

Appendix E Economics

Cook County encompasses approximately 950,000 acres of northeastern Minnesota, of which 91% is publicly owned. In Cook County the U.S. Government owns approximately 70% of the land, State of Minnesota owns 15% of the land, Cook County owns less than 1% of the land, and the Grand Portage Indian Reservation owns 5% of the land. (Cook County Courthouse, 2006)

The estimated 2004 population of Cook County was 5,317, which represented a 2.8% increase over the number recorded in the 2000 census. The median household income in 1999 was \$36,640, with the majority of workers (76%) employed in the private sector (U.S. Census Bureau 2000).

In July 2001, the University of Minnesota Duluth Bureau of Business and Economic Research completed a study to measure the importance of forestry to northern Minnesota, report on its economic base, and analyze its economic trends. Forestry was categorized into product industries such as paper mills, sawmills, logging contractors, and retailers of different types of wood products. The area was described as economically diverse but very dependent on natural resources. The study identified the forest products industry as “clearly one of the central industries in the region’s economy” (Lichty et al. 2001: iv).

The study found forest product industries (particularly paper mills and reconstituted wood products) to be major contributors to the economic health of northeast Minnesota. Paper mills ranked 7th for the dollar value output of production and distribution (Lichty et al. 2001:26). This same output for reconstituted wood products was almost thirty-eight times higher than the same industry nationally (Lichty et al. 2001:28). Seven forestry-related industries ranked in the top third of all the industries in the northeast region.

The hospitality industry category of “Eating and Drinking Places” ranked 9th for output in the northeast region (Lichty et al. 2001:29). “The hospitality industry clearly depends, to some extent, on the natural resource amenities in the region, but to conclude that all of this industry depends on forestry is clearly wrong. For instance, water resources, human-made amenities (such as championship golf courses, ski resorts, and convention facilities), and the availability of adequate transportation systems, also bring tourists to the region” (Lichty et al. 2001:v).

Financial Efficiency Analysis

The estimated costs of implementation of each alternative is shown in Table E.1. These costs would be spread over the course of approximately 10 years until the full implementation of the proposed actions has been completed.

Table E.1. Estimated Cost of Implementation of Each Alternative

Harvest Treatments	Cost/Unit	Alt. 1	Alt. 2	Alt. 3
Sale Preparation	\$46 to \$155/acre	\$0	\$56,590	\$100,817
Hand Release	\$200/acre	\$0	\$7,800	\$7,800
Hand Pile and Burn	\$200/acre	\$0	\$6,800	\$6,800
Mechanical Fuels Reduction	\$200/acre	\$0	\$5,200	\$5,200
Broadcast Burn	\$150/acre	\$0	\$17,550	\$17,550
Intermediate Treatments	Cost/Unit	Alt. 1	Alt. 2	Alt.3
Mechanical Site Preparation	\$200/acre	\$0	\$152,200	\$152,200
Planting*	\$300/acre	\$0	\$35,400	\$35,400
Prune	\$100/acre	\$0	\$1,400	\$1,400
Interplanting**	\$100 to \$200/acre	\$0	\$129,400	\$129,400
Pile Burning	\$25/acre	\$0	\$20,725	\$39,050
Underburn	\$150/acre	\$0	\$27,300	\$27,300
Total:		\$0	\$460,365	\$522,917

Treatment acres were used to calculate costs per treatment. Cost figures for sale and treatment layout were provided by Brian Henry, Timber Management Assistant; costs for the fuels treatments were provided by Patty Johnson, Fuels Planner; costs for regeneration, site preparation, and hand release were provided by Myra Theimer, Silviculturist.

**Planting that occurs after Clearcut with Reserves (600 seedlings per acre, 8x9 spacing). All acres would be released if needed. Vegetation competing with planted species would be cut.*

***Planting that occurs after Partial Cut 30BA residual, Partial Cut 70BA residual, or Seed Tree Clumping underplant (400 seedlings per acre, 10x10 spacing or 200 seedlings per acre, 14x15 spacing). An estimated 30% of the acres with interplanting would be released. Vegetation competing with planted species would be cut. An estimated 30% of the acres with interplanting white pine would have some type of treatment to protect the pine from deer such as bud caps, or spraying deer repellent. Acres for release or deer protection would be determined based on site specific needs.*

Revenues are based on potential timber sale receipts. Table E.2 shows the estimated revenues, based on January 1, 2006 base period prices. The actual revenues generated will depend upon market values at the time of sale. In the past, bids on timber sales have run above base period prices.

Table E.2. Estimated returns

Factor	Alt. 1	Alt 2.	Alt 3
Harvest Volume (MMBF)	0	7.8	16.2
Federal Revenue	\$0	\$540,256	\$1,040,811
Payments to State and Local Government	\$0	\$135,064	\$260,203
<i>Note: Treatment acres were used to estimate revenue.</i>			

Under Alternative 1 (no action), there would be no costs incurred from forest management activities. There would be no revenue to the federal government from timber sales and no payment to the county government. Alternative 3 would cost more than alternative 2 but would provide more revenue. Fuel reduction activities add costs and no revenue but decreases suppression costs.

Economic values are an important consideration in environmental analysis but are not the only consideration. There are non-market values associated with each of the alternatives

such as the value of mature forest under Alternative 2 and the value of reduced fuel hazard under Alternatives 2 and 3. Under any alternative there would still be an abundance of high quality natural resources that would contribute spiritual, cultural, historic, aesthetic, and economic values.