

# WOOD INNOVATIONS PROGRAM

## USDA FOREST SERVICE

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# MISSION AND SERVICES

## WOOD INNOVATIONS PROGRAM, R<sub>1</sub> AND R<sub>4</sub>

### **Mission:**

Develop and expand the use and manufacture of wood and biomass products.

### **Focus:**

Building with wood, renewable wood energy, traditional and emerging markets.

### **Services:**

- Provide information and expertise.
- Administer Wood Innovations Grants.
- Track technologies, markets, entrepreneurs, and innovators.
- Match-making to foster partnerships and project development.



# WHY FOREST SERVICE IS INVOLVED



**Motto:** Caring for the land and serving people.

## URGENT CHALLENGES

- Catastrophic wildfires
- Communities at risk
- Degraded watersheds
- Epidemic proportions of insects and disease
- Climate variabilities





# ADDRESSING THE CHALLENGES



Harvest trees.



Use fire as a management tool.

Replant trees.

Collaborate.

# Our Approach to Responsible Forest Management and Timber Harvest



Forest plans and projects informed by teams of resource specialists and engagement with public, partners and stakeholders.



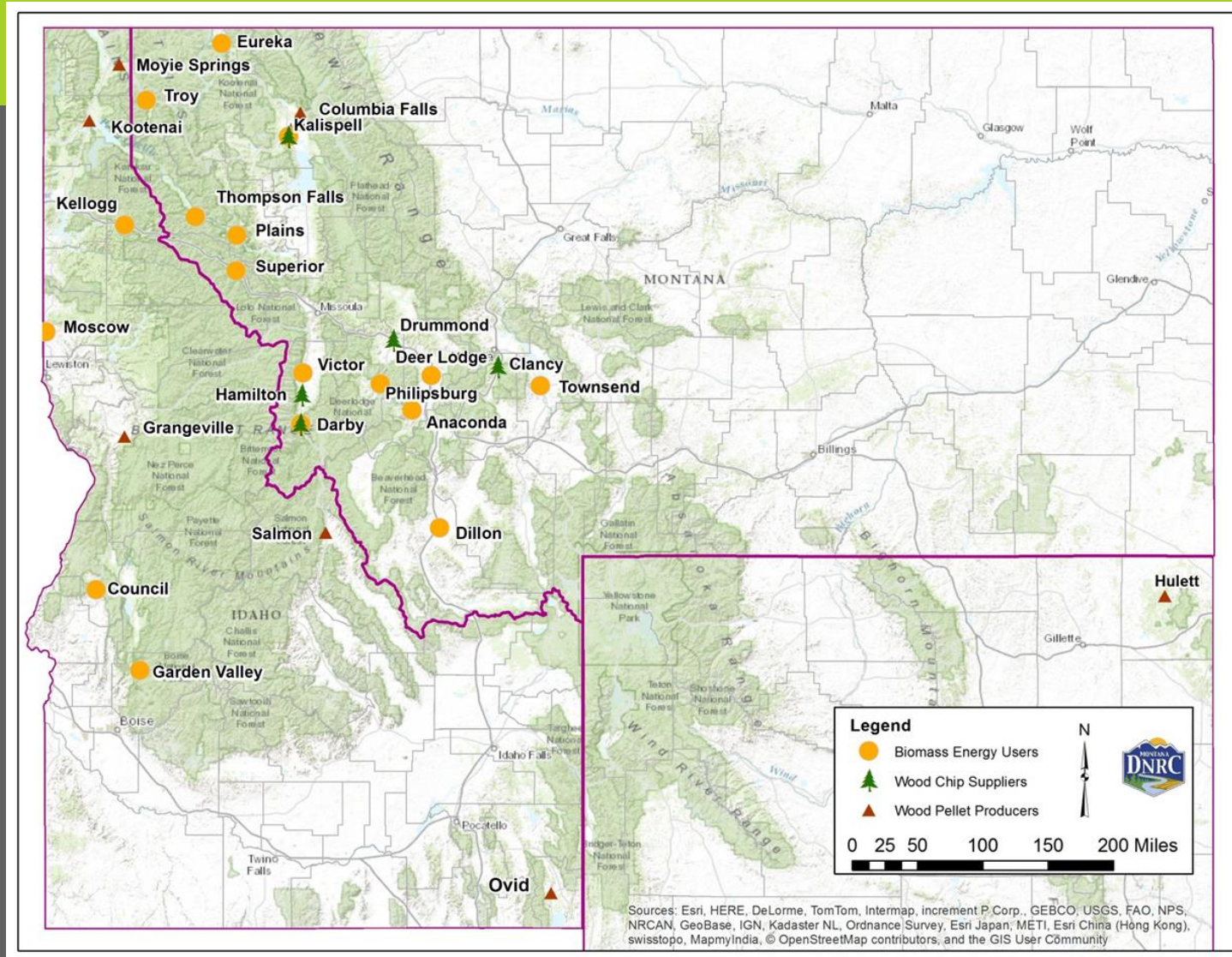
- ✓ Governed by laws, rules, regulations.
- ✓ Apply best available science.
- ✓ Collaborate.
- ✓ Open and transparent.
- ✓ Responsible practices.
- ✓ Replant trees.
- ✓ Monitor.
- ✓ Be adaptive.



# RENEWABLE WOOD ENERGY



# RENEWABLE WOOD ENERGY INSTALLATIONS



## Thermal Wood Energy Installations



Source: [www.wood2energy.org](http://www.wood2energy.org)



# RENEWABLE WOOD ENERGY PROJECTS



Townsend School, MT



Mineral Community Hospital, Superior, MT



Bridger Bowl Ski Area,  
Bozeman, MT



Darby School, MT





# DROP-IN COAL REPLACEMENTS: TORREFIED AND HYDROPHOBIC



AEG CoalSwitch torrefaction technology, Utah. Co-fire test burn planned in Utah coal-fired power plant, 2019.



Chemical drying of microchips and pellets. DRYMAXZ System, Biofibre, BC. USFS grant assisted scoping technology for adoption in Idaho.

# GREEN BUILDING AND MASS TIMBER





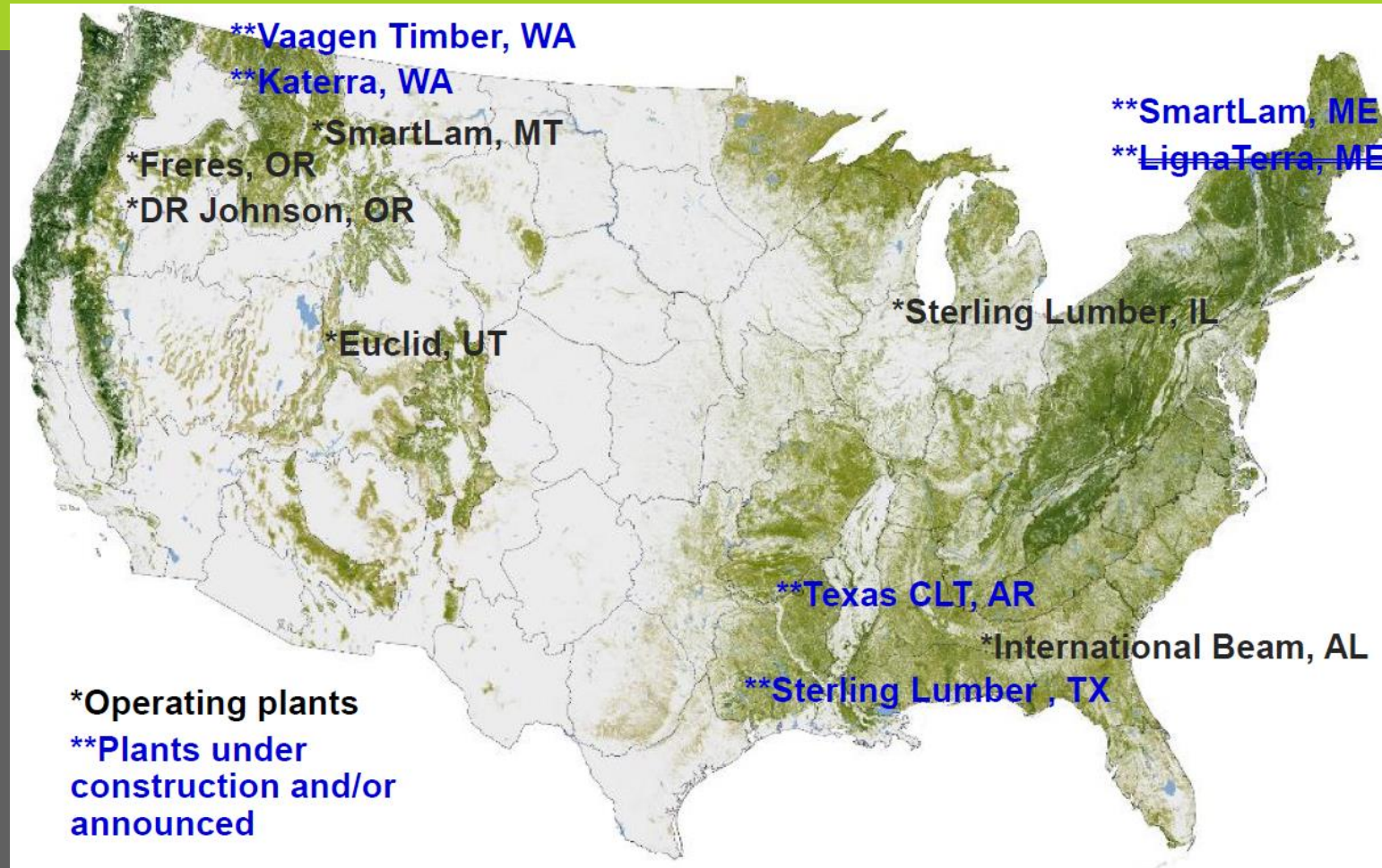
# MASS TIMBER: BUILDINGS ARE GOING UP

Idaho Central Credit Union Arena, Univ of Idaho, Moscow



Mass timber buildings in design or construction, June 2018.

# MASSTIMBER: MANUFACTURING IS EXPANDING

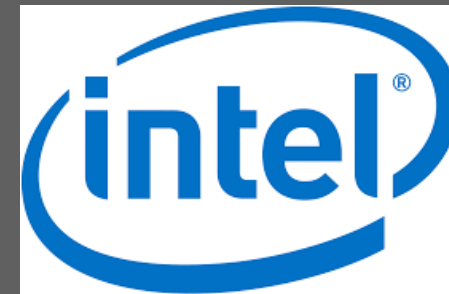




# TECH GIANTS ARE BUILDING BIG WITH MASS TIMBER



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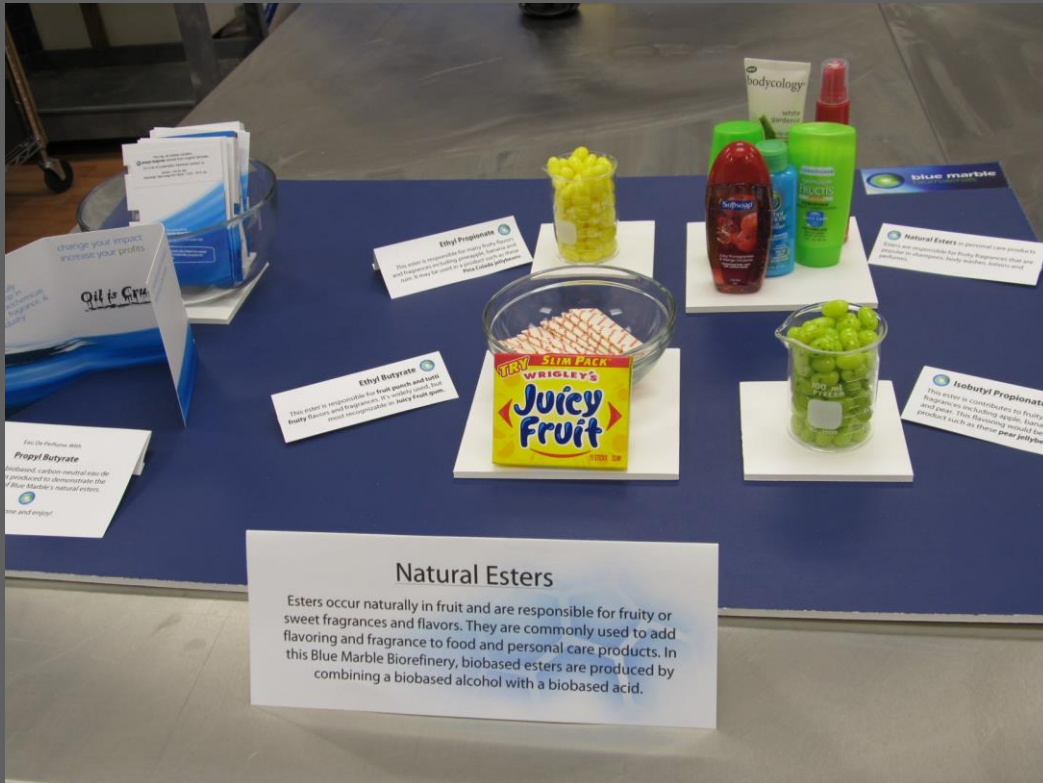


AND...Architects, engineers, and thought leaders are excited about the benefits of using wood in our built environment and engaging in the conversations about forest management.

# OTHER VALUE-ADDED PRODUCTS



# HIGH VALUE CHEMICALS AND ESSENTIAL OILS



Flavoring and fragrances.  
Blue Marble Biomaterials, Missoula, MT



Essential oils from Juniper.  
Young Living Farms, Mona, Utah



# BIOCHAR



Mobile pyrolysis unit.  
Amaron Energy, Utah.



Biomass Power Plant w/biochar co-product.  
Phoenix Energy, Merced, CA.

# WOOD INNOVATION GRANT RECIPIENTS

## REGIONS 1 AND 4

### Wood Products

- University of Nevada Reno
- University of Idaho, Moscow, ID
- SmartLam, Columbia Falls, MT
- Wooden Haus Supply, Whitefish, MT
- Northern Cheyenne Tribe, Lame Deer, MT
- Marks Lumber, Clancy, MT
- Montana Wood Promotion Team, MT DNRC
- E.CA/W.NV Wood Innovation Team

### Wood Energy

- Moonlight Basin Ski Resort, Big Sky, MT
- University of Idaho
- Idaho Youth Challenge Academy
- Montana SWET, MT DNRC



# CONTACT

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