Lack of Planning or Failures in Pre-construction Planning of the Monroe Reservoir

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Contrary to newspaper reports that "Indiana does a good job of launching flood control . . . projects" (2) and "Although the initial planning for Monroe Reservoir was excellent," (3) prior to the completion of this dam only the mechanical pre-construction engineering planning by the United States Corps of Engineers proved to be superior. The four counties (especially Monroe) and the state of Indiana which should have furnished the leadership failed to supply the geographic, economic, social and political pre-construction planning so necessary for maximum utilization of the Monroe Reservoir in a minimal development period. The county and state agencies either failed to foresee many of the major problems involved or if they did identify some of them, little if anything was apparently done to prevent their occurrence or to promptly implement plans for their solution.

In the fall of 1960 this writer prepared a paper which was: *1.* read at an Annual Meeting of the Indiana Academy of Science; *2.* widely publicized by newspaper and radio in Indiana; and *3.* published about a year later in the Proceedings of the Indiana Academy of Science (reprints and mimeographed copies were widely distributed). This paper stressed the need for greater non-federal planning (5), yet five years later conditions reveal that little more has been accomplished. Why?

Is the pre-construction planning of other Indiana flood control reservoirs that have been started in this 1960 decade as poor or poorer than that of the Monroe Reservoir?

Lack of physical environmental surveys

Question 1. Why did not the Indiana Flood Control and Water Resources Commission or the Monroe County Planning Commission request Indiana's Soil Conservation Service to make an up-to-date scientific soil survey (and perhaps Indiana's Geological Survey a geologic study) of at least the Salt Creek watershed and perhaps the four county area of the Monroe Reservoir—Monroe, Brown, Lawrence and Jackson?

Since the end of World War II it has been a common practice in the United States to make scientific surveys of flood control and other conservation projects to collect new data and correlate it with that of the old to provide the best possible information on which to: *1.* base value judgments; *2.* design projects; *3.* make short and long range plans for the most efficient use of these projects; and *4.* construct and place structures in operation.

Prior to construction of the Monroe Reservoir dam and work on the area to be flooded, the U.S. Army Corps of Engineers with the aid of other agencies made careful surveys of the site and immediate environs of the dam and reservoir area. The Indiana Flood Control and

Water Resources Commission employed a staff of geologists "for geologic studies relative to flood control structure planning and design from about 1948 until 1952."[1] Furthermore, in 1960, the year that construction started on the dam, the Geological Survey of the Indiana Department of Conservation published a 19-page report (including a folded map) entitled *Engineering Geology of Dam Site and Spillway Areas for the Monroe Reservoir, Southern Indiana.* The Army Corps of Engineers insisted on up-to-date scientific information on which to base their plans and implementation of this project. The Corps is not responsible for planning land use of the surrounding countryside.

Since planning for the changes in land use in Monroe, Brown, Lawrence and Jackson Counties, as influenced by the largest artificial lake in the state, was not a Corps of Engineers or a federal responsibility, why did not the Indiana Flood Control and Water Resources Commission and/or the Monroe County Planning Commission request state agencies to make soil and/or geologic surveys?

During both the pre-construction and construction stages of this reservoir, both state and county leaders stressed the great potential development of private homes, resort accommodations, business and industry which the reservoir would stimulate. Yet scientific surveys were not made so developers would have valuable environmental data. For example, the Soil Conservation Service adopted a new format about 1958 which emphasizes the non-agricultural and urban uses of lands as well as the agricultural uses. By May, 1967, soil surveys of eight counties were published.[2] But none of these counties were in the four county area of the Monroe Reservoir.

Undoubtedly such soil surveys will prove helpful in determining better land and water use in these counties, but one can not help but raise the question, if the federal government and the state of Indiana would be called upon to invest 20 to 30 million dollars during the 1960's on only one multiple use project, the Monroe Reservoir, why was not a request made for a county soil survey which could have been published several years ago? One could argue that a soil survey of this type is needed more in Monroe County than any other in the state. This is especially true because one of the largest environmental handicaps adjacent to the Monroe Reservoir is the fact that the soil and bedrock conditions are generally unsuitable to septic tank sewage disposal and present problems of both surface and underground drainage. It is ironic, but the Monroe County Planning Commission failed to use efficiently what soil data was already available.

County-wide comprehensive zoning not available

Question 2. Why did not and why does not the state of Indiana adopt a policy of delaying construction of flood control reservoirs in counties until there is in operation scientific comprehensive county plans of land use and county-wide zoning?

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[1] William J. Wayne, Indiana Geological Survey. Letter dated September 13, 1967.

[2] Harry M. Galloway, Purdue University. Letter dated May 24, 1967.

For many it is difficult to believe that state, federal and county agencies have spent and or plan to spend 20 to 30 million dollars on a reservoir project in a county whose citizens refuse to adopt comprehensive land planning and zoning to protect the expenditures. Unfortunately, the Monroe County Planning Commission was established approximately a decade before construction started in the Monroe Reservoir dam and basin with an announced goal to stop planning. For nearly two decades this commission has successfully delayed and prevented county-wide land use zoning.

Just how many millions of tax dollars will be spent on the Monroe Reservoir and its development in the first ten year post-construction period is not known, but it has been estimated that at least 10 to 15 millions. As of May, 1966, the state of Indiana had spent approximately 7.76+ million dollars and the federal government 6.58+ millions more on the dam and reservoir. But these 14.35+ millions[3] was only the start. Indiana's Department of Natural Resources plans to spend 7.2 million on recreation development around this reservoir (4). The cost of access roads, federal recreational facilities and other expenditures by state, federal and county governments will amount to many millions more.

Repeated predictions that Monroe County would adopt a county-wide land use plan and zoning have failed to materialize. Some had predicted that the action would be taken before construction started on the dam and basin and others believed that it would be taken surely before the dam and basin were completed. But as late as the fall of 1967, approximately thirty-two months after the gates were closed and the reservoir started to fill up to normal pool stage, the Monroe County Commissioners and their Planning Commission had successfully blocked county-wide action. The Commission has perhaps illegally established zoning in that part of the Salt Creek watershed located in the county. But the administration of planning and zoning this small section of the county is apparently dominated by those who had so effectively delayed planning. Their administration of this small area leaves much to be desired.

Land value increments lost to state

Question 3. Why did not the state of Indiana secure the land some distance back (perhaps a mile) from the Monroe Reservoir shoreline and pay a significant part of its share of the cost of building the reservoir by retaining profits from rising land values and sales?

This type of management has been practiced as early as the 1930's by the Tennessee Valley Authority and is being demonstrated by the privately-operated Beech River Development Authority which is constructing a series of dams along the Beech River located roughly midway between Nashville and Memphis, Tennessee (7). These reservoirs were being filled with water during the spring of 1966, about the same time that the Monroe Reservoir was being filled, but under a

[3] William J. Andrews, Deputy Director of the Indiana Department of Natural Resources. Letter dated May 6, 1966.

drastically different economic climate. In Tennessee a significant share of the cost of reservoir projects is obtained by retaining profits on land sales.

In the water-retention projects in Indiana (such as all the flood control reservoirs) where new water frontage is created, the fortunate owners of land abutting the publicly-financed waters stand to pile up huge land profits without investing in improvement. Unfortunately, these real estate economic windfalls do not go, in general, to people who have owned the land for agricultural purposes. During the long-range planning process people "in the know" got options to purchase or did purchase shoreline lands from the unsuspecting landowners. The exchange of land along the shorelines of potential reservoirs a few years prior to construction would make an interesting study.

Lack of potential water use surveys

Question 4. Why were not surveys of water and sewage needs in Monroe, Brown, Lawrence and Jackson counties in the 1960's and the potential needs in the 1970's made before the construction of the Monroe Reservoir dam or while it was under construction?

The Indiana legislature passed an act in 1963 granting the Indiana Flood Control and Water Resources Commission the authority to sell water stored in the Monroe Reservoir (1). The section of the law granting general authority for sale of water reads as follows:

> "The Indiana Flood Control and Water Resources Commission is hereby authorized and empowered to contract and to provide certain minimum quantities of stream flow or to sell water on a unit pricing basis for water supply purposes from the water supply storage in such reservoir impoundments or portions thereof as have heretofore or may hereafter be financed by the State of Indiana. Such water may be made available for direct withdrawal from the reservoir impoundment or released from the reservoir impoundment to create increased flowage beyond normal stream flow for use by the contracting party and/or purchaser at some downstream point . . ." (Acts 1963, c. 342, s. 2).

The state of Indiana expects to recover a large share of its 7.76+ million dollars invested in the dam and reservoir from the sale of water taken directly from the reservoir or from the augmented flow of Salt Creek and the White Rivers.

In spite of the state's plan to recover its investments from the sale of water, not one of the four counties in the reservoir area has made surveys of water or sewage needs either of present conditions or of those expected in the 1970's. Why were not such surveys made during the pre-construction or construction periods?

Today a patchwork pattern of rural water systems are being created in Monroe, Brown and Lawrence counties with little if any concern for the need of water throughout the counties or the sewage problems which the rural water systems will create.

Inadequate provision for business-industrial sites

Question 5. Why did not the Indiana Flood Control and Water Resources Commission or the Monroe County Planning Commission zone, option and/or purchase land for industrial parks and/or business-industrial-circulation corridors?

From the very beginning, the proponents of the Monroe Reservoir maintained that it should be built to supply water to attract industry to industrial-hungry southern Indiana. The largest paper in the Monroe Reservoir area reiterated time and again in news stories and editorials the contribution the stored water would make in creating a favorable industrial climate. For example, an editorial appearing in the *Daily Herald Telephone* on December 12, 1958, included the following statements:

"But that isn't enough to attract industry in large quantities. Southern Indiana must have something to sell. This product can be water—water in quantities which only cities along the Ohio River, Lake Michigan and perhaps the Wabash river at present have to offer. . . ."

But, in addition to water, industry needs building sites, water and sewage facilities and adequate transportation. Industries are attracted to industrial parks where land may be secured at reasonable prices and where water, sewage, electricity and railway and highway transportation are available. Soon after Lake Lemon became a reality and a small industrial park was established west of Bloomington, industries started to move in. The Monroe County Planning Commission failed to zone areas in the Salt Creek watershed for either industrial parks or industrial sites or business-industrial corridors.

The first move to provide for a business-industrial corridor in the Monroe Reservoir area came in the spring of 1967. After the Monroe County commissioners granted the city of Bloomington the right to zone its two mile fringe, city administrators considered the possibility of zoning the land on both sides of Knight Ridge Road (Highway 446) at its junction with the Nashville Road (Highway 46) (8) as a business-industrial corridor. Before this proposed zoning, residences, apartment complexes and residential subdivisions had been appearing parallel to and/or adjacent to the narrow Knight Ridge Road. Naturally the occupants of these residential units protested the potential invasion of business and/or industry.

Moreover the value of this potential site for a business-industrial corridor has been greatly impaired if not primarily destroyed. At the present time the junction is a bottleneck and a traffic hazard for the tourist traffic attempting to pull trailers to the reservoir. Knight Ridge Road is a narrow, twisting, "ungraded" (by late twentieth century standards) country road or trail on which a relatively thin coat of macadem has been spread to accommodate automobile traffic. The road does not have adequate drainage or burms. And now water mains have been laid parallel to the road with apparently no thought of future widening to a three or four lane highway.

The failure to establish industrial parks and/or business-industrial corridors is one more example of the lack of planning and a good one

of piecemeal development resulting in an unregulated "economic developmental jungle." An Indiana legislator remarked at a luncheon meeting in Bloomington in the summer of 1967, "How can the state plan the construction of major highways to the reservoir until it knows where the heavy traffic routes will be?" The heavy routes of traffic should be related to scientific county-wide land use planning and zoning in at least Monroe and Lawrence counties.

Lack of Adult Education

Question 6. Why did not the leadership in villages and townships, cities and counties and the state launch a successful adult education program to inform the public about: *1.* the multiple use potentials of the reservoir; and *2.* the short-ranged and long-ranged plans required to secure the maximum utilization of the lake?

Lack of information (which might have been gathered in scientific surveys) and the spread of inaccurate information has plagued and handicapped the efficient development of the reservoir from its inception. Some are still confused about many facets of the reservoir development. The following questions are repeatedly raised: *1.* Why was not the dam built 20 feet higher? *2.* Why didn't the federal government establish a wildlife refuge on and adjacent to it above the causeway? *3.* Why have not scenic easements been secured with the purchase of right-of-ways bought for road construction to serve the reservoir? *4.* How much of the sediment carried into the reservoir is being dumped in the silt pool? *5.* Have adequate precautions been taken to stop serious soil erosion in the Salt Creek watershed above the dam? *6.* In case of a conflict in water use, will recreation have a priority over water needed to cool the thermal electric generators located below the junction of the East Fork of the White River and the White River? *7.* If the State is to regain its investment primarily through the sale of water to users below the dam, approximately how much of it must be released below the 538-foot level during the summer months? *8.* Why were the outlets of the dam placed so the lake may be lowered to the 515 foot elevation if the reservoir is never to be lowered to that elevation?

The public should be given accurate, scientific, truthful answers to these and other questions.

Lack of recognition and vision

If planning is foresight involving the consideration of potential problems and arranging to prevent their occurrence or resolving the problems when they do occur before they get too big, then it is obvious in many cases that the State and counties have not been "three jumps ahead" of the situation but have been stumbling along attempting to solve the problems years if not a decade too late.

Why did the Indiana Flood Control and Water Resources Commission fail to recognize the need for long-ranged planning and legislation to control water priority rights? The first sentence under a centerhead, Conflict of Use, in an article published in 1961 reads as follows: "The State of Indiana may become, if it is not already, involved in water rights and priority of use." (5).

Approximately four years later in response to an inquiry, the author received this reply:

> ". . . The Policy is to work toward the provision of regional supplies as in the case of Monroe. Hence neither Bloomington nor Monroe County, or any other community, industry or interest, has a vested priority right to the water in Monroe Reservoir."[4]

Nevertheless the Indiana Water Resources Study Committee (a committee created in 1961) is planning to carry on a major study of water rights in the 1967-69 biennium.

Will the two thermal electric power plants now under construction below the junction of the two White Rivers be in operation before this water rights study is completed and any needed legislation passed?

Why did not the Indiana Flood Control and Water Resources Commission or county leadership plan or at least suggest the possible construction of one huge water plant and perhaps one gigantic sewage plant to serve the four-county area of the Monroe Reservoir? This type of regional management of water facilities for cities, villages and countryside dwellers in a group of counties is being placed in operation in southern Illinois at the present time.

Why did not members of the Indiana Flood Control and Water Resources Commission foresee more of the many problems involved in utilizing the reservoir which would require state legislation, and start a legislative program as soon as dam construction started or before? Although recreation was not to be a major use of the reservoir, it should have been obvious to anyone that its water and the adjacent land would be extensively used for recreational, residential and business purposes.

Conclusion

Should Indiana continue forging ahead with a program of completing a "flood control reservoir a year" during the next ten years, without evaluating the efficient use of present reservoirs constructed and thereby benefitting from past mistakes?

If one were to rate the different governmental agencies on planning in relation to construction and wise use of the reservoir in the fall of 1967, the federal government (in "far away Washington, D.C.") would rank the highest in performance and the county the lowest. In part, the state ranks above the counties in planning because planning activities by the counties (Monroe, Lawrence, Brown and Jackson) have often been so negligible and not because the State has a commendable record. In no way is any criticism of Donald Foltz, Director of the Department of Conservation under former Governor Matthew Welsh, implied. The readers should be aware that, during the pre-construction period and most of the construction period, the state administration of the Monroe Reservoir was in the hands of the Indiana Flood Control and Water Resources Commission. This agency was not a part of the Department of Conservation.

[4] J. F. Perrey, Chief Engineer, Indiana Flood Control and Water Resources Commission. Letter dated March 19, 1965.

Perhaps Monroe County's performance of "do nothingism" or very little has set a state record which will last for many decades. A recent newspaper item entitled "Big Plans Are in the Works for Monroe Reservoir" appeared in the *Bloomington Tribune* on March 26, 1967. The fourth and introductory paragraph of the article reads as follows:

> "Few will know and few will care about the blood, sweat and tears that poured into the lake before the dam was constructed."

People who make sacrifices for the public good deserve the congratulations and gratitude of the benefitted citizens. It is unfortunate that the combined membership of the Indiana Flood Control and Water Resources Commission and the Monroe County Planning Commission did not demonstrate: *1.* more knowledge about multiple use reservoirs; *2.* greater vision in short and long ranged planning; *3.* a stronger belief in the need of scientific surveys; and *4.* greater articulation in helping make the general public aware of the problems involved. As some people have remaked bluntly and undiplomatically, "Sure! blood, sweat and tears were poured into the Monroe Reservoir project, but perhaps the ingredient in short supply was brains or know-how." In the last half of the twentieth century there is absolutely no excuse for not securing all the scientific data possible before investing and perhaps wasting millions and millions of the taxpayers' dollars.

And to suggest that obtaining scientific surveys such as a county soil survey would have delayed the project is only an alibi. Construction officially started on the reservoir in the Fall of 1960 and the water did not stand at 538-foot normal pool level until about six years later. Major field work for the Madison County Soil Survey was done in the period 1959-1961 and the report was published in March, 1967. Developers, both private and public, are still groping around in Monroe County making errors which may run into millions of dollars in a 25-year period without the benefit of a scientific soil survey.

Finally, if one rationalizes and claims that mistakes made primarily by state and county agencies were due to the fact that it was the first large multiple-use flood control reservoir in the state, one could ask: has the construction of flood control reservoirs built or under construction since the completion of the Monroe Reservoir been better? Will the State and Federal governments continue to pour millions of dollars into reservoir and other projects in counties that have not adopted county-wide comprehensive land use plans and implement the planning with zoning? Will governmental agencies throughout the hierarchy from city and township through county and state continue to spend millions without first having scientific surveys made?

There is evidence that more and more of the educated citizens and administrators agree with the wise philosophy of Patrick Henry who emphatically stated, "I am willing to know the whole truth, to know the worst and to provide for it." How many more decades will be lost before the four counties in which the Monroe Reservoir area is located organize a Regional Planning Commission to survey, advise and expedite the maximum development of the reservoir? (6) Unfortunately if an-

other decade is wasted, many, if not most, of the present opportunities for wise use of the Monroe Reservoir's physical environment will disappear.

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