

The Canals of Northern Illinois and Their Impact on Settlement and Economic Development. A paper read at the annual meeting of the Pioneer Society of America, 1990.

The Canals of Northern Illinois and Their Impact on Settlement and Economic Development

John M. Lamb

In order to understand the importance and value of the canals of Northern Illinois and their connecting rivers, some understanding of the geography of the area is necessary. As early as 1673, it was realized by the French explorer, Louis Jolliet, that the best water link between the Great Lakes and the Mississippi was via the Chicago River over a divide to the Des Plaines River, which joins the Kankakee River about 60 miles from Lake Michigan to form the Illinois, which then flows west and south to the Mississippi. The divide separating the Chicago River and the Des Plaines is about 10 feet.

The source of the South Branch of the Chicago River in 1673 was five miles from Lake Michigan and only five feet above the lake's surface. The separation between Lake Michigan and where the land is at the same elevation, 35 miles southwest, is only 15 feet. This meant that there was only a 15-foot barrier

Ottawa. This expenditure caused some complaint, but in rebuttal, Commissioners W. F. Thornton and Jacob Fry reported in 1838:

“...the entire (Fox River) feeder, about five miles long, and a considerable section of the side cut have been placed under contract and will probably be so far advanced in another year as to render available the large and valuable waterpower thus to be introduced into the heart of the town. These judicious improvements ordered at the last regular session of the legislature cannot fail to advance the prosperity of Ottawa to a high degree.”²

An even larger hydraulic basin was constructed at Lockport, which was also designated as the headquarters for the canal. Between that site and Joliet was the largest land surface decline on the line of the canal, some forty feet in five miles. The I and M Canal was, alone of all the canals built in the 19th century, to concentrate on waterpower production. Although the fall between Lake Michigan and the terminus of the canal, 100 miles southwest, was slight – 140 feet, the presumption of unlimited water from Lake Michigan seemed to promise unlimited power. The idea that the Canal Commission should devote its resources to producing water power was not without opposition, but as Commissioner Thornton said in his annual report of 1840:

“It is the interest of a large number of citizens, who have settled or intend to settle on the line of the canal, to have the land and waterpower sold early and at low prices; a strong disposition has been constantly manifested by a few to throw obstacles in the way of building up State towns, and creating manufacturing power which they view and denounce as an opposition to individual enterprise. But the true policy of the State, like that of her citizens, is to sell her property to the best advantage, and where she has improved it, to claim the benefits of improvement without regard to selfish complaint.”³

In an effort to lure settlers and lure economic enterprise to the towns along the canal, hydraulic power sites were established at Lockport, Joliet, Channahon, Aux Sable and Ottawa.

In addition to drawing settlers to the area because of the canal's economic importance, the project also drew immigrants because of the prospects of work on the canal. In 1838 the Chief Engineer, William Gooding, reported that there were 2114 workers on the canal, exclusive of contractors. This was at a time when Chicago's population was about 4000.⁴ These canal workers did not necessarily stay after the canal was completed, but they certainly added to the economic base of what was certainly a fruitful district, Joliet, Lockport, Joliet, 76.08070.00

canal was destroyed. On the canal, these packets could only go about six miles an hour, and it took about 24 hours to go from Chicago to La Salle. The boats were towed by mules or horses on the towpath along the canal.

However, the heavy freight business continued, and it was increasingly important to N

grain warehouse, a flouring mill run by hydraulic power off the canal, a saw mill which subsequently became a paper board factory, a cooper shop that produced barrels for shipping the flour, and ten canal boats.¹⁰ Besides flour, another grain processing operation on the canal was distilling. Distilleries were located in towns such as Lockport and rural settlements such as Aux Sable. In order to transport grain, special boats called 'grain boats' were used.

An important industry, particularly between Joliet and Chicago, was the stone quarrying and cut stone industry. The quarries were located on the canal near Joliet, Lockport, and particularly Lemont, because of the ease of shipment on specially designed canal boats called 'stone boats.' Even when most of the commercial traffic had disappeared by 1905, the Western Stone Company still operated the old boatyard in Lockport for the repair of its boats. The stone industry along the canal in the 19th century represented one of the biggest concentrations of that industry in the nation.¹¹

Another extractive industry using the canal in Grundy and La Salle Counties was the coal industry, and coal mines were located right on the banks of the canal.¹² In addition to coal there were cement mines, particularly around Utica in La Salle County. For example, the Black Ball mines were located near Utica on the canal near Lock 13.

There were also several retail outlets on the canal, stores such as George Gaylord's and Norton's in Lockport. There were a number of lumberyards even after the arrival of the railroads. And finally, as commercial traffic and revenue were declining for the canal in the late 19th and early 20th centuries, one new industry appeared as industries ceased using the canal's hydraulic power; commercial electric companies became a new source of revenue. From 1910 to 1917, the returns from water power leases to such companies as the Economy Light and Power Company of Joliet and the Northern Illinois Light and Traction Company of Ottawa, were the only sources of revenue for the canal that were increasing.¹³

Finally, it should be noted that ever since 1984 when Federal legislation was passed creating the Illinois and Michigan Canal National Heritage Corridor, a new source of income from the canal has been gaining, namely tourism and tourism-related activities.

The great interest in canal construction peaked in the 1840s, then declined in the face of the railroad enthusiasm. However, beginning in the 1890s, interests in canals and inland waterways suddenly revived across the nation. In Northern Illinois, this canal revival resulted in the construction of two canals, namely the Chicago Ship and Sanitary Canal and the Illinois and Mississippi Canal, more commonly known as the Hennepin Canal.

The Chicago Ship and Sanitary Canal was the largest canal built in the 19th century, surpassing the Suez Canal. It permanently reversed the flow of the Chicago River by pulling large quantities of water from Lake Michigan, thereby protecting Chicago's source of drinking water (Lake Michigan) from pollution and flushing Chicago's sewage downstate to be purified by dilution. The canal was built to the depth of 24 feet, while the Illinois and Michigan Canal was six feet in depth. This depth meant that the bottom of the Sanitary canal is at the same elevation as the bottom of the Niagara River above the falls.

The canal was 160 feet at its narrowest, over 200 feet at its widest. The Illinois and Michigan was 60 feet wide at its narrowest. Despite the title, the Ship and Sanitary Canal was not originally designed for navigation, as it began in Chicago and ran thirty miles to Lockport, where its ample flowage ran over a variable level dam, called Bear Trap Dam, into the Des Plaines River.

When construction began 1892, it had an immediate impact on the area because of the large number of Black workers and immigrants that came to work on the project. The Sanitary District of Chicago purchased

ample land on either side of the canal so that in the future it could be leased out to manufacturers or other commercial users.¹⁴ The economic possibilities increased after 1906 when the canal was extended a mile-and-a-half. A lock built into the Des Plaines River made the canal navigable, and its new terminus had a large hydroelectric plant that was built so that if the flow from Lake Michigan increased, its generating capacity would be able to increase.

Shortly after this, Texas Co. built a refinery on this canal at Lockport, using both the canal and adjoining railroad for shipments. Material Service, after World War I, built docks near Lockport for the shipment of crushed rock and sand, principally to Chicago. In the next 20 years a number of facilities for transportation were built along this waterway. In 1933 a series of locks and dams were built on the Des Plaines and Illinois rivers so to make it navigable to a depth of 12 feet to Grafton and the Mississippi. This further spurred economic development on both the Sanitary Canal and along the new Illinois Waterway.

The other canal in Northern Illinois built after 1890 was the Hennepin Canal to connect the Illinois River at Hennepin to the Mississippi River at Rock Island. This canal was proposed in 1832, and the first survey was made in 1866. But it was not until 1890 after Congress appropriated \$7 million for the project, that construction was begun. This canal was constructed by the U.S. Army Corps of Engineers. In 1890 it was under the direction of Major W. J. Marshall, who designed many of its unique concrete locks. It was completed in 1908 and

