

# "The Circular Economy"

## Wood Residue (slash) Biomass Conversion



Wood Residue Production Volumes and Values				200 Tons		1,215,285 Tons	
Com-Kiln Off-Take	Practical Use	Per Unit Selling Price	Units	Volume	Gross Revenue	Volume	Gross Revenue
Bio-Crude (Pyrolic Oil)	Oil for Renewable Diesel feedstock	\$2.08	Gallons	16,400	\$34,092	99,653,370	\$207,160,375
2G Biofuel Tax Credit	Oil from Wood Residue (Lignocellulosic)	\$1.01	Gallons	16,400	\$16,564	99,653,370	\$100,649,904
Pyroligneous Acid	Wood vinegar - insecticide & pesticide	\$40.00	Gallons	1,800	\$72,000	10,937,565	\$437,502,600
Biochar	Soil Amendment	\$50.00	Yards	320	\$16,000	1,944,456	\$97,222,800
Gases	Used to power com-kiln gen set	\$0.14	kW	40		243057	
<b>Total Tonnage Gross Revenue</b>					<b>\$138,656</b>		<b>\$842,535,678</b>
<b>CO2e Metric Tons Reduced</b>							<b>-1,762,163</b>
<b>Particulate Matter Tons Reduced (PM: &gt; 10, 10 - 2.5, &lt; 2.5)</b>							<b>-35,000</b>

## Distribution of the Western Juniper, Eastern Oregon

- 1936
- Recent

Priority areas for sage-grouse conservation

# “The Circular Economy” Western Juniper as a Cash Crop

- Invasive, low-value species - crowding out our grasslands & habitats
- 10 Million Acres Today (1 Million in 1900)
- “Water thief” – **Each tree drinks up 30 gallons of water** from areas already plagued by chronic drought
- Drinks the equivalent of flow rate of the Columbia River
- \$400 cost per acre to eradicate – We can turn Juniper from a cost to a rural economic development engine

