

CONSIDERATIONS FOR THE DEVELOPMENT OF A PESTICIDE  
MANAGEMENT STRATEGY TO PROTECT GROUNDWATER IN NORTH DAKOTA

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By

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## ABSTRACT

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Existing pesticide/groundwater policy evolved in response to, rather than in anticipation of, contamination problems and became fragmented rather than integrated. The study discusses important principles--physical environment, social factors, legal conditions, and economic concepts--and the interdisciplinary thought process that can lead to optimal social policy which is efficient, effective, and equitable.

Deterministic and stochastic groundwater research, screening, and management models are discussed and the framework for an optimization model is presented. Expert and public opinion of risk differs. Policy makers can create consensus and improve policy by accepting that perception as valid. Economic concepts are explained and used to discuss common property resource management, property rights, and externalities.