

THE NEED FOR DEVELOPING ECONOMIC ASSESSMENT APPROACHES FOR UNDERVALUED NATURAL RESOURCES: RIVERS AND WETLANDS

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Abstract. Conventional economic assessment techniques have historically undervalued existing natural resources resulting in unwise and deleterious growth management decisions. Degraded water quality, diminution or loss of recreational and commercial fisheries, increased siltation and sediment deposition in rivers and lakes, loss of wildlife habitat, and general aesthetic losses are the consequences of decision making based on incomplete economic analysis. We propose developing additional strategies to appropriately determine economic and societal values inherent in natural river and wetland systems which have historically been over looked. Furthermore, much of the data collection and analysis can be undertaken by citizen organizations dedicated to restoring and protecting the quality of the rivers, wetlands, and other natural resources in their communities.

INTRODUCTION

Rapid growth in Georgia over the past several decades has set the stage for coming to grips with the necessity to develop better understanding of valuing our resources as more demands are placed on them to meet the needs of society. With 70,000 miles of streams and rivers but essentially no natural lakes of direct commercial economic value, Georgia's growth particularly in the northern half of the state has been dependent largely upon artificial and often large impoundments as well as direct water withdrawal from unimpounded streams. South Georgia is essentially dependent on groundwater wells to support its economy. Yet even in the southern half of the state, and particularly in southwest Georgia, groundwater pumping effects streams and rivers by lowering base flows and dewatering wetlands, particularly during summer months when agricultural demands are high.

Traditional economic wisdom would seem to say that past and present uses of these aquatic resources are appropriate to meet the demands of growth. At the same time there is a growing realization that (1) these resources are finite; (2) that competition for them is growing; and (3) traditional economic paradigms are compromising existing

natural qualities and values historically taken for granted. It is this third point to which this paper is directed.

As a result of traditional economic thinking natural systems are often economically undervalued. This often leads to unanticipated adverse economic impacts later when decisions to modify the use of the rivers or wetlands fails to consider the economic values of the natural system. The larger question then becomes how to place economic valuations on these uses which have historically just been taken for granted, ignored, or were unknown. These uses are often referred to as non-market goods.

CONCEPTS OF ECONOMIC VALUATION

The knowledge that a resource simply exists has a certain economic value associated with it, even though that resource may never be used. This is referred to as existence value and can be defined as the amount which the existing generation is willing to pay to preserve and protect a natural resource. For example, as a society, people are willing to pay to have rivers, streams, and wetlands protected for future generations to enjoy. This kind of value is substantiated simply by the existence of the growing number of conservation and environmental groups willing to raise and spend money to protect these resources for the future.

Of course the use of a resource produces a whole other set of economic inputs associated with those uses. For example, to produce a recreational activity on a river may involve economic inputs which include transportation costs, food, lodging, equipment rental, film, etc. which are all used because of the recreational opportunity arising from the existence value. But it must be not be construed to mean that the total existence value of a resource is equal to the total dollar value generated from the willingness to pay for the benefits of the recreational experience alone. Other societal economic benefits may also be associated with existence value and need to be determined in order to approximate the true total value of the resource.

The concept of willingness to pay (WTP) is somewhat complex. The cost a person pays to go on a fishing trip, for

ential (general public) users of the resource to air willingness to pay. The basic tool for using od is questionnaires and/or surveys. Given this becomes obvious that survey design becomes nportant, not only to define the goal of the also to eliminate or minimize bias in order to entify consumer practices, needs, and wants.

TEATS TO ECONOMIC ANALYSIS

ssfully use economic analysis in efforts to save a river, wetland or other natural resource, the credibility of the analysis is essential. gths and biases have to be identified and stated participating in the analysis understand them. e goal of the study must be clearly defined. f the study is of utmost importance.

roofs organization wishing to undertake an analysis of a local resource must keep the ructure in mind. To do this, the design of the ld be undertaken by a neutral research group rent conflicts of interest; the design should be all beneficial public and private uses, values s of the resource; and the final product should wed, respond to criticisms, and articulated in a fessional manner. Media support and publicity fine the values of the resource in the broader and help establish an appreciation for the ounding it. But ultimately, the reason for an economic analysis is to put that information le of policy-makers. Certain local business uld be solicited for support as well as local rners who may have economic interests in roperties. Finally, the report must be presented n be fully appreciated for its objectiveness and hat it is an important decision making tool.

elopment of economic analysis should become tool to protect and preserve our aquatic Environmental and conservation organizations cally used public education, media, biological l analysis, and advocacy to protect resources ommunities. With the advent of new economic e-traditional valuations of resources, a broader ng of the importance of these resources to the s being brought to bear on the decision making

ADDITIONAL REFERENCES

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