



# Biomass Utilization Workshop

Jay Francis, Collins Pine

May 25, 2010

# Collins Pine - Chester

A photograph of a large industrial facility, likely a power plant, with a large pile of wood chips in the foreground. The facility has a complex structure with a gabled roof and various pipes and walkways. The wood chips are piled high and appear to be a mix of light and dark brown colors. The sky is overcast and grey.

- 12 MW Co-generation power plant
- Consume about 40% of power internally
- Balance is sold to PG&E
- Generate steam for dry kilns

A large portion of our fuel comes from our sawmill



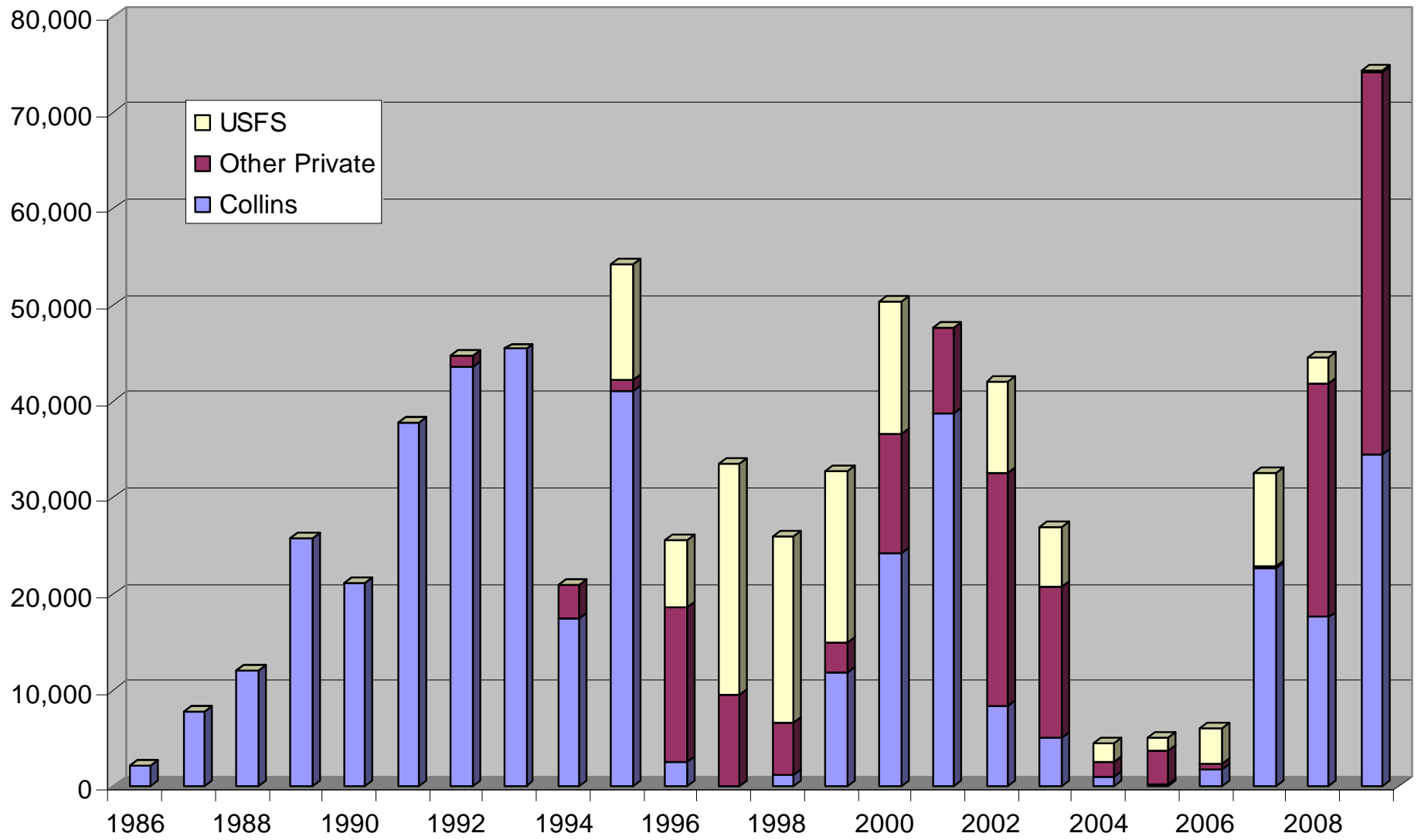




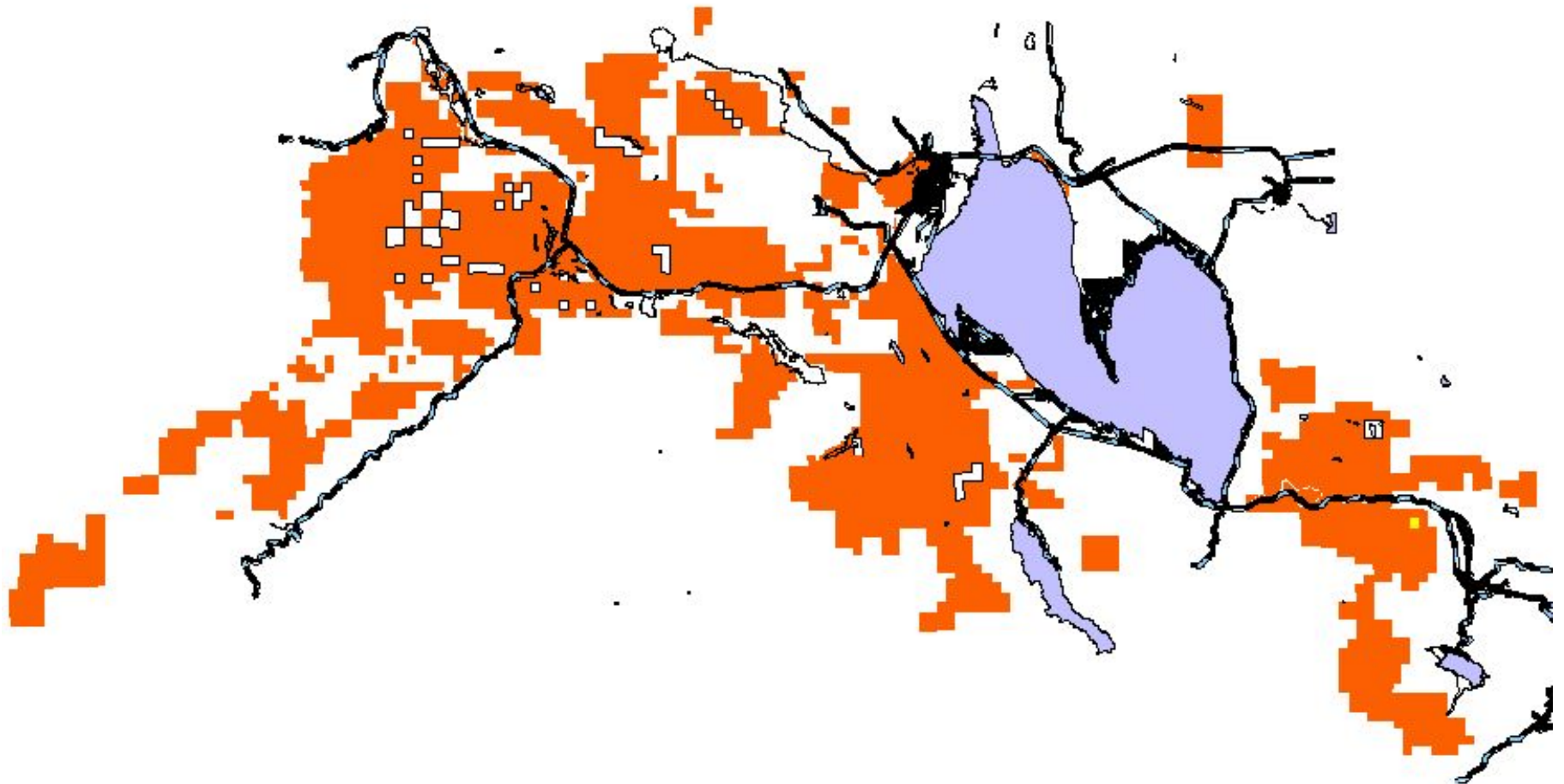


And a lot of it  
comes from  
outside  
sources –  
Ag residue  
Forest thinning

# BDT of Fuel



# Collins Almanor Forest





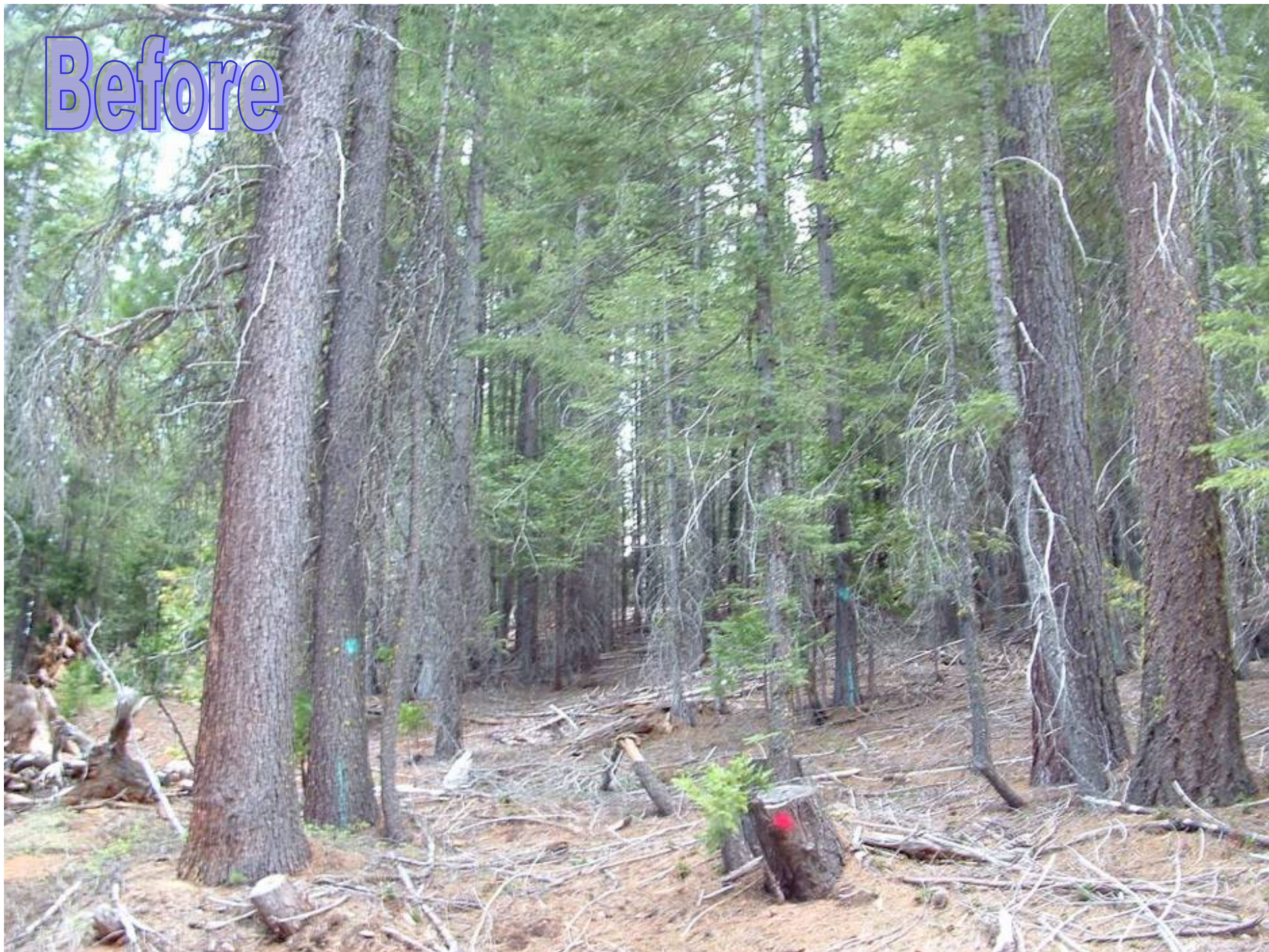
Before



After



Before



After





Moonlight Fire Plume on  
Day 2 from Lake Almanor

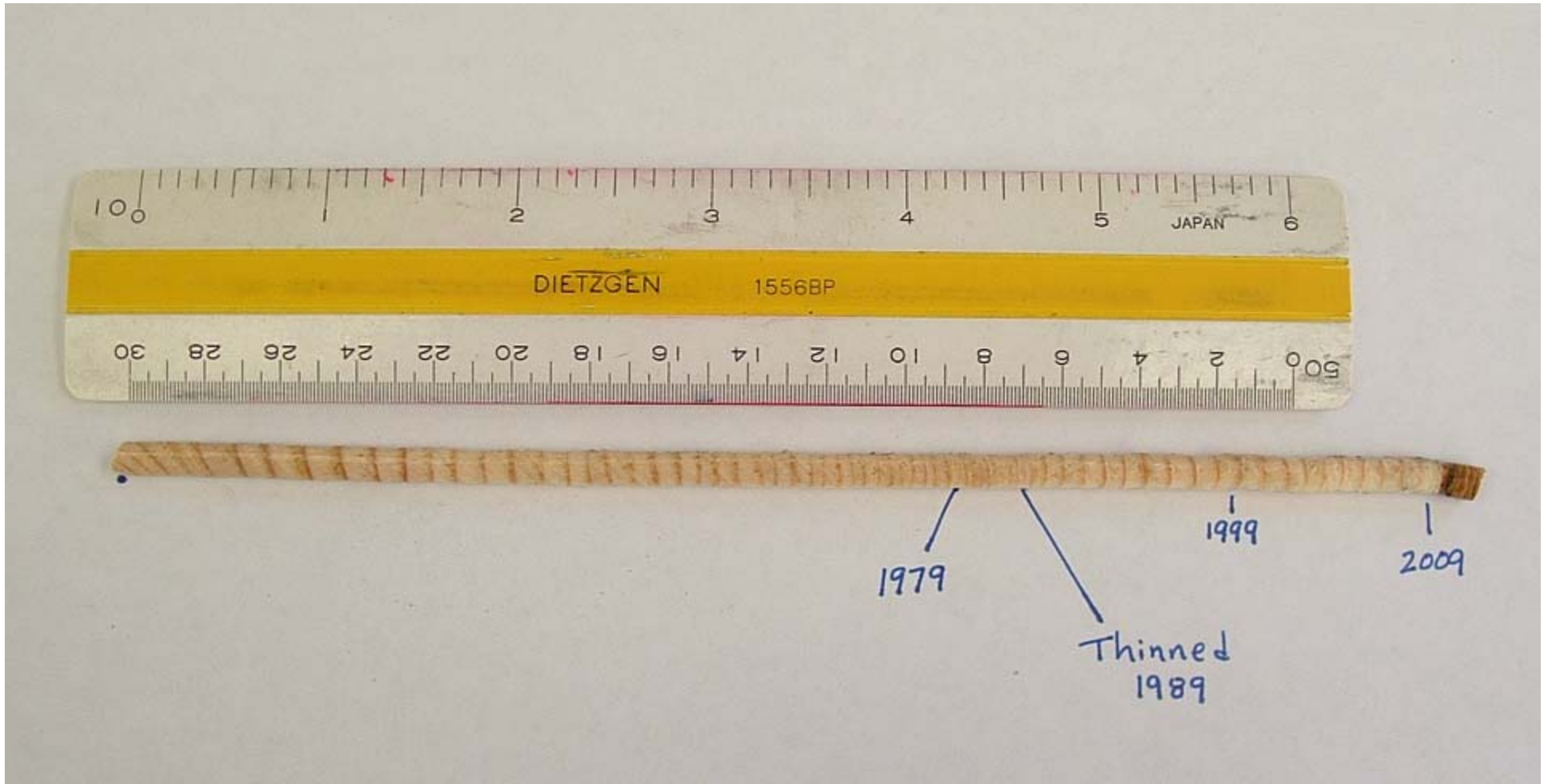


**Densely stocked USFS lands  
inside the Moonlight Fire**





Collins Pine Stand that burned the same day as the Moonlight fire



**3x increase in annual growth with thinning**  
30 years/inch prior to thinning

10 years/inch after thinning

# Elam Thin Fuelbreak

	Pre-Harvest	Post-Harvest
• Basal Area (ft <sup>2</sup> )	332	160
• Canopy	94%	52%
• Trees/acre	780	120
• Ave. tree diam.	7"	17"

# QLG Type Project

- 235 acres treated
- 1.5 mmbf of sawlogs removed
- 8,800 green tons of biomass removed
- employed a crew of 19 people for 45 days
- contractor made money
- landowner made money
- removed 70 tons/acre

# 1991

## Before



1999

After

