

will be utilized for flood control, water supply, water quality control, general and fish and wildlife recreation. The benefit-cost ratio is 1.9 to 1. The estimated total cost is \$27,062,000 of which \$22,100,000 is Federal and \$4,962,000 is non-Federal.

Big Walnut Reservoir, Ind.

The proposed project is located on Big Walnut Creek, a tributary of the Eel River, in Putnam County, Indiana. The project consists of a rolled earth embankment, uncontrolled spillway and outlet works. The reservoir will have a total storage capacity of 323,400 acre-feet which will be utilized for flood control, water supply, water quality control, general and fish and wildlife recreation. The benefit-cost ratio is 2.1 to 1. The estimated total cost is \$31,624,000 of which \$19,500,000 is Federal and \$12,124,000 is non-Federal.

Downeyville Reservoir, Ind.

The proposed project is located on Flatrock and Little Flatrock Rivers, tributaries of the East Fork of the White River in Decatur and Rush Counties, Indiana. The project consists of a gated concrete overflow section with earth embankments on both sides. The reservoir will have a total storage capacity of 161,900 acre-feet which will be utilized for flood control, water supply, water quality control, general and fish and wildlife recreation. The benefit-cost ratio is 1.8 to 1. The estimated total cost is \$32,027,000 of which \$16,700,000 is Federal and \$15,327,000 is non-Federal.

Helm Reservoir, Ill.

The proposed project is located on Skillet Fork of the Little Wabash River, in Marion, Clay and Wayne Counties, Illinois. The project consists of a rolled earth dam, un-controlled spillway and outlet works. The reservoir will have a storage capacity of 171,800 acre-feet which will be utilized for flood control, water supply and quality control, general and fish and wildlife recreation. The benefit-cost ratio is 1.7 to 1. The estimated total cost is \$18,300,000 of which \$11,523,000 is Federal and \$6,777,000 is non-Federal.

Louisville Reservoir, Ill.

The proposed project is located on the Little Wabash River, a tributary of the Wabash River, in Clay and Effingham Counties, Illinois. The project consists of a concrete gravity flow section flanked on one side with an earth-fill section. The reservoir will have a total storage capacity of 230,800 acre-feet which will be utilized for flood control, water supply, water quality control, general and fish and wildlife recreation. The benefit-cost ratio is 1.8 to 1. The estimated total cost is \$24,200,000 of which \$18,778,000 is Federal and \$5,412,000 is non-Federal.

(2) UPPER LICKING RIVER, KY.

The first element of the project consists of a reservoir at Royalton, Magoffin County, Kentucky, provided by a dam about 100 feet high, located approximately a mile up-stream from Royalton, Kentucky. It would have a total storage capacity of 64,500 acre-feet and would be operated as a multipurpose reservoir for flood control, water supply, water quality control and recreation. The estimated cost of the dam and reservoir is \$25 million. Of this amount, about \$1.3 million would be allocated to local interests in line with Federal policies as to water supply and recreation. The second element consists of the improvement of about 14.7 miles of the Licking River channel and 1.2 miles of State Road Fork, at an estimated total cost of \$4.5 million, of which the non-Federal share is estimated at \$495,000.

This project is part of a plan of development pursuant to the Appalachian Regional Development Act of 1965. In evaluating this project a technique has been developed for estimating secondary benefits in the form of improvements to the industrial base (with resulting employment opportunities) in accord with the objectives of that Act. This, then, is a pilot project, of the highest interest not only for determination of the development values of projects in Appalachia, but in indicating a technique for evaluating such benefits, where appropriate, for all water resource projects as contemplated in Senate Document 97 of the 87th Congress, Second Session.

At a time when water resource development is lagging seriously behind emerging needs, it is imperative that more adequate and realistic principles and techniques of evaluation be established to assure consideration by the Congress of