

2005 WMSP Economic Assessment

Conducted for

White Mountain Stewardship Contract
Multi-party Monitoring Board



Photo by: Mike Pentecost

Conducted by
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Healthy Forests Initiative

Thoughtful harvesting plans can improve forest health, reduce forest susceptibility to destructive and unmanageable fires, and assure a flow of harvested material that could meet the needs of processing industries.

The goals of a cross-section of constituencies can be served by the creation of a heterogeneous “stewardship board.”



Scope & Nature of the Assignment: Three Goals



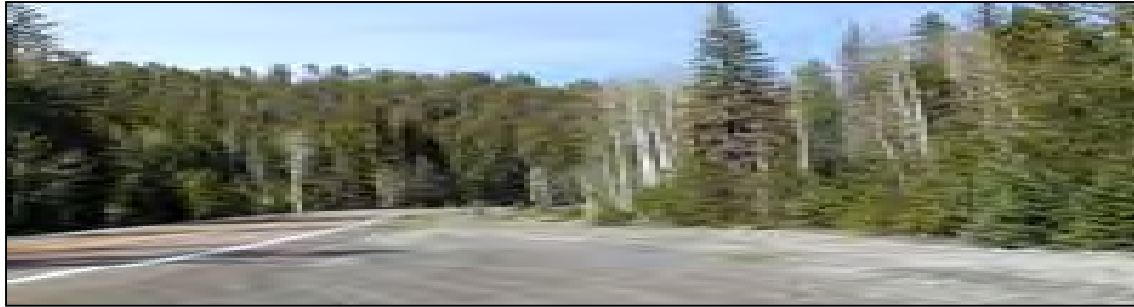
- Identify the firms that are directly involved in harvesting & processing the forest products made available through the Future Forest, LLC contract.
- Better understand the nature & extent of these firms in general, & their stewardship-related work in particular and the implications for the White Mountain Region's Economic System.
- Determine ways that the impacts of the stewardship contract might be enhanced & identify the economic development strategies that will be needed to assure that the White Mountain Region sees even greater economic benefit in the longer term.

Table 1. Woody Biomass Products Delivered by Future Forest, LLC (2005)

Purchasing Firm	Woody Biomass Inputs			
	Clean Chips	Dirty Chips	Roundwood	Saw Timber
Arizona Log & Timberworks (Eagar)			X	X
Forest Energy Corp. (Show Low)	X		X	
Future Forest (Pinetop)	N/A	N/A	N/A	N/A
Reidhead Bros. Lumber (Nutrioso)			X	X
Reidhead Bros. Re-manufacturing plant (Springerville)	N/A	N/A	N/A	N/A
Renergy: Renewable Energy from Biomass (Snowflake)		X		
Round Valley Wholesale Lumber (Eagar)			X	
Snowflake Lumber Moulding (Snowflake)				X
Southwest Forest Products, Inc. (Phoenix)			X	
TriStar Logging, Inc. (Snowflake)			X	X
WB Contracting (Eagar)	X	X	X	X
Western Renewable Energy (Eagar)		X		
Winner's Circle Soils, Inc. (Taylor)	X	X	X	

Source: Survey by Author, December 2005.

Employment, FTE Employment, and Cross-Commuting



- Headcount employment is 464:
414 of these are full-timers
6 are part-timers and
44 are seasonal
464 total.
The FTE value is 449.9
- 86% Male

Table 2. Cross Commuting. Estimated Number of FTE Employees by Place of Work and Place of Residence

Place of Residence → Place of Work ↓	Lakeside/ Pinetop	Show Low	Snowflake/ Taylor	Springerville/ Eagar	Whiteriver/ Fort Apache	Outside Region (including Phoenix)	Total (by place of work)
Lakeside/Pinetop		1.0		1.0			2.0 (0.4%)
Show Low	6.0	15.3	5.0	2.0		5.0	33.3 (7.4%)
Snowflake/Taylor	7.0	28.8	75.9	4.0	1.0	11.7	128.4 (28.5%)
Springerville/Eagar		2.3	1.0	76.4	1.5	5.0	86.2 (19.2%)
Whiteriver/Fort Apache							
Outside Region (except Phoenix)							
Phoenix						200.0	200.0 (44.5%)
Total (by place of residence)	13.0	47.4	81.9	83.4	2.5	221.7	449.9
	(2.9%)	(10.5%)	(18.2%)	(18.5%)	(0.6%)	(49.3%)	(100.0%)

Source: December 2005 Survey by Author

Forestry as an “Export Engine”

- Multiplier = 1.591
- 228.2 FTE total
- 76.5 Local Serving (non-basic)
- 151.7 Export (basic)
- $151.7 \times 0.591 = 89.6$ Non-basic Supported
- Summary
 - 151.7 basic
 - 76.5 non-basic
 - 89.6 non-basic from multiplier
 - 317.8 Total



Table 3. Estimated Basic and Non-basic FTE Employees Living and Working in the White Mountain Region and Employed by Firms with a Future Forest Connection.

Place of Work ↓	Basic FTE Employment	Non-basic FTE Employment	Total FTE Employment
Lakeside/Pinetop	0.0	2.0	2.0
Show Low	26.6	1.7	28.3
Snowflake/Taylor	95.1	21.6	116.7
Springerville/Eagar	30.0	51.2	81.2
Phoenix	0.0	0.0	0.0
Grand Total	151.7 (66.5%)	76.5 (33.5%)	228.2 (100.0%)

Source: December 2005 Survey by Author.

The Specific Role of Future Forest, LLC

- Whereas the 12 firms described in Table 3 gave the White Mountain Region 228.2 FTE employees, only 80.6 FTE employees can be traced back to Future Forest, LLC (Table 4).
- Whereas the 12 firms gave the Region another 89.6 FTE employees through the multiplier process only 22.8 of them are tied to Future Forest, LLC.



Table 4. Estimated Basic and Non-Basic FTE Employees Living and Working in White Mountain Region who are Directly Supported by Material Harvested by Future Forest LLC.

Place of Work ↓	Basic FTE Employment	Non-basic FTE Employment	Total FTE Employment
Lakeside/Pinetop	0	2.0	2.0
Show Low	15.4	1.0	16.4
Snowflake/Taylor	17.9	2.4	20.3
Springerville/Eagar	5.2	36.7	41.9
Phoenix	0	0	0
Grand Total	38.5	42.1	80.6

Source: December 2005 by Author.

Table 5. Estimated Employment Impact of Forest Industries on the White Mountain Region with Future Forest, LLC and without Future Forest, LLC.

	Total	Portion Attributable to Future Forest, LLC.	Portion Independent of Future Forest, LLC.
Total Direct Employment	228.2	80.6	147.6
Total Indirect Employment through Multiplier	89.6	22.8	66.8
Total Direct and Indirect	317.8 (100.0%)	103.4 (32.5%)	214.4 (67.5%)

Source: Estimates provided in Tables 3 and 4. Multiplier estimated by author.

Table 6. Local Expenditures. Estimated Local (White Mountain Region) Expenditures for Selected Goods and Services.

Goods	Estimated Minimum Local Expenditures
Raw Material (chips, roundwood, etc.)	\$4,655,000
Petroleum Products (gas, oil, diesel, etc.)	\$2,014,000
Transport/Hauling/Freight	\$1,677,000
Equipment Parts/Mill Parts	\$1,133,000
Equipment	\$1,097,000
Electricity	\$921,000
Tires/Truck Parks	\$381,000
Insurance	\$142,000
Repairs	\$105,000
Total-Selected Goods and Services	(\$12,125,000)

Other items: Rent, office supplies, professional fees, interest, water. Expenditures for these items were relatively insignificant.

Source: December 2005 survey by author.

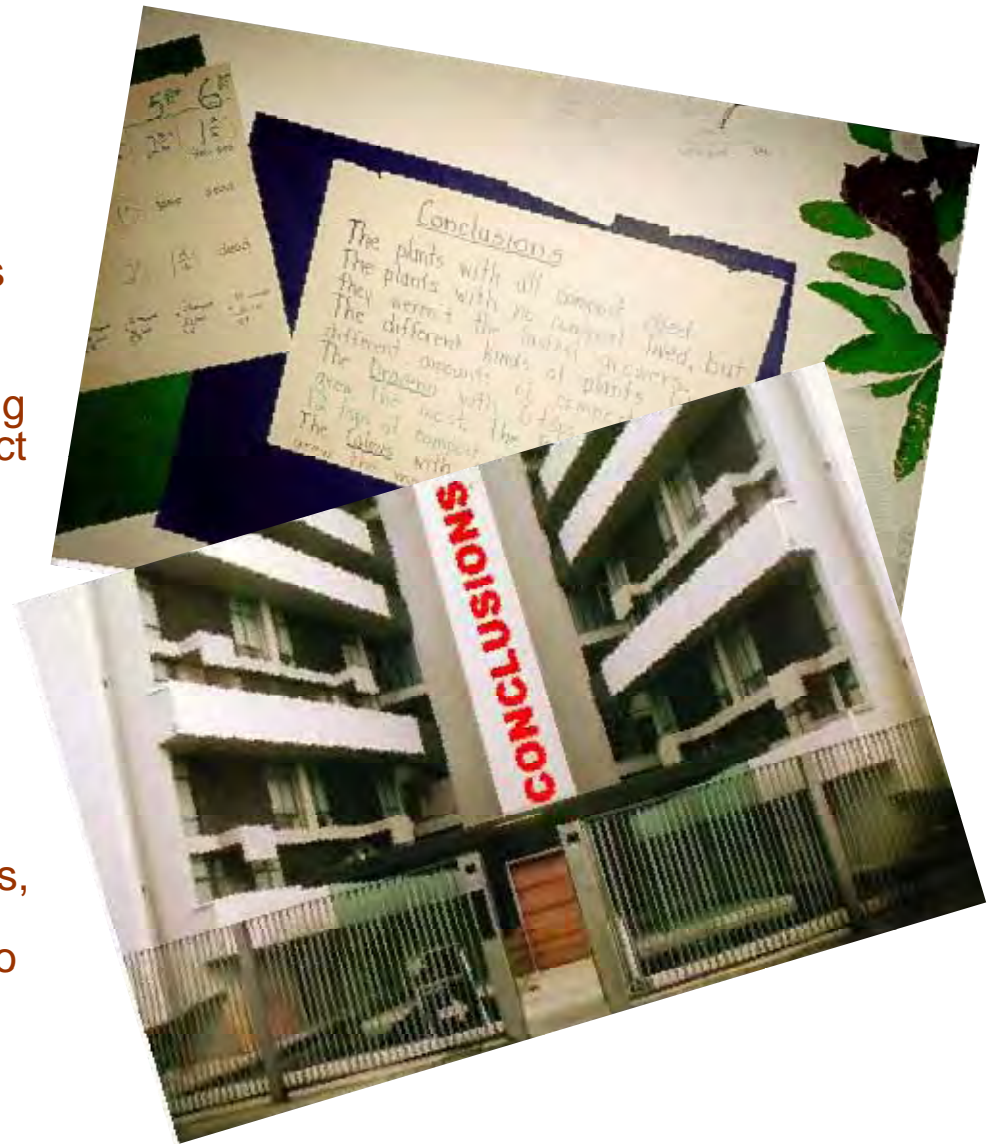
Conclusions & Recommendations



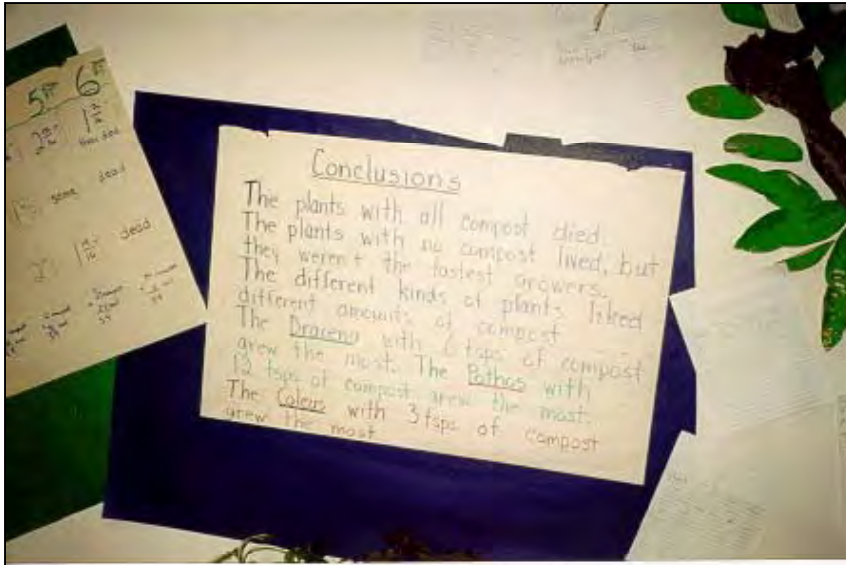
- Supply
- Demand
- Price
- Sustainability

Conclusions

- The Stewardship Contract has already contributed to “health & safety” & economic well-being in the White Mountain Region;
- The Multi-party Monitoring Board helps assure balance in the forest management process;
- Having an objective basis for measuring the impacts of the Stewardship Contract over time is essential for sound management;
- Having 13 firms involved, or on the verge of being involved with the Stewardship Contracts suggests substantial acceptance in the market-place;
- Innovative technologies are clearly in play to support demand for a variety of harvest outputs (clean chips, dirty chips, roundwood, & saw timber) including materials that historically had little or no value;



Conclusions - continued



- Impacts are not always localized. Data on cross-commuting suggest that impacts (& community benefits) can be spread over the entire White Mountain Region;
- The “forestry cluster” is a major employer – firms surveyed employ some 450 full time equivalent employees;
- Inasmuch as just one forest processor with almost one-half of “industry employment” is located in Phoenix, the White Mountain Region may be missing a good bet;

Conclusions - continued



- The “forestry cluster” is an important economic engine which indirectly supports an additional 90 FTE employees in the White Mountain Region through the multiplier process;
- Despite the fact that Future Forest, LLC is a new player it is already an important player. Of the 317.8 FTE who live & work in the White Mountain Region, almost 1/3 are employed to harvest & process Future Forest, LLC material – 81 FTE directly & 23 FTE indirectly through the multiplier process;
- Local expenditures by the 13 firms surveyed are substantial; the grand total spent by these firms in the White Mountain Region is over \$12,000,000 annually.

Recommendations

- Invest substantial effort in monitoring & evaluating supply, demand, price, & maximum sustainable yield information;
- Keep the White Mountain Stewardship Contract Multi-party Monitoring Board fully engaged in the Stewardship Contract process;
- Continue to conduct an annual economic assessment to assure the flow of objective data to describe the outcomes of the Stewardship Contracts;
- Disseminate finding of the economic assessment & other assessments widely to a variety of constituencies including the forest cluster industry itself, the White Mountain Region's business community, & elected officials and public sector managers.
- Recruit additional firms to the forest industries cluster (a special target might be a new division or branch of the Phoenix based firm that is already an important customer of Future Forest, LLC); and
- Start to explore the potentials for increasing the local availability of goods & services utilized by the forest industries cluster – either by expanding offerings of existing firms or by attracting new firms.

