

which will be needed to provide the water resource required for the continuing growth of the Indianapolis complex.

Considered projections by economists employed by, and/or advisory to, the Federal agencies now conducting studies of the water and related land resources of the Wabash Valley, illustrate this anticipated growth. The area, today, contains 82 percent of the urban population of the White River Basin and this urban population is expected to triple during the planning period. Moreover, of a total of 222,000 persons employed in manufacturing industries in the White River Valley, more than three-fourths are employed in industries located in the Indianapolis industrial area. Projections indicate more than an 800-percent increase in manufacturing output from the area will be developed in the next few decades.

This metropolitan area is presently the heaviest user of water of all subbasins in the Wabash Valley and the demand for water for water supply is projected, by the Federal Water Pollution Control Administration, to quadruple by the year 2020.

In addition to this expected increase in the demand for water to supply urban population and industries, is the need for water to insure adequate control of the quality of water both in this industrialized urban area and in those reaches of the West Fork of White River which lie below Indianapolis. The Federal Water Pollution Control Administration has identified the need for supplementing present low flows in the West Fork and its tributaries to provide adequate dilution of the effluent from sewage treatment facilities now operative. Using the projections of population increase and projections of industrial growth, this agency has indicated needed streamflows for 1980, 2000 and 2020 which seem enormous when compared to the presently available, inadequate volumes.

The upper basin of the West Fork of White River encompasses a drainage area of 1,627 square miles, most of which is nearly level to slightly undulating prairie. Few of the streams have not established definite channels in this prairie upland and still fewer have cut deep valleys in which might be found sites suitable for reservoir development.

In a preliminary report on the Wabash River Basin, the Federal Water Pollution Control Administration estimated that some 300,000 acre-feet of water storage will be necessary to provide the streamflows required to maintain desirable quality in the surface waters in the Indianapolis area. To be used efficiently, this storage should be located above the city; a review of this area indicates only 200,000 acre-feet of storage can be developed in this portion of the subbasin. Thus, at about the turn of the century, we will be 100,000 acre-feet short of the needed storage for water quality control without providing for water supply.

The storage needed for water supply has not been identified in terms of acre-feet of effective reservoir volume, however, during the next decades we must provide sufficient storage to produce an annual yield of 737.6 million gallons per day for urban and industrial use. This does not include water for approximately 250,000 increased population in the smaller communities of the area nor for increased demands for water for agricultural use.