

showdown at the new river

We have witnessed the struggle many times before - at Hell's Canyon, Glen Canyon, the Grand Canyon . . . and on hundreds of smaller rivers throughout the country. The power companies want another hydroproject. Across the state and in the nation's capital, where the fate of the river will ultimately be decided, people who have never seen the New River and, perhaps, never even heard of it before last year, are taking sides on the issue. When the House Rules Committee refused to consider a bill to study the New River for inclusion in the National Scenic Rivers System, ABC commentator Harry Reasoner felt moved to criticize the Committee on national television, even though he admitted to never having heard of the river before the bill was brought up. Why? Because it is an issue with both practical and emotional overtones. To many people, the sight of an unspoiled free-flowing river can never compare to that of a man-made reservoir. And to dam such a river is to spit in the face of Nature - to sever one of her most precious arteries.



The New River is formed on the Ashe-Alleghany County line in Western North Carolina

North Carolina Travel Development Photo

The Appalachian Power Company does not see it that way. What they see is an 8.5 percent increase per year in electrical demand and no way to meet it without constructing a major new facility. Engineers pore over maps, and the site is chosen - the upper New River at the border of Virginia and North Carolina. The project is dubbed "Blue Ridge." Unfortunately, while the upper New River proves to be a perfect location for a hydroproject, it is also one of the more scenic and unpolluted major rivers in the eastern United States. Environmentalists and area residents recognize this, and the battle begins. It has been going on now for over ten years.

Curiously, the fate of the \$430 million Blue Ridge Power Project now hinges largely on the U.S. Circuit Court of Appeal's determination as to whether or not the Federal Power Commission's licensing review gave proper consideration to the discovery of Indian artifacts in the area proposed for inundation. Should the court decide in FPC's favor, the last legal hurdle may have been cleared. More than likely, however, the battle will drag on into the future. The reason for the protracted struggle is this: at stake are some 40,000 acres of rural Virginia and North Carolina countryside, 76 miles of the scenic upper New River, and the homes and farms of over 1,175 people. The lives of hundreds of others will be affected by the project as well. Needless to say, the consequences of Blue Ridge are considerable, and for this reason its feasibility and desirability must be conclusively established.

The debate over the licensing of Blue Ridge is a classic of our time. Environmental objectives, predominant in public thinking through the late sixties and early seventies, appear to be losing out to the now more urgent demands for energy supply. Often forgotten in the controversy, however, is the fact that the Blue Ridge Project will *not* be a producer of energy. On the contrary, it is a pumped-storage facility which will consume 4 units of energy for every 3 units it makes available. Basically, pumped storage facilities are designed to provide power only during peak demand periods, those times of the day when the need for electricity exceeds the normal generating capacity of the utility system. During normal consumption periods, water must be pumped back into the project's upper reservoir for use during the next peak demand

John Manuel is a second year student concentrating in environmental and land use planning at the Department of City and Regional Planning, University of North Carolina, Chapel Hill. Before entering UNC he worked for Ralph Nader and later the Ohio Conservation Foundation. He has published articles in Environmental Action and Outdoor America.

period. This means that more energy is consumed in operating the facility than it produces. But lest consumers be forced to alter their patterns of power consumption (i.e., use electrical power during off-peak hours), the demand for additional electricity during peak load periods must be met.

Often forgotten . . . is the fact that the Blue Ridge Project will not be a producer of energy. On the contrary, it . . . will consume 4 units of energy for every 3 units it makes available.

project benefits and costs*

Over its 50 year licensing period, the Blue Ridge Power Project is expected to generate \$6 million per year in net benefits. Most of this will come from the project's power production functions. Blue Ridge will provide 2.4 billion kilowatt hours of electricity per year to Appalachian and American Electric Power consumers (of which the former is a subsidiary) in Virginia, West Virginia, Kentucky, Tennessee, Ohio, Indiana, and Michigan. North Carolina will receive *no* power benefits from the project, and for this and other reasons, it is opposed to Blue Ridge.

Recreation is a second objective of Blue Ridge, but not the least significant. According to Appalachian Power Company, the Blue Ridge project "is the key that will unlock the vast recreational potential of this underdeveloped Appalachian region."¹ The project will create two reservoirs having a total shoreline of over 700 miles and a combined surface area of about 40,000 acres. The project's reservoirs, in turn, will create 31 islands which will have a combined size of about 475 acres and a total shoreline of about 24 miles. Recreation will be largely confined to the upper reservoir as the lower reservoir will be used for flood control storage. Water levels in the lower reservoir may be varied as much as 15 feet with efforts to control downstream flooding, and these fluctuations will severely limit the latter's recreational potential.

To enhance the project's recreational potential, Appalachian plans to spend \$3 million for two state parks on the upper reservoir. One million dollars will be devoted to the purchase of land for a 2,400 acre Virginia state park and another million for a 3,900 acre state park in North Carolina. The company will develop, own, and operate overlook and picnic facilities at both campsites and public fishing areas on each bank below the lower dam. It will acquire land for some 32 points of public access to the project's reservoirs and will provide canoe portages around both dams. In addition, all 31 of the project islands will be acquired by Appalachian and made available to boaters.

Blue Ridge will confer significant benefits in terms of flood control. Under existing conditions, it is estimated that the project will prevent flood damages averaging \$91,000 per year over its 50 year lifespan. Current plans call for the transference of the flood control storage from the downstream Bluestone Reservoir in West Virginia, to Blue Ridge. This would allow the federal government greater flexibility at that site, primarily for recreation.

Both Appalachian Power Company and the Federal Power Commission contend that Blue Ridge will open the mountain area to economic diversification and growth. Over its 5-9 year construction period, the project will employ 1,500 workers, half of them recruited locally. The total job payroll is expected to run close to \$80 million. American Electric Power Company Vice President Joseph Dowd claims, "Blue Ridge will make possible the economic diversity which . . . this underdeveloped region needs so badly. Recreation-related economic benefits will be substantial."² FPC predicts that the towns of Galax and Independence, Virginia, and Sparta, North Carolina, will likely become resort centers. Long term population growth "will be accelerated by the presence of the new reservoirs and their public use facilities."³

The State of North Carolina and numerous environmental groups disagree with these contentions. The American Rivers Conservation Council, for one, is skeptical about the economic benefits of a reservoir in this area. They point to the failure of a supposed economic boom to materialize in the case of a nearby TVA reservoir built decades ago in an area with a similar economic fabric to the New River Valley (Lake Norris, Tennessee). North Carolina questions the value of another one-season recreational employer in the mountain area. Both Ashe and Allegheny Counties have seasonal employment in the recreational sector and future development of this sector, they feel, "cannot be relied on to establish a strong economic base."⁴ North Carolina also has mixed feelings about the short-term job opportunities provided by Blue Ridge. The start of construction will bring a sudden influx of workers and their families into this sparsely-populated region, putting high demands on area services such as housing, schooling, police and fire, health facilities, marketing, entertainment, recreation and transportation. Once construction is over, most of these workers and their families can be expected to leave.

More significant than the accommodation of a temporary work force is the massive dislocation of families and farms that will result if Blue Ridge is built. Some 580 families in North Carolina and Virginia will have to abandon their homes and occupations because of the impounded waters. The total number of families that will sacrifice at least some of

*Unless otherwise indicated, all figures on Blue Ridge are taken from the Federal Power Commission's Final Environmental Impact Statement on Blue Ridge.

their property is estimated to be as high as 1,500. Hardship will be created in other ways as, for example, the resident who may have to send his child on a round trip of nearly 80 miles to reach a school on the other side of the reservoir. Blue Ridge's reservoirs will inundate some 40,000 acres of land, 29,000 acres of which are either under active cultivation or pasture. Several thousand more acres will be rendered inaccessible by the waters of the lakes. The Agricultural Stabilization and Conservation offices for the three affected counties (Ashe County and Allegheny County, North Carolina, and Grayson County, Virginia) estimate an annual loss in agricultural production of \$13.5 million if the dams are built.

Since the passage of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, all federal and federally-assisted projects, in addition to paying for the land and land rights of displaced residences and businesses, must cover such additional costs as moving expenses, expenses incurred in locating a new residence or business, and cost differences in rent or purchase of a comparable dwelling to the one abandoned. The Act also requires provision of a relocation assistance advisory program for displaced persons. In its impact statement on Blue Ridge, FPC has stated that Appalachian would fund up to one-half the cost of a Relocation Housing Needs study for Ashe and Allegheny Counties. They also contend that Appalachian should be required to establish a relocation advisory service and provide "reasonable financial assistance for relocation services."

More significant . . . is the massive dislocation of families and farms that will result if Blue Ridge is built.

Both Ashe and Allegheny Counties have prepared "Housing Element Update" studies indicating current shortages in available housing. The studies conclude that relocation problems caused by the Blue Ridge Project would create additional and severe demands on existing inadequate housing supply. Ashe County will have to provide 224 families with housing and Allegheny County will have to provide housing for 70 families. A "Residential Relocation" study prepared for Ashe County concluded that,

At best, the relocation of families from the Blue Ridge Reservoir area will be a difficult process because of the large number of people affected in the three-county area, their dispersed pattern, the attitudes and independent nature of the people and the general lack of experience in dealing with relocation in a project of this type and scope. It is essential that a well-planned and

organized system be developed for delivering relocation assistance in a completely fair and equitable manner.⁵

The study goes on to criticize the slight attention paid to relocation problems in the draft environmental impact statement on Blue Ridge and calls for specific definition of the functions of the "relocation advisory service" recommended by the Federal Power Commission. The study also recommends that Appalachian Power Company be required to comply with the Uniform Relocation Assistance Act.

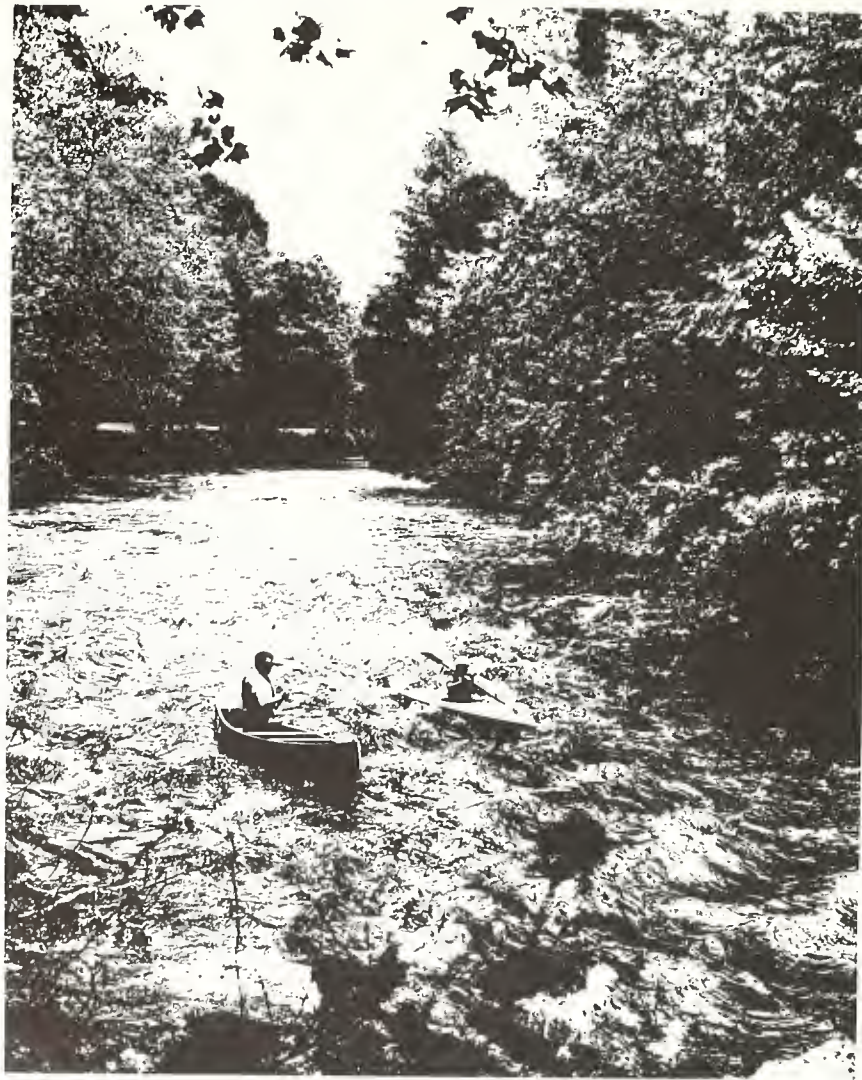
the new river

While the economic and social consequences of Blue Ridge are certainly important, North Carolina's primary reason for opposing the project is that it would eliminate over 70 miles of the beautiful New River. The main river and its major branches, the North and South Forks, offer what the North Carolina Department of Natural and Economic Resources rank as the best and biggest smallmouth bass fishery in the state. In addition, several of the tributaries to be destroyed by the dams support populations of native trout.

The upper New River is one of the few remaining major unpolluted rivers in the eastern United States. It provides relatively easy whitewater canoeing year-round amidst a beautiful setting of wooded hills and mountains. The New River is important from a zoological standpoint as it supports a wide variety of minnows and mollusks, several of which are considered rare and endangered species. Their habitats might be seriously threatened by the construction of Blue Ridge. The name "New River" is a curious misnomer as the stream is very likely the oldest in the United States. It was once part of the mighty Teays River which drained the central part of the continent. The New River Valley appears to have been a major trade route for Indian tribes over the centuries, as witnessed by the findings of several archeological expeditions commissioned by Appalachian Power Company. According to the two anthropologists who conducted the studies, hundreds of arrowheads, pieces of pottery, and assorted other artifacts were recovered from 42 sites over a two week period. It was their recommendation that up to two years excavation and salvage be undertaken prior to construction of the dams. Curiously, the Federal Power Commission made no mention of the anthropologists' findings or recommendations in their environmental impact statement on Blue Ridge. The State of North Carolina has subsequently sued FPC for violation of the National Environmental Policy Act which requires all federal agencies to help "preserve important historic, cultural, and natural aspects of our national heritage."⁶ FPC claims that Appalachian failed to supply them with any information concerning the archeological studies. No decision has yet been reached in the case.

North Carolina's main effort to preserve the New River calls for designation of the threatened section as a National Scenic River.

Toward this end, the U.S. Senate last year introduced S. 2439, a bill which would have delayed licensing of Blue Ridge for two years in order to give the Department of Interior time to determine if the river meets the



The upper New River is one of the few remaining major unpolluted rivers in the eastern United States. It provides relatively easy whitewater canoeing year-round amidst a beautiful setting of wooded hills and mountains.

North Carolina Travel Development Photo

qualifications of the Wild and Scenic Rivers Act. After this period, Congress would decide whether the river should be kept in its present state or impounded for power storage.

S. 2439 failed to get beyond the Rules Committee last year and is not likely to be considered again in time to stop Blue Ridge. The State of North Carolina recently passed a bill incorporating 26 miles of the New River into its own Natural and Scenic Rivers program, however, inclusion of the upper New River in the North Carolina system does not prevent Appalachian from building the dams in Virginia. It is hoped that by demonstrating a strong desire to preserve the river on a state level, the federal government will reconsider the New River for inclusion in the national system. Should the river be designated as such, Appalachian would have to abandon its plans for Blue Ridge.

alternatives

In its testimony before Congress and the Federal Power Commission, Appalachian Power Company has demonstrated a rapidly growing demand for power throughout its service area (8.5 percent per year). Drawing from this and other resources, FPC states,

The need for power is expected to become vastly greater in the upcoming years, and it is certain to become acute well before the Blue Ridge Project is constructed and producing energy. . . . Even if all U.S. consumers were to adopt stringent conservation practices with respect to electricity, the demand for electric power would continue to increase to such an extent that all the production of Blue Ridge would be essential and, in fact, would meet only a small part of the foreseen future need.⁷

Thus, it appears that FPC's denial of a license to construct the Blue Ridge project would require Appalachian to develop other methods of meeting anticipated demand or face voltage shortages and brownouts during peak load demand periods. What, then, are the feasible alternatives to Blue Ridge?

The most economical alternative to the Blue Ridge project is generally considered to be a coal-fired steam-electric plant. Such a facility would cost an average of \$3 million per year more to operate and amortize than Blue Ridge. As Blue Ridge's pumps must be powered by coal-burning plants down the line, both facilities would result in the burning of substantial amounts of coal. Blue Ridge, however, would consume 144,000 and 500,000 fewer tons of coal in 1980 and 1985 respectively than a coal-fired steam-electric plant. This could mean that a coal-fired plant would result in more air pollution; however, the level of contaminants released into the air will vary with the sulfur and flyash content of the coal being used and the degree of emission control employed at the generating plant. EPA has argued that it might be less polluting to build a new coal-fired facility equipped with the latest emission controls rather than pump energy into Blue Ridge from older, more polluting plants down the line.



Photo by Fred Peace

Peak load pricing is considered by many to be the best and most equitable means of lowering peak demand.

Other alternatives including light oil or natural gas fired turbine plants, nuclear plants, pure pumped-storage, and conventional hydroelectric plants have also been considered by FPC. All were discarded, however, based on technological, economical, or environmental grounds. One alternative not considered by FPC is the use of peak load pricing to even out the demand which Blue Ridge is designed to meet. For years, many economists and environmentalists have been suggesting that it would

be best to discourage the use of electricity during the peak demand periods (those times when electrical demand is at its highest). They feel that reduced peak demands would benefit the consumer as the overall cost of delivering electricity would be reduced due to increased efficiency of the utility system. The environment would benefit, as well, because of the reduced need for new facilities.

Peak load pricing is considered by many to be the best and most equitable means of lowering peak demand. Under this system, the highest rates would be charged for electricity used during the peak demand periods, when it is most expensive to produce. Peak pricing would encourage consumers to shift their consumption patterns to take advantage of the lower rates during the off-peak hours. This would level out the demand on the utility system, resulting in a more even use of the company's generating facilities and lower operating costs. One must consider, however, whether most consumers, especially in commerce and industry, could afford to alter their operating hours without serious negative consequences.

conclusion

The New River controversy presents a difficult problem to planners and public decision-makers alike. Are regional and national objectives best served by preserving the New River as a free-flowing system or impounding its waters for power supply? Environmentalists have been quick to oppose the Blue Ridge project based on its environmental drawbacks. However, Appalachian appears to have a very real need for additional power — a need which the public cannot ignore. One must decide what alternatives are available and whether their additional costs are worth the saving of 76 miles of the upper New River. Comparison of costs and benefits, while clarifying the issue somewhat, does not make the decision clear-cut. Despite efforts to the contrary, the scenic and ecological value of rivers like the New is impossible to quantify. Such rivers are a unique and constantly dwindling resource. Once lost, they can never be replaced. In the end, it is a question of which values — environmental protection or energy production — will prevail.

Footnotes

¹U.S. Senate, Committee on Public Works, *Hearing on the Blue Ridge Hydroelectric Power Project*, Washington, D.C.: U.S. Government Printing Office, 1970, p. 20.

²*Ibid.*, p. 26.

³Federal Power Commission, *Final Environmental Impact Statement, Modified Blue Ridge Project No. 2317—North Carolina/Virginia*, June, 1973, p. 49.

⁴*Memorandum, on the Draft Environmental Impact Statement, Modified Blue Ridge Project No. 2317*, Prepared by Art Cooper, North Carolina Department of Natural and Economic Resources, Raleigh, N.C. March 20, 1973, p. 4.

⁵*Ibid.*, p. 7.

⁶"Edminsten to Use Arrowheads in Fight Against New River Dam," *Greensboro Daily News*, September 3, 1975.

⁷Federal Power Commission, *op. cit.*, p. 73.