

WATERSHED MANAGEMENT - A GIS APPROACH

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ABSTRACT

Watershed management decision making is a complex process. Cooperation and communication among federal, state, and local stakeholders is required while balancing biophysical and socioeconomic concerns. The public is taking part in environmental decisions, and the need for technology transfer from public agencies to stakeholders is increasing. Information technology has had a profound influence on watershed management over the past decade. Advances in data acquisition through remote sensing, data utilization through geographic information systems (GIS), and data sharing through the Internet have provided watershed managers access to more information for management decisions. In the future, applications incorporating hydrologic simulation models, GIS, and decision support systems will be deployed through the Internet. In addition to challenges in making complex modelling technology available to diverse audiences, new information technology issues, such as interoperability, Internet access, and security, are introduced when GIS, simulation models, and decision support systems are integrated in an Internet environment.

KEYWORDS: Watershed Management, Information Technology, Internet, Geography, Geographical Information Systems, Spatial Analysis