

# Placer County Carbon/Biomass Project

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Chico, California

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## **Project Update**

- Project reporting on SNC grant agreement #G077005
- Project Activities performed during 2008 summer and fall
- Report delivered to SNC 11/17/2008
- Partners











### **Project Locations**



**Location of SPI Facility Lincoln, CA** 

**Location of SSO/BFP Projects Foresthill, CA** 

Location of Sugar Pine Dam and Shirttail Creek Watershed Foresthill, CA





## **Project Facts**

- Case Study Demonstration Project:
  - Moved 7,089 green tons (4,200 BDT)
  - Excellent fuel quality 9,000 Btu/lb, 40% moisture
  - 4,652 MWe
- Economics approx. \$55/BDT (\$3.25/MMBtu)

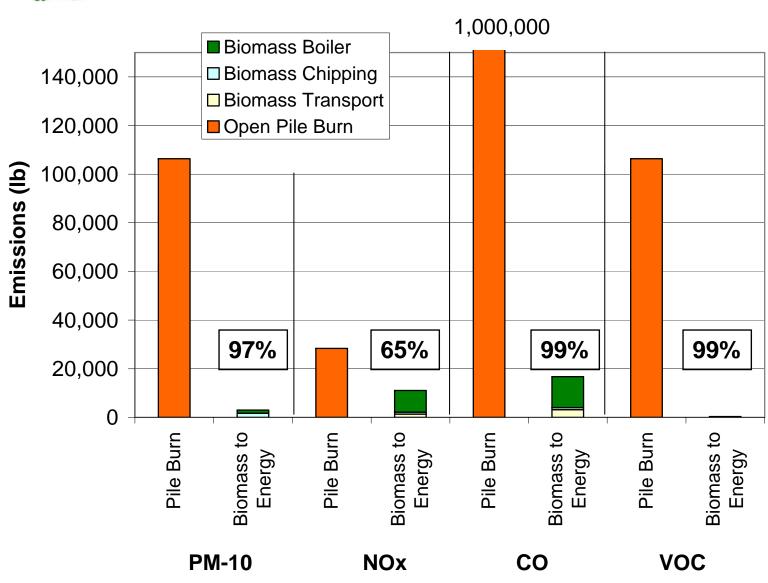
working to increase operating efficiency and reduce cost





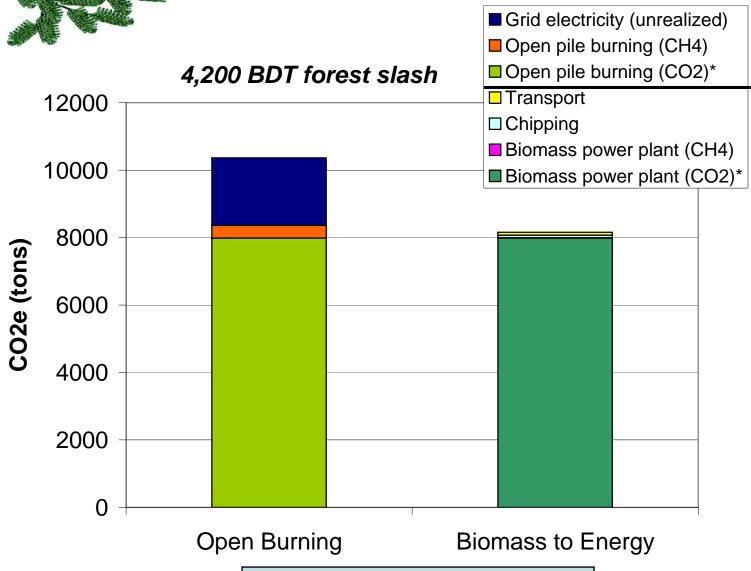


# **Criteria Air Pollution Emission Reductions Open Pile Burn vs Biomass Waste to Energy**





# **Greenhouse Gas Emission Reductions Open Pile Burn vs Biomass Waste to Energy**



CO2e Reduction: 2,205 tons



#### CO<sub>2</sub> Cost Effectiveness

Biomass:

Biomass costs = \$55 per tons for grind/haul Biomass power plant rate \$45 - \$65 per ton

Carbon: (60 mile radius travel)

4,200 tons biomass = 2200 tons of CO2 reductions 2,200 / 4,200 = .523 tons of CO2 per ton of biomass

Carbon equation = 1/2 a ton of CO2 per ton of biomass

#### Premise: Sustainable biomass operations

- For biomass to be sustained 2 items need to be accomplished
  - 1) Operational costs need to be improved
  - 2) an economic driver needs to be injected
- ➤utilize the carbon credit (½ a ton of CO2 per ton of biomass) as the driver
- ➤ Carbon credit sale of \$10 per ton equals \$5 per ton of biomass = Sustainability



#### Potential Benefits to the Watershed

#### Now that Biomass piles have been removed:

- USFS rehabilitation & planting of genetically superior seedlings
- Net increase in water yield
- > Forest more fire resilient
- Less erosion





Before After



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## **Questions/Comments**

