

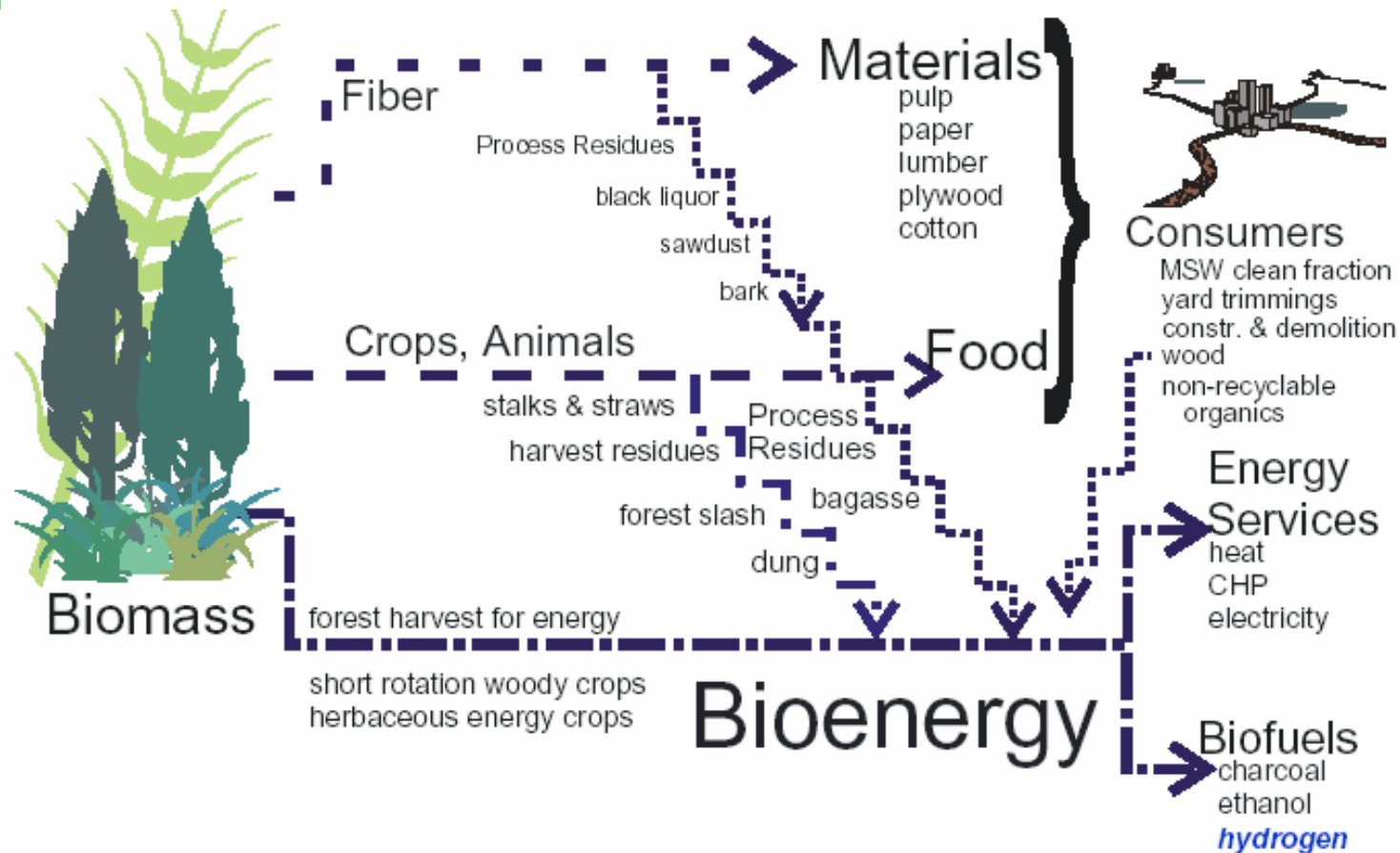
Bio-Energy and Bio-Fuels Make it Happen



**Sierra Cascade Logging
Conference Redding, California**

February 11, 2010

Harvesting and Using Biomass





Source: State of California, FRAP (Map); California Forestry Association (Oct. 2008)

Fuel/Feedstock Characteristics

A variety of value-added bioenergy related end uses have evolved over time. The conversion technology employed will determine targeted feedstock characteristics. Key Physical Characteristics include:

- Heating Value (btu/dry pound)
- Moisture Content (% moisture)
- Sizing (typically 3" minus)
- Ash Content (% non-combustibles)
- Chemical Make-Up (sulphur, potassium, lignin)

Four Primary Sources of Biomass Fuel/Feedstock

- Forest
- Agricultural
- Urban
- Industrial

Panelists

- Gregory Morris, Green Power Institute
- Gareth Mayhead, UC Berkeley
- Bruce Springsteen, Placer County Air Pollution Control District
- Tristian Allen, CLT Logging, Inc.
- Moderator - Tad Mason, TSS Consultants

