

SANITATION AND ENVIRONMENTAL SERVICES

WOOD WASTE DISCUSSION

December 11, 2018



Current Operations

- Wood waste collected by SES Collections Division Curbside or brought to SES facility by various City departments – approximately 3,500 tons annually
- Number of loads annually: 175
- Weekly loads: ~3
- Material is passed through wood grinder and loaded onto trailer
- Ground wood currently being landfilled at Bi-County
- Previously disposed of wood waste at Williamson County Landfill at no charge (changed to \$40/ton)



Wood Waste Options

Disposal Option	Annual Tons	Gate Rate	Annual Disposal Cost	Annual Transportation Cost	Estimated Annual Grinding / Burner Cost	Total Annual Disposal and Operations Cost	Annual Equipment Depreciation	Annual Disposal, Operations, Depreciation Costs
BiCounty	3,500	\$6	\$21,000	\$59,063	\$21,665	\$101,728	\$56,667	\$158,394
Williamson County	3,500	\$40	\$140,000	\$26,250	\$21,665	\$187,915	\$56,667	\$244,582
Alternate Waste	3,500	\$13	\$46,900	\$26,250	\$21,665	\$94,815	\$56,667	\$151,482
Onsite AirBurner	175	\$35	\$6,125	\$0	\$5,460	\$11,585	\$9,333	\$20,918

Proposed Operation

- Use of air curtain burner at Century Court location
- Initial Costs
 - Equipment - \$138,065
 - Electrical Work - \$16,320 (evaluating other options)
 - Site work - ~\$5,000
 - TOTAL - ~\$160,000
- Estimated 95% reduction of material
- Average throughput – 5-7 tons/hr
 - Potential to open transfer station up to commercial haulers again
 - 3,500 tons annually equates to average usage of 3.4 hours/day based on a 4 day work week
- Potential to use ash in compost operation (still researching)



Site Considerations

- Existing grinder operation location
 - Existing grinder is 1050 HP; noise measurement survey in Eldorado County indicated readings of approximately 60 dB at 300 feet.
- Proposed burner operation
 - Unit fitted with electric motors for blowers (versus diesel - diesel version is 49 HP)
 - Diesel option noise measurement at 160 feet approx. 60 dB
- Fire hydrant in close proximity

Labor and Equipment Considerations

- Labor
 - Anticipated that there will be about a 50% reduction in labor
 - Grinder requires two operators to perform function
 - Burner requires one operator
- Equipment
 - Grinder requires the following equipment:
 - Loader
 - Tractor and trailer for hauling
 - Burner requires the following equipment:
 - Loader
 - 1-ton truck to transport ash to transfer station

Budget Implications

- Estimated total cost \$160,000
- Revenue from sale of equipment
 - Grinder: ~\$250,000
 - Road tractor: ~\$50,000
 - Trailer: ~\$50,000
 - Total: ~\$350,000
- Net Revenue: ~\$190,000 (not inclusive of labor reduction)

Discussion