

WILSEYVILLE BIOENERGY PROJECT FEEDSTOCK PROCUREMENT PLAN **UPDATE TO THE ACCG**

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Tad Mason
TSS Consultants



PRESENTATION OVERVIEW

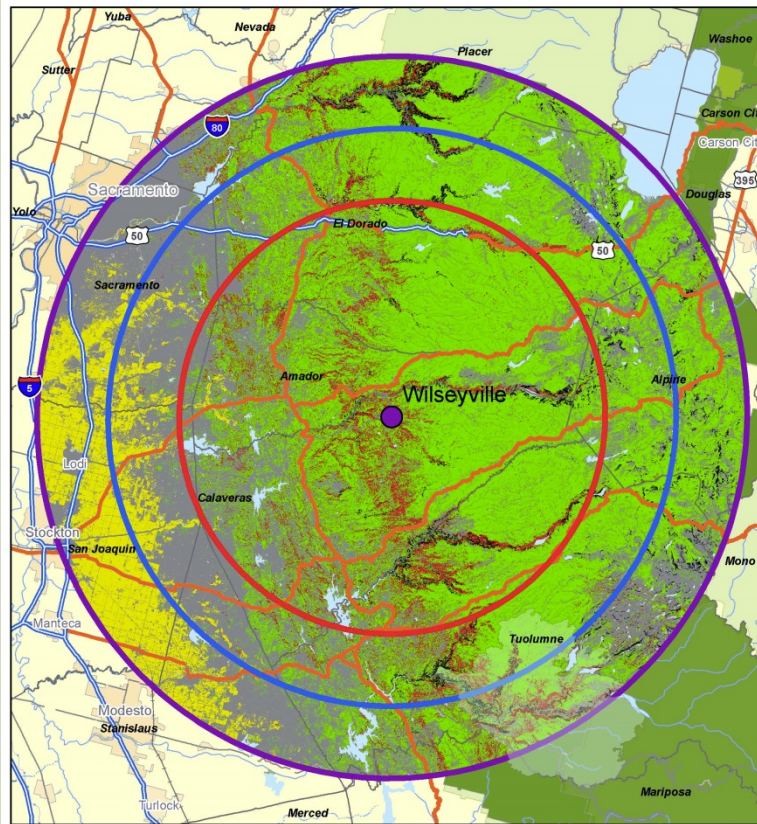
- What is a Feedstock Procurement Plan?
- Senate Bill 1122 Feedstock Requirements
- Initial Findings
- Timing of Procurement Plan Delivery
- Questions

PROCUREMENT PLAN

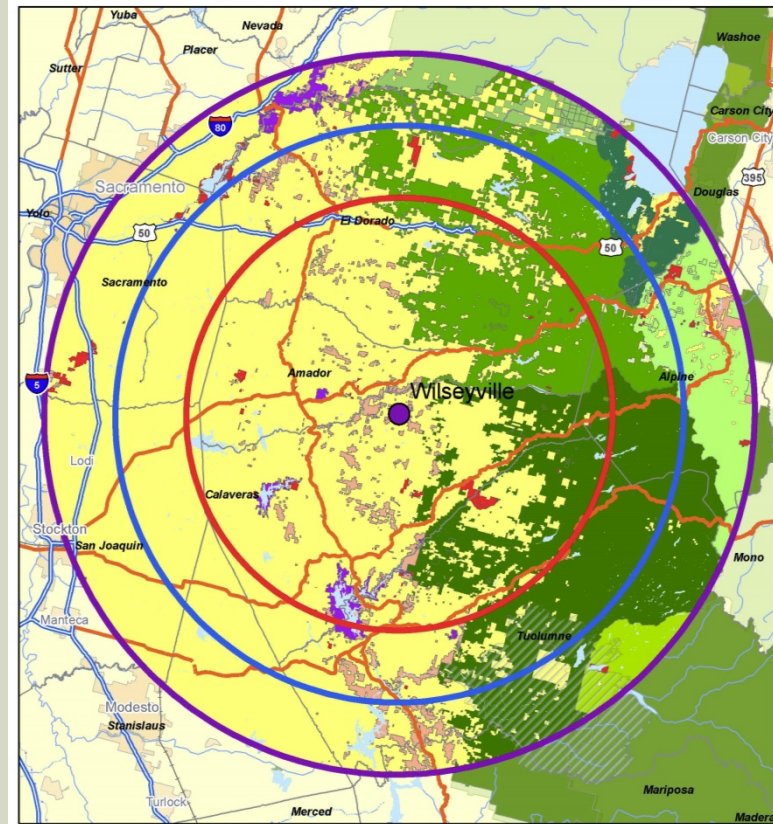
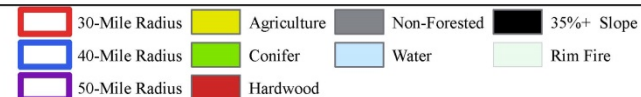
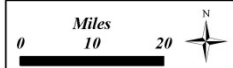
- Feedstock Availability by Feedstock Sourcing Area (30/40/50 mile radius)
- Delivered Cost of Feedstock by Feedstock Type
 - Forest sourced
 - Ag byproducts
 - Urban wood
- Observations Regarding Procurement Plan implementation:
 - List of potential suppliers
 - Key considerations in the development of a feedstock procurement organization
 - Feedstock purchase agreement templates
 - Feedstock delivery forecast for year one
 - Task list/timeline for implementation of procurement plan



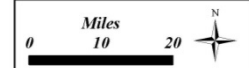
FEEDSTOCK SOURCING AREAS



Source:
U.S. Geologic Survey
LANDFIRE
September 2014



Source:
U.S. Geologic Survey
LANDFIRE
September 2014





VEGETATION COVER

COVER CATEGORIES	30-MILE FSA		40-MILE FSA		50-MILE FSA	
	ACRES	PERCENT OF TOTAL	ACRES	PERCENT OF TOTAL	ACRES	PERCENT OF TOTAL
Agriculture	5,551	0.3%	89,607	2.8%	377,873	7.5%
Conifer	1,132,644	62.6%	1,803,026	56.0%	2,462,746	49.0%
Hardwood	167,013	9.2%	223,434	6.9%	307,542	6.1%
Non-Forested	473,812	26.2%	1,052,286	32.7%	1,773,752	35.3%
Water	30,535	1.7%	48,636	1.5%	104,633	2.1%
TOTALS	1,809,555	100.0%	3,216,989	100.0%	5,026,546	100.0%

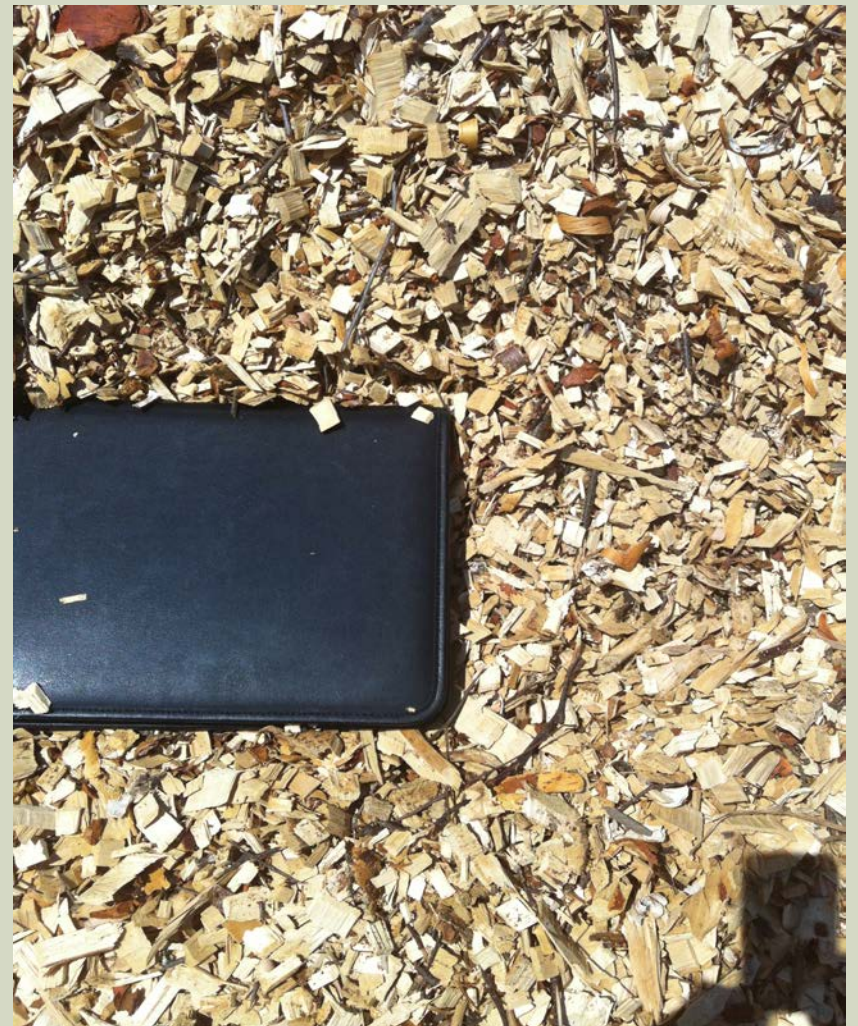
OWNERSHIP



OWNERSHIP	30-MILE FSA			40-MILE FSA			50-MILE FSA		
	CONIFER (ACRES)	HARDWOOD (ACRES)	PERCENT OF TOTAL FOREST ACREAGE	CONIFER (ACRES)	HARDWOOD (ACRES)	PERCENT OF TOTAL FOREST ACREAGE	CONIFER (ACRES)	HARDWOOD (ACRES)	PERCENT OF TOTAL FOREST ACREAGE
BLM	34,241	10,786	3.5%	49,731	13,222	3.2%	73,961	17,201	3.4%
Eldorado NF	200,169	9,804	16.5%	358,734	14,050	18.8%	421,269	17,419	16.3%
Private	677,172	115,834	62.2%	912,558	146,791	53.4%	1,099,699	170,551	47.2%
Stanislaus NF	189,763	19,498	16.4%	405,343	32,121	22.1%	515,398	57,321	21.3%
State & Local	8,876	1,358	0.8%	13,800	1,664	0.8%	20,493	2,943	0.9%
Tahoe Basin MU	0	0	0.0%	10,061	3	0.5%	57,981	176	2.2%
Tahoe NF	0	0	0.0%	0	0	0.0%	51,478	4,376	2.1%
Toiyobe NF	0	0	0.0%	14,877	4	0.8%	125,050	1,046	4.7%
Yosemite NP	0	0	0.0%	0	0	0.0%	24,800	5,968	1.1%
Other Federal	5,780	1,715	0.6%	7,590	2,311	0.5%	19,036	5,165	0.9%
TOTALS	1,116,001	158,995	100.0%	1,772,694	210,166	100.0%	2,409,165	282,166	100.0%

SENATE BILL 1122 FEEDSTOCK REQUIREMENTS

- At least 80% sourced as byproducts of “Sustainable Forest Management”
 - Sustainable Forest Management as designated by CPUC
 - Verified by third party
- Other 20% of feedstock:
 - Byproducts of agricultural operations
 - Clean urban wood waste
- Annual Reporting to the CPUC
 - Volume by feedstock type





CAL FIRE GUIDELINES FOR SUSTAINABLE FOREST MANAGEMENT

- Developed as a result of a series of workshops conducted in 2014
 - Wide range of stakeholders
 - Facilitated by CAL FIRE staff
- Submitted to CPUC in April 2014
- Accepted by CPUC Administrative Law Judge in Nov 2014 Proposed Decision
- Proposed Decision accepted by the full CPUC in Dec 2014 with guidelines included as Appendix B

CPUC FEEDSTOCK GUIDELINES ELIGIBLE FOREST BIOMASS CATEGORIES – PART I

- **Fire Threat Reduction**
 - Consistent with Fire Plan approved by CAL FIRE
 - Consistent with fuels treatment activities on federal lands
- **Fire Safe Clearance Activities**
 - Near homes, businesses, consistent with state PRC sections requiring defensible space clearance
 - Also applies to 150' Fuel Reduction Exemption
- **Infrastructure Clearance Projects**
 - Power lines, substations, roads, railways, switchyards



CPUC GUIDELINES ELIGIBLE FOREST BIOMASS CATEGORIES – PART II

- **Other Sustainable Forest Management**
(requires use of Appendix B guidelines and checklist)
 - Must meet at least 12 of 16 items that address:
 - Habitat, temporal, and spatial diversity Objectives
 - Habitat elements
 - Forest health and fire management objectives
 - Air and water quality protection
 - Societal and economic benefits

CPUC, Energy Division will review options regarding third party verification of feedstock delivered to SB 1122 bioenergy facilities.





FOREST HARVEST RESIDUALS PART I

EVEN-AGE MGMT IS COMPLIANT

COUNTIES	30-MILE FSA		40-MILE FSA		50-MILE FSA	
	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)
Alpine	0	18	1	111	3	236
Amador	5,534	371	5,597	375	5,597	375
Calaveras	15,928	1,584	17,330	1,723	17,330	1,723
El Dorado	8,411	1,725	15,835	3,247	20,348	4,172
Mariposa	0	0	0	0	100	23
Mono	0	0	0	0	0	2
Placer	0	0	133	69	4,054	2,095
Sacramento	0	0	0	0	0	0
San Joaquin	0	0	0	0	0	0
Stanislaus	0	0	0	0	0	0
Tuolumne	3,994	1,220	9,270	2,832	14,843	4,534
SUBTOTALS	29,873	3,698	38,896	5,525	47,432	8,628
TOTALS	33,571		44,422		56,060	



FOREST HARVEST RESIDUALS PART II

EVEN-AGE MGMT IS NOT COMPLIANT

COUNTIES	30-MILE FSA		40-MILE FSA		50-MILE FSA	
	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)	PRIVATE (BDT/YR)	PUBLIC (BDT/YR)
Alpine	0	18	0	111	1	236
Amador	1,107	371	1,119	375	1,119	375
Calaveras	3,186	1,584	3,466	1,723	3,466	1,723
El Dorado	1,682	1,725	3,167	3,247	4,070	4,172
Mariposa	0	0	0	0	20	23
Mono	0	0	0	0	0	2
Placer	0	0	27	69	811	2,095
Sacramento	0	0	0	0	0	0
San Joaquin	0	0	0	0	0	0
Stanislaus	0	0	0	0	0	0
Tuolumne	799	1,220	1,854	2,832	2,969	4,534
SUBTOTALS	5,975	3,698	7,779	5,525	9,486	8,628
TOTALS	9,672		13,305		18,114	
REDUCTION COMPARED TO EVEN-AGE	71%		70%		68%	



FOREST FUELS TREATMENT

SOURCE	FOREST TREATMENT ACTIVITIES	
	LOW RANGE (ACRES/YR)	HIGH RANGE (ACRES/YR)
Fire Safe Councils	50	300
Private Landowners	300	400
BLM	100	300
El Dorado NF	1,200	2,000
Stanislaus NF	1,500	2,400
Utility Line Clearance	100	200
CHIPS	100	150
TOTALS – ACRES/YR	3,350	5,750
TOTALS – BDT/YR	41,875	71,875



AG BYPRODUCTS (ORCHARD REMOVALS) AS FEEDSTOCK

SOURCE	30-MILE RADIUS (BDT/YR)	40-MILE RADIUS (BDT/YR)	50-MILE RADIUS (BDT/YR)
Almond	73	1,671	38,665
Cherry	18	1,224	9,182
Olive	0	28	88
Walnut	313	14,591	54,439
TOTALS	404	17,513	102,374



URBAN WOOD WASTE AS FEEDSTOCK

SOURCE	30-MILE RADIUS (BDT/YR)	40-MILE RADIUS (BDT/YR)	50-MILE RADIUS (BDT/YR)
Construction and Demolition	27,011	100,902	210,385
Tree Trimming	7,661	28,617	8,950
TOTALS	34,671	129,519	219,335

BIOMASS POWER PLANTS IN THE REGION

Facility	Scale (MW)	Annual Feedstock Usage (BDT/Year)	Location	Distance from Wilseyville (miles)
Buena Vista Biomass Power	18	145,000	Buena Vista	34
Pacific Ultrapower Chinese Station	20	160,000	Jamestown	50
Sierra Pacific Standard	8	65,000	Standard	57
DTE Stockton	45	380,000	Stockton	61
Rio Bravo Rocklin	25	200,000	Rocklin	70
Sierra Pacific Lincoln	18	145,000	Lincoln	80
TOTALS	134	1,095,000		

INITIAL FINDINGS

- Forest biomass availability will be sufficient to sustain Wilseyville Bioenergy facility at 3 MW capacity (24,000 BDT per year).
- CHIPS will need to source forest feedstocks from up to 50 miles due if even-age forest management residuals are found to not be compliant with SB 1122 guidelines.
- CHIPS is making progress with USFS and BLM on Stewardship contracting/agreement/Community Forest agreements. But this make take time to finalize.
- GGRF and Prop 1 funding may be available to offset some of the delivered feedstock costs.

PROCUREMENT PLAN NEXT STEPS

- Continue to monitor CPUC proceedings for plans to address third party verification of feedstocks (compliant with SB 1122).
- Continue working closely with CHIPS Board of Directors to confirm strategic path forward:
 - Community Forest Agreement – BLM
 - Stewardship Contract or Agreement – USFS
- Deliver Procurement Plan document by May 1, 2015



QUESTIONS OR HECKLING REMARKS?

Tad Mason, Forester

**TSS Consultants
2724 Kilgore Rd.
Rancho Cordova, CA 95670**

916.600.4174

tmason@tssconsultants.com