Oregon Solutions
Southern Oregon Renewable Energy Project
Feedstock on Public Lands

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Biomass / Stewardship Program Lead
Medford District BLM
Rogue River-Siskiyou National Forest
Biomass

Biomass is all vegetative materials grown in forest, woodland, or rangeland environments that are the by-products of management, restoration, or hazardous fuel reduction treatments.

Historically, this material has had little value and has to be disposed of by mostly hand piling and burning.

Biomass utilization is the offer, sale, trade, harvest or use of vegetative material to produce a product or energy.
Traditional Slash Disposal
Biomass One, White City

Boise, Medford

Rough & Ready Lumber Co.
Cave Junction
Pollutant Emission Comparison

**Volatile Organics**
- Wildfire: 24 pounds
- Prescribed Fire: 19.5 pounds
- Power Plant: 0.05 pounds

**Carbon Monoxide**
- Wildfire: 140 pounds
- Prescribed Fire: 252 pounds
- Power Plant: 3.2 pounds

**Particulate Matter**
- Wildfire: 17 pounds
- Prescribed Fire: 40 pounds
- Power Plant: 0.13 pounds
Profitable Biomass Utilization:
• Whole tree skidding, adequate landing space
• Mechanized processing of trees in landing
• Chipper and van access to process biomass to hogfuel concurrently with other operational aspects
Present Markets

- Energy
  - Cogen Facility
  - Wood pellets
  - Bio Bricks, Pucks
  - Firewood
  - Chips
- Post and pole
- Compost
- Shavings for animal bedding
- Erosion control products
- Wood plastic composites
Barriers to Woody Biomass Use

- High thinning costs
- High transportation costs
- Limited capacity for local use
- Low quality of material
- Small size of material
- Road Systems
- Sustainable Supply
What Is Taking Place in Southern Oregon To Promote More Utilization of Woody Biomass?
### Medford District Completed Stewardship Contracts 2003 - 2007

<table>
<thead>
<tr>
<th>Stew Name</th>
<th>MBF Volume</th>
<th>Biomass Removed (Green Tons)</th>
<th>Acres Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobar Ashland</td>
<td>201</td>
<td>100</td>
<td>130</td>
</tr>
<tr>
<td>Penny Stew Grants Pass</td>
<td>93.92</td>
<td>100</td>
<td>124</td>
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<tr>
<td>Plantation Thin Ashland</td>
<td>235.1</td>
<td>124</td>
<td>111</td>
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<tr>
<td>Camp Stew Butte Falls</td>
<td>432.42</td>
<td>419</td>
<td>270</td>
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<tr>
<td></td>
<td>962.44</td>
<td>743</td>
<td>635</td>
</tr>
</tbody>
</table>
Completed Stewardship Contracts
2003 - 2008

Bar chart showing completed contracts for different categories:
- Bobar
- Penny Stew
- Plant Thin
- Camp Stew

Categories represented with different colors:
- Acres
- Mbf Vol
- Biomass Tonnage
## Current Active Contracts

<table>
<thead>
<tr>
<th>Stew Name</th>
<th>MBF Volume</th>
<th>Poles Linear Feet</th>
<th>Firewood</th>
<th>Biomass (Green Tons)</th>
<th>Acres Completed</th>
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</thead>
<tbody>
<tr>
<td><strong>Rich &amp; Rocky</strong>&lt;br&gt;Grants Pass 7 Task Orders 5 yr Contract</td>
<td>1,230</td>
<td>0</td>
<td>48</td>
<td>4,050</td>
<td>281</td>
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<tr>
<td><strong>North Stew</strong>&lt;br&gt;Grants Pass 4 Task Orders 10 yr Contract</td>
<td>0</td>
<td>13,852</td>
<td>134</td>
<td>498</td>
<td>262</td>
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<tr>
<td><strong>South Stew</strong>&lt;br&gt;Grants Pass 4 Task Orders 7 yr Contract</td>
<td>4.57</td>
<td>24,296</td>
<td>140</td>
<td>538</td>
<td>191</td>
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<tr>
<td><strong>Two-Bit Stew</strong>&lt;br&gt;Grants Pass 3 Task Orders 10 yr contract</td>
<td>0</td>
<td>6,000</td>
<td>77</td>
<td>453</td>
<td>30</td>
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<tr>
<td></td>
<td>1,235</td>
<td>44,148</td>
<td>399</td>
<td>5,539</td>
<td>764</td>
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</tbody>
</table>
## SW Oregon Active Stewardship Contracts

### Medford BLM/Rogue River-Siskiyou NF

<table>
<thead>
<tr>
<th></th>
<th>BLM</th>
<th>Acres</th>
<th>Mbf Vol</th>
<th>Biomass Grn Tons</th>
<th>USFS</th>
<th>Acres</th>
<th>Mbf Vol</th>
<th>Biomass Grn Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awarded</td>
<td>8</td>
<td>1,605</td>
<td>2,197</td>
<td>5,779</td>
<td>2</td>
<td>1,159</td>
<td>11,154</td>
<td>1,540</td>
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<tr>
<td>Completed</td>
<td>4</td>
<td>635</td>
<td>962</td>
<td>743</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>New 2009</td>
<td>6</td>
<td>1,829</td>
<td>2,182</td>
<td>8,435</td>
<td>3</td>
<td>960</td>
<td>4,993</td>
<td>7,044</td>
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</table>

### Roseburg BLM / Umpqua NF

<table>
<thead>
<tr>
<th></th>
<th>BLM</th>
<th>Acres</th>
<th>Mbf Vol</th>
<th>Biomass Grn Tons</th>
<th>USFS</th>
<th>Acres</th>
<th>Mbf Vol</th>
<th>Biomass Grn Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awarded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>1,571</td>
<td>27,963</td>
<td>1,076</td>
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<tr>
<td>Awd/Com</td>
<td>1</td>
<td>70</td>
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<td>5</td>
<td>856</td>
<td>13,014</td>
<td>7,649</td>
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<tr>
<td>New 2009</td>
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<td></td>
<td>1</td>
<td>1</td>
<td>373</td>
<td>2,275</td>
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ARRA
Stimulus Projects
Biomass Utilization

• South Stew – 1,900 acres – 14,000 tons
• Two Bit Stew – 1,900 acres – 14,000 tons
• Ranch Stew – 1,300 acres – 12,000 tons
• Hope Mountain Stew – 890 acres – 3,000 tons
Inventory and Potential Future Feedstock Supply
Early Inventory Studies

• 1999 Rogue River Basin (BLM & FS lands)

• 770,000 acres of LSR, Matrix, AMA lands

• Volume ≤ 12” dbh: 6 billion board feet

• About 40% of volume, 2.4 billion board feet is within 1,000 feet of existing roads
Cow Creek CROP

• 2 National Forests
• 8 Ranger Districts
• 4 BLM Districts
• 3 Counties
• State Lands
• Private Lands
Cow Creek CROP

• Projected biomass volume of 236,000 gT/yr

• 76% coming from the Medford BLM

• Volume is more than sufficient to support a 13 MW power plant using 160,000 gT/yr
<table>
<thead>
<tr>
<th>Land Allocation</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Federal Harvestable Acres (Does not account for riparian)</td>
<td>2,125,957</td>
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<tr>
<td>After Removing Inventoried Roadless Areas (342,381 Ac)</td>
<td>1,783,576</td>
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<tr>
<td>Within the Communities at Risk One Mile Buffer</td>
<td>380,000</td>
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<tr>
<td>Private Lands</td>
<td>3,356,622</td>
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<tr>
<td>Total Analysis Area</td>
<td>5,920,964</td>
</tr>
<tr>
<td></td>
<td>Total Standing Volume</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>In Harvestable Land Allocations</td>
<td>38,155,326,000</td>
</tr>
<tr>
<td>Within the CAR Buffer</td>
<td>6,390,751,000</td>
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Questions?