11-21-1973

# Brief of Plaintiffs - Appellants in *Environmental Defense Fund v. TVA*, No. 73-8174

James Tripp

Lawrence R. Reno

Jon T. Brown

Wallace L. Duncan

Fredrick D. Palmer

IN THE

UNITED STATES COURT OF APPEALS

FOR THE SIXTH CIRCUIT

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Docket No. 73 - 8174

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Environmental Defense Fund, et al.,

Plaintiffs - Appellants

v.

Tennessee Valley Authority, et al.,

Defendants - Appellees

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ON APPEAL FROM THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TENNESSEE, NORTHERN DIVISION

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# BRIEF OF PLAINTIFFS - APPELLANTS


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# BRIEF OF PLAINTIFFS - APPELLANTS

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## STATEMENT OF ISSUES PRESENTED FOR REVIEW

1. Whether the district court erred in refusing to review the agency decision to construct the Tellico Project in accordance with the standards set forth in Section 101 of the National Environmental Policy Act (NEPA).

2. Whether the district court erred in its determination that the final environmental impact statement for the Tellico Project met the requirements of Section 102 of the National Environmental Policy Act.

3. Whether the district court erred in its determination that the appellees had fully complied with the requirements of section 102(2)(D) of NEPA to develop and analyze alternatives to the Tellico Project and to evaluate fully the environmental impacts of such alternatives.

4. Whether the district court erred in its determination that the appellees had fully complied with the requirements of Section 102(2)(B) of NEPA to develop methods and procedures for the consideration or quantification of environmental values along with economic and technical considerations.

5. Whether the district court erred in its determination that the Federal Water Pollution Control Act Amendments of 1972 were not applicable to the construction of the Tellico Project.

6. Whether the district court erred in its refusal to enter an injunction against further construction of the Tellico Project in light of its express holding that the appellees had not yet complied fully with the National Historic Preservation Act.

7. Whether the district court erred in dismissing appellants' claims under the Fifth and Ninth Amendments to the United States Constitution.

8. Whether the district court erred in its refusal to award reasonable attorneys' fees and all costs to plaintiffs in connection with the present litigation.

## STATEMENT OF THE CASE

The history of this litigation and the description of the Tellico Project are fully set forth in the opinion of this Court upholding the preliminary injunction issued by the district court on January 11, 1972. Environmental Defense Fund v. Tennessee Valley Authority, 468 F.2d 1164 (6th Cir. 1972). Following the decision of this Court, a trial on the merits was held before the district court from September 17 through September 20, 1973. On October 25, 1973, the district court issued its Memorandum Opinion holding that the defendants had complied sufficiently with the Federal laws whose violation had been alleged by the plaintiffs, and that the preliminary injunction should be dissolved. The Order of the district court was entered on November 1, 1973, and the same day the plaintiffs, (hereinafter appellants), filed their Notice of Appeal, Motion for Injunction Pending Appeal and Memorandum in support thereof. That Motion was denied. Appellants also filed a Motion for Award of Reasonable Attorneys' Fees and Costs, which was also denied as to attorneys' fees. Thereafter, on November 5, 1973, the appellants filed with this Court a Motion for Stay Pending Appeal and to Expedite Appeal and Brief in Support Thereof, along with certain orders previously rendered by the district court and pleadings filed by the appellants in connection therewith.

By Order dated November 9, 1973, this Court denied appellants' Motion for Stay Pending Appeal and granted appellants' Motion to Expedite Appeal, setting the case down for oral argument on December 7, 1973. This brief is filed in accordance with the Order of the Court requiring that appellants' initial brief be filed on vember 21, 1973, that appellees' brief be filed on or before November 28, 1973, l that the appellants' reply brief be filed on or before December 3, 1973. Because of the briefing schedule set down by the Court, the appellants have been without benefit of a transcript of record in preparing this brief. However, in the absence of a stay pending appeal, the appellants have concluded that they will not seek a further delay in spite of the severe handicaps of proceeding without

benefit of a complete record.

The jurisdiction of this Court rests on 28 U.S.C. Sec. 1291.

This is an environmental case. It is also a case which involves the cultural and sacred heritage of a great Indian people and a significant chapter in American history. The Tellico Project will inundate the final 33 miles of the Little Tennessee River, transforming it from a magnificent cold water trout stream to a 16,000-acre reservoir. In the process, the waters will inundate major portions of the historic homeland of the Cherokee Indians and obliterate the sites of their most important villages. Among these are the sites of Tenasi, from which the State of Tennessee derives its name; Tuskegee, the birthplace of the Cherokee scholar Sequoyah who devised the Cherokee alphabet and whose statue rests in the national capital rotunda in Washington, D.C.; and Chota, the sacred capital and village of refuge of the Cherokee Indians.

As an indication of the historic significance of these sites, it is important to note that the village site of Chota-Tenasi has recently been included in the National Register of Historic Places by the Federal Advisory Council on Historic Preservation, acting under the Authority of the National Historic Sites Act, 16 U.S.C. Sec. 461 et seq. The sites included on the National Register are those of greatest national historic significance and their inclusion manifests the intent of Congress that they not be destroyed in the absence of the most compelling reasons.

The area to be inundated by the Tellico Reservoir was described by appellants' witness Mack Prichard, the State Archaeologist of the State of Tennessee, as the most significant archaeological area within the State. The Eastern band of Cherokees themselves have adopted a tribal resolution opposing the desecration of their homeland by the Tellico Reservoir. (Ex. 32).

The Governor of the State of Tennessee, the Honorable Winfield Dunn, has also opposed the further construction of the Tellico Project. (Ex. 17). As an alternative to the project, the executive staff of the Governor prepared a

comprehensive plan for the preservation of the Cherokee village sites, the designation of a scenic river and the development of a state park on the banks of the Little Tennessee River. (Ex. __).[1/] Such an alternative to the Tellico Project, although mentioned briefly in the environmental impact statement (EIS) for the project, was given only cursory attention by the appellees. (Ex. 21, p. I-1-46).

The historical, ecological and cultural importance of the Valley of the Little Tennessee River underscores the critical role which the National Environmental Policy Act was designed to play in the resource planning of this nation. That role is reflected in the Act itself, which requires that the environmental impact of resource projects be considered "to the fullest extent possible." Section 102(1) and 102(2) of NEPA, 42 U.S.C. Sec. 4331 and 4332; Environmental Defense Fund v. Tennessee Valley Authority, 468 F.2d 1164, 1174 and 1175-1176 (6th Cir. 1972). As this Court stated in its earlier opinion, the provisions of NEPA "establish a strict standard of compliance," 468 F.2d at 1174. The rationale and the mandates are clear, for in the absence of strict compliance with the requirements of NEPA, the ultimate decisionmakers and the public itself are denied the opportunity to evaluate fully and rationally the decision to proceed with a project of the magnitude of the Tellico Project. In the absence of full and objective consideration of a project by the responsible agency, the ultimate decisionmakers are given no more guidance regarding the advisability of a project than existed prior to NEPA. We believe that a consideration of the opinion below in light of the record will reflect most clearly its own infirmities and those of the agency review process for the Tellico Project which Congress sought to remedy with the enactment of NEPA.

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1/ The number of this exhibit is presently unavailable. Accordingly, a copy of the plan has been attached for the use of the Court.

In the meantime, the appellants are informed by counsel for the appellees that construction work has again commenced on the Tellico Dam. Accordingly, we wish to express our gratitude to the Court for the expeditious manner in which this appeal is being considered. At the same time, however, we wish to reiterate that an examination of the complete record is extremely important to a full understanding of the issues presented below. Since appellants have not had the benefit of access to the complete record, this brief, of necessity, must reflect in somewhat general terms the testimony presented. Nevertheless, we can assure the Court that it represents an accurate recollection of the evidence and can be substantiated by reference to the record.

## ARGUMENT

### I.

### THE DISTRICT COURT FAILED TO APPLY THE PROPER SCOPE OF JUDICIAL REVIEW OF THE AGENCY DECISION TO CONSTRUCT THE TELLICO PROJECT

Section 101(b) of NEPA, 42 U.S.C. Sec. 4331(b) provides, inter alia, that:

> it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may -
>
> (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
>
> * * * * * * * * * * * * * *
>
> (4) preserve important historic, cultural and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;

> (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities * * * * (emphasis added).

Very little dispute remains as to whether the courts are empowered to review the substantive decisions of agencies under Section 101 of NEPA. While several earlier cases decided under NEPA tended to restrict the scope of review to "procedural" compliance under Section 102 of the Act, the more recent appellate court decisions have halted that trend. The initial breakthrough came in the landmark case of Calvert Cliffs Coordinating Committee v. AEC, 449 F.2d 1109 (D.C. Cir. 1971). The Court of Appeals stated that (449 F.2d 1115):

> The reviewing court probably cannot reverse a substantive decision on its merits, under Section 101, unless it be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.

The language of the District of Columbia Circuit was given further vitality by the Eighth Circuit in Environmental Defense Fund v. Corps of Engineers, 470 F.2d 289 (8th Cir. 1972), in which the Court of Appeals held that:

> Given an agency obligation to carry out the substantive requirements of the Act, we believe that courts have an obligation to review substantive agency decisions on the merits whether we look to common law or the Administrative Procedure Act, absent 'legislative guidance as to reviewability, an administrative determination affecting legal rights in reviewable unless some special reason appears for not reviewing.' K. Davis, 4 Administrative Law Treatise 18, 25 (1958) (Footnote omitted). Here, important legal rights are affected. NEPA is silent as to judicial review, and no special reasons appear for not reviewing the decisions of the agency. To the contrary, the prospect of substantive review should improve the quality of agency decisions and should make it more likely that the broad purposes of NEPA will be realized. (470 F.2d at 298

- 299). [2/]

Shortly after the decisions of the Eighth Circuit, the Fourth Circuit held that substantive review under section 101 was required. Conservation Council of North Carolina v. Froehlke, 473 F.2d 664 (4th Cir. 1972). Furthermore, as stated by the Eighth Circuit in Environmental Defense Fund v. Corps of Engineers, supra, at 299-300, the determination of substantive reviewability "is supported by the District of Columbia Circuit, the Second Circuit and Fourth Circuit,and by the analogous decision of the Supreme Court in Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971)".

The most commonly-expressed standard of review under Section 101 was set forth by the Eighth Circuit in Environmental Defense Fund v. Corps of Engineers, supra, 470 F.2d at 300:

> Where NEPA is involved, the reviewing court must first determine if the agency reached its decision after a full, good faith consideration and balancing of environmental factors. The court must then determine, according to the standards set forth in Sections 101(b) and 102(1) of the Act, whether 'the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.'

While the court is not empowered to substitute its judgment for that of the agency, the inquiry into the facts must be "searching and careful". Ibid., citing Citizens to Preserve Overton Park v. Volpe, 401 U.S. at 416. Any other standard of review would allow the agencies to become the arbiters of their own conduct and a law unto themselves.

Other courts have set forth similar standards for review and the concomitant agency responsibilities which such review requires. This Court itself, in

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2/ The scope of review was reiterated by the Eighth Circuit in Environme Defense Fund v. Froehlke, 473 F.2d 346 (1972).

earlier opinion in these proceedings, established the requirement for "reconsideration of the (Tellico) project in light of the provisions of Section 101 . . ." 468 F.2d at 1183-84.

An analogous standard of review under Section 101 was set forth in Sierra Club v. Froehlke, _____ F. Supp. _____, 5 ERC 1033 (S.D. Texas, 1973),[3/] perhaps the most exhaustive consideration of NEPA to date.

The Court described the substantive duty of agencies as one of mitigation, stating that (5 ERC 1065):

> Mitigation - The Substantive Requirement:
>
> [5] NEPA states indirectly, but affirmatively, that under some circumstances federal agencies must mitigate some and possibly all of the environmental impacts arising from a proposed project. This requirement is embodied primarily within Section 101, 42 U.S.C.A. Sec. 4331, with important implementing assistance from Section 102, 42 U.S.C.A. Sec. 4332. This Court will not endeavor to catalogue all permutations of this requirement, but will highlight a few as they apply to the present litigation.
>
> Consistent with other essential considerations of national policy, all federal agencies must "use all practicable means" to assure safe surroundings, 42 U.S.C.A. Sec. 4331(a),(b)(3), and to preserve important historic, cultural and natural aspects of our national heritage. 42 U.S.C.A. Sec. 4331(a),(b)(4). While tested by a rule of practicability with respect to other essential considerations of national policy, these requirements must be implemented "to the fullest extent possible". 42 U.S.C.A. Sec. 4332.
>
> Although the mitigation requirement has not been examined in the relatively few

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3/ Where official citations are not available, the BNA Environmental Reporter ERC citations will be used.

reported cases to date, its significance is implicit in the guidelines of the CEQ and EPA. For example, the CEQ guidelines since first issued in 1970 have required that:

> . . . Federal agencies will . . . assess in detail the potential environmental impact in order that adverse effects are avoided, and environmental quality is restored or enhanced, to the fullext extent practicable. In particular, alternative actions that will minimize adverse impact should be explored and both the long-short range implications to man, his physical and social surroundings, and to nature, should be evaluated in order to avoid to the fullest extent practicable undesirable consequences for the environment. (Emphasis added).

The more recent EPA guidelines provide that:

> Remedial, protective and mitigative measures which will be taken as part of the proposed action shall be identified. These measures to prevent, eliminate, reduce or compensate for any environmentally detrimental aspects of the proposed action shall include those of the agency and others, e.g., its contractors and grantees.

* * * *

> This Court is fully aware that many cases have held that NEPA does not create "substantive" rights, but rather creates only "procedural" obligations. [citations omitted]. To the extent that NEPA does not articulate acceptable levels of air, water, heat and noise pollution, this is an accurate position. To the extent that NEPA does not give the courts the final decision with respect to which way a highway should go, or which trees should stand and which should fall, this is an accurate position. But to the extent that it would allow the agencies merely to disclose the likely harm without reflecting a substantial effort to prevent or minimize environmental harm, it is not an accurate position of the role of the courts under NEPA.

The foregoing authorities establish beyond serious question that the courts hav a responsibility to review substantive agency action under the national policies set forth in Section 101 of NEPA. That responsibility is particularly acute,

and the review must be extraordinarily searching, in the present case. As set forth above, one of the national policies established in section 101 is the preservation of "important historic, cultural and natural aspects of our national heritage." The Tellico Project indisputably involves the destruction of many of these values; indeed, it is difficult to imagine a project which so directly threatens the values protected by section 101 of NEPA.

Thus, the type of review afforded by section 101, as discussed hereinabove, is essentially threefold. The first element of substantive review involves the standards adopted by the Eighth, Fourth and District of Columbia Circuits. It requires a searching inquiry into the "actual balance of costs and benefits" for the project, and a determination by the reviewing court as to whether the agency consideration of costs and benefits for the project was "arbitrary or clearly gave insufficient weight to environmental values." The second element of review is both substantive and temporal. As set forth by this Court in its initial opinion, it involves whether the agency, subsequent to enactment of NEPA, has undertaken meaningful "reconsideration of the project in light of the provisions of section 101" of NEPA. The third element of the review process, an enunciated in Sierra Club v. Froehlke, supra, requires a determination of the efforts of the agency to mitigate the adverse impacts of the project in light of the national policies established in section 101. In the present case, the district court failed to make the searching inquiry of the agency decisionmaking process required by section 101 of NEPA, and, indeed, disregarded the relevant evidence presented by the appellants by the adoption of a scope of review which meets none of the standards heretofore described.

1.

The District Court Failed to Adopt the Standards of Review Set Forth by the Eighth, Fourth and District of Columbia Circuits, and Thereby Erred in Disregarding Relevant Evidence.

The general discussion of substantive review under section 101 undertaken by

the district court appears at pages 21-26 of the Memorandum Opinion. At best, it is confusing. Whatever its intent, it does not comport with the "searching and careful" inquiry into the "costs and benefits" of the Tellico Project required by other appellate courts. It has the patina of reasonableness but the substance of cotton candy.

After first conceding the appellants' "right to challenge the decision to continue with the project as designated" (Mem. Op. 22) and setting forth the standard of review adopted by the Fourth and Eighth Circuits involving a searching scrutiny of "costs and benefits" of the project, the opinion disintegrates into a contradictory discussion of the very reviewability of costs and benefits. In consecutive paragraphs the court states that, "[w]e do not view the test enunciated by the Eighth Circuit as encompassing a complete review of all economic factors involved in a project", (Mem. Op. 24), only to be followed by the statement that "[i]n order to fully comply an agency 'must reappraise the costs and benefits of the project in light of the policies of environmental protection found in NEPA.'". (Mem. Op. 25). (Emphasis original).

We can perceive no rationale for the decision of the court. Either the calculation of the benefits and costs of a project by an agency is reviewable by the court under the standards of section 101, as set forth by the Eighth Circuit, or it is not. No suggestion has been made by the appellants that the court should substitute its judgment for that of the agency. Neither have we suggested that the legislative process should be disregarded in the ultimate determination as to whether the project should go forward.

However, the courts have a substantial responsibility to ensure that agency action in the calculation of costs and benefits is not "arbitrary" and that it accords the weight to environmental matters mandated by NEPA.

It cannot be disputed that the calculation of costs and benefits for a project is "agency action". The Administrative Procedure Act, 5 U.S.C. Section 706, provides that a reviewing court "shall:

> (2) hold unlawful and set aside agency action, findings and conclusions found to be -
>
> (a) arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law; . . . or
>
> (c) in excess of statutory jurisdiction, authority or limitations, or short of statutory right.

Under the Supreme Court decision in Overton Park, supra, these criteria "require the reviewing Court to engage in a "substantial inquiry" and a "probing in-depth review." 401 U.S. at 415. The immunization of the costs and benefits of the Tellico Project from judicial review by the district court (Mem. Op. 24) does not comply with the requirements of Overton Park or those laid down by the Eighth, Fourth and District of Columbia Circuits. Indeed, the only possible review of a substantive agency determination as recognized by these Courts, inevitably must involve a review of all the benefits and costs of the project since only when the benefits "exceed" the costs is the decision made to construct the project. At very least, the court is required, upon the presentation of competent evidence, to determine whether the calculation of the costs and benefits of the project was conducted in a manner which was arbitrary or would tend to mislead those charged with the ultimate responsibility for approval of the project, or would give insufficient weight to environmental values. Calvert Cliffs, supra.

This Court itself expressed the necessity for review precisely in its previous opinion in these proceedings (468 F.2d at 1180):

> . . . government officials charged with making the future of the project are entitled to comprehensive, objective information concerning all of its benefits and costs before they decide to give final approval to its consummation. (Emphasis the Court's).

Precisely in this spirit, the appellants presented substantial testimony at trial by two highly qualified witnesses concerning the benefits and costs of the Tellico Project. In each instance, the court found their testimony "unreview-

able under NEPA". (See Mem. Op. 24, n. 31).[4/] Dr. Joseph Carroll, a transportation economist who participated in the economic evaluation of the Tellico Project in the mid-1960's as an employee of TVA, testified with respect to the calculation of navigation and flood control benefits for the project.[5/] Dr. Paul E. Roberts, an economist at the University of Florida who has published extensively in the area of environmental economics, testified with respect to other aspects of the calculation of benefits and costs for the project, using only the data supplied by TVA. In both cases, the testimony related directly to the standard of review under section 101 of NEPA adopted by the Eighth, Fourth and District of Columbia circuits as to "whether the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values." Their testimony also related directly to the requirement set forth by this Court that the responsible officials receive "comprehensive, objective information concerning all of [the project's] benefits and costs before they decide to give final approval to its consummation". 468 F.2d at 1180.

For example, Dr. Carroll testified that the purported navigation benefits for the project of $400,000 annually[6/] were "illusory" and "non-existent" and that their inclusion as an economic justification were purely "arbitrary". In support thereof, the appellants filed in evidence several documents prepared by Dr. Carroll during his employment with TVA that disputed the inclusion of navigation benefits

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4/ The basis for the immunization from review is unclear. To the extent it is based upon Senate Document 97, the decision clearly is in error. See Mem. Op. 21, n. 28 and Mem. Op. 31. The appellants presented evidence at trial, in the form of TVA's own documents, that TVA is not bound by S. Doc. 97 (Ex. 40).

5/ The benefit - cost display for the project is set out in the EIS (Ex. 21) at page I-1-49.

6/ Ex. 21 (EIS), page I-1-49.

for the Tellico Project based upon the guidelines set forth for the calculation of such benefits in Senate Document 97. In addition, Exhibit 39 clearly shows that the navigation benefits for the project were conceived and calculated in a manner designed specifically to enhance the economic justification for the project rather than to analyze critically whether such benefits actually exist. The statement of Mr. Nichols of TVA that "[w]e think our basic disagreement is: The paper [Dr. Carroll's criticism of navigation benefits (Ex. 37)] purports to prove that we couldn't do something that had to be done," is particularly revealing. As testified to by Dr. Carroll, this statement reflected a basic attitude on the part of the navigation branch of TVA that they were required to devise a monetary value for navigation benefits in order to justify the project without regard to the application of sound economic principles. As stated by Dr. Carroll in Exhibit 37, p. 19:

> it must be concluded that the navigation benefits attributed to the Tellico Project are illusory. The savings per acre concept upon which these benefits are based is both conceptually unsound and improperly applied. The use of this concept is inconsistent with sound economic analysis.

Dr. Carroll's critique of the Tellico Project navigation benefits was prepared in 1964. At no time subsequent to that document has TVA modified the purported $400,000 annual navigation benefit or applied the sound economic analysis suggested by Dr. Carroll during his employment with TVA. To the contrary, the appellees have refused consistently to depart from the unsound and arbitrary methods of calculation devised in the early 1960's, and have consistently represented the navigation benefits of the project as being $400,000 annually.

Nevertheless, in spite of this compelling testimony by a professional transportation economist and former employee of TVA who was engaged in the economic analysis for the Tellico Project that the calculation of navigation benefits was "arbitrary", the district court wholly disregarded the evidence presented.

Similarly, with respect to the calculation of flood control benefits for the

project, 7/ Dr. Caroll testified that they were inflated and inconsistent with sound economic theory since they wholly disregarded the fundamental principle of diminishing marginal utility. Indeed, Dr. Carroll testified that, using TVA's method of calculation, the same figure for flood control benefits would exist even if the entire downstream area were completely protected from flooding prior to the construction of the Tellico Project. Exhibit 37, pages 21-22 sets forth Dr. Carroll's basic position with respect to the inflated flood control benefits calculated by TVA. Once again, in spite of Dr. Carroll's fundamental criticism of the method of calculating such benefits, TVA has continued to maintain that the flood control benefits for the project amount of $505,000 annually. In addition, nowhere in the EIS (Ex. 21) for the project is the methodology for calculating such benefits set forth. Dr. Carroll testified that this was a significant omission from the EIS since it precluded an objective review of the calculation of flood control benefits by the ultimate decisionmakers for the project. Dr. Carroll further testified that, in his professional opinion, the EIS does not contain an objective analysis of the benefits and costs of the Tellico Project.

Once again, however, in spite of Dr. Carroll's unequivocal testimony as to the arbitrary and non-objective consideration of the benefits and costs for the project, his testimony was utterly disregarded by the district court and found to be "unreviewable". We submit that, under the standards of the Administrative Procedure Act and the Eighth, Fourth and District of Columbia Circuits, such a determination is reversible error.

Dr. Paul E. Roberts also testified with respect to the benefit-cost analysis conducted by TVA for the Tellico Project. His testimony related principally to the

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7/ Estimated by TVA to be $505,000 annually. (Ex. 21 (EIS), p. I-1-49).

conclusions set forth on page I-1-49 of the EIS (Ex. 21) and the methodology of calculating project benefits partially set forth in volume III of the EIS (pp. III-3-1 to III-3-24). Of particular importance to Dr. Roberts' testimony was the footnote on page I-1-49 of the EIS which states:

> 1. Detailed economic information is provided in Volume III. The values used throughout this statement are based on a 1968 analysis using then current prices for both benefits and costs. The power benefit was increased from $290,000 in 1971 on the basis of substantial recent increases in costs of generating power. All other benefit values are as calculated in 1968. Since 1968, inflation and other factors have increased the project cost estimate to $69 million, or an equivalent annual cost of $2,835,000. No detailed re-evaluation of project benefits has been made but such an evaluation would be expected to show increases generally proportionate to project cost increases and the benefit-cost ratio would remain about 3:1. (Emphasis added).

Dr. Roberts testified, first, that with respect to the underscored portion of the footnote, it was purely conclusory and could not possibly be supported by sound economic theory. He stated that the bare conclusion simply could not be made, in the absence of detailed economic re-evaluation (which TVA admits they have not done since 1968), that a current evaluation "would be expected to show increases generally proportionate to project cost increases . . ." Dr. Roberts testified that the conclusions reached were not supported by any methodology set forth in the EIS, and could amount to nothing more than pure guesswork.

The importance of this testimony and of TVA's own admissions in the footnote cannot be overemphasized. They go directly to the question whether the methods for calculating the costs and benefits for the project were arbitrary in light of the standards imposed by section 101 of NEPA and whether the district court undertook the "searching and careful" review required by NEPA. We submit that the court failed its responsibility by excluding all of Dr. Roberts' testimony from consideration. (Mem. Op. 24, n. 31).

On a related matter, Dr. Roberts testified that the estimated costs for the

Tellico Project had risen from $42 million to $69 million during the period 1966 to 1969, but during the period 1969 to 1973 they had not risen by a single dollar. His testimony was uncontradicted, and was supported by TVA's own budget submissions to the Congress during that period. (Exs. 45,46,47,48). Dr. Roberts characterized such a situation as "impossible", particularly in light of the vast inflationary spiral which has been experienced over the past four years. He testified further that nothing in sound economic theory or experience could justify a failure to increase the estimated project costs beyond $69 million, particularly in light of the $27 million increase experienced during the years 1966 to 1969 and the lower rate of inflation which was prevalent during that period.

Nevertheless, the court below wholly disregarded this testimony of Dr. Roberts. Once again, we submit that such an utter disregard of evidence directly relevant to the issue of the arbitrary and unreasonable action of the appellees is at direct odds with the requirement of "searching and careful" inquiry into all the costs and benefits as set forth by the Eighth, Fourth and District of Columbia Circuits, and as recognized by this Court in its previous opinion. 468 F.2d at 1180.

Of particular relevance in this regard is the discussion in Sierra Club v. Froehlke, supra, 5 ERC at 1087:

> During approximately the last four years, the national annual consumer price index increase varied between 4.2 percent and 6.0 percent, whereas the reported index variation in the Dallas metropolitan area varied between 3.0 and 6.5 percent annually. (citations omitted). Such cost of living increases do not generally comport with the percentage increases in estimated costs of the projects reflected in the tables.
>
> In spite of the large annual increases in costs, the benefit-cost ratio of each of the projects in question generally has not changed. The apparent reason for this situation is that claimed benefits have been escalated by the Corps at the same rate

as the costs.

* * *

> While it might be reasonable to escalate claimed benefits at the same rate as the general area cost-of-living increase, such escalation to offset those price increases due solely to the cost-of-living changes, there is no indicated basis in the record for escalating them at a higher rate. Obviously, the increases in claimed benefits in this instance are almost precisely the same as the increased costs, thereby preserving the project's benefit-to-cost ratio at 1.5 to 1.
>
> The reason for this Court's concern in this area is that a valid favorable benefit-cost ratio combining all facets of a project must represent the final synthesis of technical, economic and environmental factors. Any major changes on either the cost or benefit side of any of these factors can alter substantially the premise upon which a final decision by the agency and Congress was based approving a given project. Accordingly, if there were an increase in economic "benefits", unless there was a proportional increase in environmental benefits, the possibility exists that economic benefit increases alone could be used to override increased environmental costs in a manner contrary to the intent of Congress. What must not be overlooked is the priority assigned by Congress to environmental factors under NEPA. As this Court understands this body of law, protection of the environment is now veiwed as paramount, and it is not to be placed on an equal footing with the usual economic and technical factors. See Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402 (1971).

Dr. Roberts further testified that the inclusion of secondary benefits for the project appearing at page I-1-49 of the EIS without a similar calculation of secondary costs was unreasonable. He stated that a number of secondary costs would be associated inevitably with the claimed secondary benefits of "enhanced employment" and that the failure to calculate such secondary costs would deny a decision-maker the opportunity evaluate objectively the true costs and benefits of the project. Once again, this testimony was disregarded by the district court.

Dr. Roberts further testified that, while the appellees took credit in their

benefit-cost analysis for certain "environmental benefits" for the project, such as "recreation" and "fish and wildlife", they utterly failed to include in the benefit-cost analysis any environmental costs association with the project. (Ex. 21, P. I-1-49). The decision in Sierra Club v. Froehlke, supra, at 5 ERC 1085 is particularly relevant to this subject:

> The basic problem underlying the benefit-cost procedures in environmental cases is one of inclusion of such "benefits" and "costs". Selected environmentally-related "benefits" have been identified by the Corps and "quantified". That is, they have been given a dollar-and-cents value and included as justification for building some of the projects in the Trinity master plan including Wallisville. Yet, similarly situated environmentally related features which would appear to be "costs" in that they would be irreparably lost by construction of a given project, have not been included or quantified at all. In some cases these losses are identified, but in this context mere disclosure is insufficient. Last of all, some of the quantified factors characterized as "benefits" would seem to be open to considerable question.

The testimony of Dr. Roberts was directed precisely to the deficiencies in current procedures described by the court in Sierra Club v. Froehlke, supra, and was directly applicable to the identical defective procedures employed by TVA in the Tellico Project. Nevertheless, it was disregarded by the court below.

Finally, Dr. Roberts testified that the use of a 100-year project life and the employment of a 3¼% discount rate for evaluating project costs and benefits was unreasonable and arbitrary under current practices since it would inevitably inflate the project benefits and deflate the project costs. Directly on point on this issue is the decision of the United States District Court for the Northern District of Alabama in Montgomery v. Ellis, (N.D. Ala., Sept. 11, 1973), (attached as Exhibit A). In that case, the Department of Agriculture had employed an identical 3¼% discount rate and 100-year project life in evaluating the benefits and costs of a stream channelization project. On motion for summary judgment and

based upon the affidavit of the same Dr. Paul E. Roberts who testified in the present case, the court held as a matter of law that the use of such figures was arbitrary as a matter of law under current economic conditions. The Court held at pp. 23-24 of the opinion:

> It is, thus, the opinion of the Court that the SCS, in employing a project life that is no longer current and an interest rate that is extremely low by modern standards, has failed to give effect to the requirements of section 101 of NEPA that all agencies of the Federal Government shall exercise a continuing policy and continuing responsibility under NEPA regarding projects that might affect the environment.
>
> Defendants claim, however, that the courts cannot review a benefit-cost determination and, thus, attempted to insulate the use of a computation based on such historic figures from judicial review. In this aspect of the case, however, the Court feels that the function of the judicial branch is otherwise and that this is established by sound appellate decisions to the effect that the courts have the right - and indeed the responsibility - to review any arbitrary or capricious administrative agency determination or, under NEPA, one that gives insufficient consideration to environmental values.
>
> As applied to the instant case, the SCS cannot strike an arbitrary balance of benefits and costs by use of such an unrealistic interest rate and project life, and, further, it must assign appropriate values to the environmental losses, some of which have been noted in the EIS, that will occur as a result of the project. Only in this way may the true costs of the project be balanced against the net benefits claimed from it, as is required by NEPA and the decisions interpreting it.

We submit that Montgomery v. Ellis is controlling in the present case, and, for that reason alone, an injunction should issue against further construction of the Tellico Project.

The court below cited Montgomery v. Ellis as being contradictory to its interpretation of section 101 of NEPA. (Mem. Op. 24). Thus, the issue is clearly joined, and we submit that the court in Montgomery v. Ellis correctly interpreted

the scope of judicial review under section 101 of NEPA as set forth by the prevailing authorities. In this regard, Montgomery v. Ellis does not stand alone. In Sierra Club v. Froehlke, supra, at 5 ERC 1091, the district court stated:

> It should be axiomatic that an artificially long projected life span for a project involving combined environmental economic 'benefits and costs' would be unacceptable under NEPA; the resulting (benefit-cost) ratio would be artificially high, thus suggesting a false 'balancing' between technical, economic, and environmental factors.

We submit that the failure of the court below to consider the evidence relating to project life and discount rate is patently incorrect, and amounts to reversible error.

2.

The District Court Failed to Require a Reevaluation of the Benefits and Costs of the Project Subsequent to the Enactment of NEPA and Thereby Committed Reversible Error by Disregarding Evidence Presented Thereon.

In its initial opinion in these proceedings, this Court set forth its requirement for the "reconsideration of the (Tellico) project in light of the provisions of section 101 . . ." 468 F.2d 1183-1184. A similar requirement for review under section 101 was enunciated by the Eighth Circuit in Environmental Defense Fund v. Froehlke, supra, 473 F.2d at 356:

> To fully comply with NEPA, the Corps must reappraise the costs and benefits of the project in light of the policies of environmental protection found in NEPA. As we have stated, a decision to proceed with channelization is reviewable in the District Court to determine whether the actual balance of costs and benefits struck by the agency according to the standards of Sections 101 and 102 was arbitrary or clearly gave insufficient weight to environmental factors. (Emphasis added).

Thus, unless the requirements of this Court and of the Eighth Circuit are to be disregarded, an agency must conduct a full and detailed reevaluation of the

benefits and costs of a project in light of the policies for environmental protection found in NEPA in order to comply fully with the Act.

In this regard, the appellees, by their own admission, are in violation of NEPA. As set out above, footnote one on page I-1-49 of the EIS (Ex. 21) states that:

> No detailed re-evaluation of project benefits has been made [ since 1968 ] but such an evaluation would be expected to show increases generally proportionate to project cost increases . . . (Emphasis added).

This evidence was not developed by the appellants, but, rather, was included in the appellees' own EIS for the project and was uncontradicted at trial. It constitutes an admission, beyond dispute, that the agency has failed utterly to undertake a searching analysis of purported project benefits since the enactment of NEPA on January 1, 1970. Moreover, combined with the undisputed evidence that the costs for the project have remained frozen at $69 million since 1969 and that no environmental costs are included in the benefit-cost analysis, we submit that the evidence constitutes grounds for summary reversal. The only conclusion which can be drawn from the uncontradicted evidence is that the agency has blandly ignored the requirements of NEPA and has been pitifully unresponsive to the policies of environmental protection set forth in section 101 of NEPA. This pattern of behavior was ignored and found unreviewable by the court below; we do not believe the courts are so powerless to act in the face of agency laxity or intransigence.

3.

The District Court Failed to Apply the Requirements for Mitigation as a Basis for Review Under Section 101 and Thereby Committed Reversible Error.

As set out previously in this brief, the district court in Sierra Club v. Froehlke, supra, 5 ERC 1033, 1065-1066, adopted the requirement of mitigation as a basis for review under section 101 of NEPA. As stated by the court (5 ERC 1066):

> (the courts) should not hesitate to require further agency consideration when a project appears to call for mitigation and yet none was considered, or only a half-hearted effort was made.

The appellants presented evidence with respect to the mitigation requirement which showed that the appellees, at very best, had made only a half-hearted effort to incorporate mitigation plans into the Tellico Project. These plans consisted of two efforts: (1) the placing of a dike around historic Fort Loudoun in order to preserve it from inundation, and (2) the filling of the Cherokee village site of Chota and reconstruction of two buildings.

The appellants presented evidence through Mr. Mack Prichard, the State Archaeologist of the State of Tennessee, that both Fort Loudoun, the first British settlement west of the Appalachian Mountains, and the Cherokee village sites of Chota-Tenasi were presently included on the National Register of Historic Places. Mr. Prichard further testified, and the appellees do not dispute, that several other important Cherokee village sites of Chota-Tenasi were presently included on the National Register of Historic Places. Mr. Prichard further testified, and the appellees do not dispute, that several other important Cherokee village sites will be inundated by Tellico Reservoir. Mr. Prichard testified that the construction of a dike around Fort Loudoun would remove it from its historic river setting, and that the walls of the dike would be higher than the stockade itself, thus destroying much of the present view from the Fort. This evidence was uncontradicted.

With respect to the filling of the site of Chota, Mr. Prichard testified that it would merely substitute an inundation of earth for an inundation of water, and in no way could be considered a preservation of the original village site. Except for the introduction of photographs showing the dirt fill above Chota rising out of the waters of Tellico Reservoir and the reconstructed building and parking lots, Mr. Prichard's testimony was uncontradicted by appellees. In none of the evidence presented did it appear that the Cherokee Indians, either eastern or western bands,

approved of such a "restoration". Indeed, the resolution of the Eastern Band in opposition to the Tellico Project is still in effect.

Nowhere in the EIS or in the other evidence presented do there appear plans for ameliorating the historical losses to be occasioned by the inundation of the remaining Cherokee village sites or the destruction of thousands of acres of wildlife life habitat, fish habitat and agricultural lands. Nowhere in the EIS is thorough and searching inquiry given to a smaller reservoir which would mitigate these impacts, or to the development of additional comparable game and fish habitat elsewhere in the TVA system.

This evidence was wholly disregarded by the court below, just as the fundamental requirement of judicial review of mitigation plans was disregarded contrary to Sierra Club v. Froehlke. The judicial review of such plans for mitigation is critical since, as expressed by the Eighth Circuit in Environmental Defense Fund v. Froehlke, supra, 473 F.2d at 351:

> The proposed mitigation plans go to the very heart of the question before the Corps in preparing its environmental impact statement -- whether the project should proceed at the present time in view of its environmental consequence.

The evidence clearly shows that the appellees, at most, have made only a half-hearted attempt to mitigate the massive impacts of the Tellico Project and the court below, in failing to require more, committed reversible error.

## II.

## THE DISTRICT COURT ERRED IN FINDING THAT THE ENVIRONMENTAL IMPACT STATEMENT FOR THE TELLICO PROJECT COMPLIES WITH SECTION 102(2)(C) OF NEPA

This Court, in its initial opinion rendered in these proceedings, established a rigorous standard for compliance with the provision of section 102 (2)(C) of NEPA, 43 U.S.C. Sec. 4332(C). The Court stated (468 F.2d 1175, 1176):

> Section 102, then, by establishing specific procedures to be followed, makes it possible for courts to determine objectively whether federal officials have carried

> out the mandate of Congress to accord a high priority to environmental factors.
>
> * * * *
>
> It will be observed that the only language in section 102 that could conceivably be read as qualifying the specific directives contained therein is the phrase 'to the fullest extent possible'. However, 'this language does not provide an escape hatch for foot dragging agencies; it does not make NEPA's procedural requirements somehow discretionary.' (Citing Calvert Cliffs at 449 F.2d 1114).

Among the procedures required to be followed be agencies pursuant to section 102 is the preparation of a detailed environmental impact statement under section 102(2)(C). Without exception the courts have held that the requirements of section 102(2)(C) are stringent and rigorous. For example, in Calvert Cliffs, supra, 449 F.2d at 1114, the District of Columbia Circuit stated that:

> To ensure that the balancing analyses is carried out and given full effect, Section 102(2)(C) requires that responsible officials of all agencies prepare a 'detailed statement' covering the impact of particular actions on the environment, the environmental costs which might be avoided, and alternative measures which might alter the cost-benefit equation. The apparent purpose of a 'detailed statement' is to aid in the agencies' own decisionmaking process and to advise other interested agencies and the public of the environmental consequences of planned federal action. Beyond the 'detailed statement', Section 102(2)(D) requires all agencies specifically to 'study, develop and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.' This requirement, like the 'detailed statement' requirement, seeks to ensure that each agency decision maker has before him and takes into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit balance. Only in that fashion is it likely that the most intelligent, optimally beneficial decision will be made. (Emphasis added).

In a case cited extensively with approval by this Court in its initial decision, Environmental Defense Fund v. Corps of Engineers, 325 F. Supp. 728, 749

(E.D. Ark. 1971) the district court stated that (325 F. Supp. at 759):

> At the very least NEPA is an environmental full disclosure law.
>
> * * * *
>
> The 'detailed statement' required by Sec. 102(2)(C) should, at a minimum, contain such information as will alert the President, the Council on Environmental Quality, the public, and, indeed, the Congress, to all known possible environmental consequences of proposed agency action. (Emphasis original).

In Sierra Club v. Froehlke, supra, 5 ERC at 1067, set forth a similar standard for compliance with section 102(2)(C):

> A reasonable test would be the same as that adopted by present Corps regulations: an impact statement should contain 'all possible significant effects on the environment.'

In substantial contrast to the standards adopted by the foregoing authorities, the court below adopted a legal standard of sufficiency much less rigorous than those adopted by other courts. At page 6 of the Memorandum Opinion, the court stated that "(a)n impact statement must discuss in detail the significant environmental impacts resulting from the proposed project." In adopting the standard, the Court erroneously relied upon Sierra Club v. Froehlke, supra, for the conclusion regarding the legal sufficiency of the EIS. As set forth just above in this brief, the court in Sierra Club v. Froehlke required that an impact statement contain an evaluation of "all possible significant effects on the environment," while the court below required only a consideration of "the significant impacts resulting from the proposed project." The difference is not merely a distinction, for the requirement enunciated by the court in Sierra Club forces an agency to engage in a process of reasonable prediction of environmental impacts, while the standard adopted by the Court below, as the evidence shows, requires merely an examination of the most obvious impacts in a quantitatively impressive but qualitatively meaningless fashion. Moreover, even if the standard adopted by the court below can be con-

sidered adequate under NEPA, the evidence shows that the EIS falls far short of meeting even this less rigorous criterion. An examination of several areas in which evidence was presented as to the inadequacy of the EIS will verify this conclusion.

1. Shoreline Development

The Tellico Project is an economic development project, and is specifically designed, planned and predicted to attract substantial new industry to the area along with thousands of new residents. In the EIS for the project, TVA predicts that the project will create 25,000 new jobs during its first 25 years of operation. (EIS p. I-1-2). In its benefit-cost analysis, TVA takes credit for this "enhanced employment" as a secondary benefit of the project, without calculating any secondary costs associated therewith. (EIS p. I-1-49). Perhaps the most revealing statement concerning the project is contained on the Summary Sheet of the EIS (the first unumbered page of Volume I). There TVA states that "(t)he action consists of the construction of a dam and reservoir on the Little Tennessee River in east Tennessee. The project will include related industrial, commercial, residential, and recreational development." (Emphasis added).

From this candid description of the project, it would be expected that the EIS would examine in detail the environmental consequences of such "industrial, commercial, residential and recreational" activities since they are an integral part of the project as defined by TVA. Indeed, such an examination is required by NEPA. Section 101 of the Act expresses the profound Congressional concern with "population growth, high-density urbanization, industrial expansion, resource exploitation," and related matters.

The current Guidelines of the Council on Environmental Quality setting forth the required content of an EIS provide that (38 Fed. Reg. 20553; Sec. 1500.8(a)):

> The following points are to be covered:
>
> Agencies should also take care to identify, as appropriate, population and growth characteristics of the affected area and any population and growth impacts resulting from the proposed action

and its alternatives (see paragraph (a)(1)(3)(iii), of this section). In discussing these population aspects, agencies should give consideration to using the rates of growth in the region of the project contained in the projection compiled for the Water Resources Council by the Bureau of Economic Analysis of the Department of Commerce and the Economic Research Service of the Department of Agriculture the "OBERS" projection. In any event it is essential that the sources of data used to identify, quantify or evaluate any and all environmental consequences be expressly noted.

(2) The relationship of the proposed action to land use plans, policies, and controls for the affected area. This requires a discussion of how the proposed action may conform or conflict with the objectives and specific terms of approved or proposed Federal, State, and local land use plans, policies, and controls, if any, for the area affected including those developed in response to the Clean Air Act or the Federal Water Pollution Control Act Amendments of 1972. Where a conflict or inconsistency exists, the statement should describe the extent to which the agency has reconciled its proposed action with the plan, policy or control, and the reasons why the agency has decided to proceed notwithstanding the absence of full reconciliation.

* * *

(ii) Secondary or indirect as well as primary or direct, consequences for the environment should be included in the analysis. Many major Federal actions, in particular those that involve the construction or licensing of infrastructure investments (e.g., highways, airports, sewer systems, water resource projects, etc.), stimulate or induce secondary effects in the form of associated investments and changes patterns of social and economic activities. Such secondary effects, through their impacts on existing community facilities and activities, through including new facilities or through changes in natural conditions, may often be even more substantial than the primary effects of the original action itself. For example, the effects of the proposed action on population and growth may be among the more significant secondary effects. Such population and growth impacts should be estimated if expected to be significant (using data identified as indicated in Sec. 1500.8(a)(1)) and an assessment made of the effect of any possible

> change in population patterns or growth upon the resource base, including land use, water, and public services, of the area in question.

In addition to the Guidelines of CEQ, the Courts have also required the detailed consideration of the impacts of such project-induced factors as industrialization, commercialization, land use shifts and the like. In Sierra Club v. Froehlke, supra, at 5 ERC 1074, one of the principal bases for a finding that the EIS was inadequate came in this area. The Court stated:

> Although there is reason to believe that there will be development, growth and industrial expansion as a result of the Wallisville Project's providing of a dependable water supply, there is no impact evaluation of such expansions, nor has its environmental 'cost' been considered. Not only has Congress determined that this type of growth leads to increased pollution, but also Guidelines of the CEQ and EPA point out that consideration to such hazards must be given. (Citing CEQ Guidelines 36(a)(ii),(iii), 36 Fed. Reg. 7725 (1971); EPA Reg. 36.45(b)(1), 37 Fed. Reg. 883(1972); 42 U.S.C.A. Sec. 4331(b)(5), and Environmental Defense Fund v. Corps of Engineers, 525 F. Supp. 728, 748 (E.D. Ark. 1971)).

This Court, itself, recognized the duty of giving detailed consideration to such factors in its earlier opinion, stating (468 F.2d 1176):

> This [requirement to minimize environmental harm] would encompass not only constant re-evaluation of projects already begun to determine whether alterations can be made in existing features or whether there are alternatives to proceeding with projects as initially planned, but also the consideration of the environmental impacts of all proposed agency action. (Emphasis original.)

The district court found the treatment of the shoreline development impacts of the project in th EIS to be adequate (Mem. Op. pp. 13-15), stating, significantly, that "the treatment afforded this topic has been expanded from that in the draft statement and represents, as far as practicable at the time the statement was filed, a detailed discussion. * * * NEPA requires a certain amount of prediction; it does not call for utter conjecture when with the passage of time a

supplement can be provided." (Emphasis added.) The court then refers to a number of pages in the EIS where the discussion of shoreline development impacts was supposedly expanded.

Two points must be made with respect to this holding by the court. In the first place, the requirements of section 102(2)(C) are not limited by a standard of "practicability." As stated by the District of Columbia Circuit in Calvert Cliffs, supra, 449 F.2d at 1114:

> Unlike the substantive duties of Section 101(b) which require agencies to 'use all practicable means consistent with other essential considerations,' the procedural duties of Section 102 must be fulfilled, to the 'fullest extent possible.'

Thus, by adopting a standard of "practicability" under Section 102(2)(C) , the court violates the standards adopted in all other cases interpreting NEPA, and encourages bureaucratic laxity in the preparation of environmental impact statements.

Second, the appellants at no time in the proceedings suggested that TVA engage in "utter conjecture" in determining the environmental impact of shoreline development. Nor is "utter conjecture" required to assess in greater detail the impacts of such development. TVA throughout these proceedings alluded time and again to the depth and breadth of its environmental expertise. It was able to predict with uncanny accuracy that the project would attract substantial industry and provide at least 25,000 jobs. It took credit for this enhanced employment in its benefit-cost analysis. In assessing the purported navigation benefits for the project it projected the attraction of both a chemical-metallurgical complex and a metal-working and paper complex to the project area. (EIS p. III-3-20,21). Yet at no place in the EIS did the appellees even attempt an assessment of the environmental impacts of the projected industrialization. The essence of their analysis appears at page I-1-33 of the EIS:

> TVA will prepare one or more supplemental environmental statements, as appropriate, for development of lands around Tellico when detailed proposals are completed. 8/

Such a bland assurance hardly amounts to the rigorous analysis required by section 102 of NEPA. It is apparent that, despite its wealth of expertise, TVA has taken the easy way out in assessing these impacts of the project. By doing so, however, it has deprived the ultimate decisionmakers of all relevant information concerning such impacts upon which a rational decision can be made regarding the advisability of the project.

The evidence clearly establishes that the decisionmakers need not be deprived of such information, nor would the development of those data be an exercise in "utter conjecture". First of all, the CEQ Guidelines clearly contemplate and require that such information be presented in an EIS. See discussion, supra. Second, the appellants' evidence established that (1) such impacts were predictable and (2) that they were not set out in the EIS. Dr. Edward Clebsch, an ecologist from the University of Tennessee, testified that the EIS failed to set forth the impacts of such shoreline development activities as air pollution, spills of toxic materials from barges, population shifts, sewage effluents, increased transportation use, family relocation, and the impacts of the project on established communities in the area. Dr. Clebsch further testified that an assessment could be made of such impacts, and that, contrary to the assertion of TVA, such assessments need not be conditioned upon a precise knowledge of the precise industries which would locate in the area.

Also of great importance in this area are the comments of the Environmental

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8/ The additional references to shoreline development in the EIS are no more searching in their analysis of these impacts. See Mem. Op. 14, n. 17, and pages cited therein. These inadequacies are discussed, infra.

Protection Agency and the Appalachian Regional Commission on the draft EIS, and the responses of TVA thereto. The comments of EPA are critical. (EIS p. I-3-1 to I-3-11). At page I-3-1, EPA recommended the holding of public hearings on the project. TVA responded that it "does not believe a public hearing would be desirable now since the project is nearly half completed." (EIS p. I-3-12). At pages I-3-9 and I-3-11 of the EIS, EPA commented that:

> The National Environmental Policy Act places the responsibility for consideration of the total effect on the environment of any given project directly on the Federal agency which is sponsoring the action. Thus, the secondary effects of the project, such as the following, must be explored:
>
> A. Stimulated industrial and commercial development in the region considering the possible adverse environmental effects of such development.
>
> B. Expansion of urban areas, especially the Timberlake community, and their populations with accompanying demands on water resources, waste disposal system, transportation, and other necessities of modern life. Particularly as to how the satisfaction of these demands affects the quality of the environment in the region.
>
> The following are important to the quality and effectiveness of any environmental impact statement:
>
> A. Discussion of the accommodations that will be made for the relocation or protection of families, commercial business, public utilities, and industries which will be displaced or otherwise affected by the project should be added. Particularly, reference should be made as to how these accommodations affect the environment and the quality of life in the region.
>
> B. Scientific and engineering support for all conclusions reached on the environmental consequences of the project should be provided. In addition, where scientific research studies are cited as supportive evidence they should be referenced either in footnotes or in an appropriately indexed bibliography.

The response of TVA to this request for additional consideration of shoreline development impacts was silence in the final EIS.

In addition to the formal comments of EPA concerning the need for additional

consideration of shoreline development impacts, Mr. Greer Tidwell, a staff member of the regional office of EPA with responsibility for reviewing the final EIS for the project, testified that in the opinion of EPA the final EIS did not give sufficient consideration to the impacts of shoreline development. Such evidence is of substantial probative weight since EPA is peculiarly equipped to formulate recommendations concerning environmental matters. As stated by the district court in Sierra Club v. Froehlke, supra, at 5 ERC 1072:

> When a conflict arises between the Corps and an agency which is making an evaluation in its particular field of expertise, and when the Corps' evaluation is based upon factors of which the reviewing agency may take cognizance, then NEPA obligates the Corps in most instances to defer to that evaluation.

The comments of the Appalachian Regional Commission are equally revealing. At pages I-3-35 and 36 of the EIS the Commission recommends the inclusion of far greater analysis of the impacts of industrial development and related matters. The response of TVA is characteristic. At page I-3-38 of the EIS, TVA responds repeatedly that the information requested by the Commission will be provided in a "subsequent statement" dealing with "shoreline development." As a single example only, the Commission made the following request of TVA (EIS p. I-3-35):

> Industrial Development - Without adequate public controls industrial development can have many adverse environmental effects not treated in the statement. Although the statement mentions that "TVA will not allow industrialization inconsistent with the overall environmental objectives of the project" and "development of these areas (including industrial) will be done in compliance with all applicable laws and regulations, including those applying to Federal agencies, and in accordance with high environmental protection, design and planning standards established by TVA", the statement does not amplify on these standards. Specific standards and regulations would help assure protection of the visual environment, both from the water as well as from highways (U.S. 411, for example). Additional controls would improve the environmental aspects of this project in such areas as the architectural treatment of buildings; set-back and siteing of structures; installation of utilities under-

> ground; storage of materials; and elimination of any chance of water pollution due to erosion during site development, potential washing of debris into the lake, and washing of oils, chemicals, and other contaminants into the lake. Docking facilities will be necessary. Without prior consideration of these aspects of projected industrial development, our staff believes that adverse environmental effects will result.

In response to these serious environmental considerations, nearly identical to those raised by EPA, TVA states that (EIS p. I-3-38), "(t)he type of information requested in this comment will be made available in a subsequent statement dealing with shoreline development."

This response, and the inadequacies of the EIS which it reflects, are patently insufficient under the stringent standards of section 102. If industrial development is a part of the project, and TVA states that it is, then its environmental impacts should be eval now. Waiting for a subsequent EIS to be issued "as appropriate" precludes ate consideration of the most serious and potentially irreversible impacts of the project until after it is completed. That is not the intent of NEPA. As stated appropriately by the District of Columbia Circuit in the recen case entitled Scientists' Institute for Public Information v. AEC, ____F.2d ____, 5 ERC 1418 (D.C. Cir. June 12, 1973):

> It must be remembered that the basic thrust of an agency's responsibilities under NEPA is to predict the environmental effects of proposed action before the action is taken and those effects fully known. Reasonable forecasting and speculation is thus implicit in NEPA, and we must reject any attempt by agencies to shirk their responsibilities under NEPA by labeling any and all discussion of future environmental effects as 'crystal ball inquiry.' 'The statute must be construed in light of reason if it is not to demand what is, fairly speaking, not meaningfully possible * * * '. But implicit in this rule of reason is the overriding statutory duty of compliance with impact statement procedures to 'the fullest extent possible.'

The appellants ask no more; they are entitled to no less.

2.

Agricultural Losses

The appellants presented substantial evidence through Mr. Robert Sliger, the County Agent for Monroe County, Tennessee (one of the counties affected by the project), that the EIS presented inadequate and highly misleading information with respect to the agricultural losses to be caused by the project. Mr. Sliger testified that the project would inundate several thousand acres of Class I and II farmland, and would have a substantial impact on farm-related business in the area. Such secondary impacts were not even mentioned in the EIS. He testified that the consideration given to agricultural losses at page I-1-31 of the EIS was based on outwork data, and in no way reflected current conditions. For example, TVA stated that the "per-acre agricultural production in the area in 1964 was $48, and the figure is probably somewhat higher now". Mr. Sliger pointed out that the figure was, indeed, somewhat higher, averaging $290 per acre for corn, $1400 per acre for tobacco and $3200 per acre for tomatoes. Accordingly, in his opinion the EIS was vastly misleading in the area of agricultural losses, from the standpoint of both direct and indirect income losses. Mr. Sliger testified that this was of substantial importance, since the project would be displacing existing and quantifiable agricultural production in a time of great need in return for a potential industrial complex, and that neither the long-term nor the transitional losses had been described completely or candidly in the EIS.

In spite of this testimony by an expert witness intimately familiar with the area and the impacts to be caused by the project, his testimony was apparently disregarded by the court below since it is not even mentioned in the Memorandum Opinion. That does not represent the kind of searching inquiry required of the courts by NEPA and, in addition, demonstrates clearly the lack of consideration of "all environmental impacts" of the project required by NEPA.

3.

Ecological Impacts

In addition to the ecological changes which will occur as a result of the industrialization, commercial development and residential development of the Tellico area [see section 1, supra], other significant ecological changes will be wrought as an immediate result of the impoundment of water itself. Dr. Edward Clebsch testified with respect to many of these impacts which were either entirely omitted or given only cursory consideration in the EIS.[9/] As noted by the court below, Dr. Clebsch testified that TVA had failed to conduct a "more thorough ecosystem analysis" for the Tellico Project. (Mem. op. 10). However, the court omitted reference to the testimony of Dr. Clebsch relevant to the importance of more thorough analysis for the purposes of predicting ecological changes in the area. The court also failed to consider the testimony of Dr. Clebsch that highly sophisticated and arcane analyses were not important to a complete EIS, but that TVA had failed to complete even the first step of such an analysis, that being a systematic survey of the species in the area likely to be affected by the project. While he was aware of the partial survey conducted by TVA and set forth in the EIS, it was his opinion that the survey was incomplete and of little value in predicting ecological change. He further testified, upon direct question by the court, that an adequate study of the area would contain substantially less pages than that included in the EIS for the roject, and that the EIS contained much extraneous and irrelevant material which added to its bulk but contributed little to its ultimate value as a study of the ecological impacts of the project.

Dr. Clebsch testified that a significant omission of the EIS was a consideration of the areal extent and ecological and aesthetic impact of drawdowns of the reservoir during winter months. He further testified, based upon an affidavit sub-

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9/ The district court's consideration of ecological impacts appears at pages 10-11 of the Memorandum Opinion.

mitted by him earlier in the proceedings, that the EIS omitted discussion of the amount of soil which would be stripped of vegetation during construction, how long it would remain barren, and the amount of siltation which would be caused by such activities. He testified that new roads, railroads and bridges were to be constructed as a part of the project, but that their impact upon the siltation, hydrology and biological characteristics of affected streams was completely omitted from consideration.

Dr. Clebsch stated that "certainly one of the environmental consequences of the project is altered transportation and land use. . . but we are not provided with any but the most cursory and general evaluation of the environmental impact of these two factors."

Finally, Dr. Clebsch testified unequivocally that the EIS does not "represent an objective, good faith analysis of the environmental impacts of the project."

The comments of the Department of the Interior on the draft EIS, and TVA's responses thereto, support the testimony of Dr. Clebsch. At page I-3-29 of the EIS, the Interior Department stated that "(t)he description of the impacts of the project on fish and wildlife should include more detail on the impacts of these resources from the urban and industrial developments connected with the project." On page I-3-30 of the EIS, the Interior Department again commented that:

> The wildlife production in the planned urban area and the industrial areas will be slowly replaced as these areas are developed. All relationships such as these should be described.

The response of TVA was again characteristic. At page I-3-32 they stated that "(t)he portion of this comment dealing with urban and industrial development will be treated in the subsequent statement issued by TVA on that subject." Thus, in spite of the fact that the urban, industrial and recreational areas have already been designated by TVA on the project maps, and in spite of the fact that TVA has confidently predicted industrialization of the area as a result of the project, they once again refuse to develop and divulge information requested by

a Federal agency responsible for the preservation and development of the fish and wildlife resources of this nation. We cannot conceive that this refusal comports with the requirement of NEPA that the environmental impacts of a project be analyzed and disclosed "to the fullest extent possible."

4.

Historical Values

Many of the unique and valuable historical values to be destroyed by the Tellico Project are set out previously in this brief. In that regard, the plaintiffs presented the testimony of Mr. Mack Prichard, the State Archaeologist of the State of Tennessee. Mr. Prichard has studied extensively both the Cherokee village sites to be inundated by the project and the history of the Cherokee Tribe, both before and after its removal from the eastern United States on the infamous "Trail of Tears" in 1838. He testified at length and eloquently with respect to the historical value of the Little Tennessee River, setting forth individual descriptions of several of the Cherokee village sites to be destroyed and their historical significance.

Mr. Prichard further testified that resolutions in opposition to the Tellico Projec had been adopted by the Eastern Band of Cherokee Indians (Ex. 32), the Southeastern Indians Antiquities Association (Ex. 30), and the Tennessee State Archaeological Society (Ex. 16). Although the resolution of the Eastern Band of Cherokees was passed following the filing of the EIS, the others were adopted prior to that time, and Mr. Prichard testified that neither was mentioned in the EIS. He testified that this was a significant omission from the EIS since it reflected on its overall objectivity.

Mr. Prichard testified that the discussion in the EIS concerning the loss of historical values in the area was non-objective since it failed to describe in detail the historical importance of the area. That importance was reflected most recently in the inclusion of the Chota-Tenasi site on the National Register of Historic Places. (Ex. 29). He testified that, in his professional opinion, the

EIS did not contain a detailed discussion of the cultural and historic significance of the project area and the impact of the project upon those values.

The consideration given by the district court to the testimony and to the historical values of the area as treated in the EIS is meager.[10/] The emphasis of the court was almost entirely upon the archaeological work in the area, rather than upon the historical significance of the area. The appellants do not dispute that considerable archaeological work has been undertaken in the project area. This work was aptly described by Mr. Prichard as "salvage archaeology" in view of the fact that the sites themselves and perhaps as much as 90% of the artifacts will be inundated by the reservoir.

However, the critical issue is the consideration given in the EIS to what will be destroyed, rather than to what will be saved. Nowhere in the EIS does there appear a discussion of the historical value of the area comparable to the description given by Mr. Prichard in his testimony.

The inquiry of the district court on this subject is no more searching than that of TVA. For example, at page 8 of the Memorandum Opinion, the court states that, "Chota, a recently identified Cherokee village, will be preserved through filling." In light of the testimony of Mr. Prichard, this statement represents an appalling misconception of the values of the area. In the first place, the site of Chota has been known for years. Second, Chota is not merely a "Cherokee village", but was the capital city of the Cherokees and the sacred city of refuge. Finally, the suggestion that it will be "preserved through filling" demonstrates the same misconception of its value to the Cherokee culture as that exhibited by TVA. Chota will not be preserved; it will be buried by earth rather than by water and partly reconstructed on an island in the middle of the Tellico Reservoir. We cannot conceive that the court would have entertained a suggestion that the remaining registered historical sites in the United States could be "preserved through filling."

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10/ Mem. Op. 7-9.

A second statement of the court below also warrants scrutiny. At page 9 of the Memorandum Opinion the court states that:

> The controversy in this area concerned the emphasis to be placed on the loss. Little evidence was presented demonstrating a lack of disclosure on the part of TVA or a lack of objective analysis.

Two points must be made. First, Mr. Prichard testified directly that the EIS did not contain an objective analysis of the historical losses to be caused by the project. Second, it is true that much of the evidence related to the matter of the "emphasis to be placed on the loss." That evidence was presented for good reason, since the question of "emphasis" is the very essence of the requirement for objectivity and disclosure "to the fullest extent possible." In the absence of a complete and accurate disclosure of the historical significance of the area to be destroyed, the ultimate decision makers are deprived of the essential facts necessary to a rational decision. If, for example, the proposal were made to destroy the site of Jamestown, Virginia, without emphasizing its historical significance, the decision to proceed would be made in the dark. The same is true here. It is safe to say that the Congress and the public generally are not aware of the historical significance of the Cherokee village sites along the Little Tennessee River. In the absence of emphasizing their importance in the EIS, a rational decision with respect to their preservation or destruction is made impossible. Since the EIS affords no such emphasis and full disclosure, it does not meet the stringent requirements set forth in section 102(2)(C) of NEPA.

5.

Water Quality

The Appellants offered considerable testimony at trial on the subject of water quality. This testimony and evidence was offered for the twofold purpose of demonstrating that (a) the construction and operation of the Tellico Project would violate water quality standards and the requirements of the Federal Water Pollution Control Act (33 U.S.C., Sections 1323, et seq.), and (b) that the Ap-

pellees' discussion of water quality in its final environmental impact statement was inadequate under Section 102(2)(C) of the National Environmental Policy Act and the Guidelines established thereunder by the Council on Environmental Quality.

The applicability of the Federal Water Pollution Control Act and amendments thereto and the subject of water quality standards applicable thereunder is discussed separately herein in Section V, infra. The following discussion pertains only to the adequacy, vel non, of the appellees' discussion of water quality in the EIS.

At the outset of this discussion, allow the appellant to urge that this Court not be drawn into the error, obviously committed by the district court, of mistaking quantity with quality in assessing the adequacy of appellees' discussion of water quality. In this regard, it is true that a considerable portion of Volume II of the final EIS was burdened with considerable historical data respecting the past and existing quality of water of the Little Tennessee River.

Appellants have never questioned the past or existing quality of water in the Little Tennessee. In fact, appellants' consistent position has been that because of the high quality of water in this river system and attendant environmental, recreational and human values, the appellees should not be permitted to encroach upon, diminish or change such values without full compliance with applicable Federal laws. If anything, therefore, the historical water quality data presented by TVA in the EIS simply underscores the importance of careful and meticulous examination and prediction of environmental impacts before drastic changes in the ecosystem, including water quality, are allowed to occur.

The district court was impressed with the quantity of water quality data presented by the Appellees and commented that:

> No other topic received the attention, at least quantitatively, as did the water quality aspects of the Project.

But the district court was apparently unconcerned with the fact that the data made available by the appelleesmade no attempt to analyze the probable impact of

the Tellico Project on water quality. Indeed, the appellees' own witnesses seemed to contend that they lacked the methodology to do so. Appellants' witness, Dr. Edward Thackston, disagreed and asserted that it was well within the competence and capability of the TVA to make informed predictions or reservoir and stream behavior prior to impoundment and to analyze the impact of the impoundment upon water quality.

To demonstrate the inadequacy of appellees' analysis of water quality, the appellants introduced a comprehensive study conducted by TVA in 1966, of the probable impact of the Tellico impoundment on water quality, temperature and reservoir behavior at TVA's existing Ft. Loudoun Reservoir. This study, which is part of the record below, demonstrates that TVA does, in fact, have the resources to predict and analyze changes in water quality, water temperature and related matters. TVA's witnesses were at a loss to explain why the same sort of methodology and analysis was not employed in assessing the impact of the Tellico impoundment on water quality in other portions of the Little Tennessee River, including future water quality in Tellico Reservoir.

As the district court pointed out, the text of the final EIS did contain a brief discussion of water quality (Environmental Impact Statement, I-1-28-31). But, as a cursory examination of this discussion will reveal, it ignores more than it illuminates and consists, almost exclusively, of self-serving and unsupported assertions that the Tellico Project will not adversely affect water quality in the Little Tennessee River.

By way of contrast, appellants' water quality expert, Dr. Edward Thackston, very specifically described at least ten areas in which the final EIS was inadequate, for the purposes and under the standards applicable under NEPA, in the discussion of water quality. Briefly, and without the aid of the transcript of record of Dr. Thackston's testimony, the following major inadequacies are present in TVA's discussion of water quality in the final EIS, any one of which should have been sufficient to justify the issuance of the injunctive relief sought by the

appellants:

1. Failure to discuss, analyze or predict future temperature stratification in Tellico Reservoir and the effects of such stratification upon the ecosystem of the Reservoir and the Little Tennessee River.

2. Failure to discuss, analyze and predict the paths of flow of water through Tellico Reservoir during various seasons of the year and the effects of such paths of flow on the ecosystem of the Reservoir and the Little Tennessee River.

3. Failure to discuss, analyze and predict the oxygen content or level of dissolved oxygen in Tellico Reservoir and the effect of such oxygen content upon the ecosystem of the Reservoir and the Little Tennessee River.

4. Failure to discuss, analyze and predict both the temperature and oxygen content of reservoir outflows and the effects of changes in temperature and oxygen content on the ecosystem of the river below Tellico Reservoir and in the reservoir itself.

5. Failure to analyze, discuss and predict the stability of stratifications of water impounded in Tellico Reservoir and the possibility of widespread change in such stratifications with changes in season, atmospheric or weather conditions.

6. Failure to analyze, discuss or predict the nature, quality and quantity of materials, including chemical constituents, which will be dissolved in the Tellico Reservoir in the bottom strata thereof, and the possible affect of the disturbance of such materials of the ecosystem of the Reservoir and the Little Tennessee River.

7. Failure to analyze, discuss and predict the effect, the quality and quantity of waste discharge or runoff from shoreline development at Tellico Reservoir. In this regard, the EIS clearly contemplates that shoreline development (industrial, commercial and residential) will occur at Tellico Reservoir. Indeed, the cost-benefit analysis of the project presupposes and is based upon such development. Witnesses for TVA conceded that the effect of such development and related

and discharges will have an environmental impact, but contend (1) that such development will not and cannot take place without compliance with Federal and State water pollution control laws and without necessary permits from State and Federal agencies, and (2) that when such development is to take place, TVA will issue a separate environmental impact statement if "major Federal action" is involved in authorizing, sanctioning, permitting or funding such development. This position is patently untenable in light of the fact that shoreline development is an integral component of the overall project proposed by TVA.

8. Failure to determine whether water treatment, sufficient to meet Federal and State water quality standards, might be economically feasible. In this regard, appellees take the position that no shoreline development can occur unless adequate treatment is provided under either State of Federal laws or regulations. While this argument may be sound, it ignores the fact that unless such shoreline development does occur, the Tellico Project is not economically sound and justified and would have a negative benefit-cost ratio which will not conform to Federal standards for the development of major water resource projects. It was, therefore, critically important that the economic feasibility of water treatment be analyzed and discussed in the final EIS before TVA was allowed to proceed with or resume construction.

9. Failure to estimate the amount of treatment necessary to maintain or enhance water quality once the impoundment occurs and shoreline development takes place. This point is, of course, closely related to the prediction of the costs and economic feasibility of water treatment as described in subparagraph 8 above.

10. Failure to determine whether water quality standards for the Little Tennessee River and the treatment costs necessary to maintain such water quality would be so high as to discourage industries from locating on the Tellico Reservoir as opposed to alternative locations. Again, if the economics of providing treatment facilities discourages or prevents the shoreline development contemplated by TVA in the EIS and the cost-benefit analysis, the entire project may

be infeasible under applicable Federal water resource project standards.

Dr. Thackston testified, not only that TVA had failed to analyze and discuss each of these matters, but also that each of these matters was "significant" within the meaning of Section 102(2)(C) of NEPA.

Witnesses for the appellees readily admitted that the matters enumerated by Dr. Thackston had not been considered or treated in the EIS, but contended that the EIS was, nevertheless, sufficient under NEPA and the CEQ Guidelines promulgated thereunder.

The district court apparently adopted the position of the appellees with no more probing analysis that we were provided by the appellees. In this regard, the district court disposed of these weighty considerations with the following cryptic statement:

> We do not find the failure to predict the areas outlined by Dr. Thackston fatal to the analysis of the topic. Some of the points raised by Dr. Thackston were discussed although the methodology used to reach the conclusions was absent. Mr. Churchill (for the Appellees) testified that many of the areas were difficult to accurately predict, and the preparation would be time-consuming.
>
> The discussion of water quality is sufficient for the purpose of an impact statement, and, although the inclusion of more detailed studies would be of some benefit to a select group of readers, they were not necessary to satisfy NEPA. (Memorandum Opinion at p. 12).

The appellant submits that the district court's cursory treatment of this important dimension of the environmental impact of the proposed project is untenable. We might observe that adequate and sufficient environmental impact statements are inevitably "time-consuming" and difficult to prepare; that the ultimate impact of the proposed project and the highly technical nature of the methodology render accurate predictions almost inevitably "difficult to accurately predict". We might also observe that final environmental impact statements are inevitably prepared for the benefit of a "select group of readers", namely those scientists, attorneys, citizens and administrative decision-makers who, by choice, or as a matter of pro-

fessional assignment and obligation, find themselves concerned with the implementation of Congressional policy and the protection and enhancement of irretrievable public resources from destruction. The district court's unimaginative and summary treatment of these important matters can hardly be considered consonant with the requirement in section 102 that Federal agencies be required to consider these matters "to the fullest extent possible."

## III.

THE DISTRICT COURT ERRED IN ITS DETERMINATION THAT TVA HAD COMPLIED WITH SECTION 102(2)(D) OF NEPA REQUIRING THE DEVELOPMENT OF ALTERNATIVES TO THE PROJECT AND A FULL EVALUATION OF THEIR ENVIRONMENTAL IMPACTS.

Section 102(2)(D) of NEPA requires that "to the fullest extent possible" agencies shall:

> . . . study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources.

Section 102(2)(D) complements that provision of section 102(2)(C) requiring the development of "alternatives to the proposed action" within the EIS. The failure of TVA to comply with this requirement of NEPA represents perhaps the clearest instance of reversible error by the district court.

The Congressional mandate is clear and unequivocal. The April, 1971, Guidelines of the Council on Environmental Quality provide that (36 Fed. Reg. 7725, para. 6(a)(iv):

> A rigorous exploration and objective evaluation of alternative actions that might avoid some or all of the adverse environmental effects is essential. Sufficient analysis of such alternatives and their costs and impact on the environment should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might have less detrimental effects.

The present Guidelines of CEQ provide similarly that an EIS shall include

(38 Fed. Reg. 20554, August 1, 1973):

> 4. Alternatives to the proposed action, including, where relevant, those not within the existing authority of the responsible agency. (Section 102(2)(D) of the Act requires the responsible agency to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources".) A rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions, particularly those that might affect environmental quality or avoid some or all of the adverse environmental benefits, costs and risks should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might enhance environmental quality or have less detrimental effects. Examples of such alternatives include: the alternative of taking no action or of postponing action pending further study; alternatives requiring actions of a significantly different nature which would provide similar benefits with different environmental impacts (e.g., nonstructural alternatives to flood control programs, or mass transit alternatives to highway construction); alternatives related to different designs or details of the proposed action which would present different environmental impacts (e.g., cooling ponds vs. cooling towers for a power plant or alternatives that will significantly conserve energy); alternative measures to provide for compensation of fish and wildlife losses, including the acquisition of land, waters, and interests therein. In each case, the analysis should be sufficiently detailed to reveal the agency's comparative evaluation of the environmental benefits, costs and risks of the proposed action and each reasonable alternative.

The courts have unanimously enforced this provision of NEPA. In Environmental Defense Fund v. Froehlke, 473 F.2d 346, 349, the Eighth Circuit stated that:

> In this case, a number of alternatives to the proposed project have been suggested by responsible critics, including State and Federal agencies and private groups and individuals. These alternatives include (1) acquisition of public lands to mitigate the loss of public access to forest and wildlife resources, (2) flood plain zoning, (3) crop insurance, (4) outright purchase of the fee title to or a flowage easement over the lands in the flood plain, and (5) four plans consisting of various combinations of diversions, floodways, reser-

> voirs, interceptor ditches and levees.
> While some of these alternatives were mentioned in the impact statement and others set forth by including letters received by those who had suggested them, none were discussed in detail by the Corps. This treatment of alternatives is insufficient. (Footnote omitted).

See also, Kalur v. Resor, 335 F. Supp. 1 (D.D.C. 1971); Committee for Nuclear Responsibility v. Seaborg, _____ F. 2d _____; 3 ERC 1126, 1128 (D.C. Cir. 1971); Natural Resources Defense Council v. Morton, 337 F. Supp. 165 (D.D.C. 1971). As stated by Judge Bue in Sierra Club v. Froehlke, supra, at 5 ERC 1069:

> the discussion and consideration (of alternatives) cannot be superficial, but must be thoroughly explored. (Citations omitted). It is not necessary that a particular alternative offer a complete solution to all technical, economic and environmental considerations. If a portion of the original purpose of the project, or its reasonably logical subcomponent, may be accomplished by other means, then a significant portion of the environmental harm attendant to the project as originally conceived may be alleviated. The fact that some reasonably related alternative might require Congressional legislation is not sufficient either to place it beyond the consideration of the agency or beyond inclusion in the impact statement. Likewise, the fact that a particular alternative would require substantial coordination with another federal agency is not sufficient, in and of itself, to place its consideration beyond the requirements of NEPA.

The courts have also held, without exception, that a complete analysis of alternatives requires a consideration of the environmental impacts of the alternatives to the project. In Natural Resources Defense Council v. Morton, 458 F.2d 827, 834, (D.C. Cir. 1972), the Court of Appeals held that:

> Need to discuss environmental consequences of alternatives
>
> We reject the implication of one of the Government's submissions which began by stating that while the Act requires a detailed statement of alternatives, it "does not require a discussion of the environmental consequences of the suggested alternative". A sound construction of

> NEPA, which takes into account both the legislative history and contemporaneous executive construction (see notes 10 and 12), requires a presentation of the environmental risks incident to reasonable alternative courses of action. (Emphasis the Court's.)(See also Environmental Defense Fund v. Froehlke, supra, 473 F.2d at 350.)

The EIS prepared for the Tellico Project utterly fails to meet the judicial criteria established for the development, analysis and consideration of alternatives to the Tellico Project. The entire discussion of alternatives to this $69 million project consumes only three and one-half pages of the final EIS for the project. The first three paragraphs (pp. I-1-43,44) consist of extolling the virtues of TVA, while the remainder of the discussion is limited to hypothetical projects which would duplicate the "benefits" of the Tellico Project. By intentionally foreclosing any alternative which did not offer the precise benefits of the Tellico Project, TVA has guaranteed that no alternative is acceptable. This superficial and circular reasoning process hardly meets the mandate of NEPA for objectivity and thoroughness in the consideration of alternatives. See, CEQ Guidelines, supra.

In addition, the EIS itself reflects that the environmental impacts of the few alternatives which were discussed have not been considered in the slightest. This failure is specifically contrary to the holding in Natural Resources Defense Council v. Morton, supra.

The consideration given by the district court to the requirements of section 102(2)(D) is no less superficial than that of the EIS itself.[11/] It is specifically contradictory to the requirements set forth by this Court in its initial ruling, wherein the Court stated that the duties of agencies under section 102 encompassed:

> not only constant reevaluations of projects already begun to determine whether alterations can be made in existing features or whether there are alternatives to proceeding with the projects as originally planned, but also the consideration of the environmental impact of all proposed agency action. (468 F.2d at 1176). (Emphasis original.)

The court below simply failed to impose the rigorous standards of section 102(2)

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11/ The court's discussion appears at pp. 16-19 of the Memorandum Opinion.

(D) of NEPA which have been imposed uniformly by other courts. For example, at page 17 of the Memorandum Opinion, the court stated that "the extent of completion (of the project) is a factor limiting the breadth of alternatives." As authority for this novel theory, the court at page 7 cites the initial opinion of this Court, at 468 F.2d 1179. The Court apparently has reference to the quotation from the Gillham Dam case (Environmental Defense Fund v. Corps of Engineers, 325 F. Supp. 728, 746) which appears on that page, and which states that:

> The Court is not suggesting that the status of the work should not be considered (by the agency) in determining whether to proceed with a project.

However, the court apparently did not read the entire statement, for the very next sentence states that:

> It is suggesting that the degree of the completion of the work should not inhibit the objective and thorough evaluation of the environmental impact of the project as required by NEPA. Although the attitude of the defendants is understandable, nevertheless, as the Court interprets NEPA, the Congress of the United States is intent upon requiring the agencies of the United States government, such as the defendants here, to objectively evaluate all of their projects, regardless of how much money has already been spent thereon and regardless of the degree of the completion of work. (Emphasis added.)

Again, at page 19 of the Memorandum Opinion, the court stated that, "(d)iscussion of the impacts of the alternatives although not definitive is sufficient to satisfy NEPA." Such a conclusion hardly comports with the requirements of NEPA as embodied in the CEQ Guidelines that the analysis be "rigorous" and "objective".

The most glaring error of the district court comes in its cursory dismissal of the requirement for consideration of non-structural alternatives to the Tellico Project. At page 19 of the Memorandum Opinion the court states:

> The absence of discussion (in the EIS) of non-structural alternatives to the project such as flood plain zoning, flood insurance, and levees in Chatanooga is not fatal to the analysis since testimony by witnesses for defendants demonstrated that these alternatives could not provide complete protection.

On its face, this conclusion constitutes reversible error. First, as a factual matter, TVA itself has never contended that the Tellico Project itself provides complete protection for Chattanooga. In addition, as stated in Sierra Club v. Froehlke, supra, at 5 ERC 1059:

> It is not necessary that a particular alternative offer a complete solution to all technical, economic and environmental considerations.

More important, as a legal matter, this determination is in direct conflict with the CEQ Guidelines and the decided case authority. As set forth hereinabove, the CEQ Guidelines specifically require consideration of "nonstructural alternatives to flood control programs." 38 Fed. Reg. 20554, Sec. 1500.8(a)(4). The comments of EPA on the draft of EIS specifically requested an analysis of non-structural alternatives in the final EIS. (EIS, p. I-3-9). They were ignored. In Environmental Defense Fund v. Froehlke, supra, 473 F.2d at 349, the Eighth Circuit specifically held that the failure to consider non-structural alternatives for flood control purposes was insufficient as a matter of law. Clearly a failure to require detailed consideration of nonstructural alternatives constitutes grounds for summary reversal.

1.

The Appellants' Evidence Established that TVA had not Rigorously and Objectively Evaluated All Reasonable Alternatives to the Project.

The total discussion of alternatives in the EIS is miniscule. (EIS pp. I-1-43 to I-1-47). Moreover, as stated above, it is based upon the erroneous premise that "(b)asic to an analysis of a particular project is an analysis of the alternative means of supplying comparable benefits." Accordingly, the EIS itself represents the most persuasive evidence available that it does not meet the rigorous requirements of NEPA. Since the EIS is a part of the record as Exhibit 21, we will not elaborate here on the inadequacies which appear on the face of the document. The best that can be said of the discussion is that it requires the reader to accept as an article of faith the conclusions which are reached. It contains no rigorous

analysis of reasonable alternatives to the project, and is replete with conclusory statements that are not supported by either probing analysis or factual data.

In addition to the EIS itself, the appellants presented additional evidence regarding the availability of reasonable alternatives to the project. Many were not discussed at all; few were discussed even summarily.

For example, Dr. Joseph Carroll testified that the development of an industrial complex at Florence, Alabama, was a reasonable alternative to the project. This recommendation was developed by Dr. Carroll and presented to TVA during his employment in 1964. (Ex. 37). In response to that recommendation by Dr. Carroll, Mr. George Tully of TVA prepared a memorandum to Mr. J. Porter Taylor, the Chief of the Navigation Branch of TVA. (Ex. 38). The memorandum is dated August 24, 1964. The memorandum states, in pertinent part, that:

> The second paper (of Dr. Carroll), 'A Study of the Possibility of Developing Waterfront Industrial Sites at Florence, Alabama', presents one alternative location for the development of waterfront sites. It is not a project justification statement. The real point which it suggests is this: If the development of waterfront industrial sites is, in itself, a desirable or necessary activity, all alternative locations and methods of development should be examined in order to make maximum use of the expenditures made. In this regard, the Florence sites are real alternatives to the Tellico Project. (Emphasis added.)

No discussion of the Florence sites appears in the EIS. Moreover, the conclusion of Mr. Tully that those sites are "real alternatives to the Tellico Project" was uncontradicted at trial.

The appellants also presented evidence regarding the alternative of developing the Little Tennessee River as a scenic river. The only discussion of such an alternative in the EIS is the following, at page I-1-46:

> TVA also considered development of the 33 miles of river in its present state for scenic use in lieu of the Tellico Project and the alternative abandonment of the project. Either alternative would result in the failure to realize benefits that will be provided by the Tellico Project, which in TVA's judgment are too valuable to be lost, and both alternatives were rejected.

In marked contrast to this cursory dismissal, the appellants introduced into evidence a comprehensive alternative plan for the Little Tennessee River, consisting of a state scenic river, restoration of the Cherokee village sites and establishment of a state park. (Ex. ___).[12/] While such a plan is but one of the many alternatives to the Tellico Project, it illustrates in a graphic fashion the summary consideration given to similar alternatives by TVA.

2.

The Appellants' Evidence Established that TVA Did Not Evaluate the Environmental Impacts of Alternatives to the Tellico Project.

As set forth hereinabove, NEPA requires Federal agencies to analyze in detail the environmental impacts of alternatives to the project. CEQ Guidelines, supra; Natural Resources Defense Council v. Morton, supra. In this regard, the court below stated that (Mem. Op. 18):

> The impact statement in this case, although dwelling on economic factors, also describe alternatives to the project and evaluates their environmental costs and benefits.

With due respect to the district court, we are unable to locate an evaluation of the environmental costs and benefits of the alternatives to the project in the EIS. The only discussion remotely relevant to this subject appears at page I-1-46 of the EIS under the heading, "Project Design Alternatives." In the first full paragraph, a general description is given of a smaller reservoir as an alternative to the project and the statement is made that:

> A lake this size would not affect trout fishing in the upper 8 miles between Chilhowee Dam and the beginning of the (Tellico) lake, and it would not inundate most of the archaeological sites upstream from U.S. Highway 411. This low dam would, also, of course, reduce some of the other impacts described

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12/ As indicated previously, a copy is attached for the benefit of the Court.

> in this statement. Progressively higher dams would involve progressively greater impacts on these values.

We believe the record will reflect that this is the sum total of the consideration given to the environmental impacts of the alternatives to the Tellico Project. No consideration is given to the impacts of alternatives such as flood plain zoning, flood insurance, levees in Chattanooga and other non-structural alternatives to the project. Specific testimony was provided in these areas by Dr. Edward Clebsch. No consideration is given to the relative environmental impacts of an industrial complex in Florence, Alabama. At best, cursory consideration is given to the impacts of developing a scenic river complex. No consideration is given to the impact of installing additional electrical generating capacity in one of TVA's planned nuclear facilities to compensate for the loss of capacity at Tellico. (EPA comments, EIS p. I-3-9). No consideration is given to the impacts of locating a dam at another site, except to state that a dam on the Hiwasee River "would be much less desirable from an environmental standpoint." (EIS p. I-1-45). No consideration is given either to the alternative or its impacts of a series of two or three low dams with locks and a shorter navigable channel as recommended by the East Tennessee Development District. (EIS p. I-3-97).

It is a sorry record. Moreover, the court below was fully aware of these deficiencies through the testimony of Dr. Edward Clebsch, Mr. James Payne, Mr. Walter Criley, Dr. Joseph Carroll, Mr. Price Wilkins and through the full availability of the EIS itself. In spite of that uncontradicted testimony, the court departed from the rigorous mandates of NEPA and held that "(d)iscussion of the impacts of the alternatives although not definitive is sufficient to satisfy NEPA."

We disagree. If NEPA does not require more:

> . . .it will simply become a minor nuisance for agencies, imposing one more obligation of paperwork before they can get on with the projects they intend to build. That approach will simply pave (or at least litter) the road to environmental chaos with the full disclosures of countless impact statements. (Committee to Stop Route 7 v. Volpe, 346 F. Supp. 731 (D. Conn. 1972)).

IV.

THE DISTRICT COURT ERRED IN ITS DETERMINATION THAT TVA HAD COMPLIED WITH SECTION 102(2)(B) OF NEPA.

Section 102(2)(B) of NEPA, 43 U.S.C. Sec.4332(2)(B),requires that each Federal agency "to the fullest extent possible" shall:

> . . . identify and develop methods and procedures . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations.

This duty was recognized in Environmental Defense Fund v. Corps of Engineers, 325 F. Supp. 749, 757 (E.D. Ark. 1971), wherein the court stated:

> It does not appear that methods and procedures have been developed . . . which would permit the defendants to assign values to presently unquantified environmental amenities, so that such values might be taken into consideration in decisionmaking along with the economic and technical consideration as required by Sec. 102(2)(B). As a result, the defendants have been unable, as a practical matter, to take into consideration, in estimating costs and benefits, the "value" of the Cossatot as a free-flowing stream.

The duty was further clarified in Sierra Club v. Froehlke, supra, at 5 ERC 1084:

> NEPA obligates agencies of the Federal Government to
>
> identify and develop methods and procedures, in consultation with the Council on Environmental Quality . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations.
>
> 42 U.S.C.A. Sec. 4332 (2)(B). As we enter the third year following the passage of NEPA, this has still not been done.
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> * * *
>
> The legislative history of NEPA clearly reveals that Congress intended the development of adequate methodology for evaluating the full environmental impacts and the full costs - social, economic, and environmental - of federal actions. (Citing 115 Cong. Rec. 40420 (1969)).

At trial the appellants presented the testimony of Dr. Paul E. Roberts concerning

the development of a methodology for evaluating the environmental costs of destroying archaeological sites, in this instance the Cherokee village site of Tenasi. Such an assignment of costs was specifically recognized and prescribed by the court in Sierra Club v. Froehlke, supra, at 5 ERC 1073:

> Although there is no 'cost' assigned to the loss of these archaeological sites for benefit cost purposes, there is no indication that protection of the sites is anticipated, even though some means are reported as being available.

The testimony of Dr. Roberts did not purport to be the only method by which costs could be assigned to the destruction of historical values, but was presented to exemplify both the lack of development of such methodology by TVA, and the fact that a methodology is available for taking such factors into consideration.

It is beyond dispute that TVA's regulations do not contain any such methodology or make provision for its development. 36 Fed. Reg. 21010.

The determination of the district court on this issue in unclear. Contrary to the statement of the court, the appellants did not urge that "an agency (is) required to compute in dollar figures every environmental loss." (Mem. Op. 21). We alleged, and established through the evidence, precisely what the court indicated: That TVA had not developed methods and procedures for appropriate consideration of presently unquantified amenities. TVA presented no evidence to the contrary, as indeed, they could not, since no attempt has been made to develop such procedures, nor are any such procedures reflected in the TVA Regulations issued under NEPA. Accordingly, the court below erred in its determination that TVA has complied with section 102(2)(B).

## V.

## THE DISTRICT COURT ERRED IN CONCLUDING THAT THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS ARE INAPPLICABLE AND THAT APPELLANTS' CLAIM THEREUNDER WAS WITHOUT MERIT.

In a most summary and arbitrary fashion, the United States District Court below dismissed all claims made by the appellants under the Federal Water Pollution Control Act and amendments thereto (33 U.S.C., Sections 1323, et seq.), c[illegible]ding

that such claims were without merit and ruling that ". . . this Act has no application under the facts of this case."

As hereinafter noted, this conclusion simply ignored extensive testimony by water quality experts for both the appellant and the appellee and the very cogent comments of the United States Environmental Protection Agency as set forth in correspondence from the Regional Administrator, Environmental Protection Agency to the appellees.

But, as a threshold matter, the district court's ruling on this point was clearly inconsistent with its earlier ruling delineating the issues for trial on the merits, that the Federal Water Pollution Control Act amendments were properly at issue herein and that the appellants had properly stated a cause of action thereunder. At that stage of the proceedings below, the appellees had moved to dismiss the counts under the Federal Water Pollution Control Act and the district court denied the motion, although counts stated under other Federal laws were dismissed.

Although it is impossible to decipher the District Court's rationale for dismissing appellants' claims under the Federal Water Pollution Control Act amendments, the court apparently, in the final analysis, adopted the appellees' misconceived notion that said amendments are not applicable because the Tellico Project will not result in any "discharge" of "pollutants" into the Little Tennessee River or other interstate streams. This, however, was not and is not the theory under which the appellants framed their counts in the complaint under the Federal Water Pollution Congrol Act. In this regard, the pertinent portion of the Act, as amended, provides as follows:

> Each department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge or runoff of pollutants shall comply with Federal, State interstate, and local requirements respecting control and abatement of pollution to the same extent that any person is subject to such requirements, including the payment of reasonable service charges . . .(33 U.S.C., Sec. 1323.)

The statute is couched in the disjunctive rather than the conjunctive and it is clear that the requirements of the statute are applicable to any Federal agency which either has jurisdiction over Federal facilities or engages in an activity which may result in the discharge or runoff of pollutants.

Apart from the question as to whether TVA, in constructing and operating the Tellico Project, is engaging in activity which may result in the discharge or runoff of pollutants, it cannot be seriously questioned that TVA does have jurisdiction of property and facilities which are specifically subject to the Act.

Apparently, the district court adopted the appellees' narrow and constrictive interpretation of the amendments which, if sustained, would exempt virtually every major Federal water impoundment project from the terms of the Act and effectively exempt Federal facilities from jurisdiction of the Act. While this result may be salutory in the view of the appellee, it clearly violates the express terms of the Act and the intendment of Congress in adopting amendments to alterations in water quality caused by Federal facilities. The decision and order of the district court below should be reversed, as a matter of law, on this basis alone.

Apart from the district court's clear misinterpretation of the Federal Water Pollution Control Act, the district court also erroneously ignored considerable and persuasive evidence in the record that the Tellico Project could not conform to applicable Federal and State water pollution control standards and that, as to water quality, the final environmental impact statement was totally inadequate and wholly insufficient under both the Federal Water Pollution Control Act Amendments and the National Environmental Policy Act.

The appellants' assertion in this regard is apparently concurred in by the United States Environmental Protection Agency. In a letter dated August 7, 1972, Mr. Jack Ravan, Regional Administrator, Environmental Protection Agency, advised Dr. F. E. Gartrell of the Tennessee Valley Authority as follows:

> The Little Tennessee River is presently classified for fish and aquatic life with a designation as trout waters from the mouth to the North Carolina-Tennessee

> State line. The project is likely to cause a violation of the associated temperatures from 62°F to 87°F in a substantial part of the reservoir. Also, the dissolved oxygen level of 6.0 mg/l which is required for trout streams will probably be violated. If the project is completed, either the stream classification must be changed or there will, in all probability, be a violation of the water quality standards.

The above-quoted letter was introduced in evidence at trial 13/ through Mr. Greer Tidwell, a representative of the Environmental Protection Agency who testified in lieu of Mr. Ravan.

In the same correspondence, Mr. Ravan commented further that:

> . . . I would simply like to point out Section 101(b)(4) of the National Environmental Policy Act of 1969, which clearly places the responsibility on us, the Federal Agencies, to use all practical means consistent with other considerations of national policy, to improve and coordinate Federal plans, functions, programs and resources to the end that the Nation may preserve important historic, cultural and natural aspects of our National heritage, and maintain, wherever possible, an environment which supports diversity, variety and individual choice.

The stream classification of the Little Tennessee River has not been changed and, absent such change, the uncontradicted testimony before the district court demonstrates conclusively that the Tellico Project will undoubtedly result in a violation of applicable water quality standards.

Dr. Edward Thackston, who testified for Appellants on the matter of water quality, agreed that the construction of the Tellico Project would result in a violation of water quality standards in at least two areas; water temperature and dissolved oxygen, and possibly others as well. The appellees did not undertake to refute this testimony, apparently choosing to rely on the assertions that such testimony was irrelevant on the ground that the Tennessee Valley Authority is exempt from the requirements of the Federal Water Pollution Control Act amendments. For the reasons set forth above, this position is simply erroneous and the indulgence of the district court in adopting appellees' position on this issue was clear error.

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13/ Note: Citation to this Exhibit number is presently unavail-

VI.

THE DISTRICT COURT ERRED IN FAILING TO ENJOIN FURTHER CONSTRUCTION OF THE TELLICO PROJECT AFTER AN EXPRESS FINDING THAT TVA HAD NOT COMPLIED WITH THE PROVISIONS OF THE NATIONAL HISTORIC PRESERVATION ACT.

Section 106 of the National Historic Preservation Act, 16 U.S.C. Sec. 470f provides that:

> The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or Federally assisted undertaking in any State and the head of any Federal department of independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure or object that is included in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under sections 4701-470n of this title a reasonable opportunity to comment with regard to such undertaking.

The Act was signed into law on October 15, 1966, and the Tellico Project was approved by the TVA Board on November 8, 1966. On August 30, 1973, the Cherokee village sites of Chota-Tenasi were added to the National Register of Historic Places. (Ex. 29). Thus, there is no question that the Act is applicable to the Tellico Project since the project, quite obviously, will affect a site included on the National Register.

Pursuant to the Act, the President issued Executive Order No. 11593, 36 Fed. Reg. 8921 (1971) confirming and delineating the duties of Federal agencies under the Act. Section 2(a) of the Executive Order requires all Federal agencies, including the defendants, "no later than July 1, 1973" to "locate, inventory and nominate to the Secretary of the Interior all sites . . . under their jurisdiction of control that appear to qualify for listing on the National Resigter of Historic Places." Section 2(b) requires the agency to "exercise caution" over any site which might qualify for listing on the National Register and to "reconsider" the proposed agency action in light of a determination by the Secretary of the Interior that a site is likely to

qualify for listing on the Register.

In early September, 1973, Mr. Kenneth Tapman, the Compliance Office for the National Advisory Council on Historic Preservation, stated in response to a letter from TVA that TVA was not in compliance with the requirements of the National Historic Preservation Act and Executive Order 11593 with respect to the village site of Chota-Tenasi (Ex. 34). This conclusion was confirmed by the testimony of Mr. Mack Prichard and was uncontradicted at trial.

The basis for non-compliance was the failure of TVA to reconsider the Tellico Project in light of the inclusion of The Chota-Tenasi site on the National Register at the time of trial. The district court held that TVA had not complied with the Act, stating (Mem. Op. 26):

> As to the Indian villages nominated on August 30, 1973, for inclusion in the National Register, TVA has not yet had the opportunity to comply with the Act but stated at trial it fully intended to do so.

We submit that the mere assurance of Federal agencies that they "intend" to comply with the mandates of Congress is not enough. The Federal reports are replete with cases in which an agency intended to comply with NEPA, and made efforts to do so, but in the eyes of the judiciary, fell far short.

The mandates of the National Historic Preservation Act are no less rigorous than NEPA. The Fourth Circuit, in Ely v. Velde, 451 F.2d 1130 (4th Cir. 1971), held that failure to comply with the Act warranted the issuance of injunctive relief. The situation is no different here. If the courts are merely to accept the assurances of agencies that they "intend" to comply with the Acts of Congress, then the Constitutional role of the judiciary becomes meaningless. As stated by the District of Columbia Circuit in Calvert Cliffs, supra, 449 F.2d at 111:

> Several recently enacted statutes attest to the commitment of the Government to control, at long last, the destructive engine of material 'progress'. But it remains to be seen whether the promise of this legislation will become a reality. Therein lies the judicial role . . . Our duty, in short, is to see that important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy.

VII.

THE DISTRICT COURT ERRED IN DISMISSING THE APPELLANTS' CLAIMS UNDER THE NINTH AMENDMENT TO THE UNITED STATES CONSTITUTION.

Appellants have claimed that the construction of the Tellico Project would deny them

> "The right to enjoy the beauty of God's creation, to live in an environment that preserves the unquantified amenities of life, and to preserve the history of this nation and the heritage of one of the great American Indian tribes (which) is part of the liberty protected by the fifth Amendment from deprivation without due process of law, and is also one of those unenumerated rights retained by the people, free from abridgement by any government, as provided in the ninth Amendment." (Plaintiffs' Complaint, p. ).

The failure of the court below to recognize and protect this right was reversible error.

The Ninth Amendment has been given two divergent constructions. The narrow construction of the amendment is founded upon the intent of the author, Madison. Legal scholars have argued that many federalists were opposed to the Bill of Rights, and favored no mention of particular rights on the ground that all rights existed unless taken away by the State. When proponents of the Bill of Rights were found to be in the majority, it is contended, the ninth and tenth amendments were added to the Bill of Rights, not in recognition of further rights, but as a gesture of compromise to a losing faction.[14/]

While intriguing, this view seems illogical. It must first be noted that the intent of the Congress rather than of the author of the amendment would be more dispositive of the controversy over its meaning. Unfortunately, the history of the passage of the amendment is not illuminating, and little material is available on the individual interpretations held by each delegate.[15/] History, then, is insufficient to clarify the Ninth Amendment. Yet, historical analysis is the basis of its narrow construction.

In contrast, the more broad view of the Amendment, that it is a recognition

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14/ See: Garvey, Unenumerated Rights - Substantive Due Process, the Ninth Amendment, and John Stuart Mill - 1971 Wisc. L. Rev. 922 (1971)

15/ Ibid.

of substantive rights, is amply supported in the decisional law, in scholarly works, and in reason.

The Supreme Court has recognized the ninth Amendment as a reservation to the people of substantive rights.[16/] Perhaps the most notable decision of the Court is Griswold v. Connecticut, 381 U.S. 469 (1965). Mr. Justice Douglas' majority opinion in that case states that"(t)he Ninth Amendment provides . . ." and then includes the text of the amendment as partial justification for the opinion that marital privacy is constitutionally protected. Mr. Justice Goldberg (concurring) not only accepts the broad view of the ninth Amendment by implication, but goes on to state explicitely that the message of the ninth Amendment is that "there are other 'fundamental personal rights'".[17/]

Such judicial recognition is upheld by scholarly analysis. Kelsey, in his article "The Ninth Amendment of the Federal Constitution"[18/] concludes that the amendment declares absolute or inherent rights against which any assertion of power must fail.[19/]

Kelsey's view, that the Amendment precludes "governmental authority (from aspiring) to ungranted power in contravention of unenumerated rights,[20/] is shared by Redlich in his "Are There Certain Rights . . . Retained by the People'?".[21/] Mr. Redlich finds support for the broad view of the Ninth Amendment in the language of the Tenth Amendment that:

> "The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people. (Emphasis added.)

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16/ United Public Works v. Mitchell, 330 U.S. 75, 94 (1947).

17/ 381 U.S. at 482.

18/ 11 Ind. L. J. 309 (1936)

19/ Ibid. at 323.

20/ Ibid.

21/ 37 N.Y.U.L. Rev. 787 (1962).

The fact that there are unenumerated powers which neither the federal government nor the State possess implies that there are unenumerated rights in the people.[22/]

To disagree with these judicial and scholarly opinions would be illogical. Such a view would disregard the rule of statutory interpretation that no statute be so read as to deprive any of its words of meaning.[23/] The amendment states that there are "certain (unenumerated) rights . . . retained by the people". To fail to recognize and protect these rights is to deny the meaning of that clause of the amendment, although the teaching of Marbury v. Madison is that no clause of the Constitution can be presumed to be without effect.[24/]

The conclusion that the Ninth Amendment reserves certain substantive rights to the people is not only reasonable, but necessary. Modern technology is presently imposing itself on individual needs and interests in a manner which would have confounded the creators of the Constitution. The destruction of our heritage and our natural environment are but two of the many threats of "progress". Courts fail to protect individuals adequately when their inquiry into the uses of power are limited to determining whether such uses are justified. There must also be an inquiry into what interests are being violated and whether those interests are constitutionally protected. The Ninth Amendment provided the basis for such inquiry and the shield behind which such rights may be preserved. Garvey, supra, n. 1.

The conclusion that the Ninth Amendment is a reservation of unenumerated substantive rights leads to an inquiry to determine the standard by which such rights might be identified. In Griswold, Mr. Justice Goldberg described them as "other fundamental rights". 381 U.S. at 482. He went on to note that:

> In determining what rights are fundamental, judges are not left at large to decide cases in light of their personal and private notions. Rather, they must look to the 'traditions and collective conscience of our people' to determine whether a principle is 'so rooted (there) . . . as to be racked as fundamental'. Snyder v. Massachussetts, 291 U.S. 97, 105. (318 U.S. at 483).

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22/ Ibid. at 807.

23/ See: Garvey, n. 1.

24/ 1 Cranch 137, 174.

While the concepts of "the environment" and "the American heritage" may not have been rooted in the conscience of our people since our nation's inception, they are the types of concerns that were intended to be protected.

It is man's spiritual nature which is damaged by the loss of natural beauty and cultural heritage. In a very real sense the Tellico project deprives appellants of "as against the government, the right to be left alone - the most comprehensive of rights and the right most valued by civilized men". Olmstead v. United States, 277 U.S. 438, 478 (1928). Accordingly, the court below erred in dismissing appellants' Constitutional claims.

## VIII.

## THE DISTRICT COURT ERRED IN FAILING TO AWARD REASONABLE ATTORNEY FEES AND COSTS.

On November 1, 1973, appellants appeared before the district court at a separate hearing on the question of the allocation of costs between the parties. At that time, and prior to the entry of Judgment, appellants moved the district court for an award of reasonable attorneys' fees and costs. That portion of the motion pertaining to attorneys fees was summarily denied; costs were awarded to appellants through the hearing on the preliminary injunction and to appellees for costs incurred thereafter and through the trial on the merits.

No specific reasons were articulated by the court below for denying appellants' motion for attorneys fees although reference was made by the court to the fact that, in the court's judgment, this case was not "an appropriate one" for the awarding of attorneys fees. Costs were apportioned on the theory that up to and through the preliminary injunction proceedings, appellants were the "prevailing party" and at the trial on the merits appellees were the "prevailing party". Appellants submit that the court below was in error on both the refusal to award attorneys fees and on its apportionment of costs.

We begin with the observation by then Judge Burger, that public interest groups:

> . . .(A)re generally among the best vindicators of the

> public interest . . . These groups are found in every community; they usually concern themselves with a wide range of community problems and tend to be representatives of broad as distinguished from narrow interests, public as distinguished from private or commercial interests. 25/

While American courts have traditionally been reluctant to award attorneys fees to a party litigant, a growing number of Federal courts have made such awards to public interest litigants serving the role of "private attorney general". In the present cause, appellant Environmental Defense Fund is serving in that role. On this basis it is submitted that the court below erred in refusing to award attorney fees and all costs, thus imposing an economic sanction on the appellant organization, a charitable organization funded entirely by charitable contributions, that has sought nothing more than compliance with the Federal statutes and policies violated by appellees.

In a variety of contexts, Congress has left enforcement of important reform legislation to a public spirited private citizens and goal oriented organizations. Yet the pursuit of public rights in litigation of the present type is often cost-prohibitive and few citizens or groups have the economic resources to prosecute public interest litigation since the primary relief sought is almost always declaratory and/or injunctive and not economic.

The economic problems confronting public interest group litigation first arose in the civil rights area. The Supreme Court, in a "citizen suit" controversy under Federal civil rights legislation, has stated:

> When the Civil Rights Act of 1964 was passed, it was evident that enforcement would prove difficult and that the nation would have to rely in part upon private litigation as a means of securing broad compliance with the law. A Title II suit is thus private in form only. When a plaintiff brings an action under that Title, he cannot recover damages. If he obtains an injunction, he does so not for himself alone but also as a private attorney general, vindicating a policy that Congress considered of the highest priority. If successful

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25/ Office of Communication of United Church of Christ v. Federal Communications Commission, 359 F.2d 994, 1005 (D.C. Cir., 1966).

> plaintiffs were routinely forced to bear their own attorneys fees, few aggrieved parties would be in a position to advance the public interest by invoking the injunctive power of the federal courts. Newman v. Piggy Park Enterprise, 390 U.S. 400, 401, 402 (1968). (Emphasis supplied).

The awarding of attorney fees to a successful public interest litigant, then, is a desirable and at times indispensible adjunct to the Congressional granting of a private right of action. In certain instances, Congress has provided for such an award in the statute itself. Piggy Park, supra. In other instances, Federal courts, in effectuating Congressional policy, have implied through statutory construction an "attorneys fees" provision for public interest suits under the statute in question. See Mills v. Electric Auto-Lite Co., 396 U.S. 375 (1970).

In Lee v. Southern Home Sites Corp., 444 F.2d 143 (5th Cir., 1971), the Court dealt with the scope of the private remedy under 42 U.S.C. Sec. 1982, a statute guaranteeing freedom from discriminatory treatment in the enjoyment of property rights. The statute is silent on the question of attorneys fees, but the Court nevertheless found statutory authority to award attorneys fees:

> We think the factors relied on in Piggy Park in interpreting the provision for awarding attorneys fees apply also to suits under Section 1982. The policy against discrimination in the sale or rental of property is equally strong. The statute, under present judicial development, depends on private enforcement . . . To insure that individual litigants are willing to act as private attorney generals to effectuate the public purposes of the statute, attorneys fees should be as available as under 42 U.S.C. Section 3612(c). Ibid. at 147, 148.

Because of the analogous nature of environmental litigation to civil rights litigation, in that both involve the pursuit of "public rights", Federal courts have been receptive to awarding attorneys fees in litigation similar to the instant cause.

In Sierra Club v. Lynn, _____ F. Supp. _____, 5 ERC 1745 (W.D. Texas, 1973), the district court awarded attorneys' fees to the plaintiff Sierra Club despite the fact that plaintiff had not prevailed in the litigation. The Court stated:

> After reviewing the facts here this Court is of the belief that the position of the citizen plaintiff is analogous to that of a plaintiff in a civil rights suit, wherein it has been concluded that attorneys' fees should be awarded unless the trial court can articulate specific reasons for denial . . . As in the civil rights area, the burden of assuring full compliance with the national environmental policy act has fallen upon concerned citizens. The mere fact that there is no provision in the statute for the awarding of attorneys' fees will not be viewed as a ban to such an award. Ibid. at 1746. (Emphasis supplied.)

In Natural Resources Defense Council v. Environmental Protection Agency, _____ F.2d _____, 5 ERC 1891 (1st Cir., 1973), plaintiffs were successful in obtaining judicial relief requiring EPA to comply with certain of its obligations under the Clean Air Act Amendments of 1970. Finding a statutory waiver of EPA's immunity protection under 28 U.S.C. Section 2412, the Court awarded both costs and attorneys' fees to the plaintiffs. In doing so, the Court first noted the growing trend toward an equitable distribution of litigation costs as a means of encouraging litigation in the public interest. Ibid. at 1891-1892. Turning to the important policies and goals embodied in the Clean Air Act Amendments of 1970, the Court stated:

> The public suit seems particularly instrumental to the statutory scheme when against the EPA itself, for only the public -- certainly not the polluter -- has the incentive to complain if the EPA falls short in one or another respect; yet the lack of measurable interest on the part of any individual member of the public, and the difficulties inherent in complex litigation policies of the EPA have been corrected, and others, upheld, have been removed from the arena of dispute. Presumptively the public has benefitted . . . Under the circumstances it seems fair and sensible that the EPA should be taxed for petitioners' reasonable costs and attorneys' fees. Ibid. at 1982.

It goes without saying that the policies and goals of NEPA, as previously recognized by this Court, are equally as compelling and important as those recognized in the Clean Air Act. It likewise goes without saying that public interest-oriented litigants, of the type bringing this suit, have a crucial role to play in ensuring agency compliance with the mandates of NEPA through the vehicle of public interest litigation. Report of the Legal Advisory Committee of the Council on Environmental

Quality to the President, Dec., 1971, at 527.

The court below, in denying appellants' motion for reasonable attorneys' fees, did not articulate the reasons therefore, and it could be argued that the denial was a simple exercise of the court's discretion. Under ordinary circumstances, the allocation of costs and attorneys fees is properly left to the trial judge, with appellate review left to findings of abuse of discretion. Appellants submit, however, that the court's action below was based on a misapprehension of substantive law, this being a new and growing area of the law, rather than on a simple abuse of discretion. As such, the denial is clearly subject to reversal. Newton v. Consolidated Gas Company, 265 U.S. 78 (1924).

The attorneys' fees problem in public interest litigation calls for more than an exercise of a trial court's discretion, it calls for a substantive consideration of the purposes behind applicable statutes put in issue. Federal appellate courts have frequently reversed lower court rulings denying costs and fees in public interest litigation where the lower court failed to appreciate the need for an award of costs and fees under the applicable statutory scheme. E.g., Lee v. Southern Home Sites Corp., 444 F.2d 143 (5th Cir., 1971), supra.

In Mills v. Electric Auto Life, 396 U.S. 375 (1970), plaintiffs brought a private action under Sec. 14a of the Securities Act of 1934. After plaintiffs prevailed on the sole issue of liability, defendants filed an interlocutory appeal on the issue of liability with the Court of Appeals, which reversed. The Supreme Court reversed once more, reinstating the district court's decision, and in doing so ordered the defendants to pay reasonable attorney fees despite the fact that damages had not been set, nor had a final judgment been entered. In the opinion of the Court, the right to an award of attorneys fees is an integral part of ". . .what constitutes a cause of action under Sec 14a . . ." Ibid. at 390. Thus, as viewed by the Court, the question was one of determining itory purpose, not of a trial court's discretion and, as such, the Supreme Court h ppellate jurisdiction to answer an essentially "legal" question.

Appellees can be expected to contend that despite the clear applicability of the decisions and doctrines heretofore discussed to the present cause, that they otherwise are immune from the levying of attorneys fees under 28 U.S.C. Sec. 2412, which provides in pertinent part:

> Except as otherwise specifically provided by statute, a judgment for costs . . . but not including the fees and expenses of attorneys may be awarded to the prevailing party in any civil action brought by or against the United States or any agency . . . of the United States . . .

While Sec. 2412 is a relinquishment of the sovereign's immunity protection as to costs, which protection existed under Sec. 2412 prior to its amendment in 1966, the new Sec. 2412 retains vestiges of immunity for the payment of attorneys fees. Thus, the central jurisdictional question posed by the appellants' request for attorneys' fees is whether appellee Tennessee Valley Authority (TVA) is an "agency . . . of the United States" for the purposes of Sec. 2412. Appellants submit that it is not, and that TVA has none of the protections of sovereign immunity save when it acts in the name of the sovereign in condemnation actions, and that, therefore, there is no jurisdictional barrier that exists to the awarding of attorneys fees against TVA.

TVA is but one of many corporate entities created by the Congress to perform governmental functions. It is settled that the Congressional creation of a corporation does not confer on the entity any protections of the sovereign and that immunity protection must by statute be specifically and unequivocally granted. For instance, in Keifer and Keifer v. Reconstruction Finance Corp., supra, 306 U.S. 381 (1938), the Supreme Court addressed itself to a Federal corporation's protection from litigation under sovereign immunity principles where the organic legislation contained no language relative to the corporation's power and susceptibility to "sue or be sued". The Court held:

> Therefore, the government does not become the conduit of its immunity in suits against its agents or instrumentalities merely because they do its work . . . For more than a hundred years corporations have been used as agencies for doing work of the government. Congress may create them as appropriate means of executing the powers of governments . . . But this would not confer on such corporations legal immunity even if

> the conventional to-sue-and-be sued clause were omitted . . . Congress may, of course, endow a governmental corporation with the government's immunity. But always the question is: has it done so? Ibid. at 388, 389. (Citations omitted).

Under Keifer, supra, then, the test is not whether Congress has permitted a corporation to sue or be sued, but whether Congress conferred an immunity not otherwise available.

The Keifer doctrine was expanded in Reconstruction Finance Corporation v. J. G. Menihan Corp., 312 U.S. 81 (1940), where the Court dealt with the more germane question of Federal corporate immunity from taxation of statutory costs under the then existing Rule 54(d) standards which prohibited the taxing of costs against "the United States. . . and agencies . . . only to the extent permitted by law". Noting that "immunity is not to be presumed," the Court held:

> Congress has expressly provided that the Reconstruction Finance Corporation shall have power 'to sue and be sued, to complain and defend, in any court of competent jurisdiction State or Federal'. There is nothing in the statutes governing its transactions which suggests any intention of Congress that in suing and being sued, the Corporation should not be subject to the ordinary incident of unsuccessful litigation in being liable for that which might properly be awarded against a private party in a similar case. Ibid. at 83. (Emphasis supplied).

And:

> The payment of costs by the unsuccessful litigant, awarded by the court in the proper exercise of the authority it possesses, is manifestly such an incident (to the witholding of immunity). The additional allowance made by courts of equity in accordance with sound equity practice is likewise such an incident. (Citing Sprague v. Ticonic Nat'l. Bank, 307 U.S. 161 (1939), which dealt with a court's equitable power to award attorneys' fees). Ibid. at 85. (Emphasis supplied).

As the court pointed out in Keifer, Congress has the power to grant immunity to Federal corporations, and if it does so, Federal courts will respect that grant of immunity. Congress has granted limited immunity, for instance, to the Federal Savings and Loan Insurance Corporation (FSLIC), where it has provided in its organic legislation that ". . . (FSLIC) shall be deemed to be an agency of the United States within the meaning of section 451 of Title 28", 12 U.S.C. Section 1730(k)(1)(A). Title 28 U.S.C. Section 451 contains definitional criteria for all of Title 28, including section 2412.

In Cassata v. FSLIC, 445 F.2d 122 (7th Cir. 1971), the Court recognized the importance of the language in the FSLIC's organic language and therefore concluded that the agency was and is not amenable to an award of attorneys' fees under the well-established principles of Keifer and Reconstruction Finance Corp., both supra.

Congress has granted no such immunity to TVA, as can be seen from a reading of 16 U.S.C. Sec. 831, unless TVA is proceeding in condemnation actions in the name of the United States as required by 16 U.S.C. Sec. 833. This Court recognized as much in U.S. ex rel TVA v. Pressnel, 328 F.2d 580 (6th Cir. 1964), where the condemnee unsuccessfully sought costs from TVA. This decision was after the passage of 28 U.S.C. Section 451 but before the liberalization of Section 2412. Thus, the question posed was whether TVA, as a corporation created by Congress, is an agency of the United States within the meaning of Section 2412. This Court held that it was and is, but only in condemnation actions. Had TVA been the real party in interest, this Court pointed out, costs would have been allowable notwithstanding the then existing Section 2412 prohibition under Keifer and Reconstruction Finance Corporation, supra.

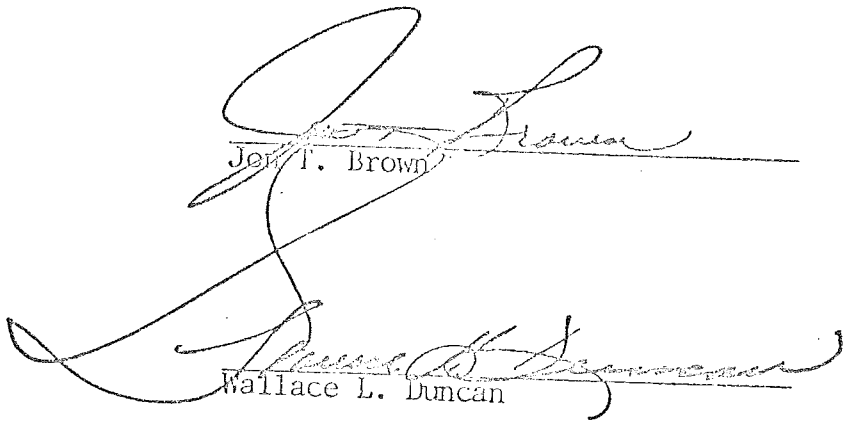
Other courts have held that TVA is not to be treated as a Federal agency within the meaning of other provisions of Title 28. In Natural Resources Defense Council v. Tennessee Valley Authority, 459 F.2d 255, 3 ERC 1976 (2d Cir., 1972), the Court held that TVA is not a Federal agency within the meaning of 28 U.S.C. Section 1391, relating to venue. The Court reasoned that TVA, unlike other Federal agencies, ". . . operates in much of the same way as an ordinary business corporation, under the control of its directors in Tennessee, and not under that of a cabinet officer or independent agency headquartered in Washington . . ." Ibid. at 257.

Accordingly, on the basis of the foregoing authorities, the district court erred in failing to award reasonable attorneys' fees and all costs to appellants.

## CONCLUSION

The judgment of the district court should be reversed and further construction of the Tellico Project enjoined until such time, if ever, as TVA complies with each of the statutes relied upon in this Brief.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Brief for Appellants was served by handing a copy thereof to counsel for appellees this 21st day of November 1973.

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