

the Corps to modify the recommendations, as appropriate, to reflect the comments of the States and other Federal Agencies. After this procedure had been achieved, we understood that the report would be transmitted to Congress for consideration.

We were unaware that the States and Federal Agencies had reported or that the Corps' report reflected their comments. An additional problem has been the analytical consideration of alternatives. This was indicated in Senate Document #97 of the 87th Congress, Second Session. In Section V, Part A, Paragraph (7), the following appears:

"When there are major differences among technically possible plans conceived as desirable on the basis of consideration of intangible benefits and costs, in comparison with optimum plans based on tangible benefits and costs, alternative combinations of projects within a river basin or alternative projects, giving expression to these major differences, shall be planned. Comparison of their economic and financial costs shall be set forth in reports to provide a basis for selection among the alternatives by reviewing authorities in the executive branch and by the Congress."

To further buttress this recommendation, a report of the Civil Works Study Board issued in January 1965 comments:

"One of the most frequent criticisms of Corps planning is that the Corps reports tend to show only whether a particular project is or is not economically justified and that alternatives either have not been given sufficient consideration or, at least, have not been discussed in reports so others may judge the Corps recommendation in the light of alternatives. This is a valid criticism and the Corps procedures should be adjusted to meet it. There is evidence that extensive consideration has been given to alternatives in some reports but there are only a few recent examples where the alternatives are described and evaluated in the final report. Particularly where there is a possibility that objectives other than the usual economic efficiency criterion may be pertinent in the judgment of any interest concerned, there should be consideration and presentation of alternatives in reports."

Many conservation organizations reacted to President Johnson's plea that the Potomac be made a model river by soliciting the advice of hydrologists, engineers, agronomists, silviculturists, economists and others. Our effort was to effect programs that would yield an adequate amount of clean water, provide quality recreation, and preserve scenic beauty.

The major thrust of our efforts has been in the use of the estuary for fresh water for Washington, recycling of water when used for cooling, the acceleration of sewage treatment facilities, and an acceleration of soil conservation practices to reduce silt contamination. It was our hope to rely on these devices that would be less costly and have greater compatibility with our resource uses.

The seven projects proposed by the Corps of Engineers in accordance with their calculations, if authorize, would cost \$131,780,000, require 20,050 acres of land for the projects alone, and an additional 28,110 acres for purposes of recreation and fish and wildlife mitigation. In addition, it would displace upwards of 325 families, remove over 6,475 acres from agriculture, cause to be built or relocated 20.2 miles of public roads and/or highways, the building or reconstruction of six bridges, the removal of two schools, the removal of two churches, and the re-location of six cemeteries. The enormous burden of proof for these projects appears far too formidable in terms of the benefits received, especially without any analysis or consideration, of which the public is informed, as to the effectiveness of alternatives.¹

We have been intrigued for a number of years at the manner in which the Corps analyzes the economic aspects of recreation. Perhaps I may appear overly concerned, since I suffer from my own background as a professional economist. The generalizations relative to recreation and fish and wildlife fall almost by their own weight. The calculation of recreation benefits is inevitably analyzed on the basis of user days only. In short, a projected classification of the total number of visitors which one may expect after the construction of the reservoir.

These projection statistics do not indicate the length at which the user days will prevail. Also, we should hasten to point out that the word "projection" is some what misleading and perhaps economists have oversold this concept, for too many think of it as a prediction. Projections are made on the assumption of the relationship and magnitude of certain variables. This may be accomplished by

¹ Fosdick, Ellery, "Financial Feasibility and Drawdowns of Reservoir Projects," copy attached.