

California Woody Biomass Project Trends

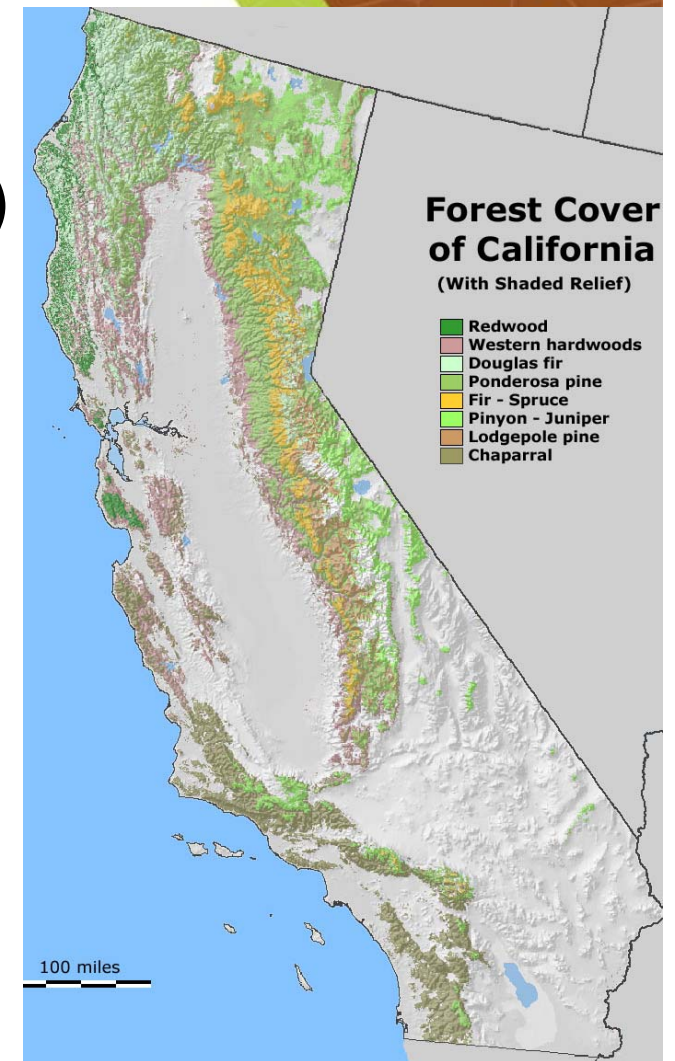
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Tulare, May 6 2009

Current market challenges

- ★ Low lumber price
- ★ Mills reducing shifts
- ★ 3 SPI sawmills to close (+1 cogen)
 - ★ Quincy
 - ★ Camino
 - ★ Standard (Sonora)
- ★ Reduced availability of residuals (price increases)
- ★ 1 pulp mill closed – Evergreen (Samoa)



Current market challenges

- ★ Loggers in a bad situation
- ★ Forest Service sales receiving no bids
- ★ Ongoing litigation adding to complexity
- ★ It could get worse before it gets better
- ★ Financial meltdown has stopped some projects and slowed others



Current California Projects (thru 2012)



Primary processing

- ★ New wood shavings mill: 1 (10,000 BDT - Sonora)
- ★ New sawmill/sort operation: 1 (Hayfork)
- ★ New dowel mill: 1 (50,000 BDT – North Coast)
- ★ Pulp mill restart: 1 (500,000 BDT – North Coast)



Current California Projects (thru 2012)



Densified wood fuel

- ★ New pellet mills: 2 (220,000 BDT – Sacramento, North Coast)
- ★ New fuel brick mill: 1 (20,000 BDT - Sonora)



<http://ucanr.org/woodybiomass>

Current California Projects (thru 2012)



Power plants

- ★ Restart: 3 (250,000+ BDT – North Coast, Lone, Imperial Valley)
- ★ New build: 3 (400,000 BDT – Placer County, North Coast, San Joaquin Valley)
- ★ Addition of gen-set to boiler: 1 (50-100,000 BDT - Weed)
- ★ Conversion to biomass: 1 (340,000 BDT - Bakersfield)
- ★ For sale: 2+ (North Coast, others)



Trends

- ★ Projects are moving forward
 - ★ Primary processing
 - ★ Densified wood products
 - ★ Power
- ★ Small to mid scale reliance on NFS (up to 60,000 BDT/yr)
 - ★ Diversified feedstock or
 - ★ Small scale facilities
- ★ Finance more challenging

