

APPLICATION OF FIVE METHODS FOR MEASUREMENT OF
WILDLIFE VALUE; LOWER SNEYENNE RIVER BASIN,
NORTH DAKOTA

A Thesis
Submitted to the Graduate Faculty
of the
North Dakota State University
of Agricultural and Applied Science

by

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In Partial Fulfillment of the Requirements
for the Degree of
Master of Science

Department of Agricultural Economics

December, 1975
Fargo, North Dakota

ABSTRACT

Leitch, Jay Andrew, M.S., North Dakota State University, December 1975

Application of Five Methods for Measurement of Wildlife Value; Lower
Sheyenne River Basin, North Dakota

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An attempt was made to a) describe the wildlife community of the Lower Sheyenne River Basin (LSRB), and b) determine the value of that wildlife community. An estimate of the species composition of wildlife was determined from the literature and personal communications with State Game and Fish Department personnel. To determine the value of this wildlife, five techniques were applied to the LSRB: (1) utility value, (2) expenditures, (3) the value of comparative private recreation, (4) wildlife land value, and (5) the priority evaluator technique, a photo choice game simulating the marketplace. Resulting values were 1) annual utility value of \$95,000 (\$.11 to \$1.16 per acre), 2) a annual expenditures value of \$304,777 (\$.36 to \$4.18 per acre), 3) the annual value of alternative private recreation of \$832,000 (\$.98 to \$14.93 per acre), and 4) the land value technique revealed an annual per acre return for wildlife of up to \$33. The priority evaluator technique did not yield a specific value but revealed that people were more willing to sacrifice other environmental variables before wildlife habitat.