

all potential benefits, both primary and secondary, and of the contributions to public policy objectives reasonably associated with water resource projects.

(3) SOUTHWEST JEFFERSON COUNTY LOCAL PROTECTION PROJECT, KENTUCKY

The proposed project will provide improvement of the area by construction of earth levees and concrete flood walls approximately 17.3 miles in length with an associated recreation development. The project would provide the area with full protection from Ohio River floods equal in height to the greatest flood of record. The estimated total cost is \$23,368,000, of which \$18,500,000 would be Federal and \$4,868,000 local. The benefit-cost ratio is 1.9 to 1.

By eliminating the deterrent effect of floods in an area of about 6,000 acres, a considerable portion of which is suitable for industrial sites, this project will contribute greatly to the economic growth potential of the Louisville, Kentucky metropolitan region.

(4) LICKING RIVER, OHIO

Utica Reservoir

The proposed dam site is located in Knox County, Ohio, approximately three-fourths of a mile upstream from Utica, Ohio, on the North Fork of the Licking River and about 18.6 miles above its junction with the Licking River. The dam will be earth-fill about 4,880 feet long and 73 feet high with an uncontrolled spillway. The reservoir will have a total storage of 82,000 acre-feet, comprising 28,000 acre-feet of flood control storage and 52,200 acre-feet of permanent and seasonal storage for water supply and water quality control. The project will be operated as a unit of a coordinated reservoir system for flood protection in Licking and Muskingum River Valleys and will also provide recreational opportunities. The total estimated cost is \$30,600,000 of which \$21,084,000 is Federal. The benefit cost ratio is 1.3 to 1.

Newark (modification of existing project)

The proposed project would include improvement of the interior drainage facilities of the existing Newark, Ohio project, diversion of Log Pond Run flood flows and modification of the North Fork channel. Improvement of interior drainage facilities would provide for an additional pump station near South Second Street with a new 1,275 foot intercepting sewer connecting the new station with existing facilities. The major feature of the Log Pond Run diversion is a 6,300-foot long diversion channel between Log Pond Run and Sharon Run, together with a channel improvement 5,400 feet in length along Sharon Run and Racoon Creek, located west of Twenty-First Street. The North Fork channel modification features will consist of widening of the existing channel from its junction with the Licking River upstream for a distance of about 5,500 feet. The estimated total cost of the entire project is \$1,785,000 of which \$1,525,000 is Federal cost. The benefit-cost ratio is 2.3 to 1.

Expedited flood control works are most urgently needed in the Ohio Valley. In March 1967, the Valley sustained another severe flood—the third in five years. Flooding on the tributaries was at or near record levels. Total Ohio River Basin damages are estimated at \$35 million, of which \$15 million represents damages occurring on the tributaries. This flood followed by only three years the devastating flood of 1964 which caused damages exceeding \$100 million in the Ohio Valley and followed by only a year the 1963 flood of approximately equal destructiveness.

While an accelerated program of flood control is urgently required to supplement existing works, the record of damages prevented by reservoirs and local protection works in operation testifies eloquently to the wisdom and foresight of the Congress and the Corps of Engineers. It is estimated that damages in excess of \$122 million were prevented by existing works during the March 1967 flood. This estimate added to the \$1.25 billion prevented in prior floods, produces a total of \$1.372 billion in damages prevented by structures costing approximately \$1.0 billion. This is an impressive comparison considering that the average age of the projects is less than 20 years.

The real meaning of the protection afforded by existing works in the latest flood may be appreciated more vividly by reference to the fact that along the Upper Ohio River the reservoirs on the tributaries reduced river stages by six to eight feet to just below flood stage, while in the middle reaches the Ohio flood crests were reduced by three to eight feet, and even in the lower river upstream reservoirs reduced potential flood heights by about one foot.