

A Primer on Nonmarket Valuation

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Chapter 1

ECONOMIC VALUATION: WHAT AND WHY

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1. THE MANAGEMENT PROBLEM

Consider the choices faced by those responsible for managing releases of water at the Glen Canyon Dam on the Colorado River. The size and timing of the releases determine the value of the hydroelectric power generated. But the pattern of the releases influences the nature and value of the recreational activities on Lake Powell above the dam and on the rivers in Glen Canyon and Grand Canyon below the dam. The release patterns also affect, in complex ways, the availability of suitable habitat for and the probabilities of the survival of several endangered species. Thus, managers face choices that involve trade-offs.¹ More hydroelectric power means reduced quality and quantity of recreation opportunities and, perhaps, reductions in the survival of some endangered species. It is necessary to reconcile the sometimes conflicting desires and interests of those affected by management decisions and to make wise choices concerning these trade-offs. To do so, resource managers require information on the value of hydroelectric power and the values that people place on various attributes and types of recreation on and along the Colorado River and on changes in the survival probabilities for endangered species.²

We live in a world of scarcity and thus, we must make choices about how to manage the human impact on natural systems. Greater use of a particular environmental service or greater protection of a specific natural system results in less of something else. This is the trade-off that we must accept. To make the most of scarce resources, we must compare what is gained from an activity