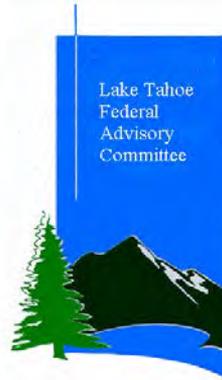




# Cabin Creek Biomass Power Facility Development Project

*Presented to:*



*October 11, 2012*

*Incline Village, Nevada*

*Brett Storey, Placer County Biomass Program Manager  
(530) 745-3011 [bstorey@placer.ca.gov](mailto:bstorey@placer.ca.gov)*





# ***Biomass to Energy Facility Development***

- DOE & USFS Grants have been used to pay for a majority of the Technical/Environmental/Economic Studies
  - Reports Complete & Published (County staff & multiple contractors)
    - Air Emissions
    - Logistics
    - Fuel Assessment
    - New Source Review
    - Preliminary Site Plan Layout/Conceptual 3D Building Design Drawing
  - Reports due this Year
    - Technical Requirements for Equipment
    - Intermediate Design layouts and Building Design
  - Reports next Year
    - Project Economics
    - Power Purchase Agreement
    - Final Design & Site layout
    - Program Guidebook



# ***What 3<sup>rd</sup> Party Analyses Has/Is Being Done?***

- Health Risk Assessment (HRA) - Air Permitting Specialists
  - Report completed September 2011
  - Results indicate ***No Significant Health Risk***
- Environmental Impact Report (EIR) - Ascent Environmental Inc
  - Draft Report released/Comment period closed 9/10/12
- Health Impact Assessment (HIA) grant – Ca Department of Public Health
  - Community Stakeholder Process used to identify how a project might influence health
  - Scope looks at health in all human populations affected by the project
  - Looks at changes in physical, community, social and economic structure that affect health – ***for better and for worse***
  - Results may be used to improve project design



# Where is Biomass Fuel Coming From?

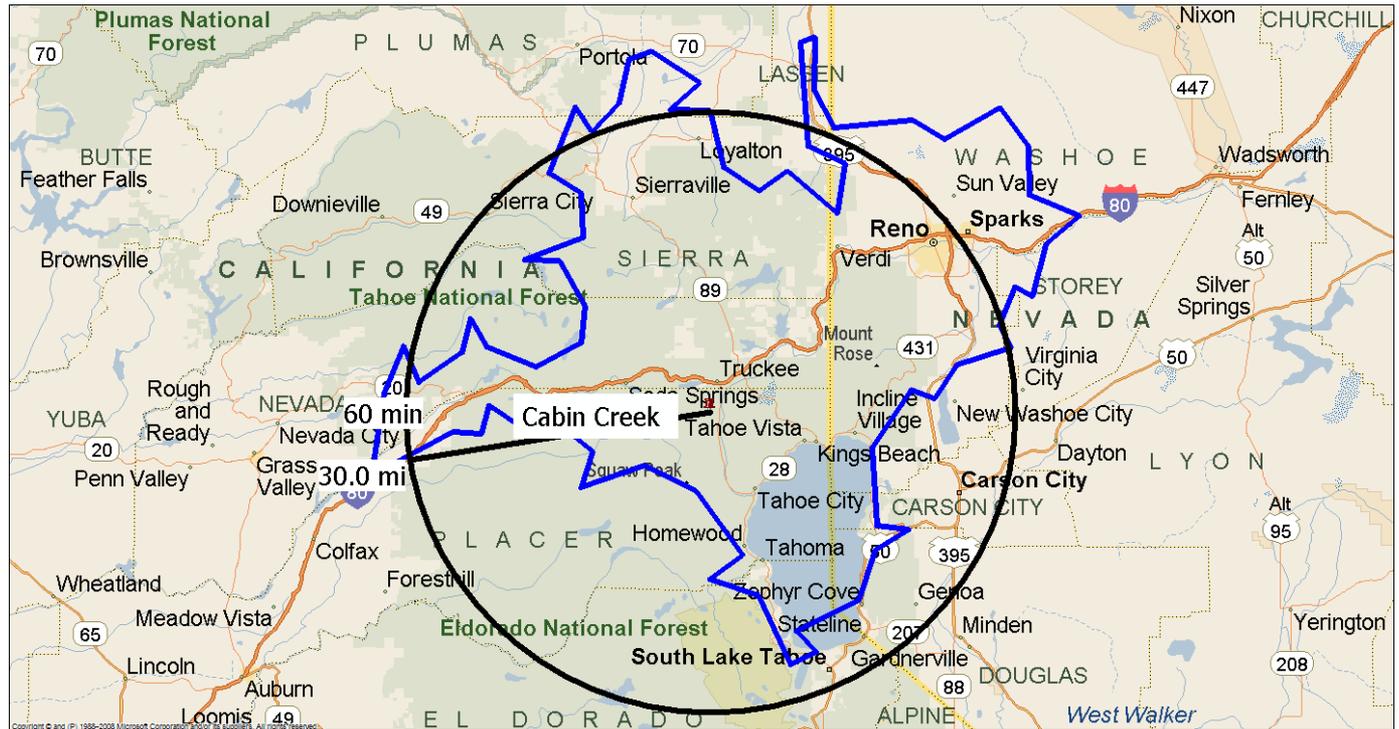
*Is there enough material?* **Yes**, Study shows over 112k BDT's of material within 30 miles  
– current demand 40k

*How much material is needed for Cabin Creek?*

**Up to 17k BDT**

*How will long term material be acquired?*

**MSA with USFS**



*What affect will Cabin Creek have on other local facilities?* **Very little**



# Principal Technology Chosen

## *Gasification*

*Two 1MW Gasification units*

*Creates Syngas*

*Creates Electricity*



Gasification Unit  
(Nexterra)

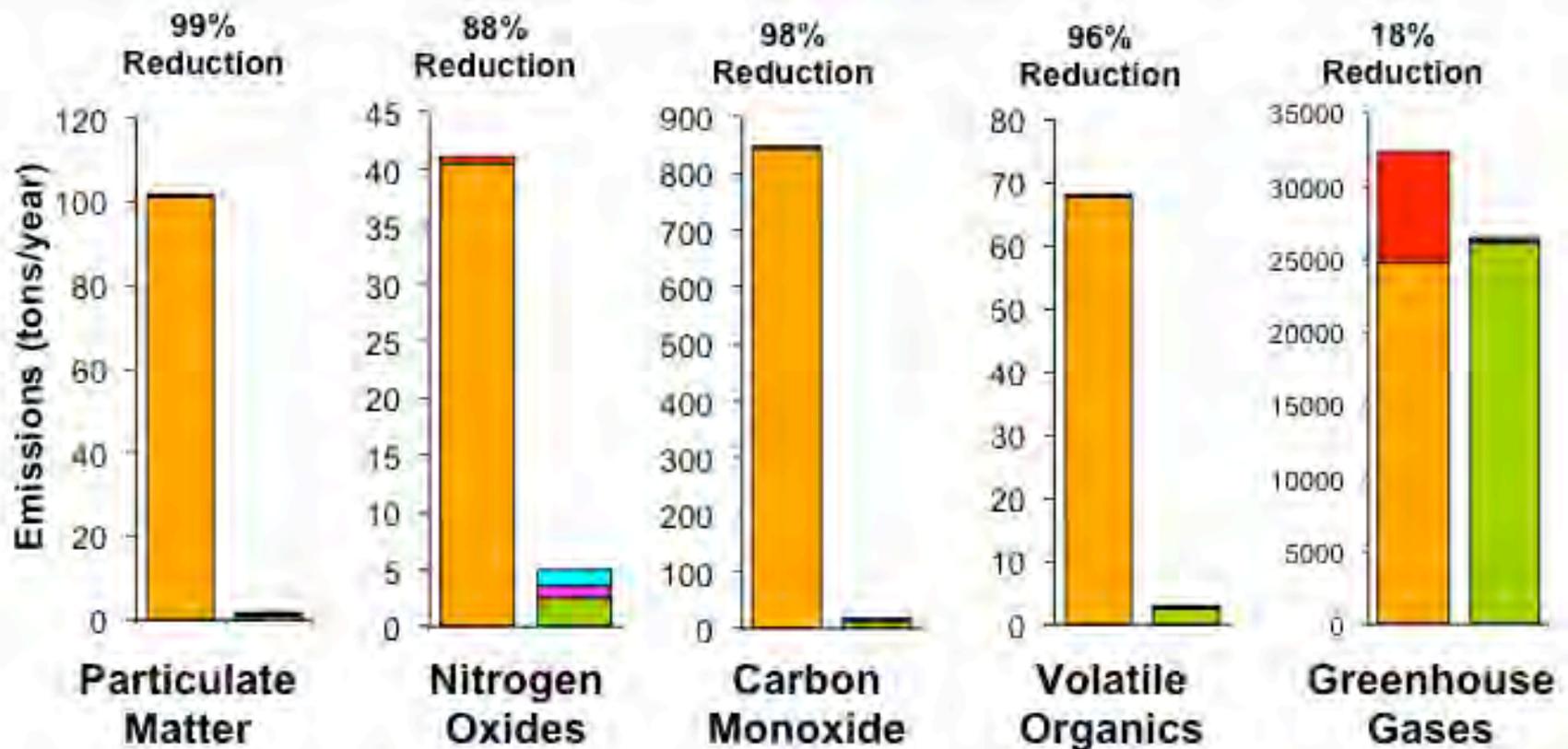


Internal Combustion Engine  
Coupled with a Generator  
(GE Jenbacher)

*Creates Biochar*



# Air Pollutant Emissions Comparison





## ***What Do Results Mean?***

- US Environmental Protection Agency Recognizes Outstanding & Innovative Efforts to Achieve Cleaner Air
  - 2010 Clean Air Excellence Award for

### ***Forest Resource Sustainability in Placer County***

We have processed and transported 15,000 BDT's of waste to biomass energy facilities which has fueled the generation of 15,000 MW hours of renewable electricity, enough to power more than 1,500 homes for one year.

*This Project was chosen "for its impact, innovation and replicability"*



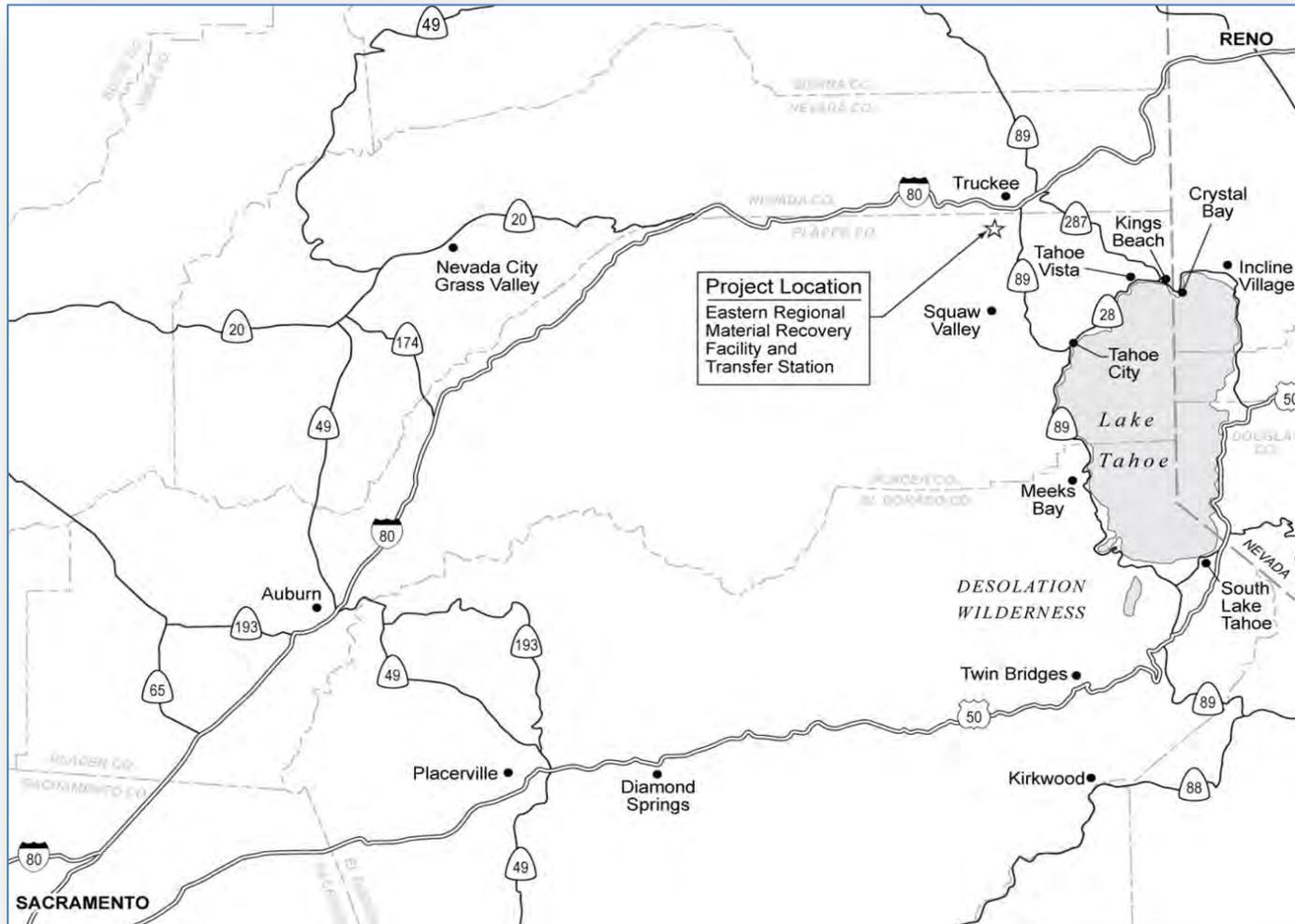


# Facility Attributes

- **Proposed 2MW Electrical Generation at site**
  - Power for 1500 Homes Annually
- **2 story facility w/ approximately 100' X 120' footprint within a 2 + acre Placer County-owned site**
- **5 month on-site stockpile/supply (approximately an acre)**
- **Average 11 truckloads per day (25 during peak operations)**
- **Tied directly into local electricity grid using existing transmission lines**
- **Reducing reliance on Fossil fuel (replacing mostly coal based energy)**



# Vicinity Map – Cabin Creek





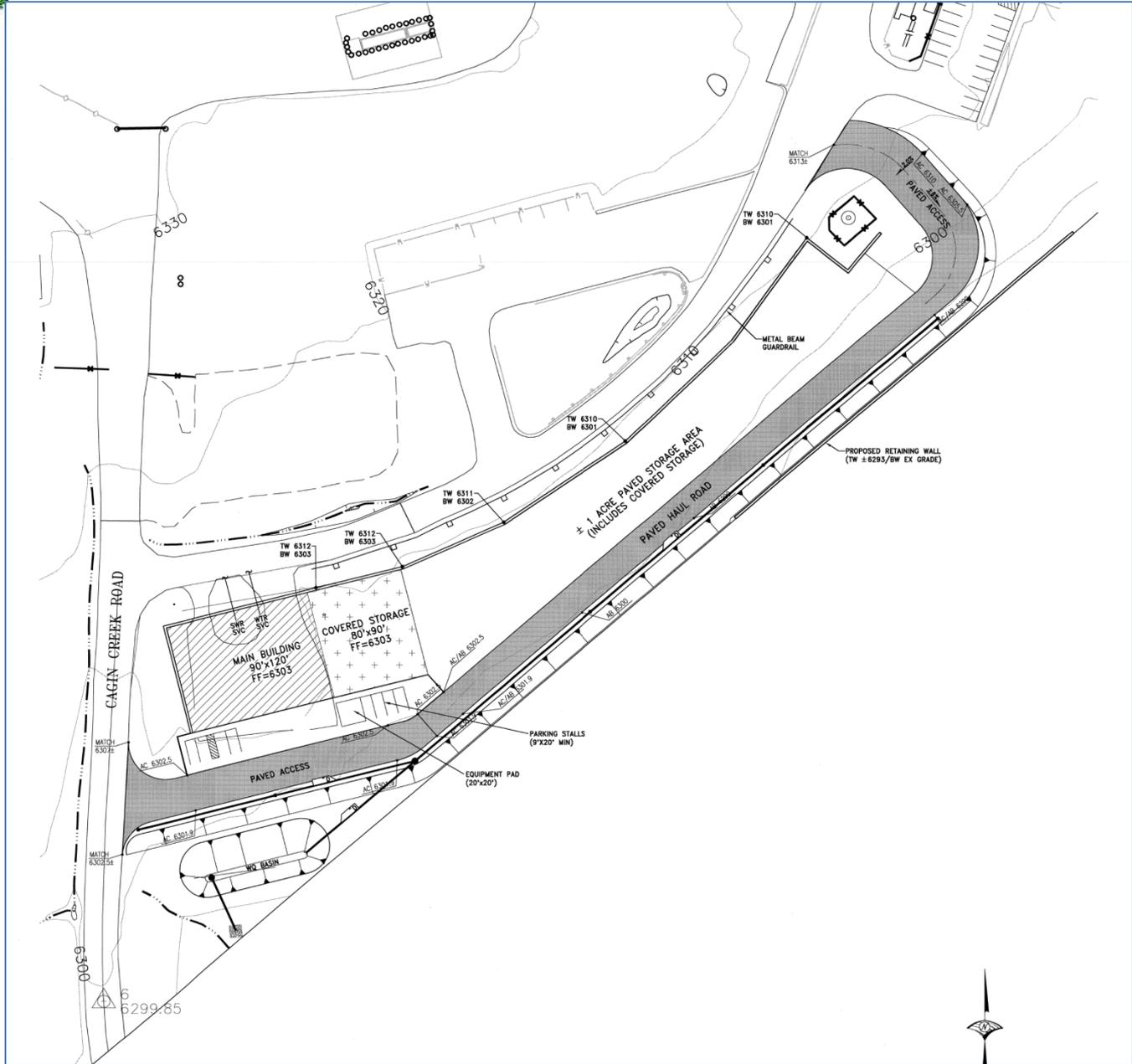
# Cabin Creek General Area





# Cabin Creek

# Site Map





# *What Does the Facility Look Like?*



VIEWPOINT 1 VISUAL SIMULATION

**CABIN CREEK BIO MASS FACILITY**  
PLACER COUNTY, CALIFORNIA



**WOOD ROGERS**  
DEVELOPING INNOVATIVE DESIGN SOLUTIONS  
3301 C Street, Bldg. 100-B Tel: 916.341.7760  
Sacramento, CA 95816 Fax: 916.341.7767



# ***What is the rest of the Process to Build ?***

- Joint Environmental Document:
  - CEQA: EIR Lead agency = Placer County, NEPA: EA Lead agency = DOE
  - “After implementation of the proposed mitigation measures, all of the adverse effects associated with the proposed project would be **reduced to less-than-significant level.**”
- Present Project and FEIR to Planning Commission: Dec 2012
  - Conditional Use Permit
- Present to PCAPCD: Jan 2013
  - Authority to Construct/Permit to Operate
- Investors decision for Construction: Spring 2013
  - Site prepared summer through fall 2013
  - Accepting material summer through fall 2014
  - Facility could be “on-line” Jan 2015



# Questions/Comments

<http://www.placer.ca.gov/Departments/CommunityDevelopment/Planning/Biomass.aspx>

