

# Integrated Watershed Management: A New Paradigm for Natural Resource Management

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## Abstract

Watershed management has been developed primarily as a technical field. Major intellectual and fiscal investments have gone into exploring the biophysical dimensions of processes in the "natural environment" and the quest for technical "solutions" to perceived "problems" by experts. Traditionally, the profession and the disciplines of watershed management have dealt only with the consequences of human activity, ignoring processes that govern human activity itself. With sustainable development becoming a widely recognized management goal, there is an urgent need to integrate the human dimension into the management strategy. The emerging field of integrated watershed management (IWM) recognizes the importance of the human dimension and the need to integrate technological tools with broad-ranging social, political and economic change. Instead of focusing exclusively on biophysical processes and human impacts, IWM includes stakeholder participation, adaptive management and experimentation at scales compatible with the scales of critical ecosystem functions and services. In this paper we explore the integrated paradigm to watershed management and present a case study to illustrate the importance of community learning and collaborative planning in this type of approach. We conclude that for integrated approaches to watershed management to succeed, stakeholders must be willing to engage in all aspects of the management strategy, experts must be willing to learn skills outside their areas of expertise, and institutions must change traditional modes of operation.

**Keywords:** watersheds, integrated resource management, collaborative planning, community learning