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Environmental Amenities as Drivers of Forest Land Value: A Hedonic Pricing Approach

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ABSTRACT:

A hedonic price model was developed to analyze the market for undeveloped forest land in northern Minnesota. The data included 387 forest land parcels purchased in 2001 or 2002. Information describing parcel physical characteristics, merchantable timber volume, development trends, terms of financing, and several proximity, distance and adjacency conditions were tested for their influence on forest land prices. The model's independent variables collectively explained approximately 50% of the variation in per hectare sale price. The method by which forest land sales were financed, road access and density, proximity to population centers, and presence of lake or river frontage had the largest positive influences on per hectare sale prices. Adjacency to public land had an unexpectedly large, negative influence on sale price. A parcel's merchantable timber volume was not found to be a significant predictor of forest land sale price. In general, forest land markets were driven by three major influences: land development pressures, aquatic recreational amenities, and the use of contract for deed financing.

Keywords: FOREST LAND PRICES, FOREST MARKETS, HEDONIC ANALYSIS, FOREST FINANCE, PRICE FUNCTION

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