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Report and Recommendations of the Subcommittee on Water Transportation

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REPORT AND RECOMMENDATIONS

of the

Subcommittee on Water Transportation

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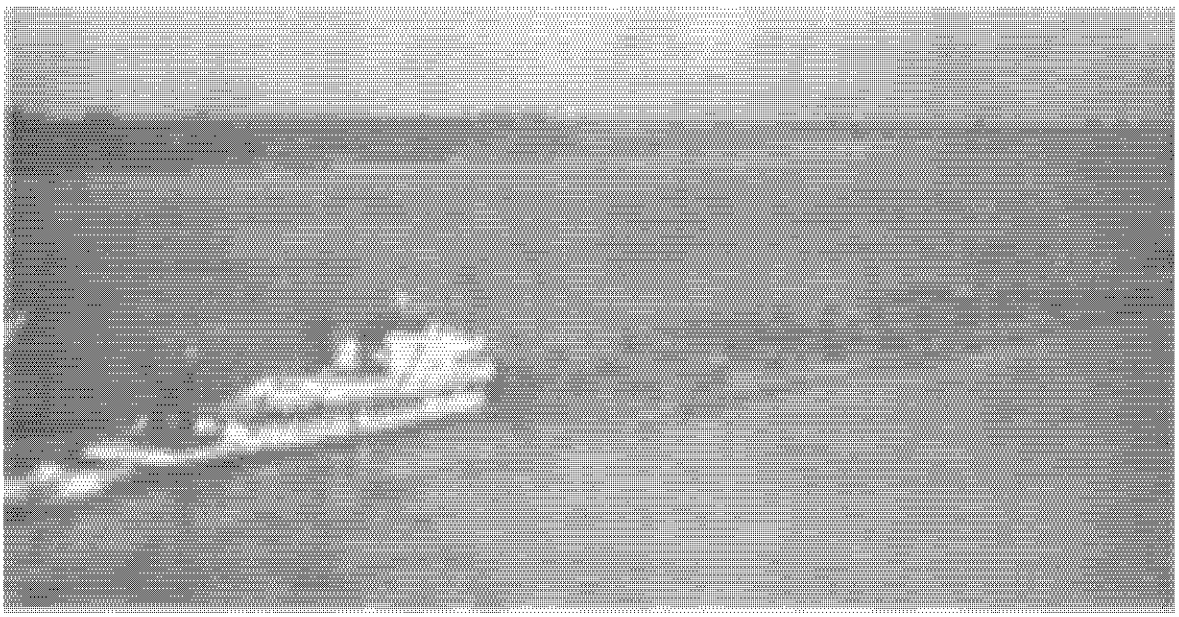

Committee On Transportation

KENTUCKY CHAMBER OF COMMERCE

Kentucky, a century ago, counted her blessings in "steamboats 'round the bend"; today she counts them in river bends where mass-production industries are born.

Inside the big bend of the Ohio River between Ashland and Louisville is the "Bulge of Kentucky" which has lengthened by many miles the State's "gold coast".

It is important that those who strive for industrial and commercial leadership for Kentucky never lose sight of the fact that the State has 658.4 miles of Ohio River waterfront, 56 miles of Mississippi River waterfront and hundreds of miles of frontage on the Tennessee, Cumberland, Big Sandy, Kentucky, Green and Barren Rivers, all navigable rivers.

Great though the role of her rivers in her early settlement and development low-cost inland waterway transportation may well render a still greater service to Kentucky during the next two decades of national dispersal of industry, economic expansion, atomic energy development, electric power accession and industrialization of chemistry.

Kentucky is the logical midway point of fabrication and processing between the Eastern Seaboard and Chicago population centers and the raw-material sources of the Mid-Continent and the Southwest. The essential ingredients of processing and fabrication are cheap fuel, cheap power and ample labor of which Kentucky has rich reserves.

Sixteen Kentucky counties with Ohio River waterfronts accounted for 240,000 of the State's population growth of 330,000 during the twenty years following completion of the final navigation lock on the Ohio River in 1929; an improvement to the nation's transportation system which indubitably contributed to minimizing population losses in the other thirteen river counties during that period of farm-to-city migrations of workers, industrial concentrations and changing agricultural methods.

Six other Kentucky rivers -- Cumberland, Tennessee, Big Sandy, Green, Kentucky, Barren -- assisted the mighty Ohio in developing the natural resources and marketing the products of Kentucky, and the first two of that group -- Cumberland and Tennessee Rivers -- are now making major contributions to the economic expansion in at least six counties.

Agriculture, industry and mining throughout Kentucky have long appreciated their dependence on low-cost inland waterway transportation; a dependence greater than that of some sister states because of geographical location in relation to markets and topographical characteristics.

Transportation costs - a factor in every price - circumscribe markets for the products of Kentucky enterprise, so those products which move by barge attract the first buyers and hold the last ones. This has been demonstrated repeatedly in coal producing areas.

When the census is taken again in 1960 it will show tremendous gains for Kentucky in population along the navigable rivers, as well as in new and expanded industries, which will be attributable to the magic combination of natural resources, unlimited supplies of water for industrial purposes, low-cost river transportation and cheap electric power which again is a product of low-cost transport combined with water and coal.

The Ohio River hastened the settlement of Kentucky by several decades and that same river joined with the waters of the Mississippi River to form between Louisville and New Orleans a trade route during the steamboat era with sufficient commerce to make Louisville the metropolis of the Western Rivers and the Falls of the Ohio at Louisville a traffic bottleneck disastrous (until eliminated by construction of navigation locks) to the economic growth of many up-river communities.

Ten of the fifteen cities in the state of more than 10,000 population are on navigable rivers and the others benefit from water-compelled freight rates.

Unfortunately, not all of the navigable rivers in the state have channels stabilized by dams and locks at the standard minimum depth of nine feet.

Fifty million tons of barge traffic on the Ohio River presents a vast stream of raw materials, fuel and semi-finished products from which Kentucky industry can draw needed raw materials and into which those same industries can pour their finished products.

Traffic on the Tennessee River now exceeds three million tons a year, while Cumberland River traffic is in excess of two million tons. The State is tapping both of these arteries for life-giving industrial blood with resultant economic enrichment of several counties.

Examination of the list of commodities moving on the Ohio River reveals to home industry, commerce and agriculture opportunities for new and expanded enterprise; 12 million tons of petroleum and petroleum products, 8 million tons of sand, stone and gravel (building materials), 3 million tons of metals and metal manufactures (exclusive of machinery and vehicles), 300 thousand tons of automobiles, trucks and machinery, 300 thousand tons of sulphur, 24 million tons of coal and coke, one million tons of non-metallic minerals, 400 thousand tons of food products and beverages, one million tons of chemicals and 100 thousand tons of miscellaneous products.

Kentucky also taps the heavy traffic of the Mississippi River. This channel of waterborne commerce carries annually nearly 70 million tons of freight. Twelve million tons of that commerce is in the area between the mouth of the Ohio River and the mouth of the Missouri River while a like amount moves in the channel between the mouth of the Missouri River and Minneapolis.

Living room for new and expanding industry as well as for the State's growing population would be in critically short supply today because of lack of water had the federal government failed to conserve, control and utilize by means of channel improvements, the natural water resources provided by rivers.

This public foresight took the form of river dams built by the Corps of Engineers, Department of the Army, with funds appropriated by Congress to stabilize channel depths. Each of these dams has created a "pool" or artificial lake from which municipal and industrial water supplies are drawn. These improved channels also minimize pollution ratio and provide recreation. Where locks have been built into these dams low-cost water transportation is encouraged and transportation savings effected.

"Water Industry", a survey of water use in industry by the National Association of Manufacturers, points out that water is a "first requisite" to industry, just as it is to plant-life and animals; "a failure of water supply can halt operations in a steel mill just as surely as a failure of coal supply."

American industry consumes 25 billion gallons of water per day. This supply is drawn from wells or rivers, lakes and reservoirs.

The survey also developed that no industry or business can long survive where water is unavailable or inadequate as to quantity or quality; that access to and use of water is now a major resource problem, and bids fair to become even more so; that when this fact, and all it implies, is fully appreciated, then one begins to realize the importance of water in the present and future development of industry and the nation.

The N A M survey of 3,057 plants revealed that 5.4 per cent of them have a daily water consumption of more than ten million gallons; 11.5 per cent more than one million but less than ten million gallons; 15.9 per cent between 250,000 and one million gallons; and 67.3 per cent less than 250,000 gallons. But the 5.4 per cent using more than ten million gallons daily consume 78.2 per cent of the total industrial water supply.

Industries using more than ten million gallons of water daily draw five times as much water from rivers and lakes than from wells. Likewise, five times as many plants obtain their water from municipal river and lake systems as from their own river and lake water plants.

The Urban Land Institute has just warned industry to exercise considerable care in the location of new plants needing large amounts of water as an active ingredient in production, as a cooling agent, as boiler feed or for other purposes.

A chemical plant on the Ohio River draws 164,000,000 gallons of water per day from a pool created by a navigation dam.

A steel mill on the same pool uses 264,000,000 gallons per day.

Electric generating plants use 500,000 gallons per minute for cooling and a 300,000 kw station loses 6,000 gallons per minute through evaporation during surface condensing operations. Plants of this type line the rivers, canals and harbors where channel improvements have increased water reserves.

Some rates of water consumption by other industries are:

Industry	Gallons Consumed
Food canning and preserving	Up to 250 per case
Synthetic gasoline	16,000 per barrel
Sulphate wood pulp	70,000 per ton
Rayon yarn	400,000 per ton
Woolen cloth	500 per yard
Oil Refining	770 per barrel
Aluminum	160 per pound

All cities of 100,000 or more population are on major streams. No community can outgrow its water resources. Municipal governments are heavy consumers of water in the operation of fire, street and sanitary departments and each residence uses from 30 to 50 gallons per occupant.

As long as markets are circumscribed by transportation costs, rather than by distances, low-cost water transportation will be essential to the economy of this state, and indispensable to its future development industrially, commercially and agriculturally.

Improved rivers and modern towing services have created new markets for Kentucky products and brought new industries into the area for the processing of its raw materials and the employment of its ample fuel supplies, power and labor.

Low-cost bulk river transportation has helped make Ashland the iron, oil, and steel capital of the lower Ohio Valley; has helped make Louisville a distribution center for the entire valley; has given additional markets for Kentucky coal; has been a considerable factor in making Paducah a great atomic energy center.

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