

COST/BENEFIT ANALYSES

Park: Showdown on snowmobiling

'Trees that were worth hundreds of dollars were being sold to the Japanese for the cost of Big Mac hamburgers.'

**Biologists
strive for
balance
in park**

Rhetoric Easier Than Action on Environment

**Dealing with a
national park**

**Officials worried by crowding
on Mississippi, St. Croix**



United States Department of the Interior



NATIONAL PARK SERVICE

P.O. BOX 37127

WASHINGTON, D.C. 20013-7127

IN REPLY REFER TO:

January 20, 1991

Memorandum

To: Park Superintendents

From: Assistant to the Director for Science and Technology

Subject: ECONOMIC TRADE-OFFS: A WORD OF CAUTION ABOUT BENEFIT/COST ANALYSES

Like it or not, the NPS soon will be preparing many more Environmental Assessments and EIS's than are done currently for example, for GMP's, for historic site management plans, for wildlife and ecosystem management programs, for facility siting decisions, etc. These documents carry with them a requirement for benefit/cost economic assessments designed to compare the economic consequences of alternative courses of action. This leads to a word of caution about the utility and the limitations of benefit/cost studies when those analyses are used to justify decisions that involve trade-offs between preservation versus development options.

One can determine with reasonable accuracy the lifecycle costs and economic benefits (revenues, jobs, etc.) associated with resource consumptive activities such as logging and mineral extraction. However, it is much more difficult to establish credible and defensible values for the benefits associated with preservation-oriented, non-consumptive utilization of resources for example, for recreation purposes such as scenic viewing, experiencing solitude, spiritual renewal, reliving historical events, etc. Furthermore, this is not just a question of determining CURRENT VALUES associated with non-consumptive uses of resources. It also involves estimating POTENTIAL FUTURE VALUES of beneficial uses of resources, even though we may not be able to fully document or justify those future uses at this time. Yet our policies and decisions about how best to manage resources inside the parks, as well as our ability to participate constructively in preserve-versus-develop decisions on adjacent lands, may well be influenced by our ability to make sound and compelling benefit/cost economic comparisons between competing land use alternatives. And because we are in the business of preserving resources and providing for their long-term use and enjoyment, such benefit/cost analyses need to account carefully for both current and future values associated with intrinsic qualities integral to the visitor experience. . . . such as solitude, scenic vistas, silence, historic settings, clean air and clean water, etc.

With this in mind, I thought perhaps you might be interested in the following observations (abridged) taken from a recent article that describes some of the difficulties and limitations that can be encountered when one tries to apply benefit/cost analyses to the truly unique kinds of resources managed by the NPS.

Cost-benefit analysis frequently is touted by advocates of development or by policy makers as a rational tool for decision making. The attractiveness of a simplified cost/benefit summary seems to be its hypnotic effect on policy makers who lack expertise or varied perspectives regarding proposed developments, yet must make decisions.

Estimates of costs and benefits are based on a plethora of measures, variables, and assumptions. While such studies generally document some economic value for amenity uses of the natural environment, they vary greatly due to the characteristics of the models employed.

The great limitation of economic analysis is its inability to anticipate what variables will be important for the future. This weakness goes beyond the inability to achieve a valid assessment of the potential effects of development. It certainly goes beyond the deliberate selection and rejection of concepts and measures that influence how a development decision will be made.

The ability to suggest future uses of resources is no less limited. Some uses seem to promise increasing concern for the future, but for some of these it is impossible to assign any meaningful dollar value. The pivotal point is whether the resource is sufficiently precious or unique to exempt it from the whims of the market and the measures of cost-benefit analysts.

Philosophically speaking, allowing the free market to decide the fate of resources is extremely attractive. The free market approach appears intrinsically democratic. It prevents the confusion caused by poorly enacted or administered regulations. It seems to be historically and culturally consistent with social beliefs and policies. Yet, the free-market system lacks the goal of preserving anything. If anything is preserved it will only be deemed so by the temporary values of consumers. If at any time the public temporarily agreed to develop natural areas or to sell them to private developers, their protected status would be violated. Once lost, they may be lost forever. They cannot be remanufactured from an old blueprint. They continue to exist only if they are left alone.

This nation has never really believed in or operated as a free marketplace. Some behaviors have been deemed too precious or too endangering to allow the free market to determine them. The precedent of protecting the long-term good of all over the short-run preferences of individuals has been repeatedly affirmed. Protection of the environment for the collective good is an extension of the same principles as legislation controlling vice, vehicle safety, insurance regulation, and most other civil regulations. The right to control for the public good is well established. The issue of whether a resource is precious enough or unique enough to protect is vital.

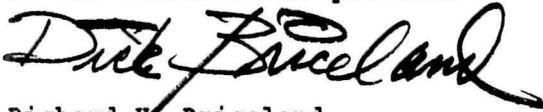
The consequences of development rest in the future. Expectations of what will happen if physical and aesthetic resources are set aside in perpetuity or alternatively opened to the free market are largely a matter of faith. These consequences cannot be accurately measured and projected.

The underlying values and assumptions of economics are simply inadequate to serve as a basis for managing and preserving natural and cultural environments. Even though natural and cultural attributes have proven their economic worth, the value of such resources never can never be defended or understood in economic terms alone.

In spite of the shortcomings of economic decision making, it nevertheless provides one possible framework for examining how resources might be utilized. In this sense, the economic cost/benefit model has become a surrogate for rational decision making, a socially accepted way of thinking about how the world is supposed to operate. Pragmatically, it must be acknowledged and used because currently it has the most universal credibility.

These observations argue persuasively that the true public benefits associated with non-consumptive aesthetic and recreational uses of resources often remain unarticulated or unknown, and also that long-term economic values associated with preservation frequently are grossly underestimated in comparison to estimates of benefits associated with short-term resource consumptive or extractive uses. These factors tend to make benefit/cost analyses skewed, biased, and inaccurate . . . not because the principles of benefit/cost analyses are wrong, but rather

because we so far have exhibited very limited ability to utilize these principles in ways that assign fair value to the potential long-term, non-consumptive uses of natural and cultural resources. Therefore, it is incumbent on those in the NPS who are responsible for benefit/cost analyses that involve recreation and other non-consumptive preservation alternatives to give very careful consideration to the full values associated with both current and future uses of the resources in question.

A handwritten signature in black ink that reads "Dick Briceland". The signature is written in a cursive style with a large, prominent "D" and "B".

Richard H. Briceland

For those having further interest in this matter, the above material was derived from an article by J. W. Calvert and P. Jobs included as Chapter 5 in a new book edited by Dr. Frank Noe, Regional Sociologist, SERO: "Outdoor Recreation Policy, Pleasure and Preservation."