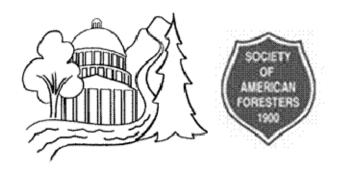


Presented to the Sacramento Tahoe Chapter of the Society of American Foresters



Brett Storey, Placer County Biomass Program Manager (530) 886-4651 bstorey@placer.ca.gov



Vision

In order to diminish the threat of catastrophic wildfires, reduce pollution and enhance our environment, we will advance economic opportunities in recycling and bio-based product development through amplified use of our renewable biomass resources.

Placer County will provide collaborative leadership in the field of Biomass Utilization.





Practical Application

Let Technology, Scale, Economic Viability & Logistics drive answer for Placer County



Reduction of catastrophic wildfire potential at a minimum



Cost savings potential for County with today's technology



Production Enterprise Opportunities for viable leading edge Bio-based products as our potential future



* Technology

What is today's answer?
Can the science get us all the way?

* Scale

Community-based scale decisions

Effect on environment

Economic Viability

Is this attractive to private enterprise?
Is there a long term payoff for investment?

Logistics

How much biomass available/at what season/storage Transportation



Goal: Prevention of Catastrophic Wildfire

- How do you prevent Catastrophic Wildfire?
 - Strategic Planning
 - Intelligent mitigation measures
 - Agencies working together
 - Public Awareness
 - Tools
- How do you pay for this ?
 - Traditional vs. New thinking
- How are we doing?
 - Need to do better





Cedar fire 10/25/2003 Example: Catastrophic Results of Fire

Worst fire in recent California history

3 days of unhealthy-hazardous air quality

392,000 acres burned



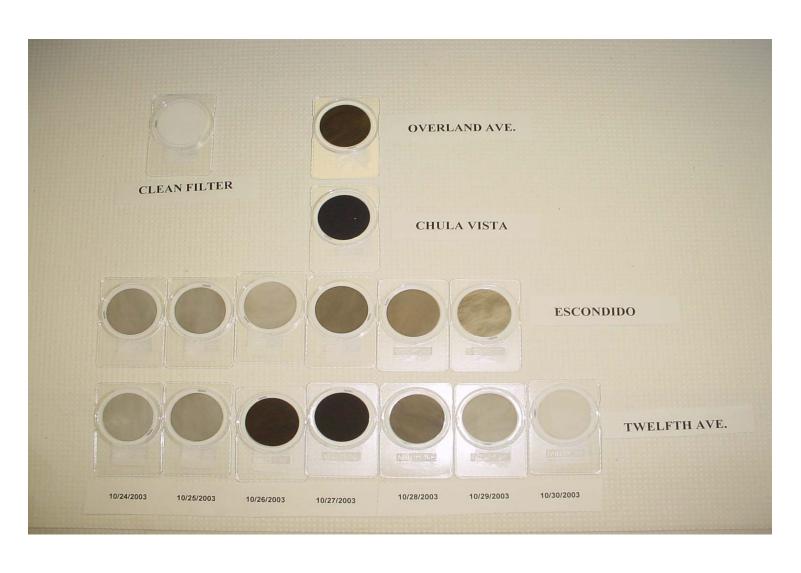
16 confirmed dead

Over \$900,000,000 in damage

2574 homes and 2700 structures destroyed



PM 2.5 Filters Showing Cedar Fire Impacts





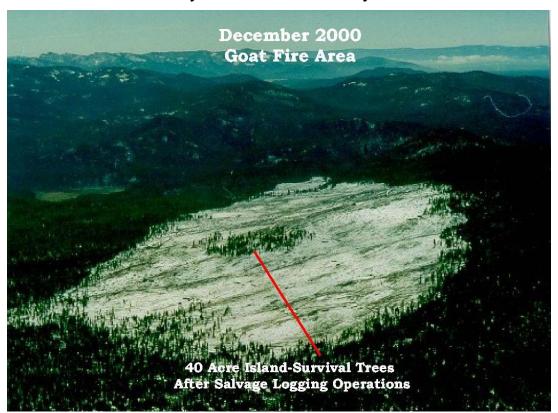
Cedar Fire: Dust in the Wind

A red plume of dust and ash from the San Diego County wildfires is visible blowing over the Pacific Ocean and San Clemente Island in this Nov. 27, 2003 false-color image from NASA's Terra satellite. In this image, newly burned areas appear red while vegetation is green, water is black, and clouds are light blue.



Economic Benefits of Wildfire Prevention

Forest Health is enhanced through pre treatments
- UC Berkeley, Division of Ecosystem Science



"The costs of treating fuels on an acre of forested land is usually much less than the cost of active fire suppression on the same acre under wildfire conditions". (Western Governor's Association Biomass Task Force Report, January 2006)



Current Situation – Placer County

- Rapid growth/high property values
- Large Forested areas (LTBMU & Tahoe National Forest, State Parks, etc.)
- 3 Air Basins (Lake Tahoe, Mountain Counties, Sacramento Valley)
- Multiple Transportation Corridors (Freeways, Rail)
- Poor Air Quality
 - Cumulative effects from Bay Area/Sacramento (Down Wind)
 - Located within the Sacramento Federal Ozone Non-Attainment Area
 - Modeling estimates 35% of reduction is needed from current emission levels to attain federal 8-hr Ozone standards by 2013
 - Stationary Source Projects are subject to NSR for NOx & ROG
 - Offsets required for potential to emit of 10 tons/year or more
 - Permits for Sources required at 2lbs emission per day
 - BACT required if emissions exceed 10 lbs per day



Concerns in Achieving Goal

- Tools currently available not adequate to address scope of the problem
 - More tons (BDT) on the ground that can currently be treated annually
 - Even with more treatment, what can we do with the biomass?
 - Current treatments good, but only a band aid to prevent catastrophic wildfire
- Growth is overcoming methods
 - 4% added each year
 - about 75% green biomass and 25% dead and dieing biomass accumulation per year
- Need to Increase Biomass utilization
 - Currently we have a regulatory challenge
 - Air Quality regulations
 - Economics
 - Desire to Add potential new tools
 - Change in Land Management Treatments (support USFS including salvage)
 - Bioenergy (heat, water, fuel)
 - Bio-based products



Catastrophic Wild Fire Prevention "Tool Box"



Traditional Tools

Fuel Breaks

Prescribed fire

Timber harvest

Chipping/clearing

Minimal biomass removal

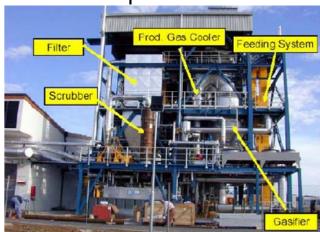


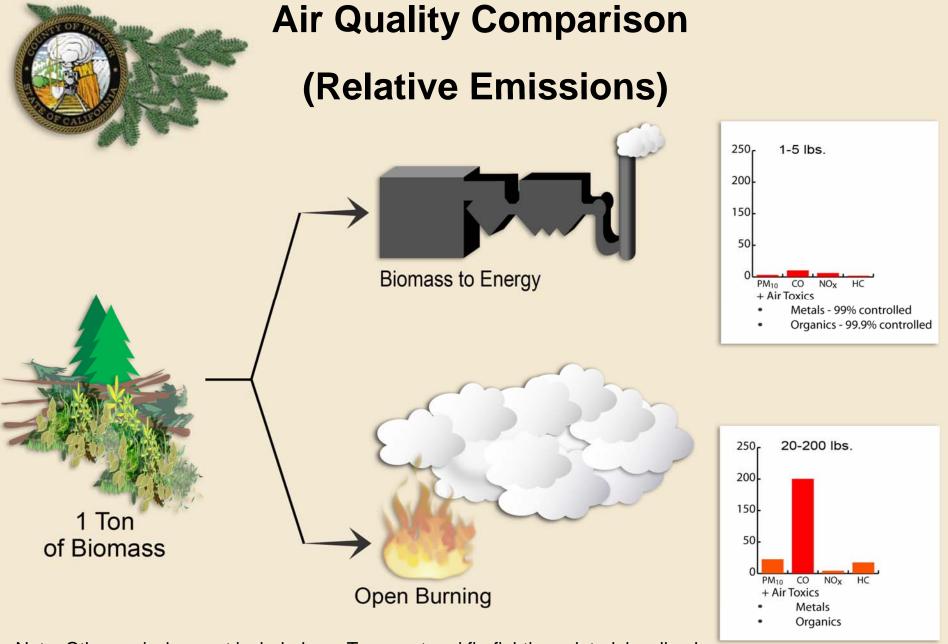
Added Tools

Improvement in Land
Management Treatments
"Optimum Biomass"

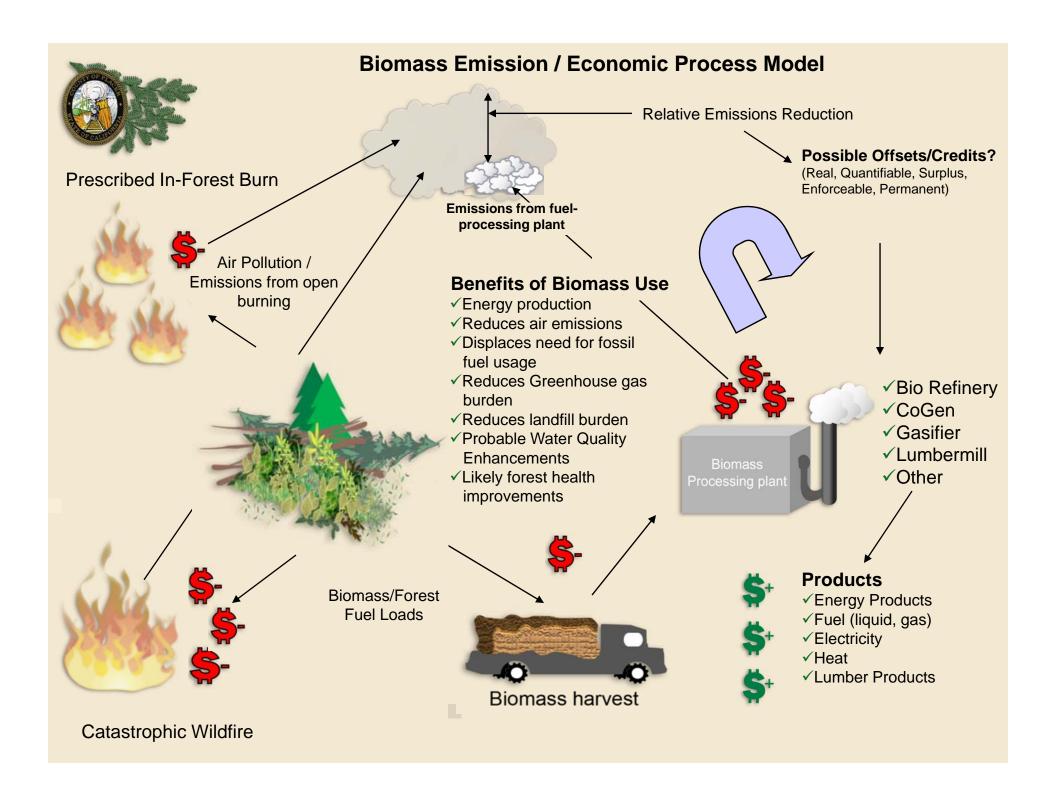
Bioenergy (heat, water, fuel)

Bio-based products





Note: Other emissions not included are: Transport and firefighting related; localized emissions import from fuel processing plant; fugitive dust after burns; emissions from forest decay.





Placer County Biomass Organization/Plans

- Team Organization
 - Working group Engaged
 - Biomass, Forestry, Fire Professionals, Legislative, Air Pollution Control, Project Management
 - Coalition being built
 - Universities, Environmental groups, Conservancies
 - Federal, State and County government & Agencies
 - Business interests (government, schools, recycling & alternative power/fuel)
- Biomass Utilization Strategic Plan Development
 - Draft Plan in 2006 (3 phase effort)
 - I) Forest Protection & Biomass collection development
 - II) Bio-energy Project Development (Proof of Concepts)
 - III) Biomass Commerce Integration



Current Placer County Wildfire Protection/Biomass Projects

- Wildfire Protection/Biomass Strategic Plan
- Fire Mitigation Coordinator
- Annual Defensible Space Inspections Program
- Shaded Fuel Break Maintenance
- Tahoe Basin Biomass Removal Program
 - NLT Fire Safe Council
 - USFS
 - Cal State Parks
- Biomass Community Box Program
- SPOT/CROP Analysis
- RAWS Project



Projected Placer County Wildfire Protection/Biomass Projects

Wildfire Protection

- Full time Fire Mitigation Coordinator
- Mechanical mastication funding
- More Shaded fuel breaks
- Increased Forest Thinning
- Increased biomass removal programs/equipment

Biomass Utilization

- Air quality measures development
- Heating/electrical demonstration facility
- Bio fuel fermentation research at Cabin Creek/UC Davis
- Biomass to alcohol program at Valley site
- Emissions controlling devices



Projected Placer County Wildfire Protection/Biomass Projects

Tahoe Stewardship Program

- Propose 10 year Stewardship Plan to US Forest Service
 - Be inclusive of all interested parties & agencies
 - Provide specific projects, timelines and measurable results
 - Develop economically viable, ecologically practical programs
 - Enact Long Range contracts
 - Support USFS Land Management Practices
 - Facilitate national effort for managing Biomass utilization