

Weatherford Regional Compost Facility Study and Implementation Plan

Summary and Outcomes



Prepared for the City of Weatherford Sanitation Division

Funded by the North Central Texas Council of
Governments and the Texas Commission on
Environmental Quality



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Purpose

The Weatherford Regional Composting Feasibility Study and Implementation Plan is designed to determine whether a regional compost facility can reduce reliance on landfill disposal and demonstrate that cooperative programs result in more cost-effective services.



Project Approach

Material Supply & Institutional
Assessment

Site Sizing & Selection Criteria

Market Analysis

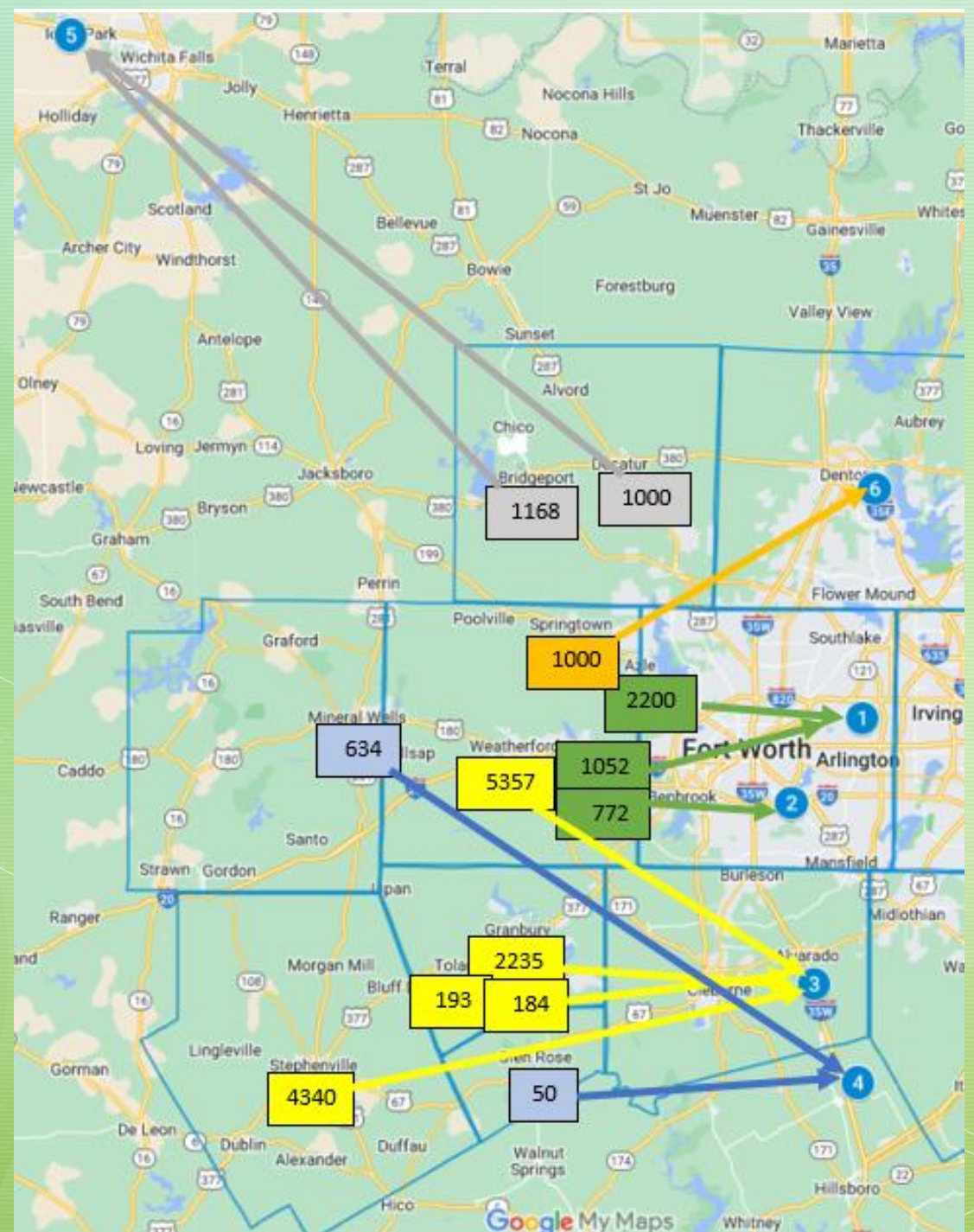
SWOT Analysis

Financial Assessment

Conclusions and Recommendations

Sludge Availability

Estimated 24,000 cubic yards of sludge available in the Region (not including Tarrant County)



Wood Waste & Brush

Approximately 19,000 to 72,000 cubic yards of wood waste will be needed

Sources include:

- Tree trimming companies
- Land clearing
- Utility line clearing
- County Public Works
- Municipal brush collections
- Parks and Recreation
- Storm Event Clean-up



Scenarios

1. Weatherford
Only

2. Small Regional
(Weatherford and
non-affiliated
haulers)

3. Large Regional
(Entire Western
Region)

Material Inputs & Outputs

Estimated Material Availability			
	Scenario 1	Scenario 2	Scenario 3
Sludge Input (cy)	6,570	11,330	24,320
Waste Wood / Mulch Input (cy)	19,710	34,000	72,970
Compost Produced (cy)	11,820	20,400	40,100

Market Analysis

Potential Markets

- Current Market and Production
- Local retail and wholesale
- City uses – Parks and Recreation and Public Works
- Agriculture
- TxDOT



SWOT Analysis Strengths, Weaknesses, Opportunities & Threats

Scenarios

- City Only Facility
- Regional Operation
- Public / Private Partnership

Key Issues

- Material Supply
- Regulatory (PFAS)
- Site Selection & Permitting
- Costs
- Control Over Operations

Facility Sizing and Site Considerations

Facility Sizing Assumptions			
Description	Cubic Yards/Year 2022	Cubic Yards/Year 2042	Minimum Acreage Requirement
Weatherford Only	6,569	8,339	30
Weatherford & non-affiliated landfill haulers (CWD and Frontier)	11,332	14,384	30
All sludge in WR	24,322	29,800	100

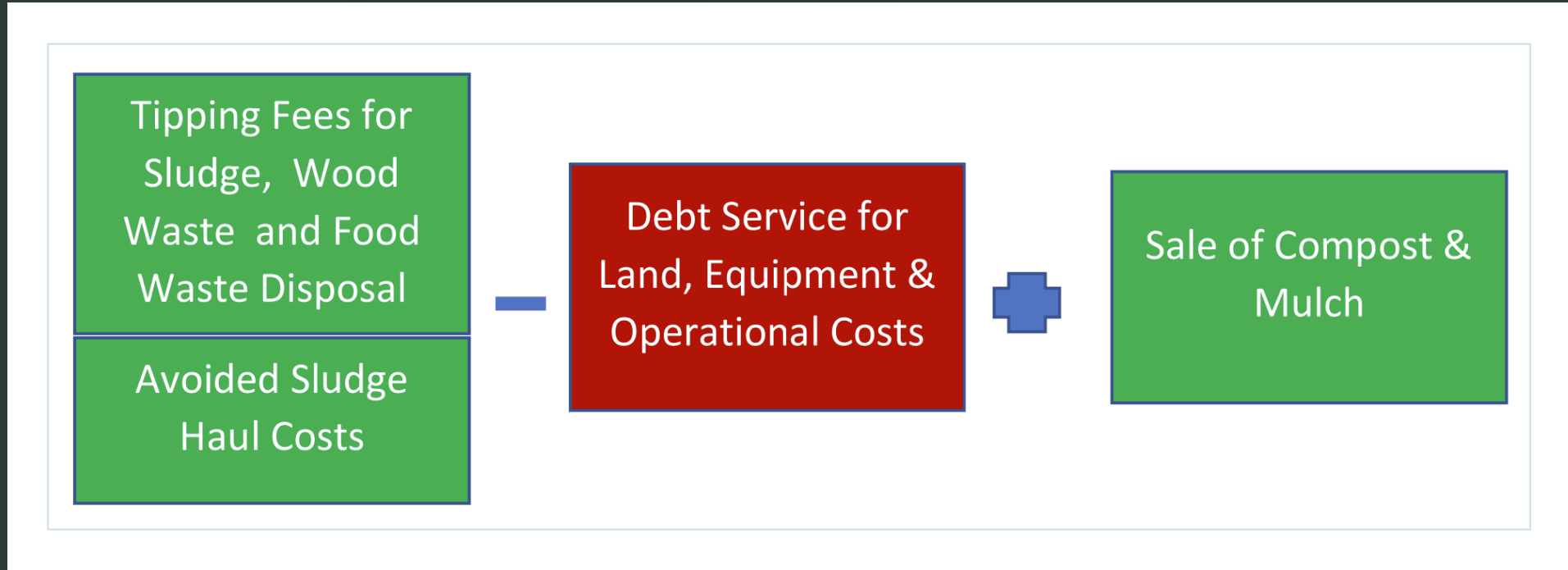


Partnerships

Key issues to consider regarding potential partnerships include the following.

- Long-term commitment to the project
- Material specifications
- Material acceptance
- Cost and potential revenue sharing
- Environmental Risks





Weatherford Only Financial Model



Regional Options Financial Model

Revenue Assumptions

Sludge Tip Fee

- Small Regional \$42.50/T
- Large Regional \$38.22/T

Mulch Tip Fee

- \$3.00/cy

Compost Sales

- Weatherford Only \$10-\$20/cy
- Small Regional \$10-\$20/cy
- Large Regional \$7.50-\$10/cy

Highest Risk Factors

- Compost Sales Price
- Feedstock Quantity
- Sludge Tip Fee



Program Costs and Revenues

	Scenario 1	Scenario 2	Scenario 3
Operating Costs (equipment, labor, grinding, sludge haul, and debt service)(Year 1)	\$ 369,000 – \$399,000	\$ 565,000 – \$598,000	\$1,059,000 - \$1,433,000
Revenues (Compost sales, tipping fees, avoided sludge haul to Turkey Creek) (Year 1)	\$ 438,000 – \$592,000	\$ 542,000 – \$743,000	\$ 1,048,000 - \$1,419,000
Net Revenues including debt service, operations & revenues (Year 1)	\$(224,000) – \$(40,000)	\$ (22,000) – \$224,100	\$ (230,000) - \$254,000
Net Revenues / Cubic Yard of Compost (Year 1)	\$ (18.90) - \$(3.40)	\$(1.10) - \$10.99	\$ (5.25) - \$5.79
Net Present Value (positive value = net revenue) (over 20 years)	\$(1,186,300) - \$ (620,000)	\$1,798,600 - \$2,698,500	(\$401,600) - \$1,695,000

Next Steps



- Evaluate
- Monitor
- Investigate
- Pursue
- Identify
- Implement



Conclusions

Is there sufficient material for the project?

YES

Is there a market for the compost produced?

YES

Is the project financially viable?

SMALL REGIONAL

