USDA ENVIRONMENTAL STATEMENT
FOR
EAST FORK OF WHITEWATER RIVER WATERSHED, INDIANA AND OHIO
Prepared in Accordance with Section 102(2) (C) of P. L. 91-190

SUMMARY

I. Draft ( ) Final (X)

II. Soil Conservation Service

III. Type of Action: Administrative

IV. Description of Action: A watershed project to be constructed under the provisions of Public Law 83-566 by Sponsoring Local Organizations with federal assistance. Land treatment on over 91,000 acres with 47 special land treatment measures, three multiple purpose structures for flood prevention and public recreation with associated recreational facilities, two multiple purpose structures for flood prevention and municipal water supply, one single purpose floodwater retarding structure, 10.3 miles of stream environmental corridor development, and 19.6 miles of multiple purpose channel improvement for flood prevention and drainage are project measures included in the plan. About 3,364 acres of land will be set aside and used for some public benefit. Areas affected by the project are Wayne, Union, Randolph, Fayette and Franklin Counties, Indiana, and Darke and Preble Counties, Ohio.

V. Summary of Environmental Impact and Adverse Environmental Effects: Project action will directly benefit 160 landowners while reducing erosion and sediment production by 30 percent, flood damages by 42 percent, and sediment damages by 48 percent. Planned developments will improve existing reservoirs by trapping sediment and extending the recreational life of the lake. Structures will provide over 7,000 acre-feet of water for municipal and industrial use, 1,248 acres of recreation water and park developments of 877 acres. In addition, 465 acres of stream environmental corridor will be available for public use. Planned recreation developments will provide 238,700 visitor days annually.

Reservoir developments and the environmental corridor will remove 3,364 acres from private agricultural uses. About 52 acres of vegetative cover and 2.3 miles of fish spawning areas will be disturbed during channel construction. Six miles of intermittent stream channels will be inundated by impoundments.

VI. List of Alternatives Considered:

1. Floodwater retarding structures in middle and lower reaches.
2. Land treatment only.
3. Ground water for municipal and industrial uses.
4. Expanding existing community and state parks, private developments, Corps of Engineers' developments, and summer recreational programs of school districts.

5. Flood plain zoning.
6. No project.

VII. Agencies from which written comments have been received:

Department of the Army
Department of Health, Education, and Welfare
Department of the Interior
Environmental Protection Agency
Indiana Department of Natural Resources (for Governor)
Indiana State Clearinghouse (State Budget Agency)
Ohio Department of Natural Resources (for Governor)
Ohio Planning and Development Clearinghouse

VIII. Dates statements made available:

The Draft Environmental Statement was made available to CEQ and to the public on October 20, 1971. The Final Environmental Statement was made available to CEQ and to the public on JUL 25 1972.

USDA SOIL CONSERVATION SERVICE
ENVIRONMENTAL STATEMENT
Prepared in Accordance with Section 102(2) (C) of P.L. 91-190

Type of Statement: Draft ( ) Final (X)

Date: April 1972

Type of Action: Administrative

Title of Statement: The East Fork of Whitewater River Watershed, Indiana and Ohio

1. Description

Authority for Project: Federal assistance through Public Law 566, 83rd. Congress, 68 Stat. 666, as Amended.

Sponsoring Local Organizations: Wayne County, Union County, Randolph County, Fayette County and Franklin County Soil and Water Conservation Districts, and the Whitewater Valley Conservancy District in Indiana; Darke County and Preble County Soil and Water Conservation Districts, Darke County and Preble County Commissioners, and the Jefferson Township Park District in Ohio.

Project Measures: Project measures include land treatment practices on over 91,000 acres with an additional 47 special measures (small dams), three multiple purpose structures for flood prevention and public recreation with associated recreational facilities, two multiple purpose structures for flood prevention and municipal and industrial water supply, one single purpose floodwater retarding structure, 10.3 miles of stream environmental corridor development for public recreation, and 19.6 miles of multiple purpose channel improvement for flood prevention and drainage. The Sponsoring Local Organizations assume all local responsibilities for the installation, operation and maintenance of planned structural measures.

Environmental Setting: The watershed includes an area of approximately 246,900 acres. Land use in the watershed is about 62 percent cropland, 12 percent grassland, 13 percent forest land, and 13 percent other land. Land use in the floodplain is about 70 percent cropland upstream of Richmond, Indiana, and 40 percent below Richmond, with grassland accounting for less cropland in the downstream areas.

Population has increased at a rate of about 0.7 percent per year since 1950. The city of Richmond has decreased 0.3 percent since 1960 after an 11.7 percent increase from 1950-1960. Available work force has increased slightly since 1960 from over 29,000 to 36,000, but has fallen from a peak in 1967 of nearly 37,000. Unemployment was about 4.0 percent in 1960, dropped to 2.7 percent in 1967 but rose to 4.6 percent in 1970. Employment projections indicate about 11.1 percent increase for the Richmond area from 1967-1975.

Non farm employment has been steady since 1960 at about 89 percent of total employment. Manufacturing employs about 41 percent of the employed work force, a decline of 4.0 percent since 1967. The number of manufacturing firms has

declined from 115 in 1960 to 106 in 1970. There is no apparent major factor for the decline.

Retail trade firms have held steady in number with over 800 since 1948. Retail sales have risen from $74 million in 1948 to about $146 million in 1967, however, the number of employees has decreased.

Major economic enterprises include basic manufacturing industries and related service and retail marketing establishments, primarily within and near the Richmond area. Outside the major population centers, which have over 70 percent of the watershed population, are the agricultural interests which involve the greater portion of the land use. There are approximately 1,216 farms in the watershed, averaging about 170 acres.

Farm sales are about 59 percent livestock, 34 percent crops and 7 percent forest and horticultural products. About 51 percent of needed land treatment measures have been installed, with 41 percent of the watershed under cooperative agreement between the Soil and Water Conservation Districts and landowners, and 33 percent of the area adequately treated for erosion and sediment control. Approximately 704 landowners are Soil and Water Conservation District cooperators, of which 428 have conservation plans.

The East Fork of the Whitewater River below Richmond is a good smallmouth bass-rock bass fishing stream. Above Richmond, the stream fishery is fair- to good on the East Fork up to the vicinity of New Paris, Ohio. The stream fishery resource is utilized only moderately by the local fishermen due to the limited stream access together with the attractiveness of Whitewater Lake in the watershed. Other fish found in the East Fork and its tributaries include black crappie, longear sunfish, suckers, and numerous forage species.

Game animal population densities in the basin vary from poor to excellent depending on the intensity and type of farming operations being practiced. The more important game species include squirrels, cottontail rabbits and bobwhite quail. Deer are present but do not provide for significant hunting pressure. Woodcock, waterfowl, raccoon, muskrat, mink and numerous songbirds and small mammals are also present in varying abundance. Overall hunting pressure is of moderate intensity.

Existing water resources consist of numerous small farm ponds and a few small private lakes and gravel pits in the watershed. The Middle Fork Reservoir (175 acres) is located immediately north of the city of Richmond, and is the principal water supply source for that city. The lake is used for sail boating and fishing. Aquifers within glacial sand and gravel deposits and limestone beds supply about one-half the municipal water supplies, but they are not sufficient to supply water for future industrial and urban expansion in the Richmond area. Wells serve as the present water supply source for New Madison and New Paris in Ohio. Ground water reserves are expected to meet future demands for local water supply in the area. Whitewater Lake (185 acres) is in a state park located near Liberty, Indiana. It is used for fishing and swimming, picnicking and camping.

The 6,230 acres of floodplain are subject to frequent flooding with some receiving damages two to three times per year. About 600 additional acres in the upper reaches suffer from inadequate channel depth and capacity for drainage removal of excess water. The problem occurs in conjunction with a floodwater problem. Erosion has been classed as severe on 10 percent of the area, moderate on another 30 percent, and within tolerable soil loss limits on the remainder. Average annual soil loss rates are 3-5 tons per acre. Sediment damage occurs to two existing lakes and one under construction. Sediment accumulation in Middle Fork Reservoir displaces 24.5 acre-feet of usable water storage each year. Whitewater Lake has 25.3 acre-feet of deposition annually, affecting its recreation use. About 95 acre-feet of sediment will accumulate at Brookville Reservoir at the lower end of the watershed. Sediment deposition also occurs at bridges and culverts, in channels, and farm ponds.

Additional stream flow at Richmond is currently needed for sewage dilution; however, advanced waste treatment will be installed before Brookville Reservoir is completed. About 9 million gallons of sewage effluent per day is now being treated at Richmond, with a capacity for about 12 million gallons per day. The Richmond Sanitary District has set a target date of 1974 for installation of advanced waste treatment and expansion of treatment capacity. Based on the Ohio River Basin Comprehensive Survey, projections to the year 2020 indicate a municipal water supply demand of 4.5 times the present usage for the Richmond area. Current supplies will be sufficient to meet expected needs until approximately 1985.

Of the total 246,900 watershed acres, soil and water conservation practices are planned on over 91,000 acres in addition to the 81,500 acres now adequately treated, and will be applied on an accelerated basis over the 9-year installation period. Approximately 50 percent of needed land treatment measures have been installed. In addition, 47 special measures or small dams with 8 to 20 acres surface area will be installed as part of the land treatment program to provide on-site and off-site public beneficial effects to localized areas throughout the watershed. The project includes six reservoirs, two of which have floodwater and municipal and industrial water supply storage with incidental recreation use, three have floodwater and recreation storage with associated public recreation facilities and one has floodwater storage only. In addition, 10.3 miles of stream channel and adjacent land will be purchased and developed for public recreational use and wildlife sanctuaries, or essentially an environmental corridor between Richmond and the Brookville Reservoir pool area. About 19.6 miles of flood prevention and drainage channel improvement are planned in the upper limits of the watershed in the Ohio portion.

All construction areas for dams will be revegetated as soon as possible after disturbance to control erosion. Appropriate grasses, herbaceous or wood plantings will be used based on State and Federal agency recommendations. Pool areas will be cleared to the permanent water line with selected trees left in lateral arms as fish and wildlife attractors based on State Divisions of Fish and Wildlife recommendations.

Structures will have drawdown provisions for pool maintenance as well as fish management. Selected grasses and herbaceous and woody plantings will be made within the 877 acres of park land planned for the three reservoir recreation developments.

The need for additional public recreational opportunities was indicated in the Ohio River Basin Comprehensive Survey and a recreation study made by a consulting engineer for the Whitewater Valley Conservancy District. These studies indicate that the population within a 50 mile radius is estimated to increase from 2.5 to 4.5 million by the year 2000. The Ohio study estimates the annual recreation demand to increase from 1.7 to 2.3 million annual visitor days by 1980 and 4.1 million by 2000. Recreation developments for structures 23B, 35 and 38 and the stream corridor developments between Richmond and Brookville Reservoir are results of the consulting engineer's report. The corridor development for public use will provide full access to the stream from Richmond to Brookville and additional recreation opportunities not easily incorporated into the reservoir developments such as canoeing, horseback riding, nature trails, and hiking trails.

About 1,248 acres will be inundated by the permanent pool of the six reservoirs. Land use in the areas to be inundated is approximately 567 acres cropland, 317 acres grassland, 346 acres woodland and channel, and 18 acres other land. An additional 774 acres are included in temporary flood pool and/or public access strips around the reservoirs. About 877 acres will be used for public park land with about 125 acres designated as nature and wildlife areas. The channel recreational development will have 60 acres for four public access areas, 275 acres for wildlife sanctuaries, and 130 acres of stream and public access along the channel. Land use in the 465 acres designated for channel recreational development is approximately 35 acres cropland, 30 acres grassland, 300 acres forest land or woody growth, 20 acres miscellaneous land, and 80 acres stream area.

Channel improvement for flood prevention and drainage will involve construction methods which will cause the least destruction of existing wildlife habitat. Work will be done from one side with selected mature trees left on the side with clearing involved. All excavated side slopes and channel sides of spoil will be seeded to grass. Herbaceous plantings for wildlife cover are planned at the top of spoil banks. Fencing of spoil banks will be done where adjacent to continuous pasture, and permanent easement limits will be marked to prevent encroachment by farming activities. Rock and log channel deflectors will be placed within the most downstream 2.3 miles of channel improvement on the East Fork for the preservation of fishery values. Appurtenances are planned to safely lower surface waters into improved outlets.

Existing state and local health and air and water pollution regulations will be followed during and after project installation. The sponsoring organizations will provide required safety measures and precautions for the public use areas.

No known natural, historical, or archeological values will be affected by project measures. References are: the knowledge of employees of the Sponsoring Local Organizations; "A Tourist Guide to Historic Indiana", by Dr. I. George Blake; "Natural Areas in Indiana and Their Preservation", Purdue University, April 1969; "National Register of Historic and Archeological Sites" complied by the National Park Service; "Summary of the Environmental Inventory of Natural, Historical and Archeological Features of Southwestern Ohio", prepared by the U. S. Army Corps of Engineers, 1971; and a check of local libraries on historical items of value. The National Park Service, State Historical Bureau, and others with interest will be kept current on progress in the watershed.

2. Environmental Impact

Land treatment conservation measures will reduce erosion and sediment production by about 30 percent. Structural measures will provide 42 percent average reduction of flood damages. Sediment damages will be reduced 48 percent. About 160 landowners will benefit directly from reduction of agricultural damage.

Projected population increases will create a force seeking off-farm employment since agricultural activities are expected to hold steady or decline slightly. The construction of project measures will create opportunities for seasonal employment in construction. Permanent and seasonal recreation related jobs will be created by project measures. Increased demands on goods and services related to food, clothing, transportation, tourism will create new job opportunities.

Assurance of adequate municipal and industrial water supplies to meet the demands for the next 50 years will make the area attractive for new industries. Additional employment opportunities will follow any influx of new industry.

The overall impact on employment is considered moderate, with primary stimulation of seasonal employment and lesser effect on long-term employment. Project installation will place greater demand on retail goods and services through increased travel and activities stimulated by recreation developments, and through increased use of water supplies for municipal, industrial, and residential purposes. Over $65,000 in secondary benefits will be generated annually by this project. (See work plan Table 6 attached for summary of all project monetary benefits.)

Existing reservoirs will be improved by the planned developments. The Middle Fork Reservoir at Richmond will continue as Richmond's primary water supply source, and serve fishing and sail boating recreational needs. Structure 4A will improve water quality and provide additional usable water by storing sediment and providing sustained water flow into the reservoir. Whitewater Lake will be enhanced by structure 23B through provision for flood control to park facilities, improvement of water quality by trapping sediment, and extending the recreational life of the lake.

Water quality will be improved through reduced sedimentation by virtue of sediment trapped in reservoirs and additional conservation measures on the land. Agricultural nutrients and aquatic organisms are expected to be less concentrated in the stream system.

Over 7,000 acre-feet of municipal and industrial water supply will be provided for Richmond, to serve an estimated 85,000 people by 1990.

About 619 acres of recreation water will be provided in three developments with 877 acres of park. In addition, 465 acres of environmental corridor from Richmond to Brookville Reservoir (10.3 miles) will be developed for public use, including canoeing. Both sides of the stream channel will be available for public use, thus enabling the recreation use area per mile of stream to be maximized.

Also 774 acres of "wild" land will revert to natural vegetation around the pool areas. About 400 acres will be designated as wildlife areas in the recreational developments. An estimated 238,700 visitor days of use are expected annually at the planned recreation developments.

An additional 629 acres of water will be available for recreation and fishing use in the water supply pools and at the single purpose structure. An estimated 31,000 visitor days of use annually will be provided by these sites.

In addition to conservation measures installed by individual landowners, special land treatment measures will be installed at 47 sites throughout the watershed. The small reservoirs with 8 to 20 acre surface areas will provide erosion and sediment control, and flood damage reduction to localized areas, recreational and fish and wildlife use opportunities for about 33,000 visitor days annually, pollution control, land enhancement and improvement of the rural environment. Travel and trade will increase by virtue of the more even distribution of population, and the attractiveness of the landscape to sightseers.

Stream fishery values will be disrupted during clearing operations in the lower 2.3 miles of East Fork Channel in Ohio, although no disturbance of the streambed will take place. Channel deflectors installed as part of the project will create a more desirable pool-riffle condition. Existing shade will not be disturbed in this section of channel; therefore, water temperatures will not be affected. About six miles of intermittent stream channel will be destroyed in the reservoirs while 1,248 acres of lake fishery will be created.

The stream fishery in Ohio serves as a spawning area for fishing locations downstream near Richmond. No estimate has been made of actual use by fishermen, since the primary stream fishery is the main channel downstream from Richmond where the recreation corridor is planned. Approximately 57,000 annual fisherman days are expected at the planned reservoirs. In addition, over 6,100 fisherman days are expected annually in the channel recreation area.

About 350 acres of woody wildlife habitat, about 320 acres of grassland and about 570 acres of cropland will be inundated or destroyed by project measures. The present land use in acres of the areas affected by dams and lakes are as follows:

Structure	Cropland	Grassland	Woodland	Other
4A	232	101	80	9
8	55	8	121	5
23B	24	18	71	-
35	255	178	38	4
38	-	9	23	-
28	1	3	13	-
TOTALS	567	317	346	18

A total of 3,364 acres will be removed from agricultural uses as the result of the reservoir developments and the environmental corridor. These acres are planned for the following land uses:

Permanent water area	-	1248 acres
Park areas at lakes	-	877 acres
Park along channel	-	465 acres
Flood pools and public access	-	774 acres

With the exception of the permanent water areas, picnicking, swimming, camping and parking areas, all land will be left in its natural state. No floodplain land use changes due to protection by flood control or drainage measures are expected.

About 600 acres associated with flooded acres which suffer from inadequate capacity or depth for removal of excess water will receive relief as the result of the 19.6 miles of channel improvement. This area is now all cropland and is expected to remain in cultivation. About 52 acres of vegetative cover will be destroyed along one side of the channel where excavation takes place. Selected trees will be left on the disturbed side. Wildlife plantings will be placed on the spoil bank and the channel will be protected from grazing or farm machinery.

3. Favorable Environmental Effects

a. Reduce erosion and sediment production by about 30 percent.
b. Reduce sediment damages to reservoirs by about 48 percent.
c. Reduce flood damages by about 42 percent.
d. Provide recreational opportunities at three lakes and 10.3 miles of stream for an estimated 238,700 visitor days annually, to help meet the present demand of 1.7 million visitor days and projected demand of 4.1 million by the year 2000.
e. Provide over 7,000 acre-feet of municipal and industrial water supply which will meet the 1990 and 2020 projected need for Richmond. This will allow continued residential and industrial growth, and help maintain economic stability within the area.

f. Reduce polluting effects of sediment by accelerated land treatment program which includes 47 small reservoirs for multiple-use effects.
g. Create an additional 1,248 acres of surface water that can be used as lake fisheries.
h. Set aside 275 acres along the environmental corridor as wildlife sanctuaries, and designate an additional 125 acres as wildlife areas within the parks at reservoirs.
i. Reserve 774 acres of land around the permanent pools of planned reservoirs, which will remain in natural vegetative cover and be usable as wildlife habitat.
j. Increase the demands on suppliers of local goods and services, and on marketing, transportation, and processing facilities.
k. Enhance the overall quality of environment by improving the watershed landscape, balance of land uses, and opportunities for enjoyment of recreation, natural areas and general watershed aesthetics.

4. Adverse Environmental Effects Which Cannot Be Avoided

a. Reservoir developments and the environmental corridor will remove 3,364 acres from agricultural uses. Land use in the areas are the following:

Area	Cropland	Grassland	Woodland	Other
Multiple-use and sediment pools	567	317	346	18
Detention pool	162	59	78	10
Dams and Spillways	116	16	65	2
Recreation Area	399	410	305	29
Environmental Corridor	28	57	252	128
TOTALS	1272	859	1046	187

b. There will be six miles of intermittent stream channels inundated by the impoundments.
c. Wildlife habitat, including 567 acres of cropland, will be lost permanently on 1,248 acres inundated by the reservoirs.
d. About 52 acres of vegetative cover will be lost temporarily during channel construction until wildlife plantings can be established.
e. Fishery values will be disturbed temporarily in 2.3 miles of stream during construction.
f. Air and water quality will be affected during and after project installation.

5. Alternatives To The Proposed Action

Several floodwater retarding structures were evaluated in the middle and lower reaches, but due to the concentration of agricultural lands in the upper reaches where storage was not available, the high costs of several sites could not be justified. The sponsors elected to tolerate a minimum

level of protection in the middle and lower reaches with a smaller number of dams.

Flood problems in the Richmond area are not severe. Although no flood plain zoning is in effect, buildings or improvements in the narrow, gorge-type area through Richmond are small in number. There was no objective to alleviate flooding to allow urban or industrial development along the channel area. Values of the existing improvements in the flood plain are relatively low, therefore, flood proofing was not considered. The major purpose for flood damage reduction is for agricultural uses. The only feasible means of achieving that purpose is to retard water runoff through a combination of vegetative and structural means.

Another alternate for flood prevention would be land treatment only. This would satisfy a small number of landowners who had localized flood, erosion or sediment problems, but the objectives of the watershed sponsors include a high consideration for the urban centers of Richmond, Liberty, and New Paris where recreation and/or water supply were desired. Those objectives could not be met with land treatment only.

An alternative for planned municipal and industrial water supplies is ground water. The importance and reliability of wells as a municipal water source can be expected to diminish with increased urbanization. Recharge of these sand and gravel deposits by infiltration of direct precipitation will be lessened as the urban sprawl continues. Pollution of ground water is also increasing. Ground water and present surface water sources are expected to meet the Richmond area needs until 1990, but they would not allow for unexpected growth or increased industrial use. The two planned sites for water supply are the only sites available which would allow use of the present water treatment facilities and distribution system. The water company considers 10 miles as the maximum economical pumping distance for new water sources for Richmond. These sites have an advantage of gravity releases and short pumping distances.

An alternative to the recreation developments was not considered, since the identified recreation demands for the area could not be met by the planned developments. The willingness of the sponsors to pay almost two-thirds of the cost for planned recreation measures and all costs for work plan studies for recreation, indicated a sincere objective which should be satisfied. Other alternatives to fulfill some of the recreation demands which could not be economically satisfied by the sponsors would be expanding existing community parks, enlarging state parks in the area, expanding summer recreation programs of school districts, private developments, and increasing the proposed recreational facilities at multiple purpose reservoirs developed by the Corps of Engineers.

An alternate to channel improvement would be flood plain land use changes from cropland to idle or other uses. The landowners in Darke and Preble counties are dependent upon agricultural products for their livelihood,

therefore, the flood prevention and drainage provided by the channel work was the most economical means to meet their objective. Dam sites were not available to provide minimum flood relief.

An alternative of no project is one which must be considered. The estimated average annual net benefits which would be foregone by not implementing this project are over $175,000. The watershed sponsors were not willing to consider foregoing these benefits in view of the problems and needs which now exist.

6. Relationship Between Local Short-Term Uses of Man's Environment and The Maintenance and Enhancement of Long Term Productivity

The area around Richmond is gradually changing to urban-industrial from agricultural. This will take place regardless of project installation. The agricultural areas in the upper reaches are not expected to change.

Flooding in the Richmond area will be reduced to provide a two year level of protection. This gorge-type area is not being used for commercial or industrial purposes and is occupied by a few houses. The planned flood protection will not allow utilization of this narrow strip of land for urban expansion or development.

The project will reduce flooding, erosion and sedimentation, and will provide water supply and recreational opportunities, all for immediate and long term needs. The general trend of rising economy, an expanding urban center, more population, and more leisure time lend significance to the future mix of water and recreational needs with surrounding agricultural production. All lend weight to a higher quality of the environment.

Areas adjacent to the dam and spillway construction areas will be used for temporary storage of construction equipment. The time required for each site is one to two years. These areas are usually open pasture or cropland and will be reseeded with appropriate vegetation as soon as equipment is removed from each area.

The project is expected to yield benefits through soil and water conservation and recreation opportunities beyond its projected 100 year life.

7. Irreversible and Irretrievable Commitments of Resources

By mutual agreement under PL-566 between the sponsors and the Soil Conservation Service, all lands bought with federal cost share will be retained for its intended use for the evaluated life of the project. This involves about 2,001 acres in the three reservoir recreational developments. Of these, about 619 acres are planned to be inundated with permanent water, and 877 acres are planned for park areas. An additional 1,363 acres will be obtained by the sponsors for project purposes, of which 629 acres will be inundated with permanent water.

Land use on the 3,364 acres involved with the planned reservoirs will remain in present condition with the exception of the 1,248 acres inundated by the lakes. These 1,248 acres have the following present land use in acres:

Structure	Cropland	Grassland	Woodland	Other
4A	232	101	80	9
8	55	8	121	5
23B	24	18	71	-
35	255	178	38	4
38	-	9	23	-
28	1	3	13	-
TOTALS	567	317	346	18

Other permanent commitments of resources known to be required for this project will involve only materials and labor used for construction.

8. Consultation General

Overall coordination and consultation among the various local, state and federal agencies have been quite comprehensive during the history of this project development. Rather detailed records have been kept by the local sponsors and the Soil Conservation Service. Over 20 public meetings were held between the periods of 1955 to 1964 while preliminary investigation studies were underway. In addition, regular meetings of the local sponsors and interest groups were held on a regular basis to sustain interest and arrive at specific project goals. During the work plan stage between 45 and 50 meetings were held by the sponsors and state, federal or local agencies as well as the general public. Other unrecorded meetings with individuals of a special interest nature have been held. All of these meetings dealt with project formulation or evaluation of the sponsors' goals within the project area. A public meeting was held August 7, 1970, to explain the draft work plan. One hundred nineteen (119) persons attended. Overall reaction to the proposed work plan was quite favorable. There were no specific objections by any individual group or agency representative. Questions dealt primarily with landowners affected by planned measures.

Project reconnaissance reports by the Forest Service and Bureau of Sport Fisheries and Wildlife were used for project formulation. The specific recommendations and work plan narrative suggestions provided by these two agencies were discussed with project sponsors and incorporated into the final work plan. Prior to preparation of the final plan an informal field review was held at Richmond. All concerned local, state and federal agencies were invited to this meeting and were asked to comment on the work plan and to provide comments concerning the effects of the project on environmental quality. The work plan and the environmental statement have been prepared in consideration of all comments and recommendations provided by the project sponsors and state and federal agencies.

9. Consultation with Federal Agencies

There were no environmental issues raised by a federal agency during the planning process. The Bureau of Sport Fisheries and Wildlife in their reconnaissance report had specific recommendations concerning types of construction and vegetative measures which should be followed during the construction stage. The suggestions contained in their report have been incorporated with minor modification in the final work plan with the consent of project sponsors.

The Forest Service provided data specifically relating to the environment for use in preparation of the draft environmental statement. The Forest Service recommended that channel construction be done from one side only, that any stream fishery affected be replaced, and that these features be incorporated into the final work plan. This has been done. The Forest Service regards the total impact on timber production and wildlife habitat as minor.

The Environmental Protection Agency commented specifically on water and sanitation involving the three reservoir recreation developments. Comments on structure 23B included; parking facilities and a flush toilet facility should be provided near the fishing pier for the handicapped, the vault privy should be replaced with a flush toilet facility, the water supply should be developed to serve the pier shelter and ramp areas, and a package waste treatment plant should be provided to handle wastes from the recommended flush toilet facilities with the effluent being discharged below the dam. Parking facilities are located near the pier, but are not shown on the work plan map due to the scale involved, with cost included in parking lots cost in Table 2B. Vault toilets are considered to be adequate for the expected use of, primarily, picnickers and fishermen. Location of vault toilets and a sanitary facility near the fishing pier will be determined as part of the detailed design.

Comments on Structure 35 included; a toilet facility should be provided near the boat docks and ramp and near the fishing pier, distance between camp sites and facilities greater than 500 feet, and plan does not indicate how sewage wastes are to be disposed of or where the effluent is to be discharged. The inclusion of toilet facilities at the boat docks and ramp at the fishing pier will be considered in final design as will desirable distances between camp sites and facilities. Sewage wastes will tie into the Richmond sewage system. A gravity sanitary sewer located to the north will be utilized and wastes will be carried into the Richmond Treatment Plant. Comments on Structure 38 were that the plan did not indicate the source of water supply and sewage disposal for the recreation area. New Paris water and sewage facilities will be utilized. The agency also recommended that reference be made in the environmental statement to the temporary air pollution and solid waste disposal problems which may be expected to occur during the project's construction phase. A statement regarding existing state and local health, air, and water pollution regulations is included in the environmental statement.

A list of all federal agencies who were invited to comment on the draft environmental statement are listed below:

Department of the Interior
Department of Health, Education and Welfare
Department of the Army
Environmental Protection Agency
Federal Power Commission

The Department of the Army concurred in the Draft Environmental Statement.

The Department of the Interior provided the following comments:

a. Environmental Setting - should be revised to reflect the presence or absence of archeological values. The environmental setting has been revised and expanded to improve the statement on status of archeological values and identify other sources of information.

b. Environmental Impact - does not include a discussion on the effects of 19.6 miles of channel improvement. Further discussion of the effects of selected clearing and shoal removal and channel improvement has been added to the environmental impact.

The Bureau of Sport Fisheries and Wildlife reconnaissance report for work plan development suggested in Recommendation No. 8 that stream channel modification below the Darke-Preble county line in Ohio be "confined to spot removal and not extensive reaches so that the stream fishery may be preserved." This type of work was deleted from the proposed project at one stage of plan formulation. It was then added back into the proposed Works of Improvement after more detailed hydraulic studies were made on the present channel. The work now included consists of channel excavation for about one-half mile downstream from the Darke-Preble county line, then clearing and shoal removal down to New Paris, and clearing only from New Paris to the end of channel work. Planned channel excavation is located upstream from the section regarded as a good stream fishery. The excavation will involve some lateral widening on one side only where severe restrictions are creating abnormal flood hazards to cropland and improvements. Wildlife habitat damages will be mitigated. No other type of work would reduce the hazard sufficiently to allow normal use of the area. The clearing indicated "consists of removing woody vegetation at or near ground level within the channel" with no clearing outside the channel. Shoal removal consists of "dipping of the channel bottom to line and grade" only where excessive sediment has built up within the existing channel. With the exception of the excavation discussed above, the scope of planned channel work is consistant with "selective clearing and snagging" and "spot removal" recommended by the Department of Interior on pages 2 and 4 of their comments.

c. Alternatives to the Proposed Action - alternatives such as flood plain zoning or establishment of an environmental corridor and a discussion of the environmental effects of selected clearing and snagging are not included. A discussion of other alternatives to channel improvement has been added.

d. Consultation with Federal Agencies - environmental issues raised on channel improvement and recommendations made in the Fish and Wildlife Report were not recognized or adopted, and also that the statement that the U. S. Fish and Wildlife would comment specifically by July 1, 1971, was not adequate. The draft environmental statement makes reference to the recommendations contained in the Fish and Wildlife Report and that they have been incorporated into the final plan. The statement about Bureau of Sport Fisheries and Wildlife comments was in regard to the work plan and not the draft environmental statement. This has been changed above in this section.

The U. S. Department of Health, Education, and Welfare commented that recreational facilities should be dependent on completion of the treatment plants and potable water supply, and since the project proposes public use, public safety should be discussed. Statements pertaining to these items have been included in the environmental setting section.

Comments of the Environmental Protection Agency consist of:

a. Environmental Setting - statement should include present level of sewage treatment at Richmond and future plans for advance waste treatment. This information has been added to Environmental Setting.

b. Environmental Impact - a higher and better economic land use would probably evolve due to increased protection from project measures. Economic analysis of project effects reflect a higher return on investment for crop production on the same areas now being used as cropland.

c. Adverse Environmental Effects - (a) air, water, solid waste and noise pollution will increase during and upon completion of project, (b) water quality affected by agri-nutrient build up in reservoirs, (c) exposure of mud flats in reservoirs during periods of low water levels, and (d) water quality problems increase below Richmond due to increasing municipal and industrial activities resulting from project water supply reservoirs. Air and water quality have been added as being adversely affected during project installation. Water levels in planned reservoirs will remain constant except during periods of floodwater storage up to 10 days, therefore, mud flats will not be exposed.

d. Alternatives to the Proposed Action - should include a discussion of no project. This has been clarified.

e. Irreversible and Irretrievable Commitments - construction material and labor committed to the project and the related disruption of resources should be mentioned. The section has been expanded to note materials and labor commitments.

f. Consultation with Federal Agencies - Bureau of Sport Fisheries and Wildlife recommendations and any modifications should be fully discussed. They are discussed above.

10: Consultation with State and Local Agencies

There has been no environmental issue raised by any state or local agency or the general public concerning this project, either in the planning stage or during the review process. They were requested to comment on the draft work plan and submit written or oral statements concerning the plan and environmental issues.

All state and local agencies invited to comment on the Draft Environmental Statement are listed below:

Indiana Department of Natural Resources (IDNR)
Indiana State Board of Health
Office of the Governor (Indiana) - IDNR
Indiana State Clearinghouse (State Budget Agency)
Ohio Department of Natural Resources (ODNR)
Ohio Department of Highways
Office of the Governor (Ohio) - ODNR
Ohio Planning and Development Clearinghouse
Indiana State Soil and Water Conservation Committee
Indiana Acadamy of Science
Wabash Valley Interstate Compact Commission
Indiana Farm Bureau
All Project Sponsors

The Indiana Department of Natural Resources and the Indiana State Clearinghouse concurred in the Draft Environmental Statement. The Indiana State Board of Health endorsed the development of the project with provision that final reports be submitted to their office as they are developed.

The Ohio Planning and Development Clearinghouse approved the Environmental Statement with consideration of Ohio Department of Natural Resources comments. The Ohio Department of Highways approved the project provided they were appropriately notified well in advance of any work which affects highway drainage.

The Ohio Department of Natural Resources (ODNR) approved the Environmental Statement and work plan with consideration of comments from the Health Planning Council of the Greater Miami Valley, Ohio Historical Society, Ohio Historical Center and the Department of Natural Resources.

Specific comments by ODNR are:

a. Adverse Affects - pre-historic and historic sites within the Ohio section of the area were not given consideration in the Environmental Statement. Additional information concerning historical sites in the Ohio portion has been added. There are no such sites affected by project measures. Source of reference is the "Summary of the Environmental Inventory of Natural, Historical and Archeological Features of Southwestern Ohio", prepared by the U. S. Army Corps of Engineers, 1971.

b. Environmental Setting - water supply considerations in the Ohio portion should be discussed as well as consideration for additional multiple-purpose use of reservoir sites for some future date. Discussion of water supply needs for the Ohio portion has been added to the Environmental Statement.

c. Environmental Impact - no discussion is offered on the 600 acres receiving drainage benefits. This discussion should include type of land affected, present land use and expected result from better drainage and stream channel modification. The areas affected by stream channel improvement are discussed further under Environmental Impact.

d. Environmental Impact - the effect on water quality related to reduction to sedimentation in streams and reservoirs merits further discussion. The importance of sediment reduction on amount of agricultural nutrients and aquatic organisms has been added to the Environmental Impact section of the statement.

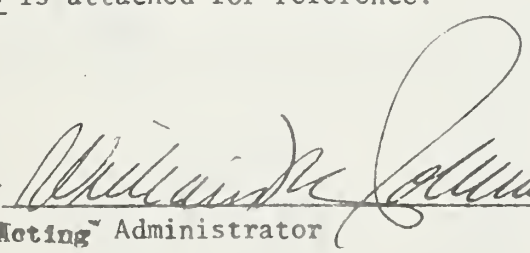
e. Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity - restoration for areas used for construction equipment storage should not wait until all construction is complete. Wording on restoration of equipment storage areas has been changed to reflect revegetation as soon as equipment is removed from the areas.

f. Environmental Setting and Environmental Impact - stream temperatures are important for East Fork due to the fishery. Flow characteristics should be maintained or improved. References to importance of the stream flow and water temperature have been added to the discussion of the stream fishery in the Ohio portion of East Fork.

11. Review By State and Local Agencies Developing and Enforcing Environmental Standards

As specified in the Office of Management and Budget Bulletin 71-3, the State Clearinghouse Agencies for both Indiana and Ohio have reviewed the Environmental Statement and work plan and have concurred in both documents.

12. Project map is attached for reference.

Approved By  Date JUL 7 1972

Acting Administrator

TABLE 6 - COMPARISON OF BENEFITS AND COSTS FOR STRUCTURAL MEASURES

East Fork of Whitewater River Watershed, Indiana-Ohio

(Dollars)

Evaluation Unit	Average Annual Benefits 1/								3/ Avg. Annual Cost	Benefit Cost Ratio
	2/ Damage Reduction	More Intensive Land Use	Drainage	Recreation	M & I Water Supply	Incid. Recreation	Secondary	Total Benefits		
All Structures, Structure Rec. Developments, and Channel Rec. Development	18,474	-	-	429,000	70,000	9,300	61,656	588,703	359,279	1.6:1.0
All Channel Imp. East Fork, Middle Fork & Baker Ditch	5,352	9,261	677	-	-	-	3,629	18,919	18,482	1.0:1.0
Project Administration	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX								41,908	XXXXXXXX
GRAND TOTAL	24,099	9,216	677	429,000	70,000	9,300	65,285	607,622	432,584	1.5:1.0

1/ Price Base: Adjusted Normalized (April 1966)

2/ In addition, it is estimated that land treatment measures will provide flood damage reduction benefits of $6,508 annually.

3/ From Table 4

(Revised August 1971)

DEPARTMENT OF THE ARMY
WASHINGTON, D.C. 20310

21 DEC 1971

Honorable Thomas K. Cowden
Assistant Secretary of Agriculture
Washington, D. C. 20250

Dear Dr. Cowden:

In compliance with the provisions of Section 5 of Public Law 566, 83d Congress, the Administrator of the Soil Conservation Service, by letter of 19 October 1971, requested the views of the Secretary of the Army on the work plan for East Fork of Whitewater River Watershed, Darke and Preble Counties, Ohio and Union, Randolph, Wayne, Fayette, and Franklin Counties, Indiana.

We have reviewed this work plan and foresee no conflict with any projects or current proposals of this Department. The draft of the environmental statement satisfies the requirements of Public Law 91-190, 91st Congress, insofar as this Department is concerned.

Sincerely,

Charles R. Ford
for Kenneth E. BeLieu
Under Secretary of the Army

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
WASHINGTON, D.C. 20201

OFFICE OF THE SECRETARY

DEC 10 1971

Mr. Kenneth E. Grant
Administrator
Soil Conservation Service
U.S. Department of Agriculture
Washington, D. C. 20250

Dear Mr. Grant:

This is in reply to your October 19, 1971, letter to Secretary Richardson requesting comments on the draft environmental impact statement for the East Fork of Whitewater River Watershed, Indiana and Ohio.

We have reviewed the health aspects of the statement and have the following comments to offer:

1. Development of the recreational facilities should be dependent on completion of the treatment plants and potable water supply described therein.

2. Since the subject project proposes public use of facilities, procedures for public safety should be discussed in the statement.

The opportunity to comment on the draft environmental impact statement is appreciated.

Sincerely yours,

Merlin K. DuVal, M.D.
Assistant Secretary for
Health and Scientific Affairs

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

MAR 17 1972

Dear Mr. Secretary:

This is in reply to your letter of October 19, 1971, which forwarded copies of a watershed work plan for the East Fork of the Whitewater River, Indiana and Ohio, to us for review and comment. We have completed our review of the material and submit the following comments for your consideration and use.

No existing or proposed units of the National Park System nor any eligible or potentially eligible natural or environmental education landmarks would be affected by this project. Adequate geological investigations have been made and we cannot detect any long-term adverse effects upon the hydrologic system resulting from the proposed work plan. Sand and gravel and limestone are produced near the town of Richmond but the exact location of the pits and quarries in relation to the structures can only be determined by onsite investigation. If no direct conflict exists between these existing mineral industries and the project, this work plan will have no adverse effect on the mineral resources or mineral industry of the watershed. The project does not impact on Indian lands under the jurisdiction of this Department.

Reaches of the East Fork, especially below the Darke-Preble County lines of Ohio, provide good smallmouth bass and rockbass habitat although limited public access inhibits public use. Other fish found in the drainage area include black crappie, longear sunfish and suckers. Forage fish are plentiful.

Wildlife populations vary from poor to excellent, relating directly to the type and intensity of farming that exists in the area. The more important game species include squirrel, cottontail rabbit and bobwhite quail. Whitetail deer, ringneck pheasant and ruffed grouse are present but do not provide significant hunting opportunities. Woodcock, waterfowl, raccoon, muskrat, mink, numerous songbirds, reptiles and amphibians are also present.

Significant stream fishery and wildlife habitat losses can be expected as a result of the 19.6 miles of stream channelization. The development of six retention type reservoirs and 47 small impoundments will destroy about 1700 acres of diversified habitat through permanent inundation. Intermittent flooding of lands around the reservoirs will greatly reduce the wildlife habitat value on an additional 774 acres.

The extensive impoundments will permit new and desirable lake-type fisheries to develop, if properly managed by responsible State game and fish agencies and if opened to the general public. The newly created reservoirs, including the Corps of Engineers Brookville Reservoir, should satisfy to a large degree the present and future demands for lake-type fishing in and near the watershed. The acquisition of 10.3 miles of land along the East Fork as an environmental corridor containing 465 acres of land and water is an excellent way of providing outdoor recreation compatible with the environment. Of this total acreage 275 acres are designated as nature and wildlife areas. About 877 acres will be obtained and used for park purposes around the reservoirs. Around 125 acres of this total will also be set aside for natural and wildlife use. The project sponsors and the Soil Conservation Service are to be commended for the inclusion of these features into their plan.

Our primary concern with this proposal was and still is the proposed 19.6 miles of stream channelization. Our Bureau of Sport Fisheries and Wildlife expressed opposition to the stream channelization in the six-mile reach of the East Fork below the Darke-Preble County line in their report of February 1970. Recommendation No. 8 of this report stated that, within channel, debris and sediment removal in this six-mile reach of the East Fork below the Darke-Preble County line be confined to spot removal rather than extensive removal so that stream fishery may be preserved. We understood that the local sponsors were willing to delete the channelization. This understanding was based on a letter from the State Conservationist dated April 13, 1970, whereby our Regional Director, Bureau of Sport Fisheries and Wildlife, was advised that Recommendation No. 8 was no longer applicable since the proposed channel improvement on the East Fork below the Darke-Preble County line has been deleted from the project. However, we note that the channelization is still a recommended increment of the proposed plan.

In accordance with instructions in the SCS Watershed Memorandum 108 (February 14, 1971) all channel alterations which are not yet installed will be evaluated under the guidelines provided. The East Fork project is clearly eligible for evaluation under these guidelines. Based upon these guidelines, we would recommend a Group 2 Classification for the work in question.

In discussing the forestry resources in this study (page 16) it is stated that given protection,care and management, the forest resource is expected to increase its contribution to the economy of environmental enhancement of the watershed. However, on page 15 it is stated that conversion of woodland to cropland is currently under way and is expected to continue. An estimated 30 percent of the watershed woodlands is on soils suitable for agriculture. In view of the foregoing, we can expect a continuing decline in the forest resource, wildlife and habitat. Further clarification appears warranted.

The statement on page 20 discussing the 7000 acres of inundation needs qualification. The average annual inundation reflects flood occurrences of two to three times a year. However, it misleads the reader to conclude that this is 7000 separate acres which are flooded each year. In reality, much of this acreage represents lands that are repeatedly flooded (e.g. the same acre flood three times in a year is counted as three acres flooded annually.)

The statement on page 27 discussing flood control benefits through stage reduction appears to be overstated. The total flood storage in the watershed project pools is only about two percent of the capacity of the Corps of Engineers proposal, Brookville Dam.

Both the work plan and the environmental statement are deficient in giving consideration to the archeological and historic resources in the watershed. Archeological investigations in the East Fork of the Whitewater River in and upstream of the Brookville project site indicate that important archeological resources may be present. An archeological survey of the area should be conducted to determine the significance and extent of the resources present, to provide a basis for evaluating the project

impact on this resource in accordance with the issues raised in Section 102(2)(C) of NEPA and to define any salvage program needed to mitigate any losses to this resource base. For advice and assistance in the identification and evaluation of these archeological values, we suggest contacting Dr. James H. Kellar, Director, Glenn A. Black Laboratory of Archeology, Indiana University, 9th and Fess Streets, Bloomington, Indiana 47401.

The report should also recognize that the proposed structures 4A, 8, 35 and 23B will require compliance with the Federal Reservoir Salvage Act (PL 86-523). The Soil Conservation Service should inform the Director, Northeast Region, National Park Service, 143 South Third Street, Philadelphia, Pennsylvania 19106, of the progress on this proposal so that the necessary archeological work can be programmed and scheduled for completion prior to the start of construction.

We do have some reservations with respect to the beneficial impacts expected from the land treatment program. The work plan assumes that land treatment practices will be carried out on over 91,000 acres of the watershed. It further states that only 33 percent of the watershed is adequately treated for erosion and sediment control and that almost 40 percent of the landowners do not have conservation farm plans. In discussing this subject it would be helpful in assessing the merits of the program if the means and measures employed to foster more participation were identified. It would also be helpful to point out what level of treatment, if any, is required as a prerequisite to seeking Congressional approval of a land treatment program.

As a matter of Departmental policy, we could not support the stream channelization segment of this project as a flood control solution unless there are compelling reasons which override the damaging effects of channelization on the fish and wildlife resources. In the absence of any strong justification to support the channelization measure, we strongly recommend the scope of this work be revised to require only selective clearing and snagging. We further recommend that the scope of work be defined by a field study group consisting of representatives from the Soil Conservation Service, the Bureau of Sport Fisheries

and Wildlife and the appropriate State fish and game agencies. The extension of the environmental corridor downstream to the Brookville Reservoir is also recommended.

We are enclosing a copy of the report of our Bureau of Sport Fisheries and Wildlife for the East Fork of the Whitewater River and request that it accompany your report when it is forwarded to Congress.

We have reviewed the environmental statement for this work plan as to its adequacy in complying with the requirements of the National Environmental Policy Act of 1969. The following comments are submitted for your consideration and use.

Environmental Setting

This section of the statement should be revised to reflect the presence or absence of archeological values. There are investigations that indicate archeological values may exist in the study area.

This section should indicate that the National Register of Historic Places has been consulted and that (1) no National Register properties will be affected or (2) provide a listing of the properties to be affected. An analysis of the nature of the effects, a discussion of the ways in which these effects were taken into account and an accounting of the steps taken to assure compliance with Section 106 of the National Historic Preservation Act of 1966 (80 Stat. 915) in accordance with procedures of the Advisory Council on Historic Preservation as they appear in the Federal Register, February 20, 1971, is needed.

This section should also contain evidence of contact with the Historic Preservation Officers of the States of Indiana and Ohio. A copy of their comments concerning the effects of this work plan upon historical or archeological sites which may be in the process of nomination to the National Register of Historic Places should be attached to the final statement.

In the case of properties under the control or jurisdiction of the U.S. Government, the statement should include a discussion of the steps taken to comply with Section 2(b) of Executive Order 11593 of May 13, 1971, entitled "Protection and Enhancement of the Cultural Environment."

Environmental Impacts

There is no discussion of the environmental effects of the 19.6 miles of stream to be altered by channelization or the downstream effects. Subjects warranting discussion include alteration of the stream substrate which will impact on the aquatic food chain and spawning areas, removal of pools or riffles, removal of riverine vegetation which would destroy wildlife habitat and allow solar heating to the detriment of smallmouth habitat, downstream sedimentation during construction, scouring sedimentation during periods of heavy discharge and others.

The statement has indicated that rock and log channel deflectors will be placed in the most downstream 2.3 miles of channel improvement for the preservation of fishery values. We do not agree that rock and log deflectors will compensate for the fish losses. If these structures are used to recreate and maintain the fishery, it would be similar to trying to rebuild the natural channel. Further, if sufficient devices are installed the discharge capacity of the stream is reduced, thus defeating the purpose of channelization.

Alternatives to the Proposed Action

This section of the statement should include some alternatives to channelization in view of its significant impact on the fish and wildlife resources and the general environmental setting. For instance, flood plain zoning, establishment of an environmental corridor similar to that planned for another reach in the plan, and selected clearing and snagging should be discussed and the environmental effects appraised.

Consultation with Federal Agencies

On page 11 it was stated that the fish and wildlife report did not raise any environmental issues. This report did raise what we consider to be a significant environmental issue, the stream channelization, and recommended an alternative course of action. The recommendation was not adopted and the work plan provided little insight as to the basis for rejecting the recommendation.

The second full paragraph on page 12 appears to be based on a misunderstanding of the Bureau of Sport Fisheries and Wildlife letter of May 12, 1971 (copy attached). A copy of the environmental statement was not received until November 1, 1971, and the July 1 date mentioned in the letter could only refer to the date by which the Bureau hoped to submit its comments on the work plan.

We request that the above points be clarified in the preparation of the final statement.

Sincerely yours,

Deputy Assistant Secretary of the Interior

Honorable Earl Butz
Secretary of Agriculture
Washington, D.C. 20250

Enclosure

May 12, 1971

Mr. Thomas B. Evans
State Conservationist
Soil Conservation Service
5610 Crawfordsville Road
Indianapolis, Indiana 46224

Dear Mr. Evans:

We regret that we could not attend the informal field review on April 16, 1971, for the East Fork of Whitewater River Watershed, Indiana and Ohio. However, we intend to comment on the work plan and will assist you in the preparation of the environmental impact statement. Our effort would be expedited if you could furnish us a rough draft of the statement for our review.

Hopefully, we will be able to furnish you comments by July 1. Please advise us if this is not satisfactory.

Sincerely,

S. E. Jorgensen
Assistant Regional Director

C O P Y

United States Department of the Interior

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE
Federal Building, Fort Snelling
Twin Cities, Minnesota 55111

IN REPLY REFER TO:
RB

February 3, 1970

Mr. Thomas B. Evans
State Conservationist
Soil Conservation Service
311 West Washington Street
Indianapolis, Indiana 46204

Dear Mr. Evans:

This is a fish and wildlife reconnaissance report on the proposed East Fork of Whitewater River Watershed project in Wayne, Union, Franklin, Randolph, and Fayette Counties, Indiana, and Darke and Preble Counties, Ohio. It has been prepared under the authority of Section 12 of the Watershed Protection and Flood Prevent Act, (68 Stat. 666) as amended. The Indiana Department of Natural Resources and the Ohio Department of Natural Resources have reviewed our analysis of the project as indicated in the attached copies of letters from Director John R. Lloyd and Director Fred E. Morr. The watershed was approved for planning assistance in December, 1967.

East Fork of Whitewater River Watershed is 245,000 acres in size, encompassing approximately 200,000 acres in east-central Indiana and 45,000 acres in west-central Ohio.

The basin topography varies from flat to rolling terrain in the northern sectors to steep hills and narrow valleys in the south. General farming prevails, with livestock and grain sales providing the major source of agricultural income. The principal crops are corn, soybeans, small grains, and hay. Approximately 72 percent of the watershed is classified as cropland, 10 percent as pasture, 14 percent as woodland, and 4 percent as other.

East Fork Whitewater River dissects the basin from north to south and is a steep gradient stream with an average fall of 10 feet per mile. It joins the West Fork of Whitewater River near the town of Brookville to form the Whitewater River, a tributary of the Great Miami River in Ohio.

The U.S. Army Corps of Engineers is constructing the Brookville Reservoir on the lower reach of the East Fork, approximately two miles upstream from the confluence of East and West Forks of the Whitewater River. The project is for flood control purposes and when completed, it will have a 5,260 surface-acre recreation pool.

PLAN OF DEVELOPMENT

High velocity floods and inadequate drainage are the principal agricultural problems of the basin. To achieve an acceptable level of flood protection, approximately 27 miles of multiple purpose (flood control and drainage) channel modification and ten floodwater retarding structures are being considered.

Twenty of the proposed 27 miles of multi-purpose channel construction will consist of enlarging and deepening the stream course. The remaining seven miles will consist of within-the-channel debris and sediment removal. These seven miles are the lower two miles of channel work on the Middle Fork below Hallanburg and on the East Fork from the Darke-Preble County line downstream through New Paris. (See Map) Because of the high flow velocities, the channel in Indiana will not be enlarged or deepened.

It is our understanding that the Whitewater Valley Conservancy District is considering the purchase of a continuous strip of land along the main channel of the East Fork of the Whitewater River from the City of Richmond downstream to the site of Brookville Reservoir. This land and stream corridor would be used for canoeing, fishing, picnicking, and other forms of general recreation. This plan is tentative and is awaiting the Regional Recreation Plan proposals being developed for the Conservancy District by Midwestern Engineers, Inc., of Loogootee, Indiana.

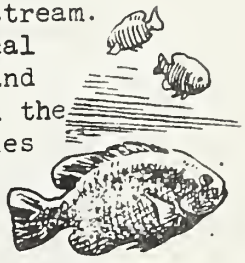
Seven of the proposed structures are in Indiana and three are in Ohio. (See Map) Structures 23B, 35, and 38 are being designed as a multi-purpose flood control and recreation development. However, plans for only Sites 23B and 35 are firm at this time. When developed, these two structures will hold recreational pools of 113 acres and 474 acres, respectively, under normal summer operating conditions. Both structure sites are in Indiana. Approximately 700 acres of land will be developed for recreational purposes around structure Site 35

and about 80 acres around structure Site 23B. If Site 38 is developed for recreation, it would create approximately 30 to 40 surface acres of water. Structures 4A and 8 will possibly be used to store water for minicipal and industrial purposes. These structures would impound 430 acres and 189 acres, respectively, if maximum development is effected. If they are not developed for water supply, they may be developed for recreation, but with smaller pools.

Five of the proposed structures are designed for single-purpose flood prevention.

FISHERY RESOURCES

East Fork is a good smallmouth bass and rock bass fishing stream. The fishery resource is utilized only moderately by the local fishermen. This is possibly due to limited stream access and the attractiveness of the 200-acre Whitewater State Lake in the watershed. Other fish found in East Fork and its tributaries include black crappie, longear sunfish, suckers, and numerous forage species.



Although there will be some loss of stream fishery habitat, the fishery resources of the basin should not be detrimentally affected by the project. If developed and managed according to the dictates of the Indiana Department of Natural Resources and the Ohio Department of Natural Resources, the water impounded by the proposed multi-purpose flood prevention and recreation structures should satisfy a portion of the existing and future demand for a reservoir type fishery in the basin. In order to insure maximum utilization of the remaining acres of project-created reservoir fishing opportunity, all impoundments should be opened to some degree of fishing by the public. Water supply reservoirs with minimum access for fishermen can satisfy much of the local demand for fishing.

In order to preserve the stream fishery in the East Fork, it is imperative that the proposed within-the-channel debris and sediment removal below the Darke-Preble County line be limited to spot removal, and not extensive reaches.

The proposed stream and land corridor on the East Fork of the Whitewater River between the city of Richmond and the downstream Brookville Reservoir (Corps of Engineers) will enhance stream fishing opportunity through the provision of public access.

WILDLIFE RESOURCES

Game animal populations densities in the basin vary from poor to excellent, depending on the intensity and type of farm operations being practiced. The more important game species include squirrels, cottontail rabbit, and bobwhite quail. Deer, ring-necked pheasants, and ruffed grouse are present but do not provide for significant hunting pressure. Woodcock, waterfowl, raccoon, muskrat, mink, and numerous songbirds and small animals are also present in varying abundance. Overall hunting pressure is of moderate intensity.

Significant losses of wildlife habitat can be expected through the construction of impoundments and 27 miles of multiple-purpose channel.

To minimize habitat losses resulting from intensive channel modifications, clearing of the streambanks must be restricted to one side of the channel. All trees on the streambanks above 10 inches d.b.h. should be left standing, except those which would be in the area of the constructed channel slopes. The outer slopes of the spoil banks should not be leveled or graded unless the inside slope has a minimum width of 20 feet and a gradient not greater than 3 : 1. The inside slope of the spoil bank, or the entire spoil banks if they are leveled, should be planted to herbaceous and woody vegetation that will be of value as wildlife cover and as a bank stabilizer. The schematic arrangement of the vegetative plantings should be coordinated with the Indiana Department of Natural Resources, the Ohio Department of Natural Resources, and the Bureau of Sport Fisheries and Wildlife.

To protect the spoil banks and vegetative plantings from destruction, a fence should be erected to exclude livestock and other agricultural activities.

To compensate for the loss of wildlife habitat due to reservoir inundation, wildlife areas should be established immediately below all structure sites. The size of a wildlife area including the damsite should not be less than 10 percent of the surface acreage of the semi-permanent (or sediment pool). These areas should be preserved and improved in order to minimize habitat losses, due to inundation. Woody and herbaceous plantings should not be necessary in most of the proposed wildlife areas except in areas that have been denuded of all vegetation. Normally, natural succession of native vegetation will provide adequate wildlife food and cover. To

prevent the vegetation in the wildlife areas from becoming too dense or rank, controlled burning could be utilized as a management tool on one-half of each area, once every four or five years.

We are pleased to note in the Preliminary Investigation Report that all structure embankments will be fenced. These fences should be extended to include the wildlife areas.

Hunting should be permitted on and around all public developed multi-purpose reservoirs. This should not present a problem since hunting normally occurs after the major recreation season. The waters and adjacent recreational lands should be zoned to reduce conflict between users of the area, with the upper reaches of such impoundments zoned primarily for use by hunters and fishermen.

RECOMMENDATIONS

It is recommended that:

1. All multi-purpose reservoirs and adjoining lands be zoned in such a manner that the fishery and wildlife resources of the area can be fully utilized with a minimum of friction between users of the area.

2. Hunting be allowed on all multi-purpose impoundments and periphery lands as directed by the Indiana Division of Fish and Game and the Ohio Division of Wildlife.

3. All reservoirs meeting basic fishery management requirements be stocked with fish and opened to fishing by the public.

4. Timber be left standing in the lateral arms and upper reaches of all impoundments to serve as fish and wildlife attractors.

5. A drainage outlet be include in the design of all impoundments to allow complete drainage for fish and wildlife management purposes, and that this outlet be of sufficient capacity to allow bank-full releases downstream.

6. Wildlife areas to compensate for wildlife losses caused by inundation be established immediately below all structure sites. The size of these areas should be at least 10 percent of the acreage impounded by the structure and they should be fenced at project cost to prevent livestock and agricultural damages.

7. Clearing of streambanks be limited to one side, and spoil banks be planted to herbaceous and woody vegetation that will be of value for both wildlife cover and bank stabilization.

8. The within-the-channel debris and sediment removal on the East Fork below the Darke-Preble County line be confined to spot removal and not extensive reaches so that the stream fishery may be preserved.

9. Fences be erected to protect the spoil banks and berms from livestock damages and agricultural activities.

10. All trees above 10 inches d.b.h., except those in the path of the modified channel slopes, be allowed to remain on the banks of stream channel affected by channel modification.

11. The Indiana Division of Fish and Game and the Ohio Division of Wildlife be consulted during the design stages and thereafter in regard to the establishment and maintenance of project fisheries and development of measures for wildlife benefit.

12. This report be attached to the forthcoming Work Plan, and the recommendations contained herein submitted to the watershed sponsors for their specific consideration.

13. Written acknowledgement of this report be furnished us, with language specifically accepting the above fish and wildlife recommendations. If any of the Bureau's recommendations are not acceptable, reasons for considering them unacceptable are requested.

Please advise us of any changes in project plans so that our report can be revised, if necessary.

Sincerely yours,

Regional Director

Attachments - 3

STATE of INDIANA

INDIANAPOLIS, 46204

DEPARTMENT OF NATURAL RESOURCES

607 State Office Building
December 19, 1969

Mr. Robert W. Burwell, Regional Director
Bureau of Sport Fisheries and Wildlife
Federal Building, Fort Snelling
Twin Cities, Minnesota 55111

Dear Mr. Burwell:

This will acknowledge receipt of your report on the proposed East Fork of Whitewater River Watershed project in Wayne, Union, Franklin, Randolph, and Fayette Counties, Indiana. We concur with your general analysis of the fish and wildlife resources and share your interest in their preservation and enhancement.

I will withhold formal comment on your specific recommendations until such time as we submit our Departmental report. In our final report, we will attempt to weight recommendations in light of the total impact on all natural resources resulting from proposed engineering works.

Very truly yours,

John R. Lloyd, Director
Department of Natural Resources

JRL/REB/ekl

STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES

November 26, 1969

Mr. R.W. Burwell
Regional Director
U.S. Department of the Interior
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Federal Building, Fort Snelling
Twin Cities, Minnesota 55111

Dear Mr. Burwell:

Our Division of Wildlife has just reviewed and approved the fish and wildlife draft report on East Fork of Whitewater River for Darke and Preble Counties in Ohio. We recognize this plan of development as part of our Southwest Ohio Water Development Plan in cooperation with the Soil Conservation Service.

We concur with your recommendations as an orderly development to meet needs for a total resource potential of this watershed.

Sincerely,

Fred E. Morr

FRED E. MORR
Director

FEM/de
cc: Dan Armbruster
Ray Brown

UNITED STATES OF AMERICA
ENVIRONMENTAL PROTECTION AGENCY
REGION V
1 North Wacker Drive, Room 900
Chicago, Illinois 60606

JAN 24 1972

Mr. Kenneth Grant
Administrator, Soil Conservation Service
U. S. Department of Agriculture
Washington, D. C. 20250

Dear Mr. Grant:

Reference is made to your letter to Mr. William D. Ruckelshaus concerning the Draft Environmental Impact Statement for East Fork of Whitewater River Watershed, Indiana and Ohio. This letter has been referred to our region for reply. We offer the following comments for inclusion in the Final Statement:

Environmental Setting. An indication of the present level of sewage treatment at Richmond together with implementation plans for advanced waste treatment should be spelled out in the statement. The statement that additional stream flow is needed for sewage dilution is insufficient.

Environmental Impact. It was stated that "No floodplain land use changes due to protection by flood control or drainage measures is expected." It would seem reasonable that a higher and better economic land use due to increased protection brought about by the project would evolve, even though the land use may remain agricultural.

Adverse Environmental Effects. The following impacts are not identified in the statement:

1. Air, water, solid waste and noise pollution will increase in the project areas, not only temporarily during construction, but after completion due to increased human activity evolving around recreation and other activities.

2. Agri-nutrient build up in the reservoirs is a possibility that could adversely affect water quality.

3. Mud flats may be exposed in the impoundments when the water level is lowered for any reason.

JAN 24 1972

Mr. Kenneth Grant
U.S. Department of Agriculture
Washington, D. C.

4. The water supply aspects of the project will increase municipal and industrial activities in and below Richmond which could increase water quality problems.

Alternatives. This section should include a discussion of no project unless this alternate is included in the land treatment only discussion. A comparative economic discussion among the various alternatives should be included.

Irreversible and Irretrievable Commitments. This section should mention the construction material and labor committed to this project and the related disruption of resources.

Consultation With Federal Agencies. The statement reports that BSF&W recommendations were "...incorporated with some modification..." These recommendations and modifications should be fully discussed. The previous consultation with our agency involved only the comments from the Water Hygiene Program. The views of all commenting agencies should be presented in their entirety in the Final Statement.

We appreciate the opportunity to comment on this Draft Environmental Impact Statement and hope our comments will be useful in preparing the Final Statement. Please send us a copy of the Final Statement for our files.

Sincerely yours,

Francis T. Mayo

Francis T. Mayo
Regional Administrator

STATE OF INDIANA

DEPARTMENT OF NATURAL RESOURCES

INDIANAPOLIS

46204

December 15, 1971

Mr. Kenneth E. Grant, Administrator
U. S. Department of Agriculture
Soil Conservation Service
Washington, D. C. 20250

Dear Mr. Grant:

The work plan for the East Fork of the Whitewater River Watershed in Darke and Preble Counties, Ohio, and Union, Randolph, Wayne, and Franklin Counties, Indiana, has been reviewed by the Department of Natural Resources.

The plan contains special land treatment practices (47 small lakes) which are to be constructed by the Whitewater Valley Conservancy District. The locations of the special practices are indicated on the watershed map and the plan gives the total cost of the practices and states that the U. S. Soil Conservation Service will pay fifty per cent (50%) of the construction costs. The work plan does not contain any structural data, cost data, or benefit analysis, as is presented for the structural works. We wish to call to your attention that if the special land treatment practices are to be constructed by the Conservancy District, such practices will have to be included in the District Plan, and would require the same detailed physical data, costs, and benefit analysis as is required for all structural works.

With reference to page 23 of the Work Plan and a letter from Mr. Evans, the State Conservationist, of April 1, 1971, it would appear that the project would reduce the sediment delivery to Brookville Reservoir by about 1.4%. Determination of reservoir sedimentation is such a complex problem that errors of about 10% are not uncommon. In view of this, it is doubtful whether a reduction of 1.4% is worth considering, especially when an ample provision has been made in the design of Brookville Reservoir for sediment storage.

The Department has consistently used the Indiana Outdoor Recreation Plan in formulating the demand and needs of all recreational areas in the State of Indiana. In predicting the demand and needs for this watershed area, existing facilities as well as expected facilities from other sources were taken into consideration. Our data shows that with the completion of the proposed East Fork projects of the Whitewater Conservancy District, only additional picnic facilities, swimming areas, boating acreage, and

water skiing acreage are estimated to be needed in the future in this Planning Area, which consists of Wayne, Rush, Fayette, Union, and Franklin Counties. These are the four needs that are not met on the basis of current standards.

Very truly yours,

John R. Lloyd
Director
Department of Natural Resources

JRL/CCM/jl

cc: Thomas B. Evans

STATE OF INDIANA

INDIANAPOLIS 46204

STATE BUDGET AGENCY

ROOM 212, STATE HOUSE
633-5610

January 18, 1972

Mr. Thomas B. Evans
State Conservationist
U. S. Dept. of Agriculture
Atkinson Square-West
Suite 2200
5610 Crawfordsville Road
Indianapolis, Indiana

Dear Mr. Evans:

RE: East Fork of Whitewater-Watershed, Indiana, State ID No. 7112230000

The State Clearinghouse endorses the East Fork of Whitewater Watershed Project in order to attain the goals outlined by the United State Department of Agriculture, Soil Conservation Service, Watershed Planning Division.

This office is interested in the implementation of the project, and should be advised of additional studies, and plans for attaining specific goals as such plans become finalized.

Sincerely,

Dan Novreske

Dan Novreske
Budget Agency

Attachments

Systems financed by FHA must be operated in accordance with applicable statutes and regulations.

J. R. HANSON
Assistant Deputy Administrator

STATE OF OHIO

DEPARTMENT OF NATURAL RESOURCES

OHIO DEPARTMENTS BUILDING
COLUMBUS 43215

March 2, 1972

Mr. Kenneth E. Grant
Administrator, Soil Conservation Service
United States Department of Agriculture
14 Street and Independence Avenue, S. W.
Washington, D. C. 20250

Dear Mr. Grant:

Thank you for permitting us this additional time so we could review the procedures in determining the benefit-cost ratio of structural measures and those costs allocated to flood prevention. Following a review of the Work Plan by personnel of the Ohio Department of Natural Resources and personnel of the Soil Conservation Service in Indiana and Ohio we concluded that questions raised earlier concerning the economic evaluation of the proposed program have been sufficiently answered and meets all conditions of the evaluation requirement. Therefore we would like to join the State of Indiana and the sponsoring agencies in Indiana and Ohio by adding our approval of the East Fork of Whitewater Watershed Work Plan.

Following our earlier comments on the environmental impact of the project it has come to our attention that stream temperatures are of particular importance. Rainbow trout have been stocked in the East Fork of Whitewater River and there is a desire that the flow characteristics and water temperature be maintained or improved so a more desirable fishery may be developed.

Very truly yours,

WILLIAM B. NYE
Director

WBN:jml

JAN 6 1972

OHIO PLANNING AND DEVELOPMENT CLEARINGHOUSE

62 E. Broad Street
~~BOX 1001~~, COLUMBUS, OHIO ~~43216~~
TEL. 614/~~469-2252~~

4321
505

JOHN J. GILLIGAN
GOVERNOR

January 4, 1972

Department of Agriculture
Soil Conservation Service
Old Post Office Building
Columbus, Ohio 43215
ATTENTION: Robert Quilliam, State Conservationist

RE: Work Plan for East Fork of Whitewater River Watershed -
Darke and Preble Counties
USDA - Watershed Protection and Flood Prevention Loans
7 USC 1926

Dear Mr. Quilliam:

Your project notification information describing the above to be assisted by Federal funding has been reviewed by the Ohio Planning and Development Clearinghouse. Attached are comments received by this office regarding the Whitewater River Watershed Work Plan.

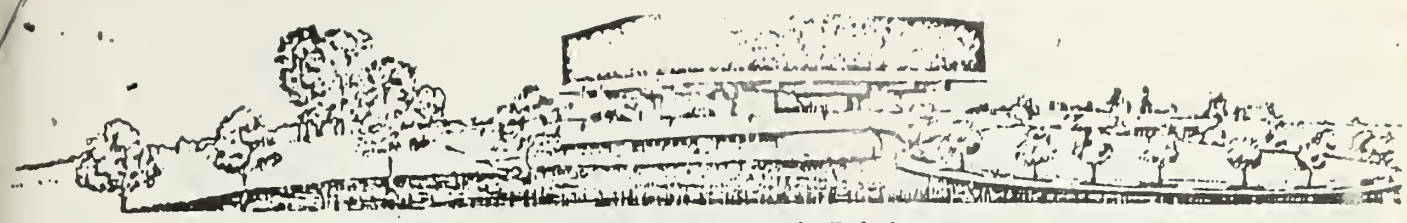
We recommend that you proceed with your proposed application to the appropriate Federal agency with the understanding that you will give consideration to the attached comments.

Very truly yours,

Harold A. Hovey
Director
Department of Finance

In Reply Please Refer To: 5-4-6

cc: A. Bonar, DNR
T. Evans, SCS, Indiana
K. Grant, SCS, Washington
File



Interstate 71 and 17th Avenue

storical society/ohio historical center/columbus, ohio 43211/telephone (614) 469-4E

December 8, 1971

Office of the Governor
Ohio Planning and Development Clearinghouse
Box 1001
Columbus, Ohio 43216

Attn.: Kay Metz

Re: Work Plan - East Fork of Whitewater River Watershed, Darke and Preble Counties, Ohio

The undersigned commented on subject project EIS to the addressee on November 10, 1971.

To recapitulate, pages 13 and 14 of the Work Plan enumerate historical sites from information obtained from an Indiana tourist guide. The undersigned is mystified why the authors of this work plan failed to utilize the survey of subject Ohio areas which this Society prepared under contract with the U. S. Army Corps of Engineers, Louisville District, in 1970.

Specifically omitted from the Work Plan for this project are approximately one dozen prehistoric and historic landmarks and at least one nature area, all of which have been reported either to the Army Corps of Engineers or to the National Register of Historic Places.

It is strongly urged that plans for this project take into consideration these identified landmarks which this Society will report and describe with specific recommendations for documentation and/or preservation upon request.

Sincerely,

Daniel R. Porter

Daniel R. Porter
Director

Form AU 76

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

INTER-OFFICE COMMUNICATION

County of _____ Div. ____

S. H. _____ Sec. _____

Date December 21, 1971

David S. Levine, Manager of the Ohio Planning and Development Clearinghouse Attention: Kay Metz

William Bunkley, Special Deputy Administering Officer, Ohio Planning and Development Clearinghouse

ct Comments on East Fork of Whitewater River Watershed Program

The Highway Department supports the subject project provided that the applicant notifies our appropriate Division Office (Division 7 for Darke County and Division 8 for Preble County) at the time of construction if that construction could have any effect on highway drainage. There are no highway projects on new right-of-way proposed at this time in the project area, however, upgrading of S.R. 121 is proposed and any flood control projects near S.R. 121, 40, 722, 726, 35, 320, or I-70 should be coordinated with the drainage section in the appropriate Highway Division Office.

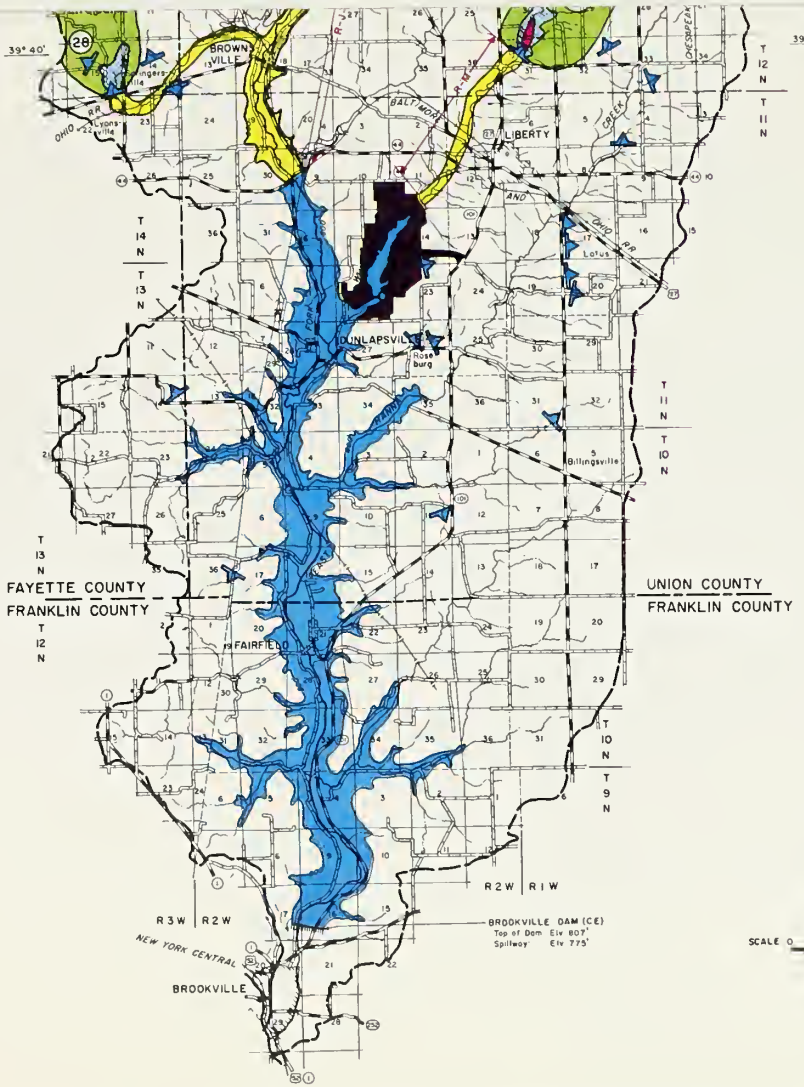
Early coordination between agencies should eliminate any conflicts between the Whitewater River Watershed Work Plan and existing highway drainage structures.

William Bunkley
Special Deputy Administering Officer
Ohio Planning and Development Clearinghouse

WB/hd
(EWE/KRB)
Enclosure

cc: Bunkley's File (2)
File
Reading

RECEIVED
DEC 23 1971
Ohio Planning and Development Clearinghouse



STATE LAND

PROJECT MEASURES

STRUCTURE NUMBER (238)

SINGLE PURPOSE STRUCTURE

MULTIPLE PURPOSE STRUCTURE

SPECIAL LAND TREATMENT MEASURES

FLOOD PREVENTION AND DRAINAGE

RECREATION

REACHES R-M

SCALE 0 1/2 1 2 3 4 MILES

SCALE 1/221,000

LOCATION IN INDIANA AND OHIO

SOURCE:
SCS BASE 5,R-23,115 AND DATA
FURNISHED BY FIELD TECHNICIANS

(POLYCONIC PROJECTION)

6-17-70
5,R-28,294

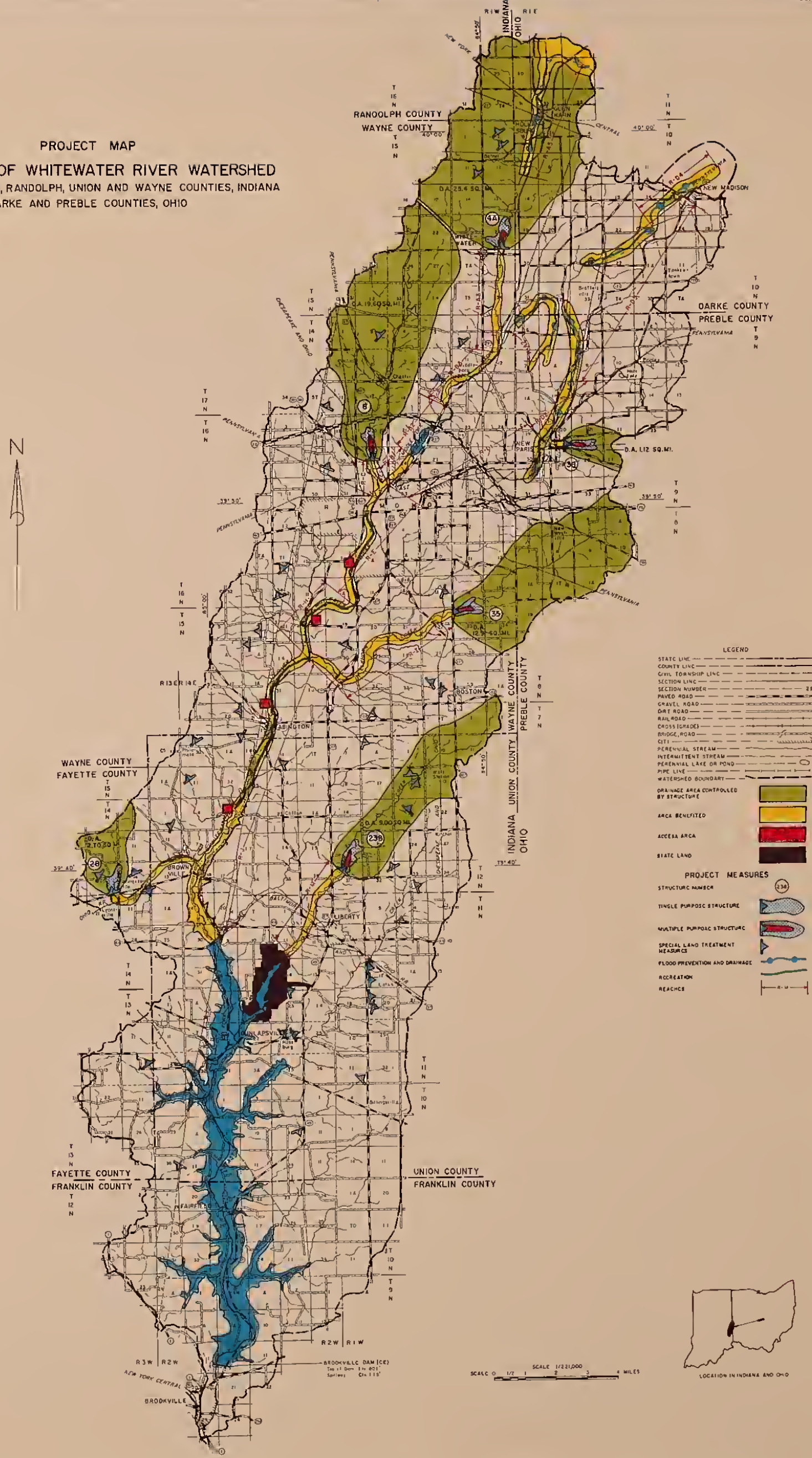
USDA-SCS-LINCOLN, NEBR. 1971

PROJECT MAP

EAST FORK OF WHITEWATER RIVER WATERSHED

FAYETTE, FRANKLIN, RANDOLPH, UNION AND WAYNE COUNTIES, INDIANA

DARKE AND PREBLE COUNTIES, OHIO



LEGEND

- STATE LINE
- COUNTY LINE
- Civil TOWNSHIP LINE
- SECTION LINE
- SECTION NUMBER 28
- PAVED ROAD
- GRAVEL ROAD
- DIRT ROAD
- RAIL ROAD
- CROSS (GRADE)
- BRIDGE, ROAD
- CITY
- PERENNIAL STREAM
- INTERMITTENT STREAM
- PERENNIAL LAKE OR POND
- PIPE LINE
- WATERSHED BOUNDARY
- DRAINAGE AREA CONTROLLED BY STRUCTURE
- AREA BENEFITED
- ACCESS AREA
- STATE LAND

PROJECT MEASURES

- STRUCTURE NUMBER (234)
- SINGLE PURPOSE STRUCTURE
- MULTIPLE PURPOSE STRUCTURE
- SPECIAL LAND TREATMENT MEASURES
- FLOOD PREVENTION AND DRAINAGE
- RECREATION
- REACHES

SOURCE:
SCS 5AAC 5,R-28,193 AND DATA FURNISHED BY FIELD TECHNICIANS

POLYCONIC PROJECTION

8-17-70
5,R-28,294

USDA-SCS-LINCOLN, NEBR. 1971