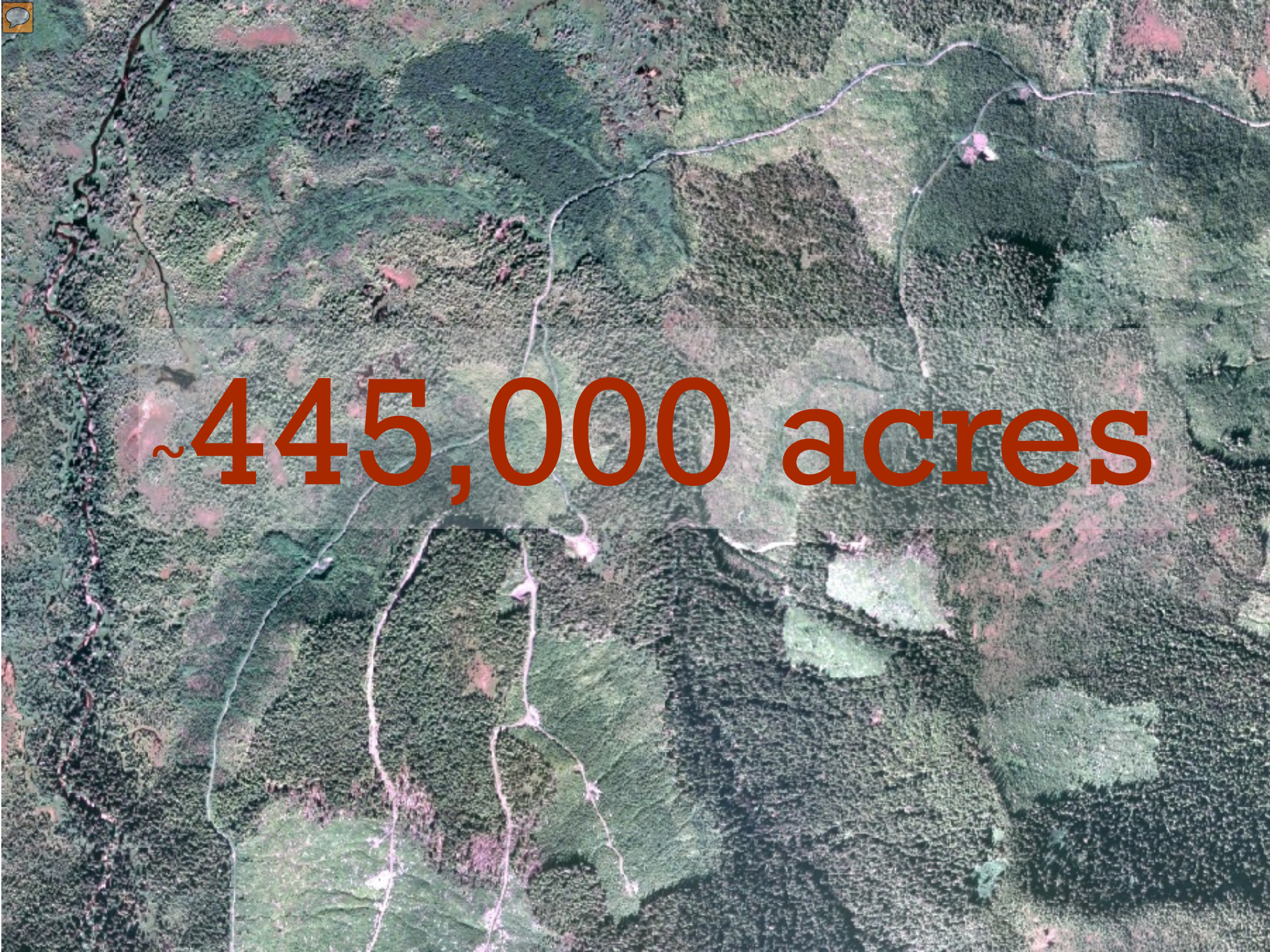




Tongass NF Young Growth





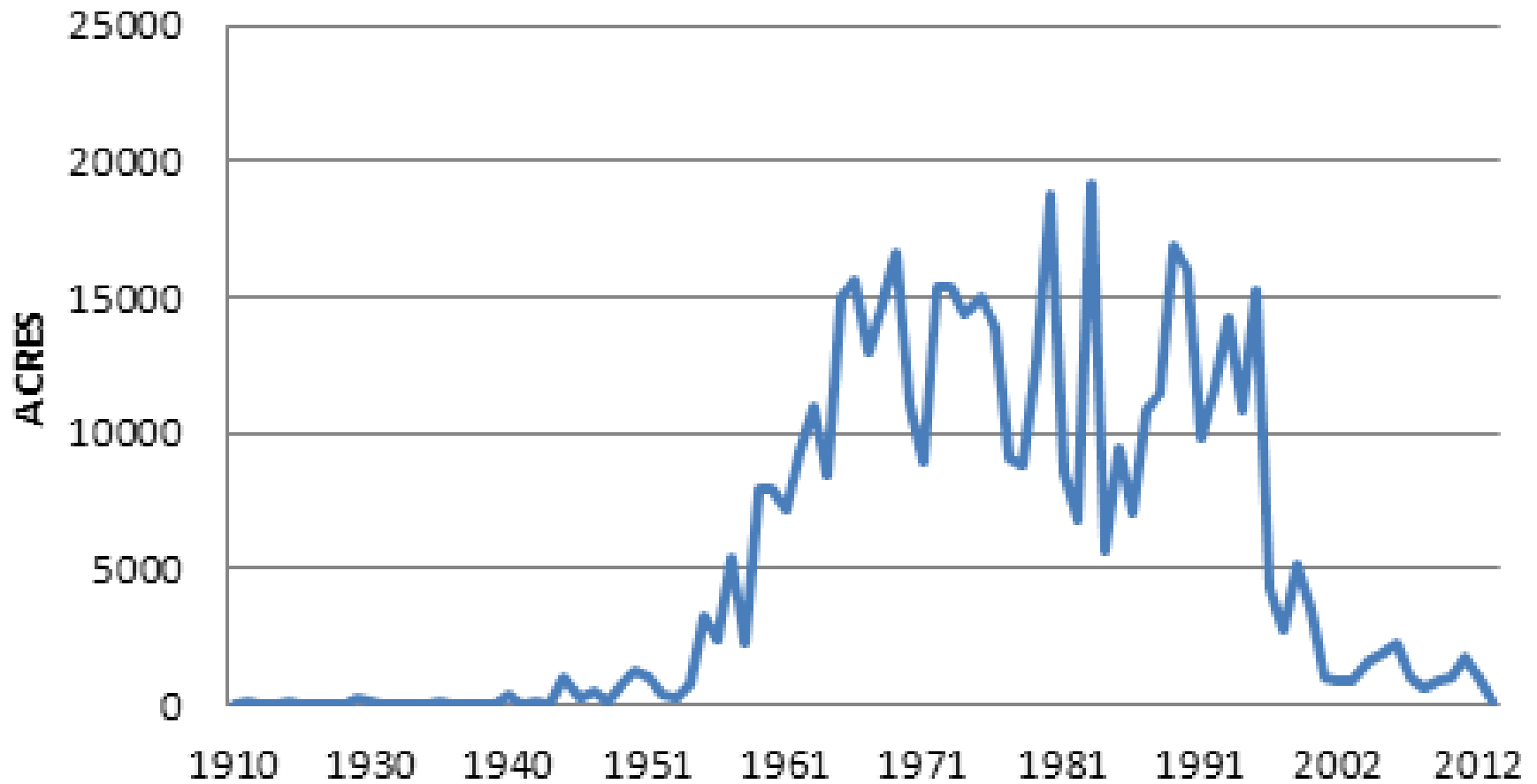
~445,000 acres



Four main factors affecting a young growth stand:

- 1. Age**
- 2. Past Management of the Stand**
- 3. Site Productivity**
- 4. Intermediate treatments**

Annual Tongass Harvest





Early on...

Beach Logging





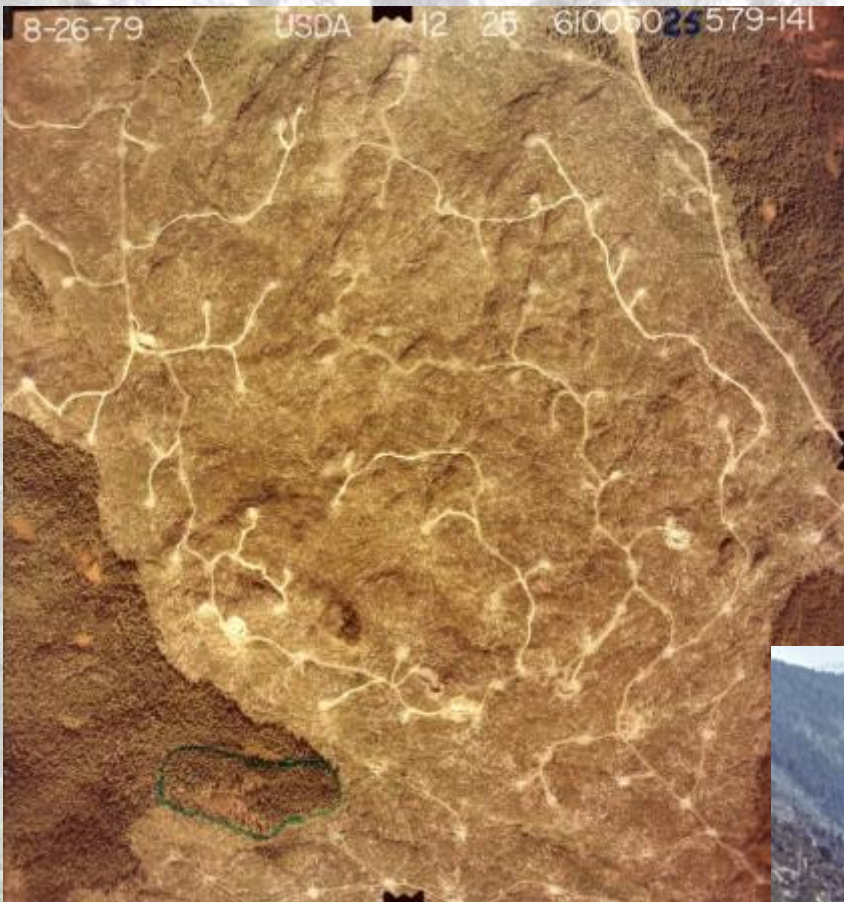




60 year old stand in the beach



80 year old stand in the beach



The Long Term contract era..

Clearcutting
(even-age management)



unthinned



Unthinned



thinned



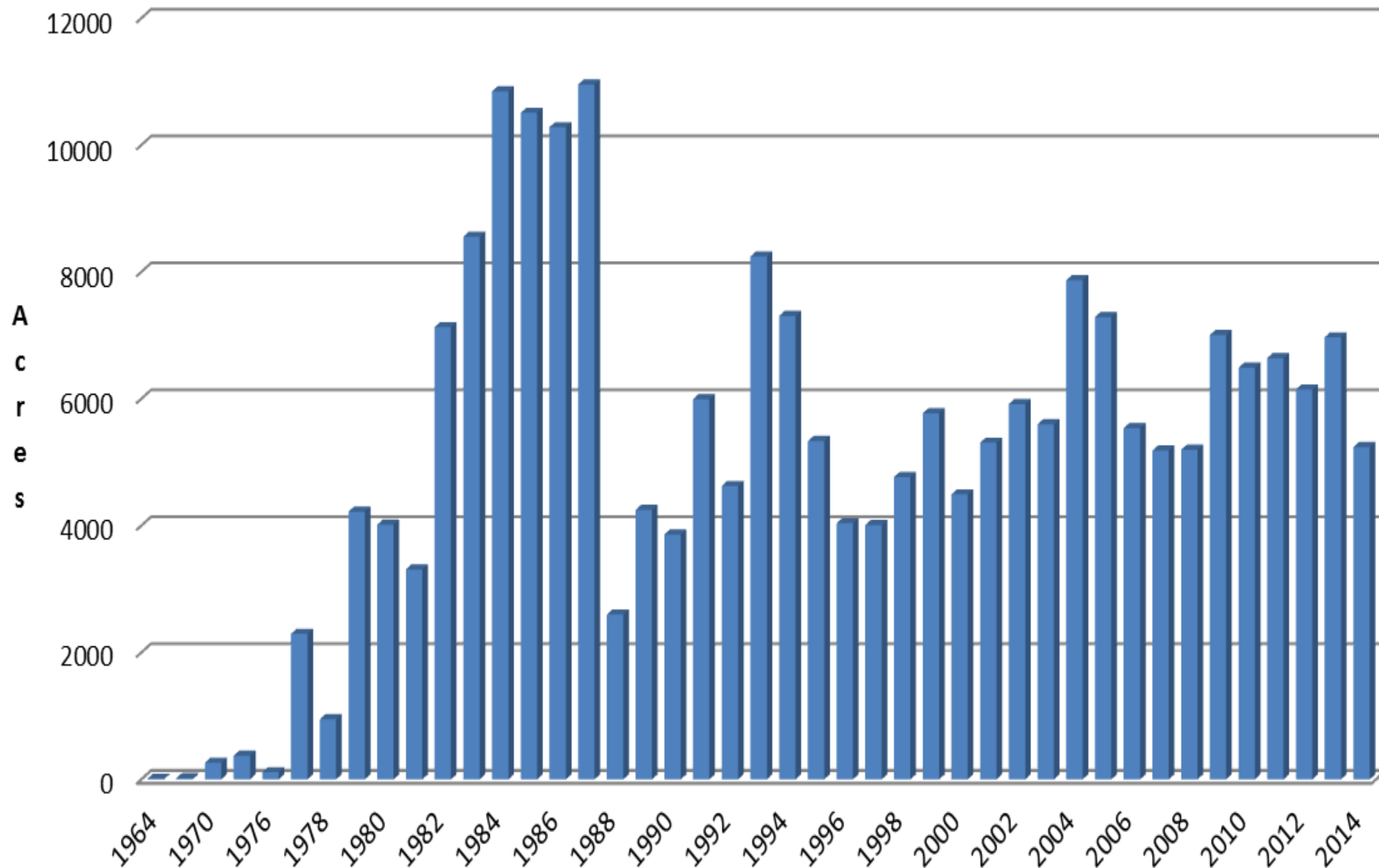
Same stand,
thinned section



1997 Forest Plan

End of the long-term contracts
and a shift in timber harvest

precommercial YG treatments (thinning) on the Tongass



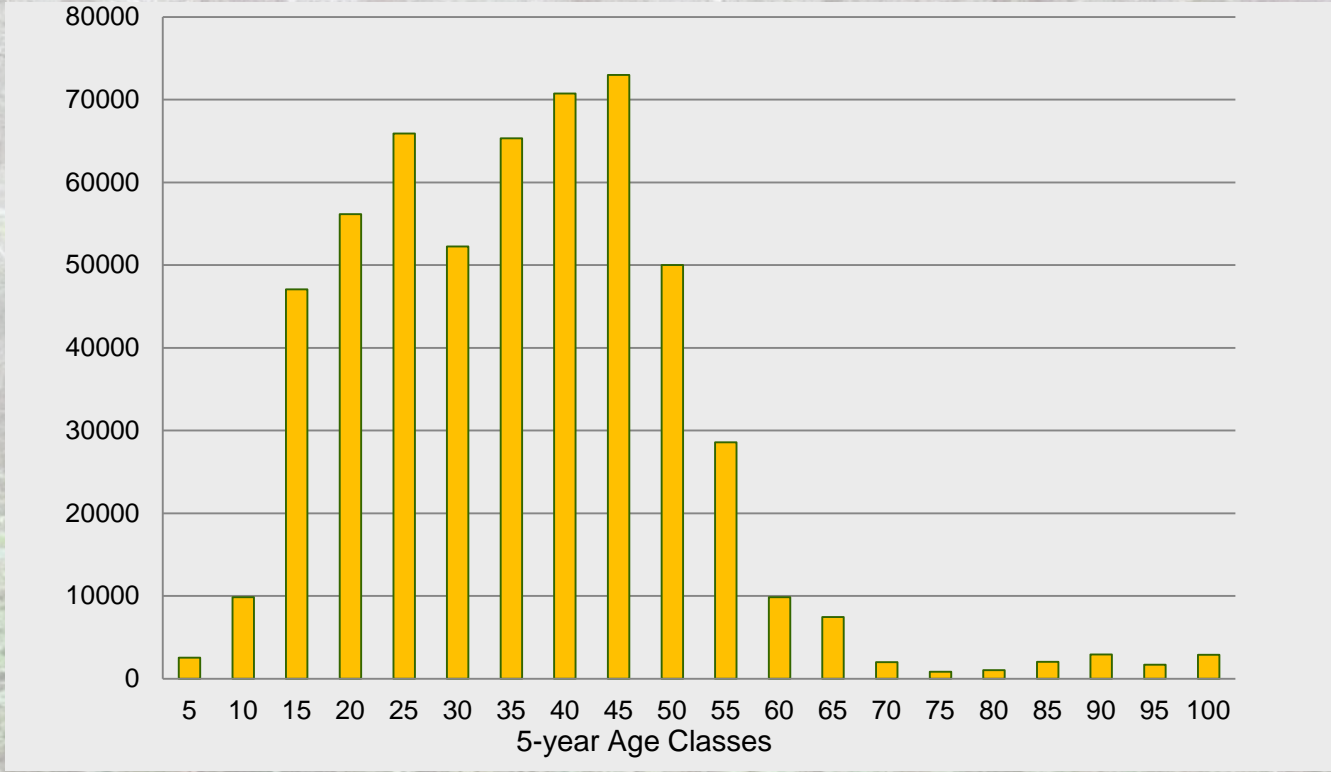
Total acres treated on the Tongass: 225,221



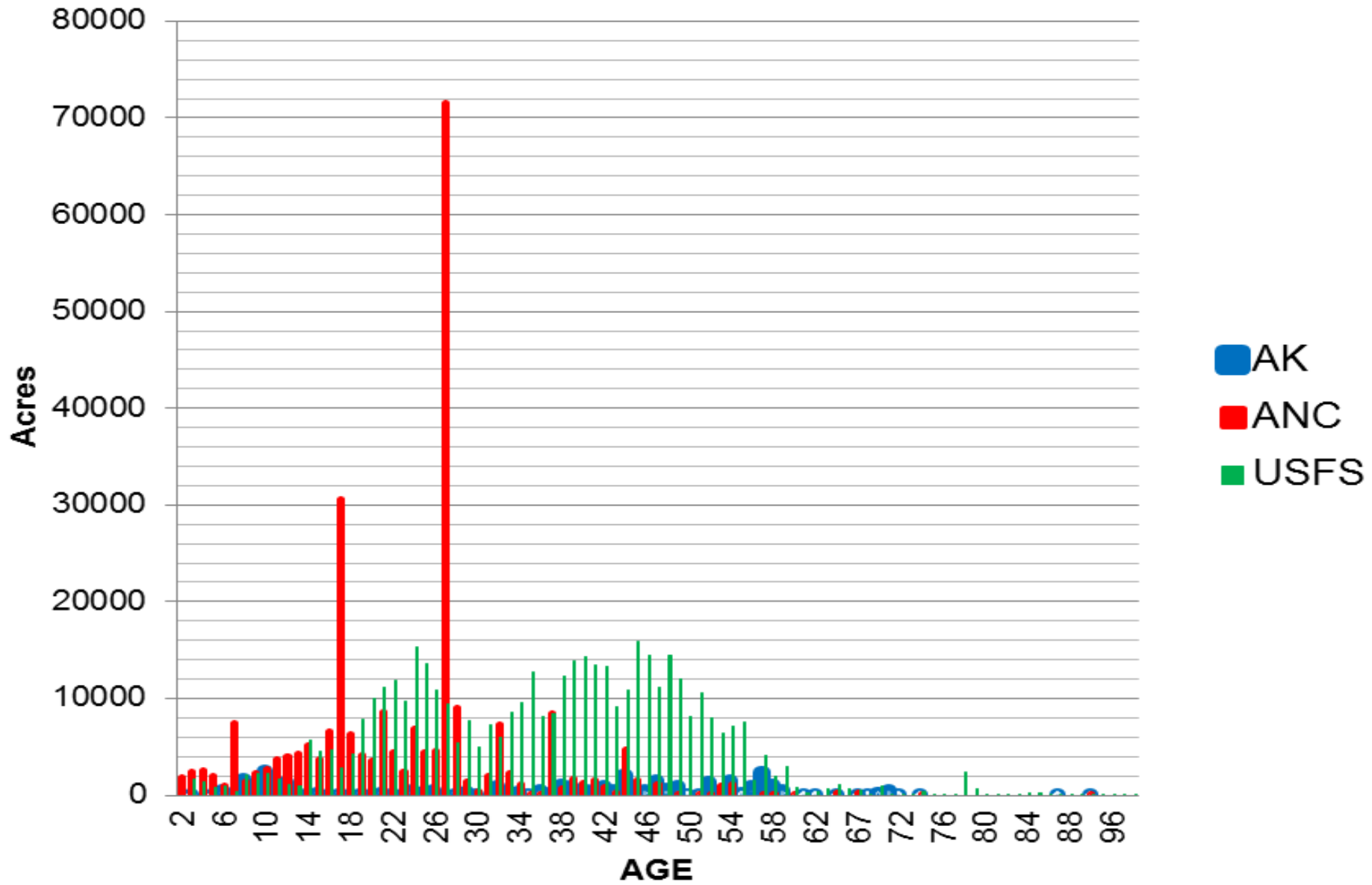
Canada



Young-Growth Acres by 5-year Age Classes



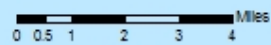
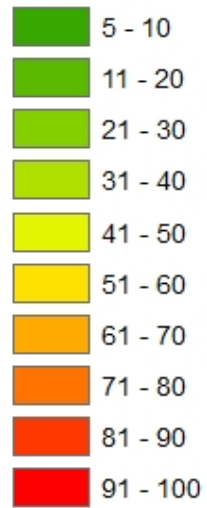
Age Distribution Across Ownership



Legend

Young-growth Stands

age_class



Sea Otter Sound

A photograph of a forest with tall, thin trees and a dense undergrowth of ferns and other plants. The scene is misty or foggy, creating a soft, diffused light. The text "Site Productivity – Site Index" is overlaid in the center of the image.

Site Productivity – Site Index



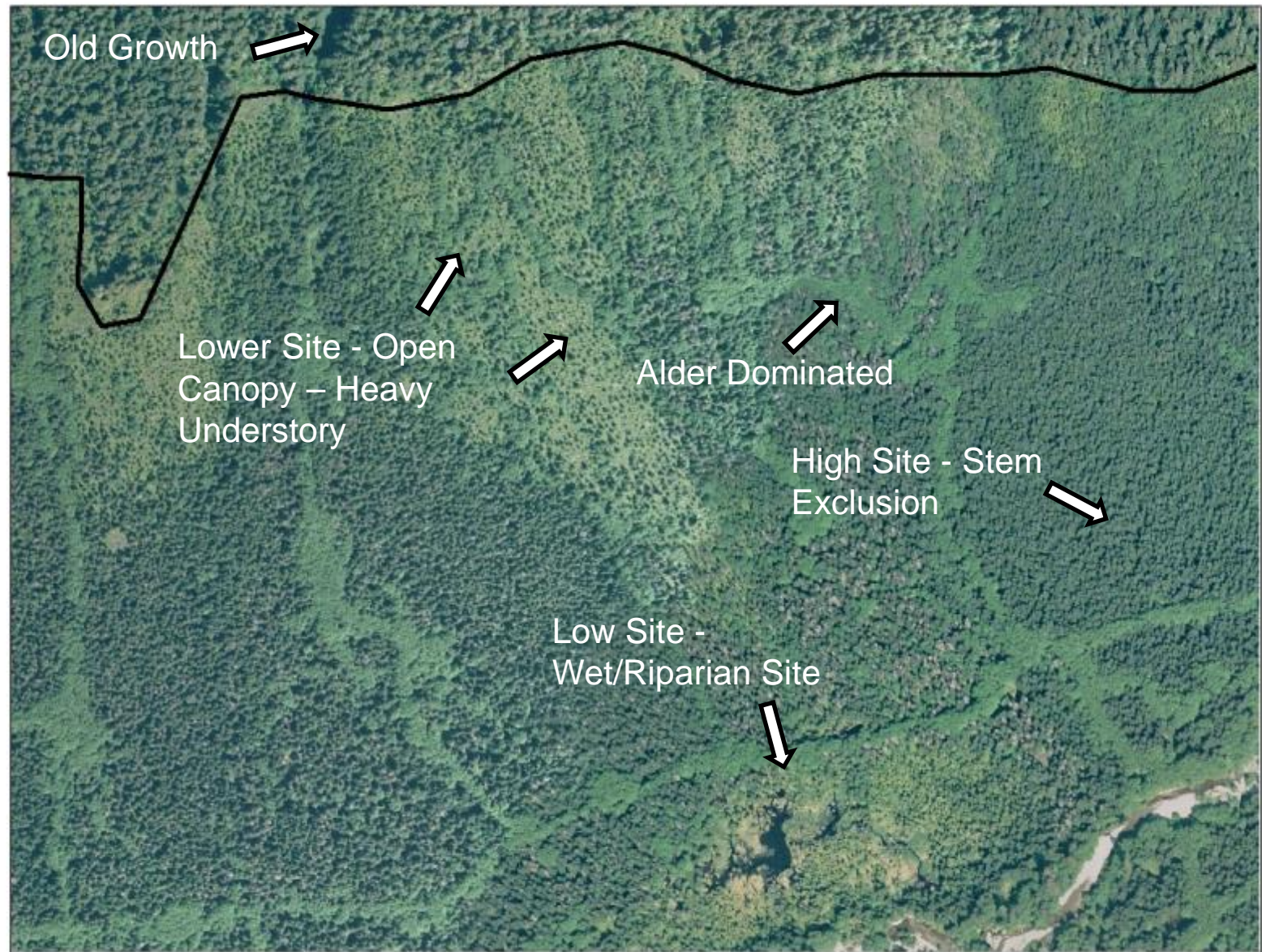
**Young growth
stand, age 45,
low site**

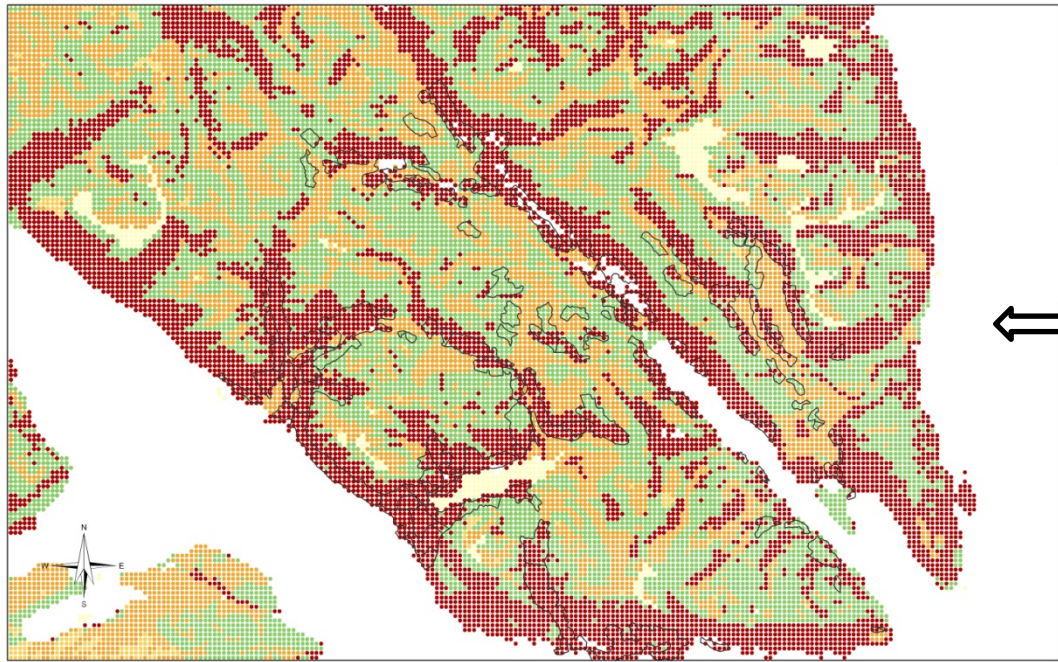


**Young growth
stand, age 45,
high site**

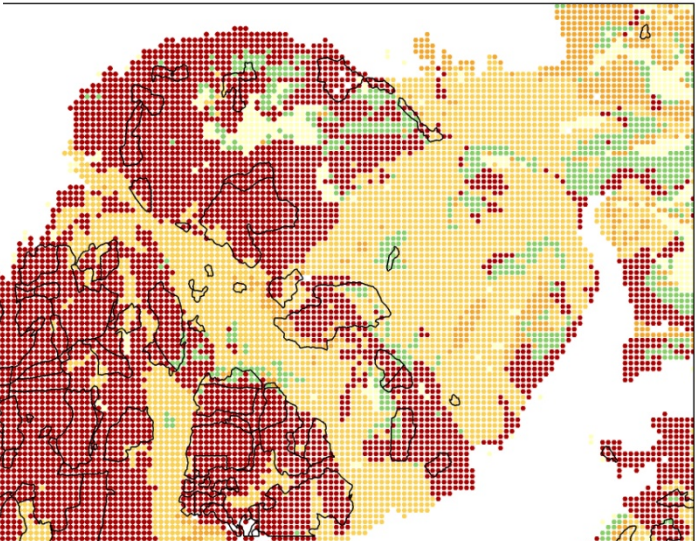
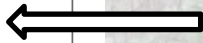
Stand level variability of site productivity

40 year-old stand with past PCT

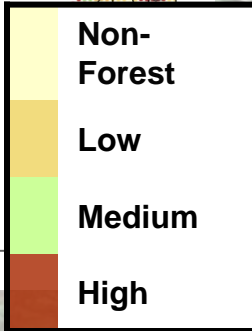
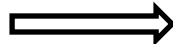




False Island (Peril) –
Sitka Ranger District



Kosciusko Island –
Prince of Wales



Comparison of Site Index at the Landscape Level

Intermediate Young-Growth Treatments

Precommercial thinning (PCT) between ages 15 to 30 can:

- prolong understory vegetation,
- reduce competition between trees,
- increase growth rates,
- improve wildlife habitat.
- Creates a stable stand that can handle other intermediate treatments

unthinned



thinned



Unthinned



Thinned





TWYGS

Tongass Wide Young Growth Study

Commercial Thinning

Commercial thinning (CT) at ages 60-90 years shows potential in re-establishing understory *and* providing wood products.



TLMP (97 and 2008) analyzed YG— assumption is a minimum of 10 mbf/acre removal to have a chance at a commercial thin. Multiple analysis shows 60 is earliest age IF the stand has had a PCT. 70-90 in unthinned stands is the earliest age for a CT.



(current FS assumptions)

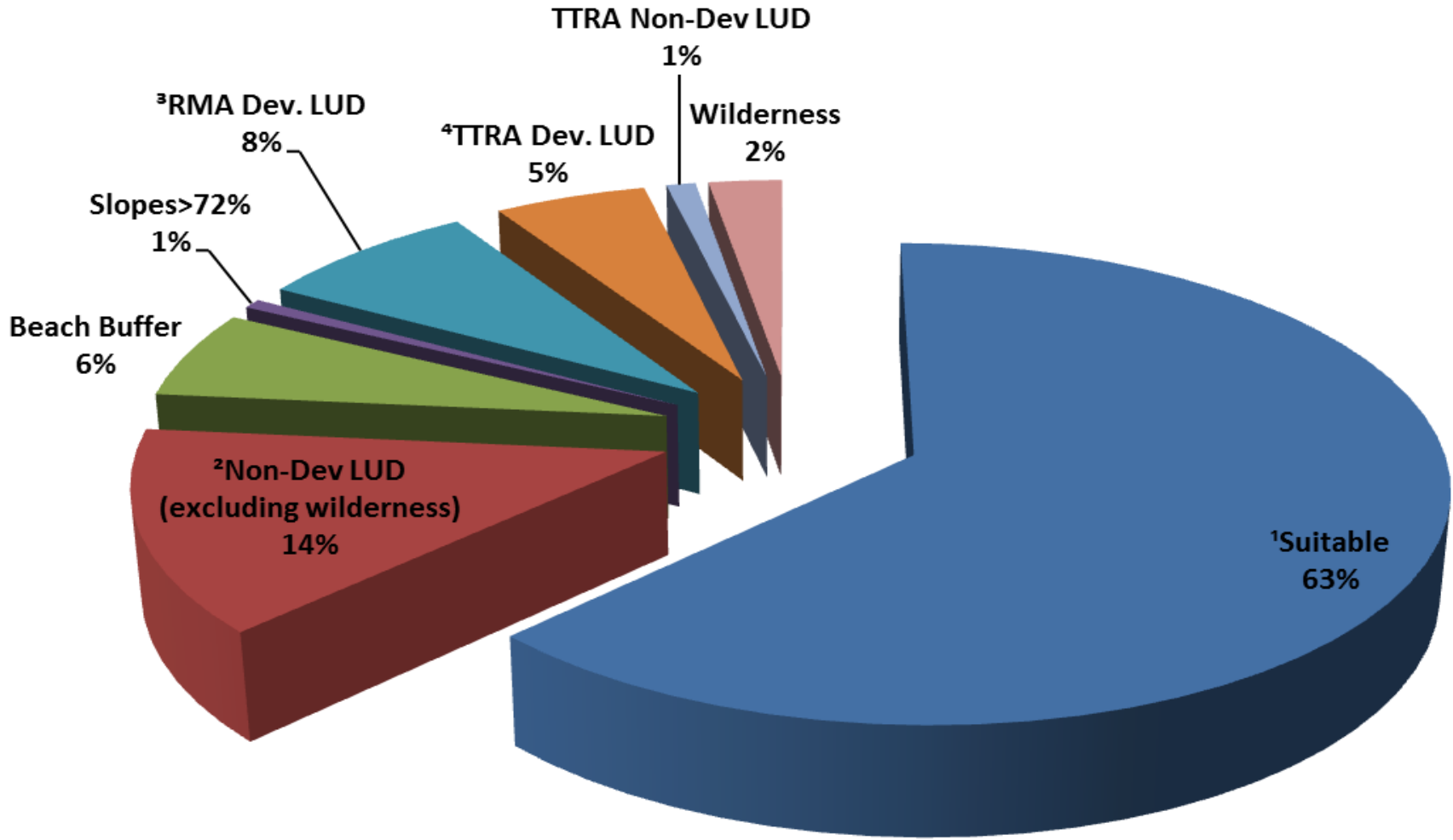
Stands with the most potential for a commercial thin today:

- Are approximately 60 Years of Age or older (if previously thinned, 70 if not)
- Located on high productivity sites
- Are along the beach or adjacent to existing roads that are open and do not require significant re-construction
- Lie on gentle ground (slopes that are less than 35%) where ground based, mechanized harvesting systems could be used.



Thinned - 45 years old

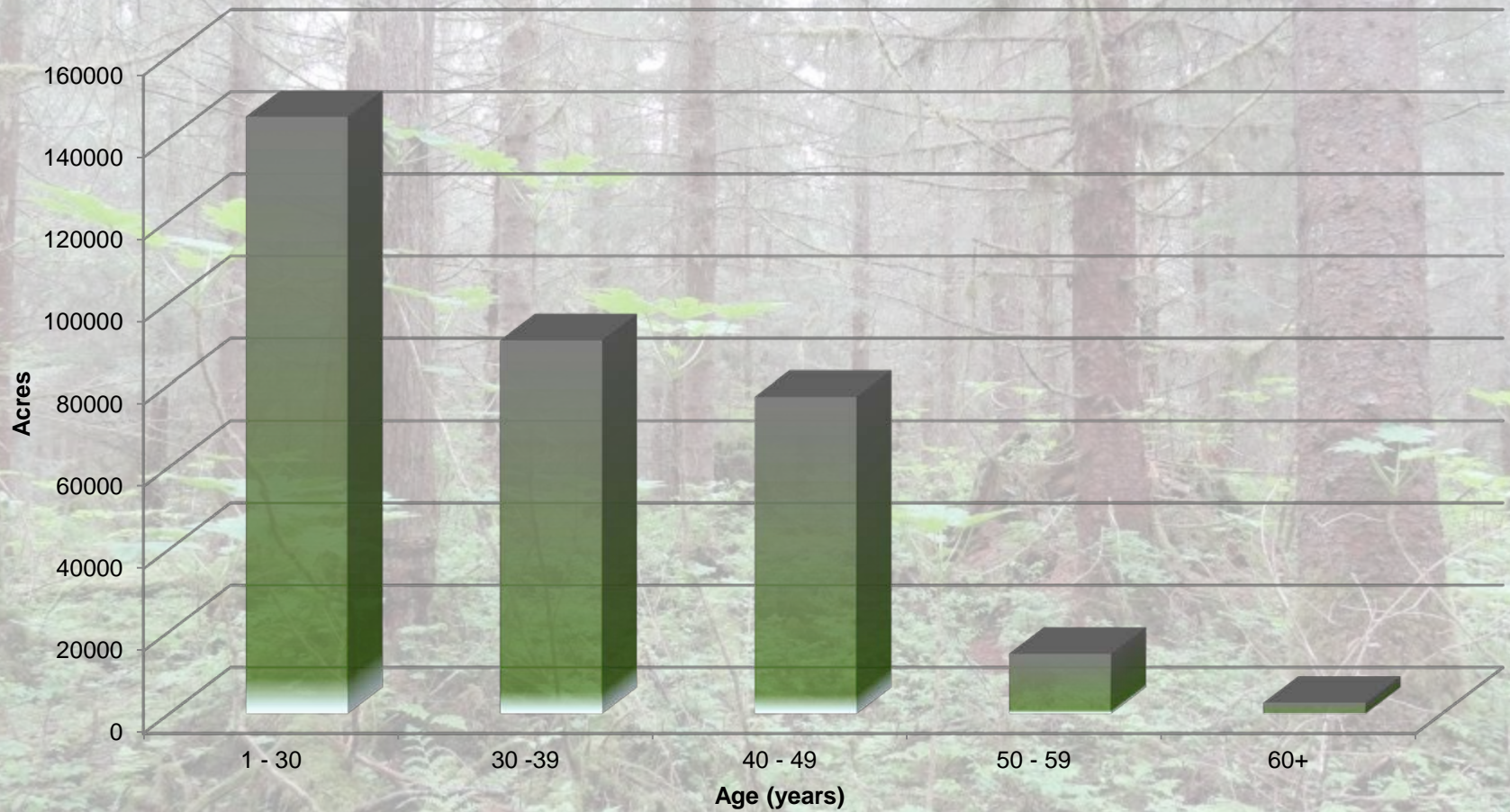
Young growth acres by Suitability





TNF Acres of Young Growth by Age-class for ¹Development LUDs

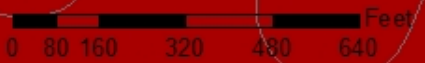
(Total Acres of YG in ¹Dev. LUD = 320,000)



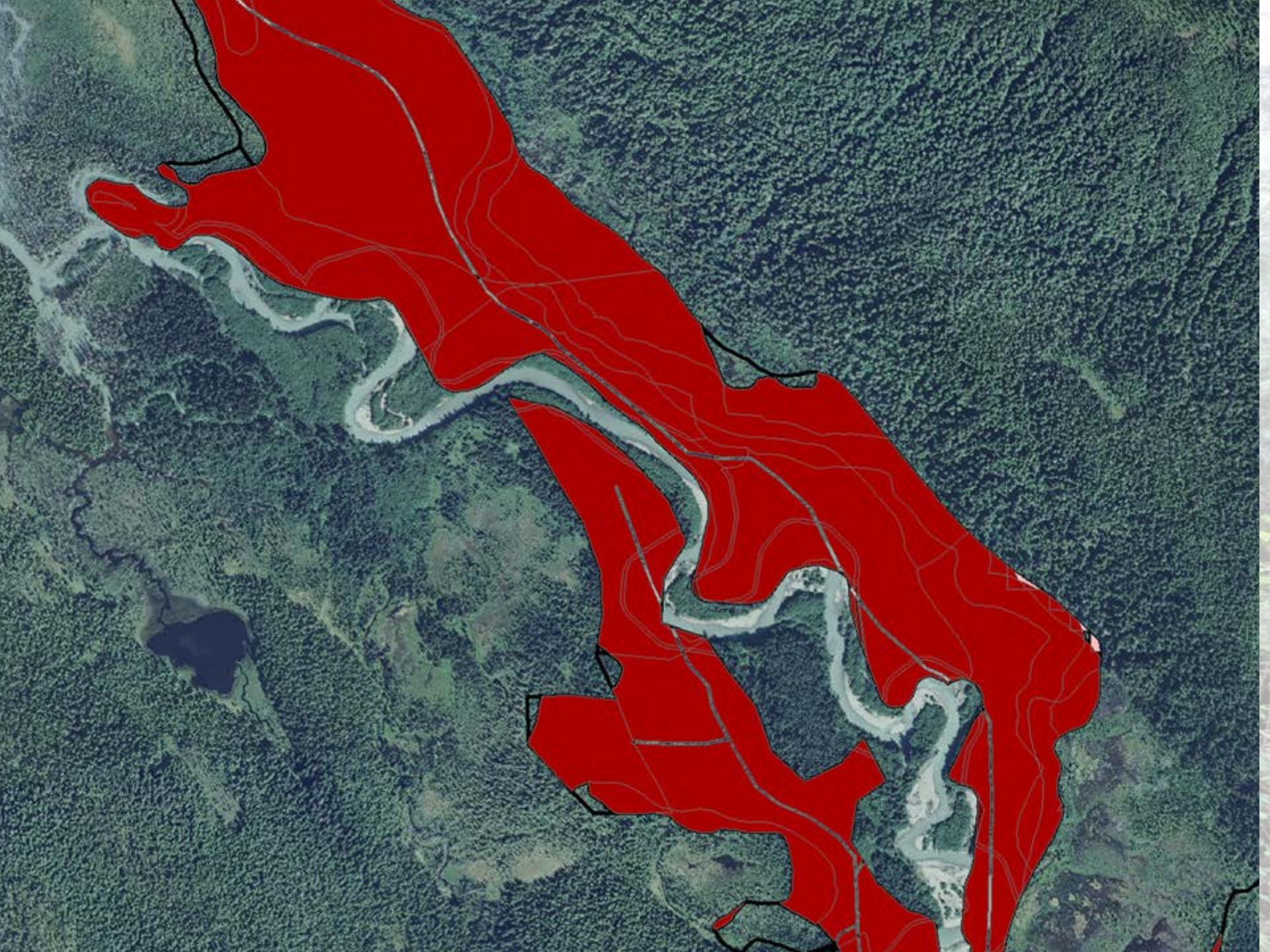




Example of suitability constraints on YG-
Red or pink indicate YG that is unsuitable.













Downhill Cable Yarding

A background image of a forest with tall trees and dense green undergrowth. In the top-left corner, there is a small orange speech bubble icon.

Timber Requirements

Culmination of Mean Annual Increment of growth (cont'd)

36 CFR 219.11 (d)(7).

... (7) The regeneration harvest of even-aged stands of trees is limited to stands that generally have reached the culmination of mean annual increment (CMAI) of growth. This requirement would apply only to regeneration harvest of even-aged stands on lands identified as suited for timber production and where timber production is the primary purpose for the harvest. Plan components may allow for exceptions, set out in 16 U.S.C 1604(m), only if such harvest is consistent with the other plan components of the land management plan.



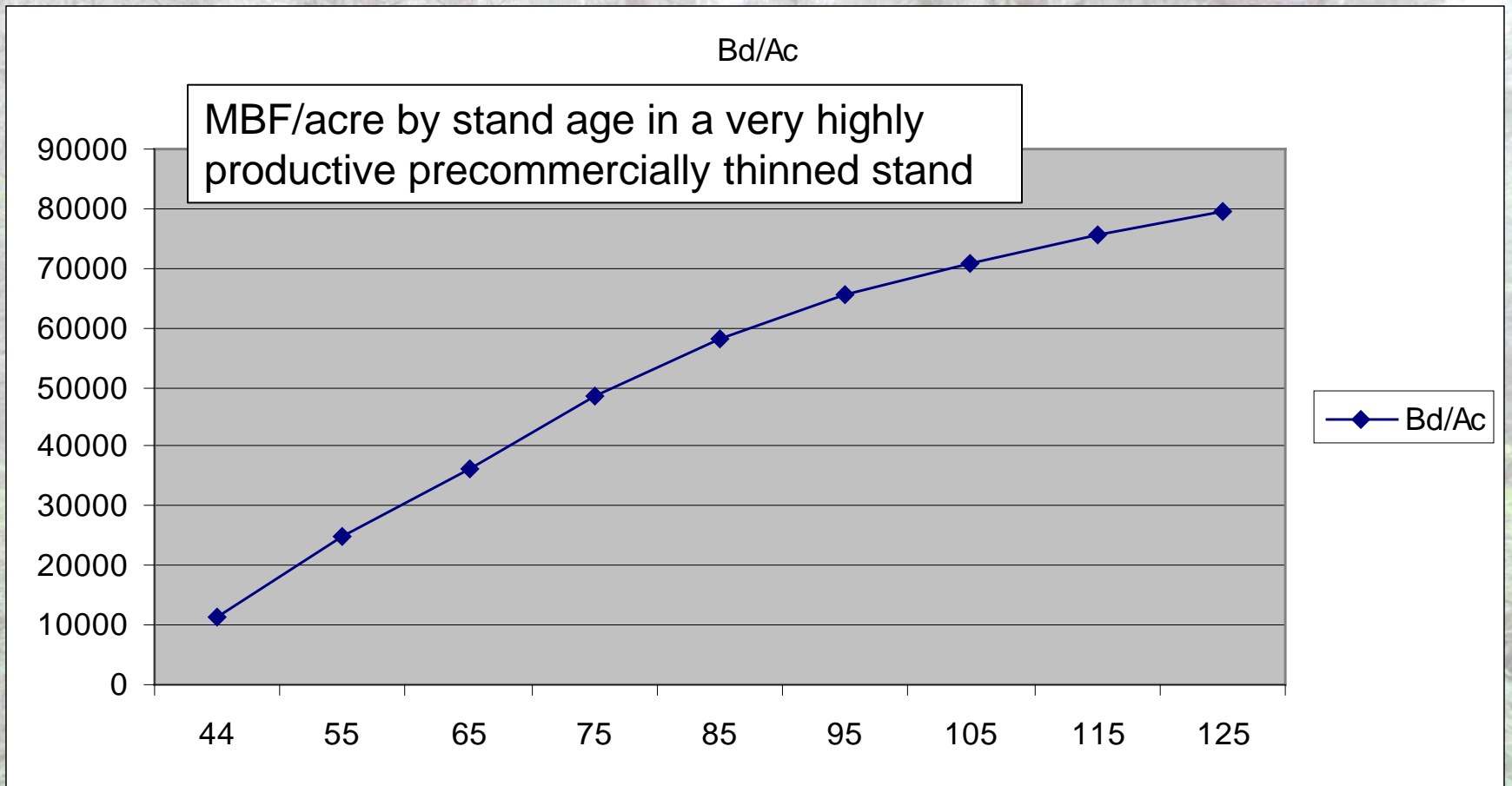
Timber Requirements

Culmination of Mean Annual Increment of growth
(cont'd)

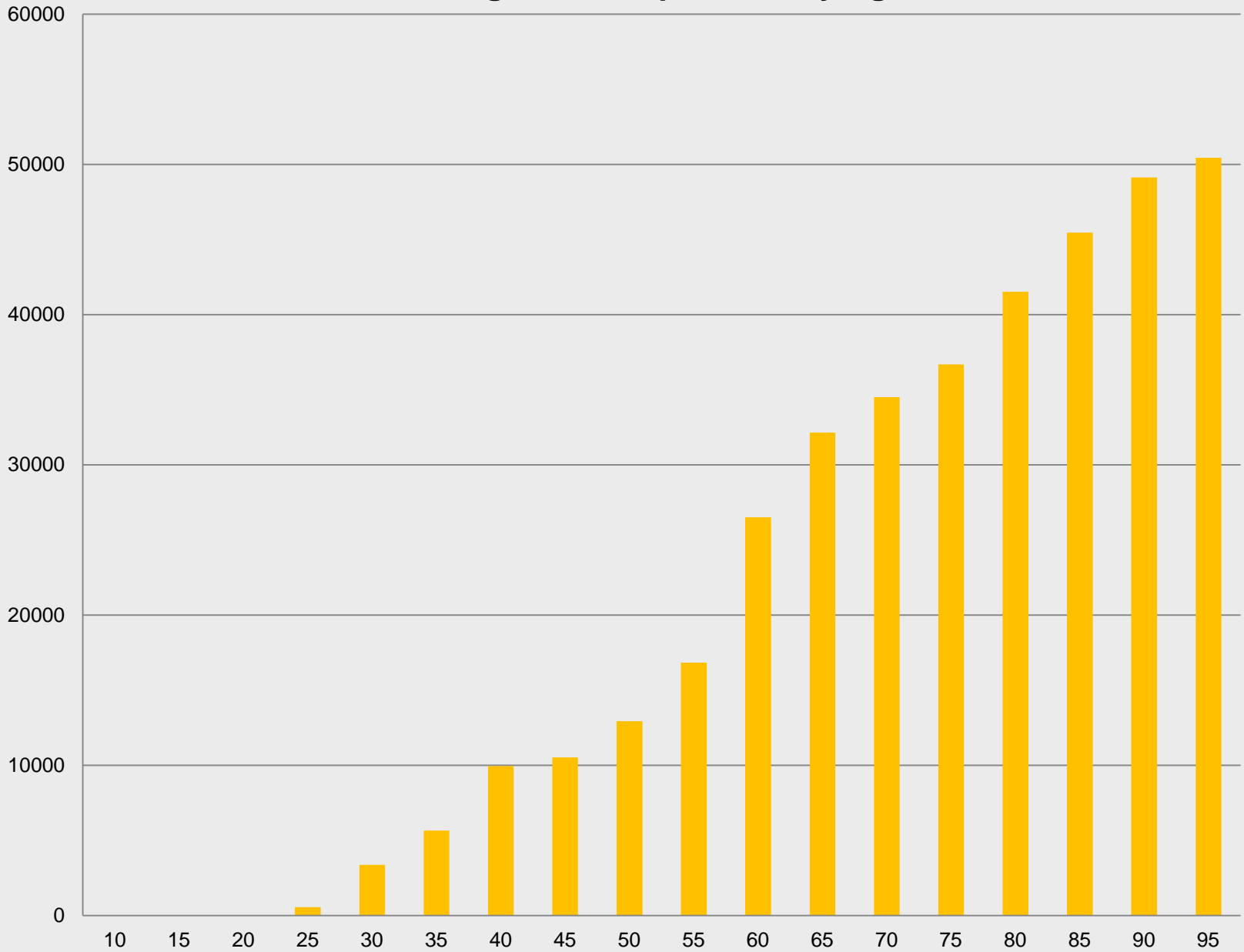
16 U.S.C. 1604 (m)

(2) exceptions to these standards for the harvest of particular species of trees in management units after consideration has been given to the multiple uses of the forest including, but not limited to, recreation, wildlife habitat, and range and after completion of public participation processes utilizing the procedures of subsection (d) of this section.

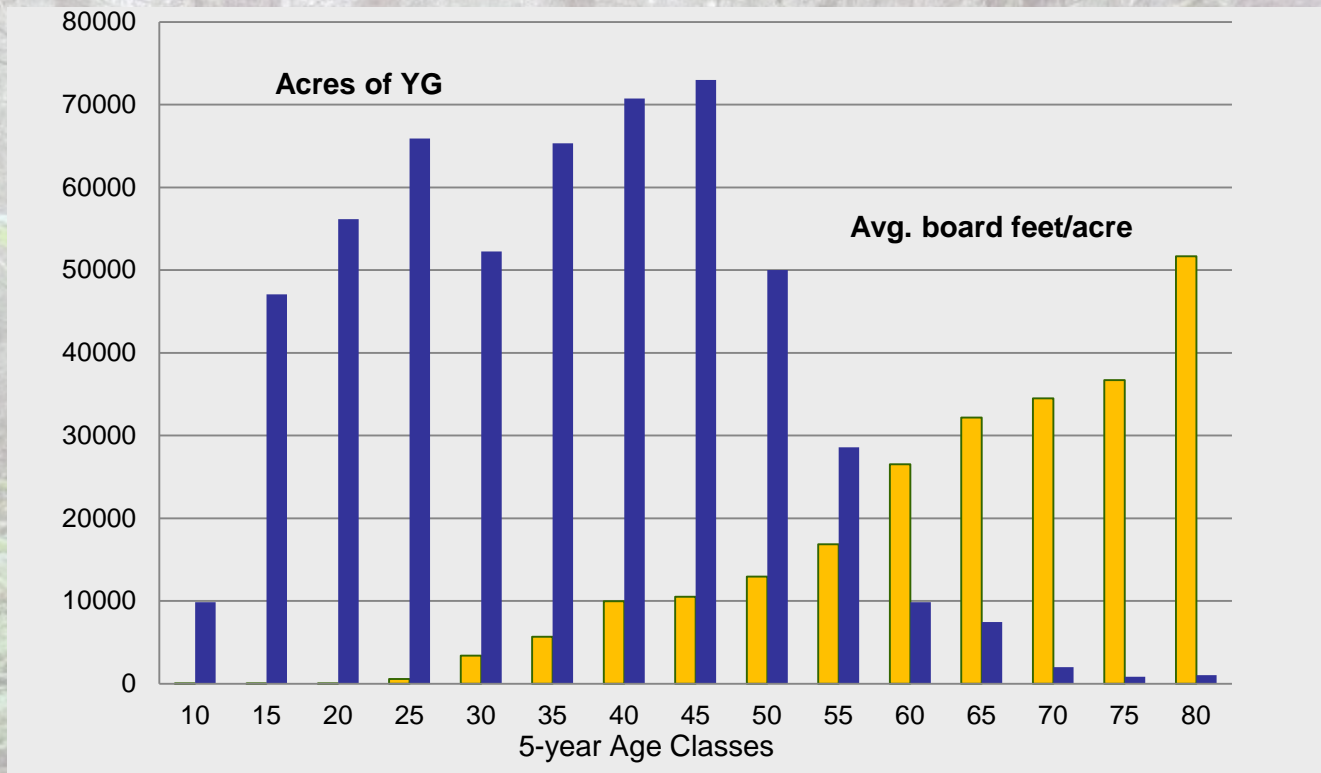
Merchantability of YG Stands on the Tongass



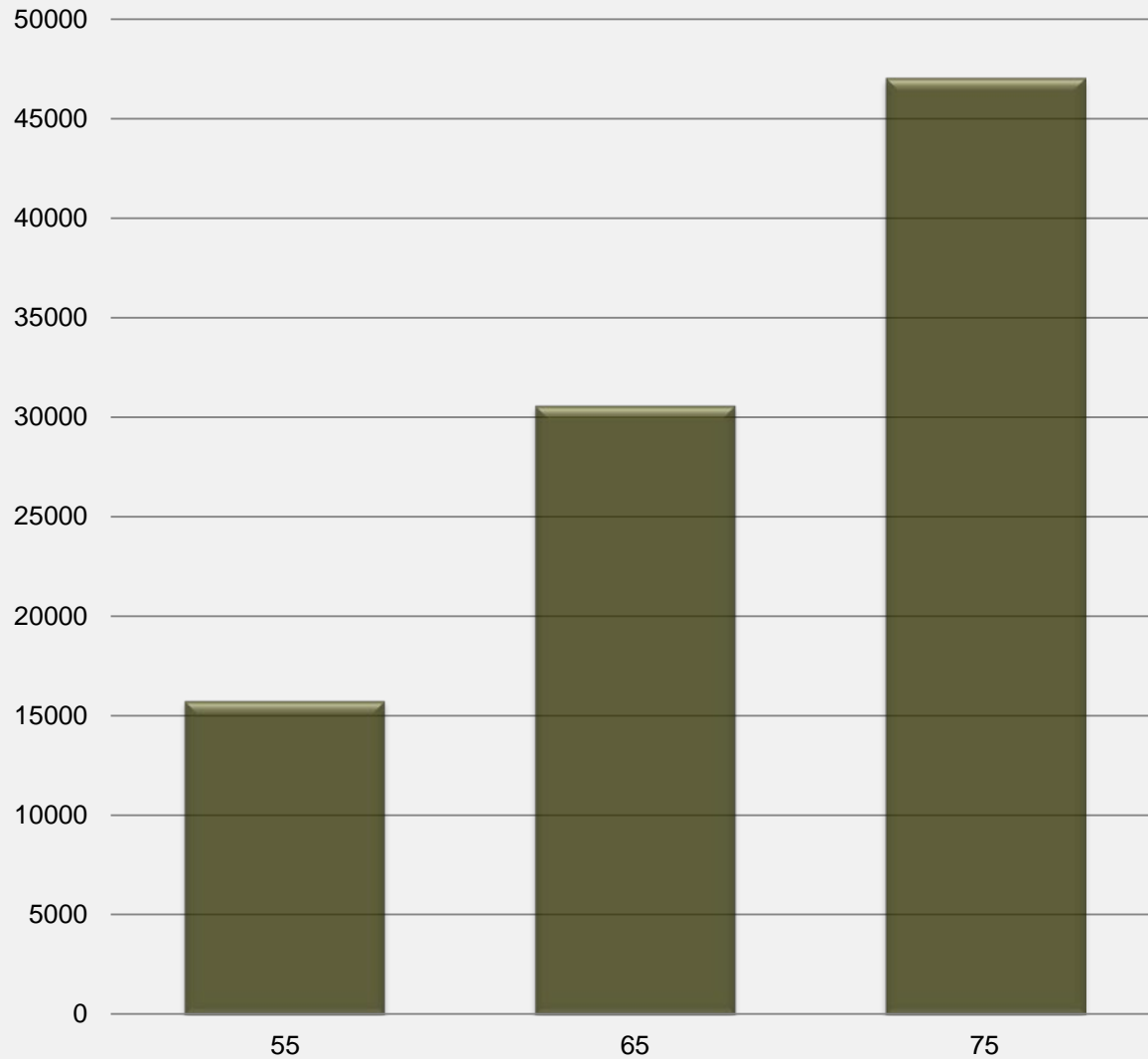
Forest-wide average Volume per Acre by Age



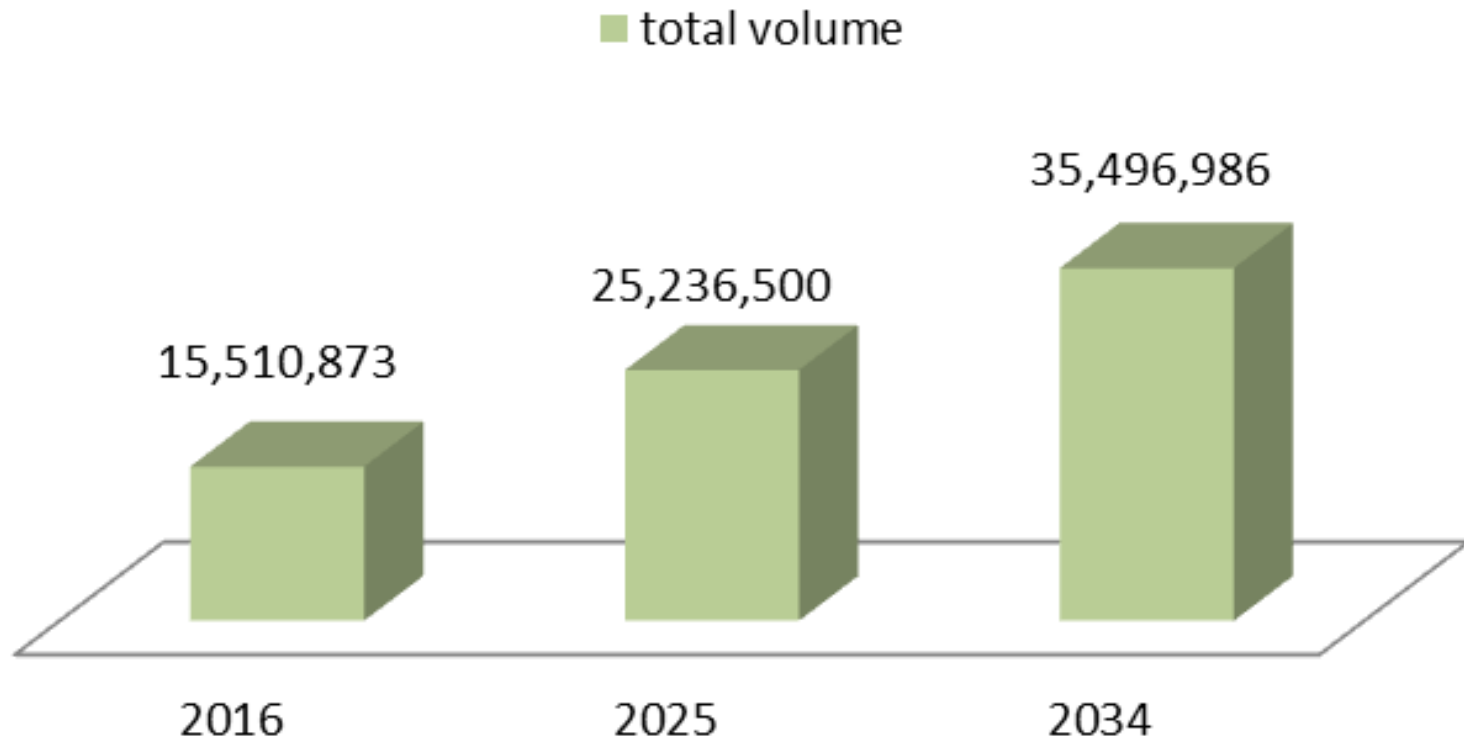
Comparison of YG Acres to Average Volume per Acre by 5-year Age Classes



Volume (bf) per Acre comparison: Age 55, 65 and 75



Thomas Bay projections for Gate 1 Analysis



Average stand age in 2016 is 52 years. Many stands have had 3 silvicultural treatments to date



55-year old stand (unthinned)



55-year old stand (thinned)

65-year old stand (unthinned)





60-year old stand (thinned)

70-year old stand (unthinned)





90-year old stand (unthinned)