

ECONOMIC ASSESSMENT
OF WETLAND MITIGATION IN MINNESOTA

A Thesis
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By

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ABSTRACT

Sip, Robert Loyal, M.S., Department of Agricultural Economics, College of Agriculture, North Dakota State University, February 1998. Economic Assessment of Wetland Mitigation in Minnesota. Major Professor: Dr. Jay A. Leitch.

The economic efficiency of wetland mitigation in Minnesota's Red River Valley was examined using the Minnesota Routine Assessment Method on ten wetland case studies to rate the functions of impacted and replacement wetlands. Secondary sources were used to assign dollar value to wetland functions of impacted and replacement wetlands. Mitigation costs for projects ranged from \$279 to \$4,171 per acre. Estimated social values ranged from \$207 to \$1,027 per acre for impacted wetlands and from \$268 to \$927 per acre for replacement wetlands. Social values of replacement wetlands exceeded the social value of impacted wetlands in seven cases. Values of replacement wetlands were 1.8 to 4 times greater than the values of impacted wetlands due to 2 to 1 replacement ratios. When society gains benefits from mitigation, then public cost sharing may be appropriate. In one case, the value of the impacted wetland was higher than the value of the replacement wetland. There were insufficient data to evaluate two cases. Results are only indicators of efficiency, since not all social costs and benefits of the impact-mitigation activity are addressed by legislation. These results suggest wetland mitigation policy in Minnesota should be reevaluated if efficient use of society's resources is a legislative goal.