

The
PALIMPSEST



Focal Point of East-West Travel — Julien Dubuque Bridge

Mississippi River Floods

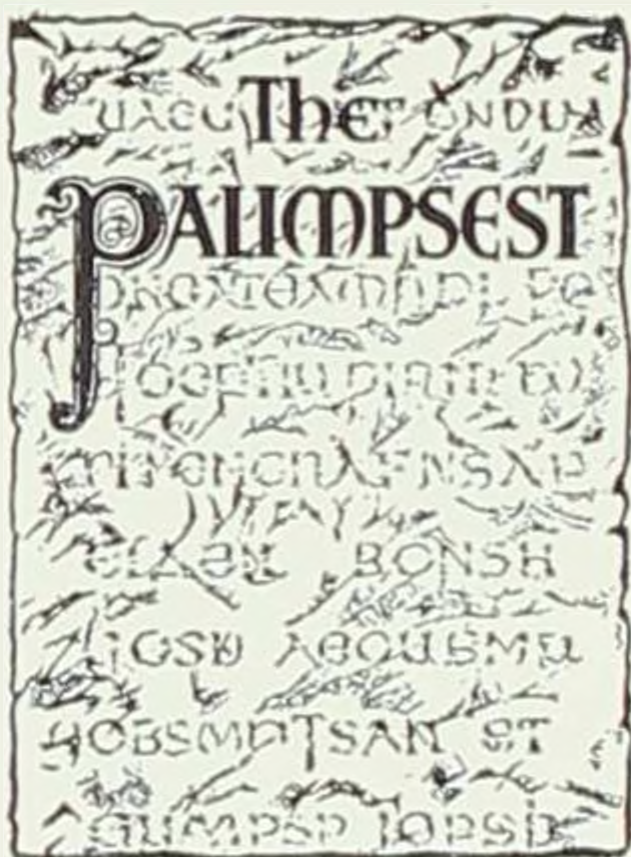
Published Monthly by

The State Historical Society of Iowa

Iowa City, Iowa

JULY, 1965

SPECIAL FLOOD EDITION — FIFTY CENTS



The Meaning of Palimpsest

In early times a palimpsest was a parchment or other material from which one or more writings had been erased to give room for later records. But the erasures were not always complete; and so it became the fascinating task of scholars not only to translate the later records but also to reconstruct the original writings by deciphering the dim fragments of letters partly erased and partly covered by subsequent texts.

The history of Iowa may be likened to a palimpsest which holds the record of successive generations. To decipher these records of the past, reconstruct them, and tell the stories which they contain is the task of those who write history.

Contents

MISSISSIPPI RIVER FLOODS

WILLIAM J. PETERSEN

Floods in Pioneer Days	305
Low Water in 1864	313
The Flood of 1870	322
Flood Time in the Eighties	328
The Flood of 1892	341
The Floods of 1920 and 1922	346
Some Recent Mississippi Highs	351
The Great Flood of 1965	353
Causes and Results	363

Illustrations

The writer is deeply grateful to the United States Army Corps of Engineers at Rock Island for their warm-hearted cooperation. He also wishes to thank the newspapers for their assistance in making a well-rounded pictorial presentation of the flood.

Author

Dr. William J. Petersen is Superintendent of the State Historical Society of Iowa. Born on the bank of the Mississippi at Dubuque in 1901, he has witnessed several floods in his lifetime. He has been an avid student of Mississippi River history since working on his doctorate in 1927.

THE PALIMPSEST is published monthly by the State Historical Society of Iowa in Iowa City, William J. Petersen, Editor. It is printed in Iowa City and distributed free to Society members, depositories, and exchanges. This is the July, 1965, issue and is Number 7 of Volume 46. Second class postage paid at Iowa City, Iowa.

PRICE — Included in Membership. Regular issues, 25¢; Special—50¢

MEMBERSHIP — By application. Annual Dues \$3.00

ADDRESS — The State Historical Society, Iowa City, Iowa

THE PALIMPSEST

EDITED BY WILLIAM J. PETERSEN

VOL. XLVI

ISSUED IN JULY 1965

No. 7

Copyright 1965 by The State Historical Society of Iowa



Floods in Pioneer Days

For more than a century, the Upper Mississippi River has subjected Iowans to costly floods. Even before permanent settlement in the Black Hawk Purchase in 1833, the military posts of the Upper Mississippi recorded destructive floods. The first Fort Crawford at Prairie du Chien was continually plagued with "spring freshets that frequently flooded the barracks to a depth of three or four feet for several days in succession and were invariably followed by bilious diseases."

Clearly the United States Army had not reckoned with the whimsical caprices of the Father of Waters when it built Fort Crawford in 1816. In 1828, for example, the June flood made Prairie du Chien "an island over which steamboats could pass in any direction. Fences were swept away, the fort was for a time abandoned, and many inhabitants of the village were compelled to retreat across the slough to the higher part of the Prairie or to seek safety in boats, on rafts, or in the lofts of houses."

As settlers trickled into the rich farm land on both banks of the Mississippi, they frequently referred to the flood of 1828 as the measuring rod, even though no accurate local records were available. Actually there were no settlers in Iowa at the time, nor were there any for the next five years. Moreover, the first newspaper in Iowa was not established until 1836 at Dubuque. Even the Illinois side, with the exception of the straggling lead mining village of Galena, lay beyond the frontier. In addition to Fort Crawford, the only possible recorders of floods were the military posts which had been established at Fort Edwards opposite the mouth of the Des Moines River in 1815 and at Fort Armstrong on Rock Island in 1816. Both these forts, unlike Fort Crawford, were located on high ground beyond the reach of the Mississippi's surging flood waters.

Although reference is made to the great flood of 1828, it should be remembered that actual measurements could not be made in land uninhabited by the white man. Doubt must therefore be placed on the accuracy of the year 1828 as a true measuring rod for the floods that followed.

The Flood of 1844

There can be no doubt about the flood of 1844. The *Davenport Gazette* of April 25 that year noted that the Mississippi had been rising for ten or twelve days "until now it is higher than it has

been since 1828. The flooded river is a beautiful sight, truly the 'Father of Waters.' " The editor estimated the river was at least a mile and a quarter wide in front of Davenport.

The *Burlington Hawk-Eye* of April 25 declared the Mississippi was higher than the editor had ever seen it. At this early date he observed that the "Illinois bottom [present-day Gulfport] is flooded and the inhabitants have evacuated their homes."

The editor of the *Davenport Gazette* had an opportunity to observe the devastation of the flood while on a trip upstream from St. Louis in 1844. He recorded his impressions in the *Gazette* of May 2, particularly noting many houses accessible only by canoe. He likened some houses on the prairie to "islands" in a "vast sheet of water" that extended "for miles." He observed that the Mississippi had not been that high for sixteen years and expressed deep concern over the cost of such floods to the unfortunate inhabitants: "Whole tracts of country, usually devoted to agricultural purposes, were overflowed and thus rendered unfit for this year's cultivation." The editor took comfort in the fact that, with the exception of some flooded cellars on Front Street, Davenport had not been injured by the high water.

Since residents of the Upper Mississippi were largely dependent on steamboats for both freight and passenger service, the plight of these vessels was a matter of deep concern. On May 9, 1844,

the *Davenport Gazette* was informed that the packet *Lynx* was reported lost on a run from Galena to St. Peters, opposite present-day Fort Snelling. The *Lynx* was said to have taken a short cut across the prairie in the vicinity of Prairie du Chien and had been grounded — the falling water reportedly had left her “out of her element.” It is pleasant to record that the *Lynx* managed to extricate herself and continued to serve the Upper Mississippi for several years.

The Flood of 1851

The Upper Mississippi and all its tributaries were out of their banks in the great flood of 1851. Indeed, the flood was probably worse than actually recorded in the Iowa press of that period. Newspaper editors were fearful of discouraging prospective immigrants from settling in their communities because of the possible danger of floods. Thus, on June 5, 1851, the *Davenport Gazette* declared that flood damage had been “terrible elsewhere” but grudgingly admitted that the “only trouble Davenport has had was a little water, never more than 12 inches, in some stores on Front St.”

The *Burlington Hawk-Eye* of April 13, 1851 noted that the Mississippi was “over its banks” on the Illinois side and that because of recent storms, it could be expected to go higher. It hoped that the bridges would be saved (adding no doubt with

a political leer) as they had been saved under the previous mayor.

On May 29 the editor of the *Hawk-Eye*, in observing that the Mississippi was out of its banks in Illinois, commented that the water was higher than it had been for many years. The Des Moines, Skunk, and Iowa rivers were also swollen to many feet beyond their usual depth, causing large quantities of cordwood and many fences to be swept away.

On June 5, 1851, the *Hawk-Eye* declared the Mississippi was higher than it had been in 1844 and threatened to go as high as in 1828, which was six feet higher than in 1844 and was the highest recorded. Davenport had suffered "a great deal of damage" while farmlands along both sides of the Mississippi were expected to be covered by four feet of sandy silt when the river receded. There was so much lumber, logs, and other debris floating in the river as to endanger steamboat navigation. Fortunately, the editor assured his readers, "Burlington has a locality which exempts her to a large extent from sharing in this calamity."

The flood of 1851 was memorable to many Iowa pioneers not only because of the havoc created by the Mississippi but also because of the damage by Iowa streams which had overflowed their banks, thus combining to increase the already heavy streamflow of the Father of Waters as it journeyed south along the eastern border of Iowa.

The Flood of 1859

The flood of 1859 did most of its damage in early spring. The *Dubuque Express and Herald* of May 10, 1859, recorded a 17-inch rise in 24 hours and saw no prospects of a decline. The Mississippi was already within 40 inches of the 1827 [*sic*] crest and within 22 inches of the 1851 crest. The lower end of Sixth Street from the bridge to the outer levee was completely inundated. Twenty teams and a "large number of hands" were hard at work strengthening the levee and building it higher. The outer levee was already in a precarious condition. In many places it was not over eight feet wide and not over ten inches above the water.

Two days later the *Express and Herald* reported the river still rising at the rate of eight inches in 24 hours:

It is now running across the foot of 1st street, near Northrup & Ryder's Warehouse. The various Improvements still keep ahead of the water and have no fear, when a high wind arises, of their ability to protect the works. It is feared that the rise is destined not to stop immediately, as all the present body of water comes from the Wisconsin River, while the great Spring freshet from the extreme North has not arrived here.

The flood of 1859 hampered railroad as well as steamboat traffic at Dubuque. Thus, the Dubuque & Pacific train was obliged to stop at the lower depot, the water was so near the top of the track

the engineer thought it unsafe to venture over it. Meanwhile, another seven-inch rise made many Dubuque streets impassable. "The outer levee at the foot of Seventh Street," declared the *Express & Herald* of May 13, "is covered by the flood, so much so that flat boats go in and out with ease."

At Davenport the *Daily Iowa State Democrat* expressed fear lest the Mississippi might again flood business establishments. In late March it viewed with apprehension a sudden rise in the river, noting that rivers throughout the Upper Mississippi Valley were on the rise. On April 9 a momentary fall was recorded but on May 6 readers were warned that the Mississippi was on the rise from Dubuque to St. Louis. On May 18 the river was a foot higher than in 1858, and the following day it stood at 14' 8" above the low water mark of that period. "Unless we are visited with a heavy rain storm," the editor concluded, "the water will undoubtedly be on the decline in a few days." Thereafter, the Mississippi sought its normal bed and Davenporters breathed a sigh of relief.

The Flood of 1862

The Upper Mississippi flood of 1862 was fed by tributaries stretching from its headwaters to the Des Moines and Illinois. As each tributary debouched into the Father of Waters, it created more misery for the inhabitants along its banks. As

early as April 19, the *Davenport Daily Democrat and News* warned its readers:

The river at this point is rising rapidly. Last night the water was overflowing the levee almost entirely. We shall look for a still greater rise. Property owners along the border of the river had better guard against loss which they are liable to be exposed to. There is an immense body of snow about the Upper Mississippi and its tributaries, the effects of which may prove disastrous.

As a service to its readers, the *Democrat and News* printed the daily stage of the river between April 23 and May 10, showing a rise from 8' 5" to 15' on the Mississippi and Missouri railroad bridge. On April 30, the editor noted that the rampaging stream was swelling rapidly between Davenport and St. Paul. He observed that the Davenport levee was "almost invisible yesterday." On May 1, 1862, the *Democrat and News* reported as follows:

The father of waters is on his annual bender with a vengeance. The water is now nearly as high as it ever gets, and is still rising rapidly and bids fair to be up to the curbing of Front Street before it gets lower.

Ten days later, the Mississippi was receding steadily, but it was still "very inconvenient" for boats to land in order to receive and discharge freight at Davenport. Although Iowa newspapers stressed the clash of arms in the South, most editors located along the Mississippi continued to report on the stage of the river during flood time.

Low Water in 1864

The summer of 1864 was a memorable one in Mississippi River history. It was the year of low water on the mighty Father of Waters, of water so low it set a record that remained a measuring rod by which all future high and low water stages were recorded. For fully a century, or up to the great flood of 1965, the stage of the Mississippi has been measured from the low water days of 1864.

The Mississippi at flood time has been responsible for the destruction of both life and property. Low water itself could be equally costly to the pioneer economy. Freight and passenger rates soared as the level of the river declined, and tariff frequently doubled. Merchants and grain dealers suffered from the irregularity of river traffic by their inability to either ship out or receive goods. Iowa lumber mills and planing factories were forced to shut down when log rafts from the Northern pine lands were unable to navigate the great river. This timber was badly needed to provide building material for the rapidly growing states of the Upper Mississippi Valley.

The low water of 1864 did not last a few weeks or months; it continued to plague Iowans through

much of the season of navigation. Early in May, editors began chronicling the low stage of the river. On June 3, 1864, the *Burlington Daily Hawk-Eye* declared:

The river is still on the "decline," with a "downward" tendency. It is said that but little snow fell last winter in the Northern mountains, and that vegetation in Northern Minnesota is suffering from long and continued drought; hence we need not look for much of a "June rise."

A fortnight later, on June 20, 1864, the *Muscatine Daily Journal* noted the plight of shippers under the caption — HOW ARE THE MIGHTY FALLEN:

Our great river is shrinking in its bed and moves sluggishly along as if aware that its glory has departed. It is seldom as low as at present, and never before at this season of the year. Boats of the smaller class only can run with safety and regularity. Hastings is now the head of navigation for the Northern Line packets. A formidable sand bar between that point and St. Paul permits only the smallest boats to cross.

Since the stage of the water between St. Louis and St. Paul was a matter of genuine concern to every Iowa river town, it is not surprising that editors would comment almost daily upon the prospects of steamboat navigation. On April 28, 1864, the *Dubuque Daily Times* declared:

Shipping commenced this spring on a low-water tariff of freights; on the prospect of a rise, a high-water tariff was adopted for a season; but the high water did not come, and

there seems no probability of its coming; consequently it has been found necessary to raise the tariff — for of course it is universally understood that this matter works by contraries — the lower the water the higher the tariff.

The first section of the Upper Mississippi, which was closed by low water, was the stretch from the head of Lake Pepin to St. Paul. The editor of the *Dubuque Daily Times* of May 7 revealed that the river above Lake Pepin was quite low and that the steamboat *Itasca* did not plan to make another trip to St. Paul unless a rise occurred. At the same time, he noted the Mississippi between Dubuque and Lake Pepin still had a good navigable stage but was falling slowly.

In contrast, the *St. Paul Press* recorded only three feet of water on the bars between St. Paul and Prescott, at the mouth of the St. Croix. Day by day reports filtered south of the difficulty in navigating this stretch of the river. The steamboat *Milwaukee* had "hard scraping" over the bars on her down stream trip. The *Itasca* reported only thirty inches most of the way above Lake Pepin, forcing steamboats to "crawl" over bars. On May 18 the steamboat *Keokuk* was unable to go farther than Hastings. Two days later it was said that larger boats "cannot possibly make St. Paul more than three or four days longer." Meanwhile, apprehension grew as water on the Rapids was reported "quite shallow" with a mere eight feet in the channel between St. Louis and Keokuk.

On May 24 the *Dubuque Daily Times* noted that the regular packets could go no farther than Hastings. Two days later the *Key City* brought word that the *Northern Belle* and the *Sucker State* were fast aground on Kaposia bar. By May 28 Dubuquers read that passengers and freight, and the mails were being transferred to smaller boats to complete the journey between Hastings and St. Paul.

Meanwhile, all along the Mississippi from Dubuque to Keokuk and beyond, the river continued to decline, usually at the rate of a couple of inches per day. On June 4 the *Daily Times* reported the river falling at every point between St. Paul and the Gulf. Eleven days later, on June 15, the discouraged editor told his readers that the Mississippi was falling "from the north pole to the Gulf of Mexico."

By mid-June the two major packet companies on the Upper Mississippi had established a series of short runs for their steamboats. The largest boats ran between St. Louis and Keokuk, which still enjoyed the best stage of water. At Keokuk (but more often at Montrose) freight and passengers were transferred to medium-sized boats which proceeded upstream as far as they could navigate. Thus, on June 8, the *Canada* arrived at Dubuque with freight which had accumulated at Montrose from the larger boats. On her trip upstream the *Canada* found there was only thirty-two inches of

water on the Lower Rapids and a scant four feet on the bars between the rapids. By June 21 the water on the Upper Rapids was so low that boats running between Dubuque and Davenport had to stop at Port Byron, Illinois, from whence passengers and freight were conveyed on light draft boats to Davenport.

The plight of the river towns was not limited to uncertain and precarious steamboat navigation in 1864. As the water continued to drop, huge sandbars formed along the levees — sandbars so large that some river towns were fearful of becoming inland cities. On July 6, 1864, the editor of the *Dubuque Daily Times* wailed:

If you want to see a discouraging sight go down to the levee and look at the long line of bar which stretches itself above the water from Seventh street nearly to the elevator, not more than eighty feet from the shore. Something will have to be done with it soon, or Dubuque will be an inland city.

A similar view was expressed by the *Muscatine Daily Journal* in commenting on "OUR STEAMBOAT LANDING" on June 27, 1864:

There is some danger of our city becoming an inland point. The extension of the steamboat and ferry levees and the washings from Mad and Pappoose creeks have turned the channel towards the opposite side of the river so far that it now is becoming quite difficult for steamboats to reach the landing in low water. Formerly there was a deep channel close to this shore. . . . During the late freshet, an immense quantity of earth was carried out into the river

at this point, together with about 100 feet of the rip-rap wall which our present city authorities foolishly supposed would prevent a disaster of this kind.

There is only one remedy for this evil, and that is the construction of a dyke on the opposite side of the river to throw the current this side. It is high time some action were taken in this matter.

The failure of vast fleets of logs and lumber to arrive from the North dealt a heavy blow to the economy of Iowa river towns. On July 16, 1864, the *Daily Davenport Democrat* quoted the *Dubuque Herald* as follows:

Two fleets of sawed lumber, containing 900,000 feet, arrived yesterday from Wausau, Wis., and have been three months and four days on the way since leaving the mill. They are the property of Hon. W. D. McIndoe, member of Congress from that District. Twenty-eight dollars per 1,000 was offered here as it lay in the water by our dealers, which was refused, thirty-one dollars having been promised in St. Louis.

Two weeks later, on August 2, 1864, the *Dubuque Daily Times* chronicled the arrival of a raft containing 500,000 feet of lumber at Eagle Point. The arrival of huge rafts, the editor pointed out, was an "every day occurrence" in 1863. "Not so now," he concluded. "Low water causes such an affair to be a matter of congratulation."

Some idea of the low stage of water may be gleaned from the fact that in mid-August the *Dubuque Times* declared the Mississippi was 20' 9" below the high water mark of 1859 and a "foot

or two lower than it has ever been known to be before." The *Daily Democrat* stated the "oldest inhabitants" in Davenport could not remember a year when the Mississippi was so low.

During this period, many boats were grounded for varying lengths of time. The steamboat *Pembina* was aground in the mud for nearly three weeks about ten miles north of Dubuque. On September 1, 1864, the Burlington editor wrote:

The river continues to fall, and the gray sandbars are everywhere protruding their sandy backs above the surface of the water. We are informed by old river men that the Mississippi is lower now than it has been before for years. Still the packets continue their trips and manage to get along by maintaining a vigilant lookout for the channel and avoiding the sandbars. The Dubuque *Herald* says the up-river papers report that the boats have frequently to blow their whistles to drive the cattle out of the channel! and adds further, that the oldest inhabitant, always reliable, does not remember a season when the water was so low.

The month of July began a crucial period as steamboat companies made every effort to respond to demands of shippers. The *Dubuque Daily Times* carried the following item on July 6:

Superintendent Wellington has perfected arrangements which will enable the Northwestern Packet Company to send passengers and freight through to LaCrosse and St. Paul with little or no delay. The Milwaukee, War Eagle and Itasca, which compose the line from here to LaCrosse, will connect there with the small boats, Flora, Mollie Mohler, Young Eagle, Enterprise, G. H. Gray, Mrs. Part-

ington, Pearl and Ocean Wave—these last craft being numerous enough to ensure connection in spite of bars. The increased expense of low water steamboating makes an advance in freight and passenger rates necessary, and a new tariff will go into operation next week.

On July 7, 1864, the same paper noted that the *Savanna* had made her last trip down because of low water. According to her captain, the *Savanna* lost \$500 on the trip. Two days later the *Daily Times* gave evidence of continued shuffling of steamboat schedules.

A new arrangement went into operation between Davenport and Montrose day before yesterday, the Muscatine and Canada having agreed to run between those points. The Muscatine leaves Davenport on Mondays, Wednesdays and Fridays, and the Canada on Tuesdays, Thursdays and Saturdays. A train connects with these boats at Montrose for St. Louis, and the time through to that city will be 48 hours. The new steamer Burlington is completed, and only awaiting a rise of water to take her place in the Northern line.

The size of some representative steamboats on the Upper Mississippi during these low water days may be gleaned from their tonnage as registered by the United States Steamboat Inspectors and W. M. Lytle's *Merchant Steam Vessels of the United States*—the latter indicated by an asterisk.

<i>Boat</i>	<i>Tons</i>	<i>Boat</i>	<i>Tons</i>	<i>Boat</i>	<i>Tons</i>
War Eagle	674	Keokuk	301	*Jennie Whipple	138
Milwaukee	646	Muscatine	299	Mollie Mohler	135
Itasca	540	Pembina	273	Enterprise	130
Key City	531	Flora	249	Charles Cheever	117

Sucker State	524	*Savanna	243	*Ingomar	110
Northern Belle	498	*Ocean Wave	235	G. H. Gray	83
*Jeanie Deans	485	Damsel	211	*Lansing	83
*Northern Light	414	New Boston	205	*Nevada	75
Canada	400	Keithsburg	186	*Eagle	70
*Burlington	359	*Emma Boyd	172	Pearl	57
Davenport	341			*Young Eagle	28

Throughout the summer, the *Keokuk Daily Gate City* contained reports from distressed river towns upstream. On May 25, 1864, the *Gate City* carried a dispatch from the *Dubuque Herald* stating that steamboats "have stopped running to St. Paul because they can't get there unless on wheels." In July it reported that the *Emma Boyd* found the rocks "too near the surface" on the Lower Rapids and was forced to return to Keokuk. The circus boat *Ingomar* stuck fast on the Rapids until the *Nevada* came to her rescue and pulled her off. By then the *Ingomar* was so late the circus troupe missed their afternoon performance at Warsaw. Even the light draft ferries at Keokuk and below had difficulty crossing the Mississippi.

Dispatches from various St. Louis dailies were constantly quoted in the *Keokuk Daily Gate City*. These usually carried the stage of the river at various points as far north as St. Paul and noted the boats in the trade. Truly, steamboating was extremely difficult in 1864 and succeeding generations have been reminded of this fact through a century of time as the United States Army Engineers refer to 1864 as the low water year in Upper Mississippi history.

The Flood of 1870

The flood of 1870 was one of the highest as well as one of the most memorable from the standpoint of destructiveness. The accounts of its ravages in Dubuque and Davenport are reminiscent of those set down in 1965. On April 14, 1870, the *Dubuque Daily Times* recorded:

The waters are still gathering their forces and have commenced the work of destruction. In Dunleith [East Dubuque] they are invading the homes on the flats and driving out the inmates. The lately constructed ice-breakers above the bridge, it would seem, are not proof against them, and one, it has been reported, has been partly destroyed by the flood.

The next day the *Daily Times* reported that "familiar landmarks" were being "rapidly obliterated" by the rising Mississippi and that the prospect for continued damage was imminent. On April 16th the *Daily Times* asserted:

DUNLEITH. — The principal anxiety of the people of our neighboring town, especially those who live on the flats, or have property there, is to keep out the encroaching water. So far they have succeeded by the aid of an embankment erected two years since, but the river is now even with this and teams are engaged in hauling dirt to increase the height of this protection barrier. The water outside is now five feet or more above the ground inside.

Up to yesterday morning the water had risen eight inches in the last twenty-four hours and was within three feet and one inch of the high water mark of 1859. — The year of the great flood.

The following day, with the Mississippi within a few inches of its 1859 mark, the *Daily Times* declared that the islands and "all familiar landmarks are submerged, while the shot tower and Rhombbergs distillery stand like lone sentinels far removed from land." Steamboats were having difficulty docking at the crowded wharf boats. At the same time, the editor reported that the railroad companies had brought in 95 car loads of stone to use in rip-rapping in an effort to secure their road and track from the ravages of the flood.

Dispatches telling of the rising waters at Dubuque were watched with apprehension by river towns downstream. The *Davenport Daily Democrat* of April 19 quoted the following description of the Dubuque flood from the *Muscatine Journal*:

Main street, below Jones, leading to the lower depot, was covered before noon and ducks were swimming over it after dinner. The levee is reduced to a mere thread at the landing, while below it is entirely covered — less than two feet more will take the water into the warehouses. The flood is now up to or beyond the high water mark of any year since '59, and a little over a foot will touch even that.

Day after day the *Times* continued to report basements full, railroad tracks under two feet of

water, and lumber and coal yards six feet under water.

Since Saturday last it [the Mississippi] has been steadily crawling up, engulfing old land-marks, covering roads and bridges until now from Eagle Point to the mouth of Catfish Creek nothing can be seen but a broad expanse of water, on the bosom of which, small crafts can be seen darting in every direction. At the present writing it is within a few inches of the high water mark of 1859 and still rising. . . . The water covers the sidewalks of the warehouse buildings and wants but a few inches of running in on the first floor. All the basements are full while the railroad track in the rear is two feet under water.

True to its prediction, the next day the 1859 record was eclipsed as recorded by W. E. Massey, Secretary of the Dunleith Bridge Company, using as his gauge the low water mark of 1864.

<i>Day</i>	<i>Hour</i>	<i>Feet</i>	<i>Day</i>	<i>Hour</i>	<i>Feet</i>
April 6	6 A.M.	11.8	April 14	6 A.M.	17.3
April 7	"	12.5	April 15	"	18.0
April 8	"	12.3	April 16	"	18.1
April 9	"	14.3	April 17	"	19.8
April 10	"	14.11	April 18	"	20.0
April 11	"	15.5	April 19	"	21.1
April 12	"	16.1	April 20	"	21.6
April 13	"	16.7	April 20	6 P.M.	21.75

On April 21 the *Times* noted that the Mississippi continued to rise despite predictions that it would fall once the 1859 level was reached. "Water covers the corner of First and Jones streets and people are row-boating on the sidewalk in front of the American House." Many homes in Dunleith

had been "swept away" and the railroad ice house was badly damaged. A dispatch from the *Galena Gazette* read: "The water now stands seven inches above the mark of the highest water ever known before. The flood of 1870 will be memorable for generations to come."

On April 22 the *Dubuque Daily Times* chronicled an equally memorable feat in steamboat navigation:

Yesterday the unusual spectacle was seen of a boat, the *Lady Pike*, crossing the levee into the slough beyond, for the purpose of loading. She will probably never have the opportunity to do the like again. The river was thought to be on a stand last evening.

It was not until April 23, however, after much hopeful wishing, that the *Daily Times* finally informed its readers that the "mighty and abounding river" had crested on the evening of the 22nd and was falling. With this news the editor could ruefully remark:

. . . water is a handy thing to have in the house, and is exceedingly useful for cooking purposes, and some people have been known to drink it, even when whisky could be procured. Most people, however, have a choice as to what part of the house water should occupy, and but few like to have it lying about loose, occupying cellar, kitchen and parlor.

After noting that the Mississippi had been "unusually, and unnecessarily and uncomfortably high" for the past week, the editor continued:

It has got fuller than any well disposed citizen ever should, and has slopped over much to the inconvenience of the wood dealers and lumber men. Streets have been washed out, yards involved, in fact the water has had its own way, but with yesterday, we are happy to note a decline and the great flood of 1870 will soon be a matter of history.

Three days later, on April 27, the river was falling fast, at the rate of a foot a day, and the *Daily Times* informed its readers that the landing "is to be reached again with dry feet, and the sidewalk in front of the levee is nearly dry."

The flood of 1870 was equally devastating below Dubuque. The *Davenport Daily Democrat* of April 18 noted that the river was rising "very fast at this point, having raised 12 inches in the last 24 hours." Two days later it quoted the *Rock Island Argus* as follows:

Never in the memory of the earliest resident have we been visited by such a high stage of water on the Mississippi at this point. The lowest water known here was in the year 1864, from which hydrographic calculations are made as from zero. The highest water mark known is that of 1862, when the water reached the height of 15 feet and eight inches above zero or low water mark.

On April 21 Thomas Winkless, who had kept a measurement of the Mississippi at various stages, informed the *Democrat* that the 1870 flood was

eight inches above the high water mark of 1859. The next day the same editor revealed that nearly every cellar on the levee was flooded and factories and mills were shut down with at least one foot of water on the floor. Gazing over the vast expanse, the editor declared "the water has full sway from the bridge to the slaughter house, three miles away on Front street."

The next day, on April 23, the *Daily Democrat* quoted old settlers as saying the river was higher than it had been since 1828. Front Street was full of water to the curbstone, and factories and warehouses near the river were islands while the ferry dock "looms up somewhere out at sea."

Upstream from Davenport word from the Clinton-Fulton area indicated that all the bottom land for miles about was overflowed, rail traffic had been interrupted, and many had been forced to abandon their homes. Downstream the same destructive forces were at work. The flood of 1870 was truly a memorable one for residents of Iowa and the Upper Mississippi Valley.

Flood Time in the Eighties

The Mississippi continued on the rampage in the decade of the 1880's. At least three floods, those of 1880, 1881 and 1888, elicited widespread newspaper comment. One of these, that of 1881, developed into the most devastating flood ever to occur in October.

The Flood of 1880

The flood of 1880 occurred in June, a decade after the flood of 1870. The *Dubuque Daily Times* of June 16 noted that the Mississippi had risen more than two feet in forty-eight hours and was "still walking up like a race horse." A dispatch from LaCrosse said the Mississippi was already four inches over the high-water mark of 1870 and still was rising. "On the levee the scene was lively," the *Daily Times* recorded. "Small boats were constantly going out or coming in loaded with wood and other plunder, and store keepers were busy shoving their wares to higher quarters." The river stood at 16' 4" and lacked five feet of coming up to the 1870 high-water mark.

On June 17, 1880, the *Daily Times* noted the Mississippi had risen eight inches in ten hours, causing hundreds of cords of wood to be scattered

about or sent floating down the river. Businessmen were fearful of the impending flood damage to their merchandise.

The store rooms in the long brick building on the levee are filled with grain, and speculators are very nervous, as the water is very apt to compel them to throw their grain on a "busted" market which will be a large loss to them. It is estimated that 90,000 bushels of grain are stored in this building alone which cannot be removed without a serious loss.

With their goods in danger of irreparable damage, the firm of Hansen & Linehan "offered idlers on the levee 40 cents per hour to roll hay to the *Belle of LaCrosse*, but they refused to work and a Wisconsin crowd of raftsmen was engaged at \$1.75 per day." At eleven o'clock in the evening of June 16, the river stood at 18' 8½" at Dubuque and was within 33 inches of the high-water mark of April 22, 1870.

On June 18 the *Daily Times* forecast a stand in the river with two feet still to go before reaching the 1870 level. The next day, however, the *Times* told its readers that all hopes of a stand were unfounded as the Mississippi continued to rise at an ever-increasing rate. Word from "up river" reached Dubuque that three feet more could be expected before the flood came to a crest. "The grain and corn dealers on the levee are frantically engaged in bagging wheat and hauling out corn," the Dubuque editor observed. "The merchants are

building trestles on the floor to hold their goods, or are moving them to an upper floor." Dubuque's talented artist, Alex Simplot, was reported "making a sketch" of the flooded levee for Frank Leslie's pictorial magazine.

By noon on June 20, the water had reached within 15 inches of the 1870 high, and railroad men were reported "piling rock on their bridges" to hold them down. According to a reporter for the *Daily Times*, over one-half the houses on the flats were "filled with water" and people were swimming in knee deep water in their back yards. The sidewalks and bridges were "all held down with stones and tied to trees." Along Elm Street people were reported to have built "elevated sidewalks" from their second story windows.

The *Daily Times* of June 22 recorded sightseers "flocking" to the levee which could be approached only by skiff. Two thousand Dubuquers made the round trip to East Dubuque by ferry on Sunday. "The saloon floors were awash," the *Times* declared, "and thirsty patrons rowed in the door, up to the bar, and had their drink without getting out of their boats."

The Mississippi was said to be several inches above the 1870 mark on June 21 and still was rising. On June 23 the water was reported at a stand of nine inches above the 1870 mark but still a few inches below the 1844 mark. It stood at 22' 5" on June 22 and 22' 8" on June 24, at which

point it crested. Iowa river towns downstream from Dubuque underwent similar ravages.

The Flood of 1881

The flood of 1880 occurred during the normal June rise but soon receded. In contrast, the flood of 1881 occurred in October and was of much longer duration. On September 22, 1881, the Mississippi stood at 13 feet causing the *Dubuque Daily Times* to declare:

The river has the appearance of a flood in June. Such high water was as unexpected as it was unwelcome. Considerable property is threatened and much inconvenience experienced. On the Seventh street extension a large amount of wood, pine chiefly, is in danger, and some of it is already floating off. Work on Ryan's new building is interrupted somewhat in the laying of the stonework. Many lumber piles are under water and cellars inundated.

On October 7 the Mississippi stood at 16' 9" and two days later it was at 18' 1". On October 11 the levee was submerged but no great damage done. The Couler Creek bridge on Lake Street [now Garfield] was held down by piles of rock. Twenty-five houses between Eleventh and Seventeenth streets east of the railroad tracks were surrounded by water and their inhabitants were forced to move to the second story. For a few days the river receded but heavy rains in the north brought flood waters up over the twenty-foot level again. According to the *Daily Times*:

Fantastic stories of the flood have come in from the north. Hundreds of square miles are reported to be submerged, farmers are picking their corn from boats, and cows are belly-deep in the field, eating hay from the tops of hay cocks. Thousands of tons of hay have been destroyed and farmers are selling their cattle at any price rather than run the risk of wintering them.

From Davenport word came to Dubuque that navigation had become dangerous for rafts — one was broken up and another wrecked within twenty-four hours. Meanwhile, the water stood at one foot below the 1870 level and two feet under the 1880 level at Dubuque. Damage was less than expected, the greatest loss was due to the closing of the factories and the resulting loss of work for 1,500 men. According to the *Dubuque Daily Times*:

This terrible flood has taught Dubuque a lesson, and hereafter when putting up new buildings on the river front there will be a higher standard gauge for high water than any hitherto known.

The high water has knocked business completely. There is nothing doing in the way of carrying freight. The warehouses and landings up and down the river are drowned out, the roads are impassable, and there is no delivering of receipts by rail, owing to the switches being under water.

The *Burlington Daily Hawk-Eye* warned its readers on October 4, 1881, that word from Minneapolis indicated heavy rains had prevailed throughout September and flood waters would shortly arrive in Burlington. By October 15 the

water had entered the Diamond Jo Line warehouse and only a few inches more were needed to seep into the quarters of the St. Louis & St. Paul line.

Meanwhile, Clinton had wired that the Mississippi was within two feet of its all-time high-water mark. The two saw mills in Lyons as well as the paper mill had shut down because of the fall freshet. The *Davenport Gazette* reported the river so high at that point that a strong southerly wind would "undermine" buildings along the water front while a "few inches more in the river and the remains of the old Keokuk Northern line office, at the foot of Perry Street, will make a good start for St. Louis."

Just when relief seemed in sight, renewed and continuous rainfall brought further woes to Burlington. On October 25 the *Daily Hawk-Eye* declared the swelling waters had passed the mark of June, 1880, and were the highest recorded in thirty years. Once more hope for a decline mounted as reports reached Burlington of falling water farther upstream. According to the editor:

'Tis a consummation devoutly to be wished for, though there has been no cutting, crashing, grinding ice to damage property and endanger life, neither growing crops to be destroyed, an immense loss has come from the flood. Farmers, merchants, mill owners, lumbermen, steamboat men, railroad men, all have felt the misfortune attending the overflow and all will with rejoicing hail the falling of the waters.

The loss in farm crops around Burlington was truly staggering. William Fordney, who lived at the lower end of Sand Ridge, lost 120 tons of hay and 30 hogs, besides having nearly his entire farm under water. Fordney lost over \$1,000 in the 1880 flood and told the *Hawk-Eye* editor "if this kind of business is going to continue he will have to move to higher ground." In another case, Messrs. Hixson and Orr lost something over 200 tons of hay and as a consequence were compelled to sell their entire lot of 2,700 head of cattle. The same men lost 125 acres of corn in the 1880 flood.

The editor of the *Hawk-Eye* was exasperated as the 1881 flood continued to the end of October and at one point declared — THE RIVER — IT WILL NOT DOWN WORTH A CENT. Records clearly indicated that the fall flood of 1881 had surpassed the spring flood of 1880 by ten or eleven inches. On a lighter vein, the *Hawk-Eye* recorded:

The town of Port Louisa, a few miles below Muscatine, is entirely under water, the town being mostly deserted, and those remaining living in the second stories of their houses, and having communication with the outside world through the aid of boats. It was nothing unusual to see houses partly submerged in the water, having the roof ornamented with dogs, cats and chickens, which had there found refuge from the seething waters below, while at other places flags of distress were waved by persons who had sought the nearest refuge and were cut off from the land.

The *Keokuk Daily Gate City* of October 26 was equally concerned over the 1881 flood, pointing out that the Mississippi had risen "to an alarming height, on several occasions" since 1851, but "never since that time has a rise of the magnitude of the present one been recorded." Continuing, the editor declared:

The railroad tracks on this side of the river are all under water from a short distance below the elevator to a point near Buena Vista. The wagon road from Keokuk to Warsaw, on the Illinois side, is under water. The railroad shops and lumber yards, saw mills and other buildings in the lower part of the city are in the water, and a large number of men are lying idle in consequence thereof. At Alexandria the condition of affairs is truly lamentable.

The Flood of 1888

The spring flood of 1888 was one of the worst on the Upper Mississippi. On April 20th the *Dubuque Daily Times* chronicled a 17-foot stage. "The islands are all covered; the lower portion of East Dubuque being a vast lake." The editor reported, "Lower Main street is nearly underwater and the flats along the east side of the city are gradually being submerged." The next day the river reached the curbstone of the Diamond Jo boat store after a one-foot rise.

On April 22nd the river stood at 19 feet and had "reached around the low lands at the foot of Seventeenth street and invaded the flats surround-

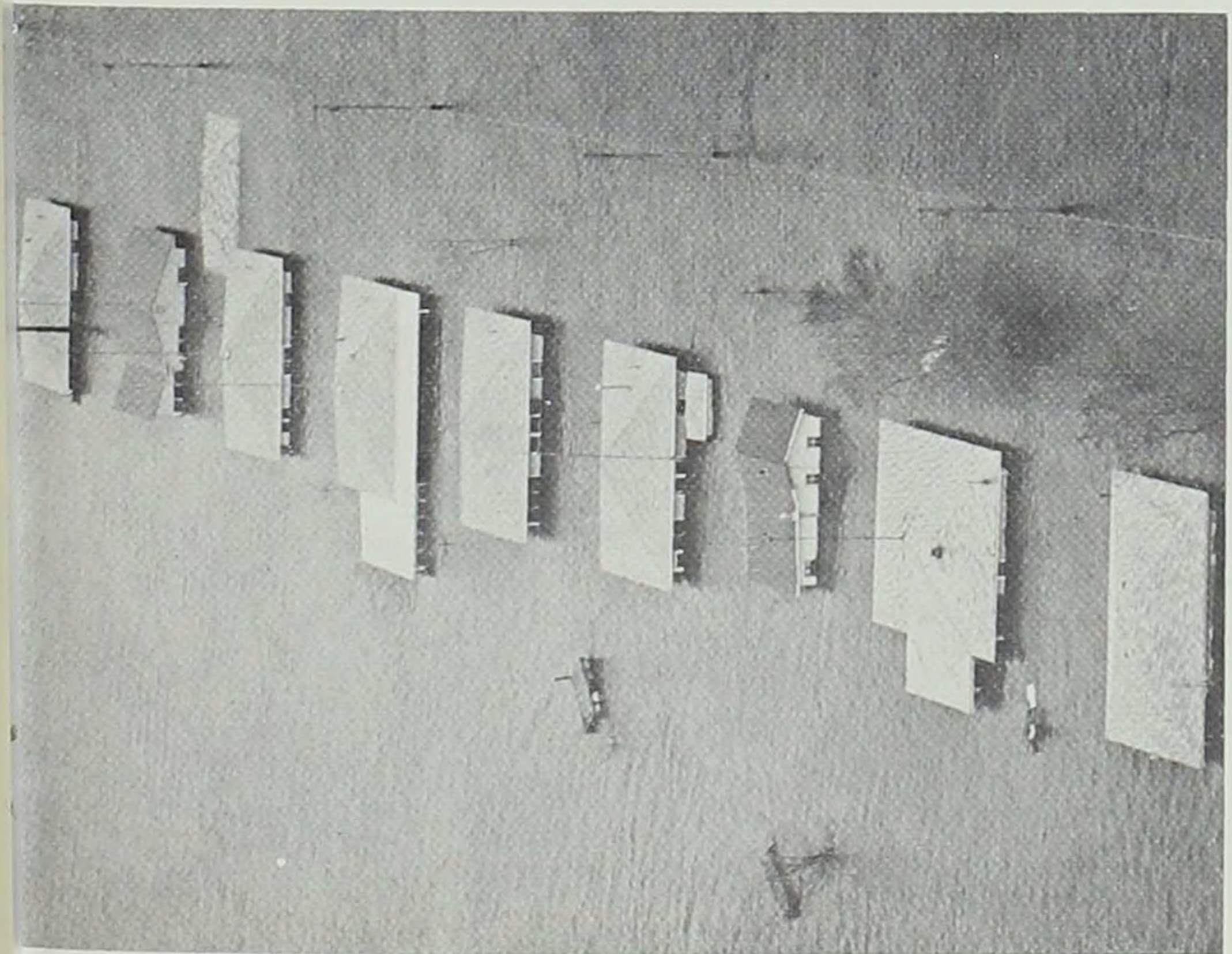
ing the round house and the works of the National Iron and Brass works" and was "gradually creeping up Couler avenue." The ferryboat *Campbell* was landing in the rear of the Julien House for conveying passengers to and from Dubuque and East Dubuque. This was the first time since 1880 that the ferry had been "compelled to make this change."

On April 24 the *Times* reported the river at 20' 1" compared with 21' 4" in October 1881 and 21' 8" in 1870. Although the 1880 flood was two feet higher the editor observed that the 1888 flood "occasions quite as much inconvenience as did the high water of that year for the reason that the low lands of the city are much more populous than they were at that time. As a result of the present flood all the sawmills and many of the factories have been compelled to suspend operations and hundreds of operatives are walking the streets today when they should be at work."

The Mississippi stood at 20.3 feet for several days but then dropped slowly, only to rise again to 20.8 feet by May 9, due to heavy rains and melting snow. This was only a scant foot below the 1880 high water mark. Business houses built platforms on which to store their goods or removed the merchandise. Many factories and lumber yards were closed, and hundreds of men were thrown out of work. People in the flats moved out of their homes and General C. H. Booth's newly-



Dubuque Telegraph-Herald Photo
Lansing, Iowa, will long remember the flood of 1965. The well-known Fish Market had fish swimming around, but not for sale.



Dubuque Telegraph-Herald Photo
A few of the Guttenberg homes that were unable to make the Old Mississippi "stay way from my door."



Dubuque Telegraph-Herald Photo
Like other Iowans, residents of Guttenberg worked valiantly to stave off the devastating flood.



Dubuque Telegraph-Herald Photo
Bagley, Wisconsin, across from Clayton, was not spared the ravages of the destructive flood of 1965 which encircled homes. Towns on both sides of the river were inundated.



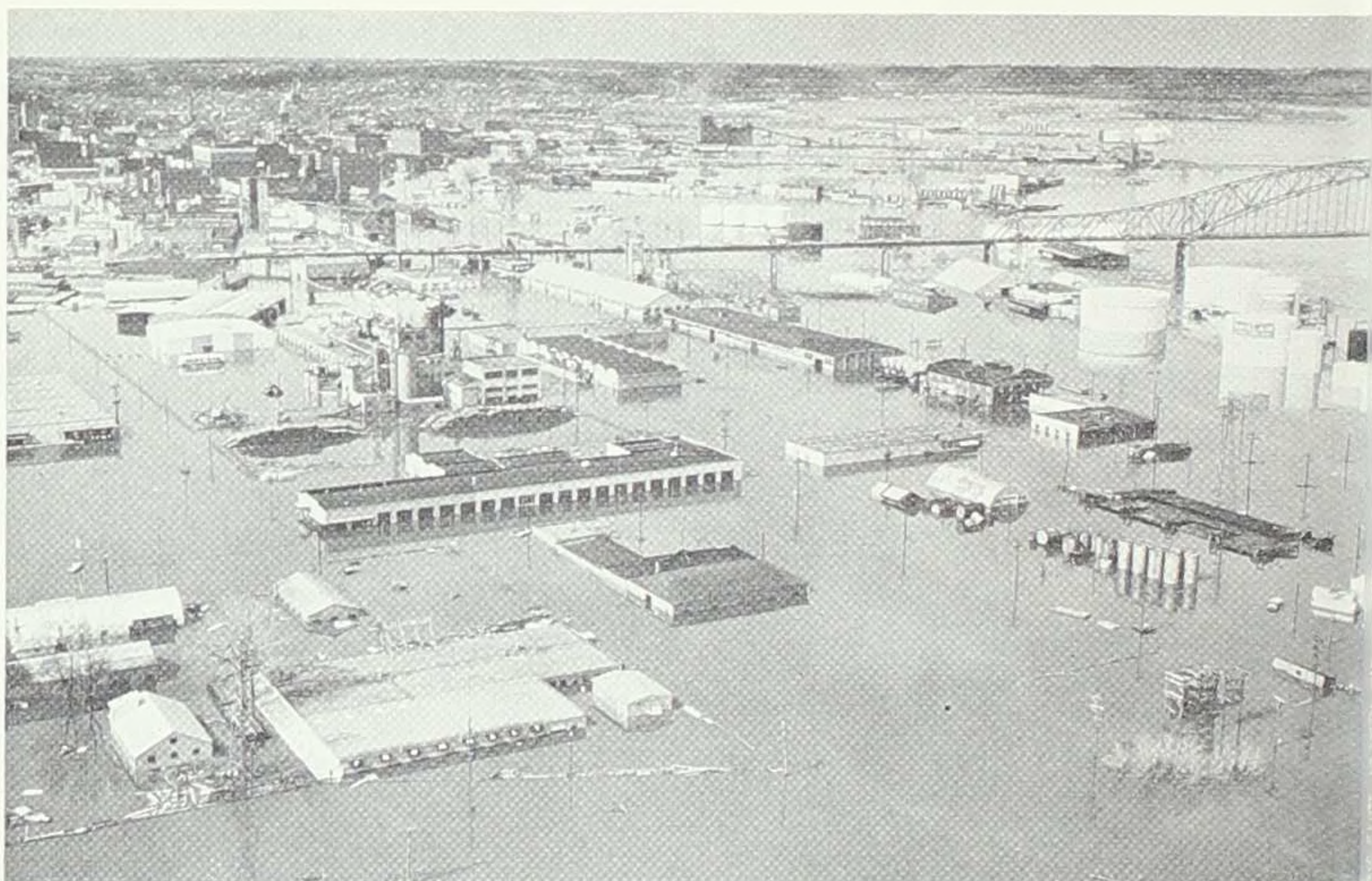
Associated Press Photo

The approach to the Julien Dubuque bridge where sandbaggers fought to keep the only highway bridge connecting Iowa with Illinois for many miles open to traffic.



Dubuque Telegraph-Herald Photo

Air view of Dubuque (looking from the SE) showing such landmarks as the Burlington and Milwaukee depots, the Canfield and Page hotels, and the Adams Company in the foreground, which successfully turned back the encircling waters.



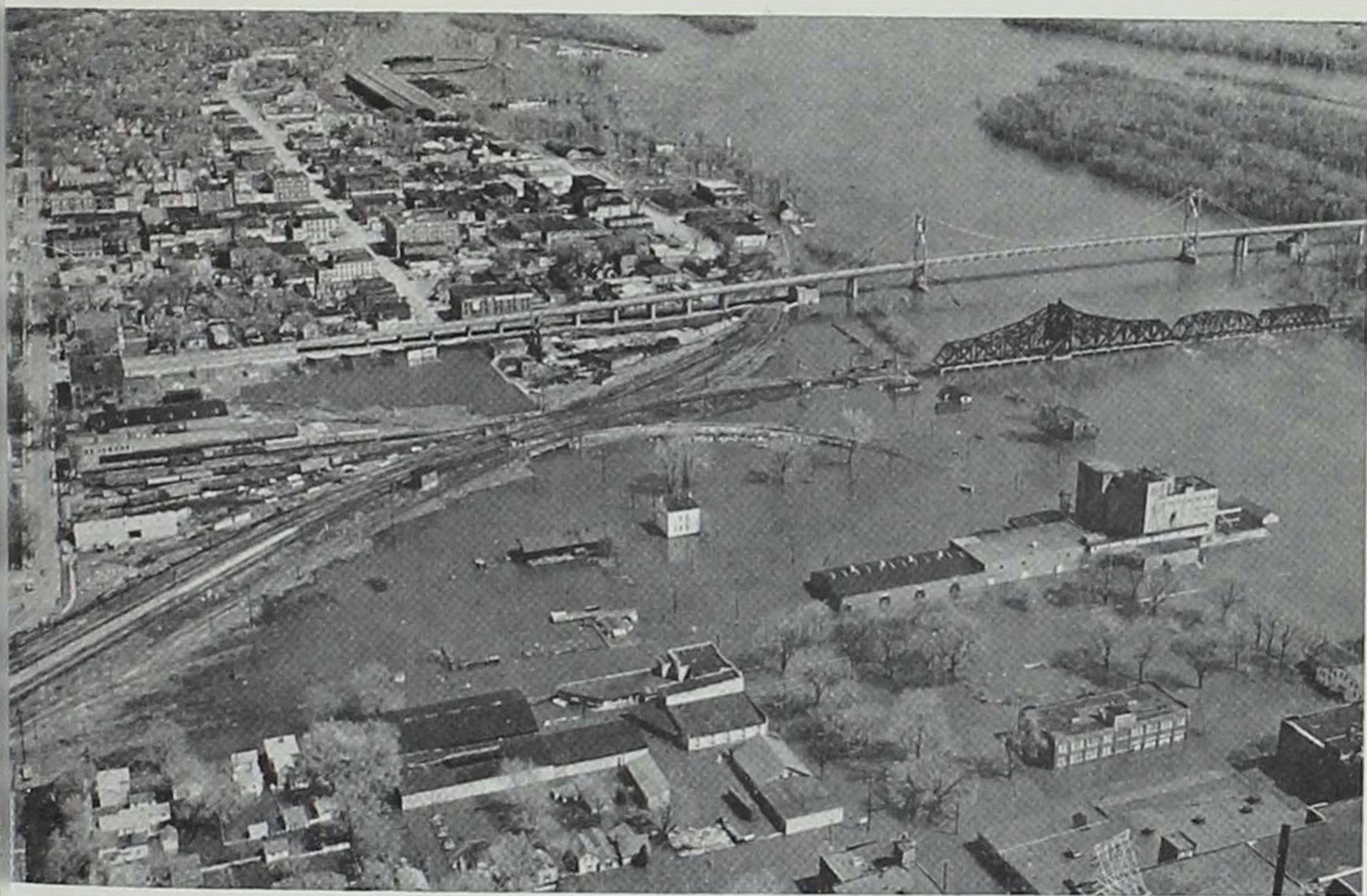
U. S. Army Engineers Photo

Birdseye view of southern section of Dubuque showing Julien Dubuque bridge, inundated harbor, and oil and molasses tanks. For more than a century this area has felt the brunt of a dozen Mississippi River floods.



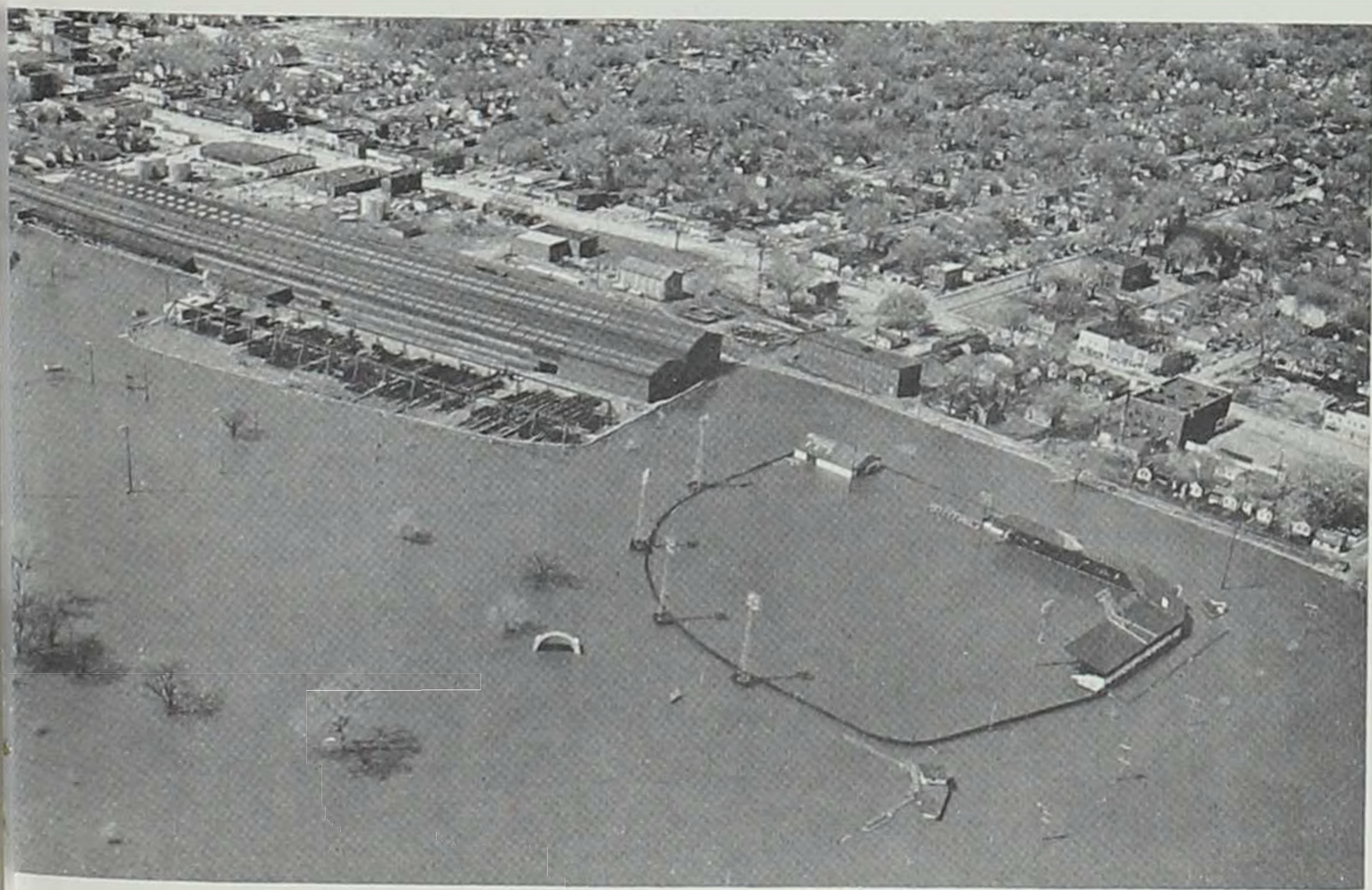
U. S. Army Engineers Photo

View of flood-stricken Dubuque looking south and showing such companies as Trausch Bakery and Midland Chemical at the junction of Jones & Main streets. The river at this stage extended to Second and Locust streets.



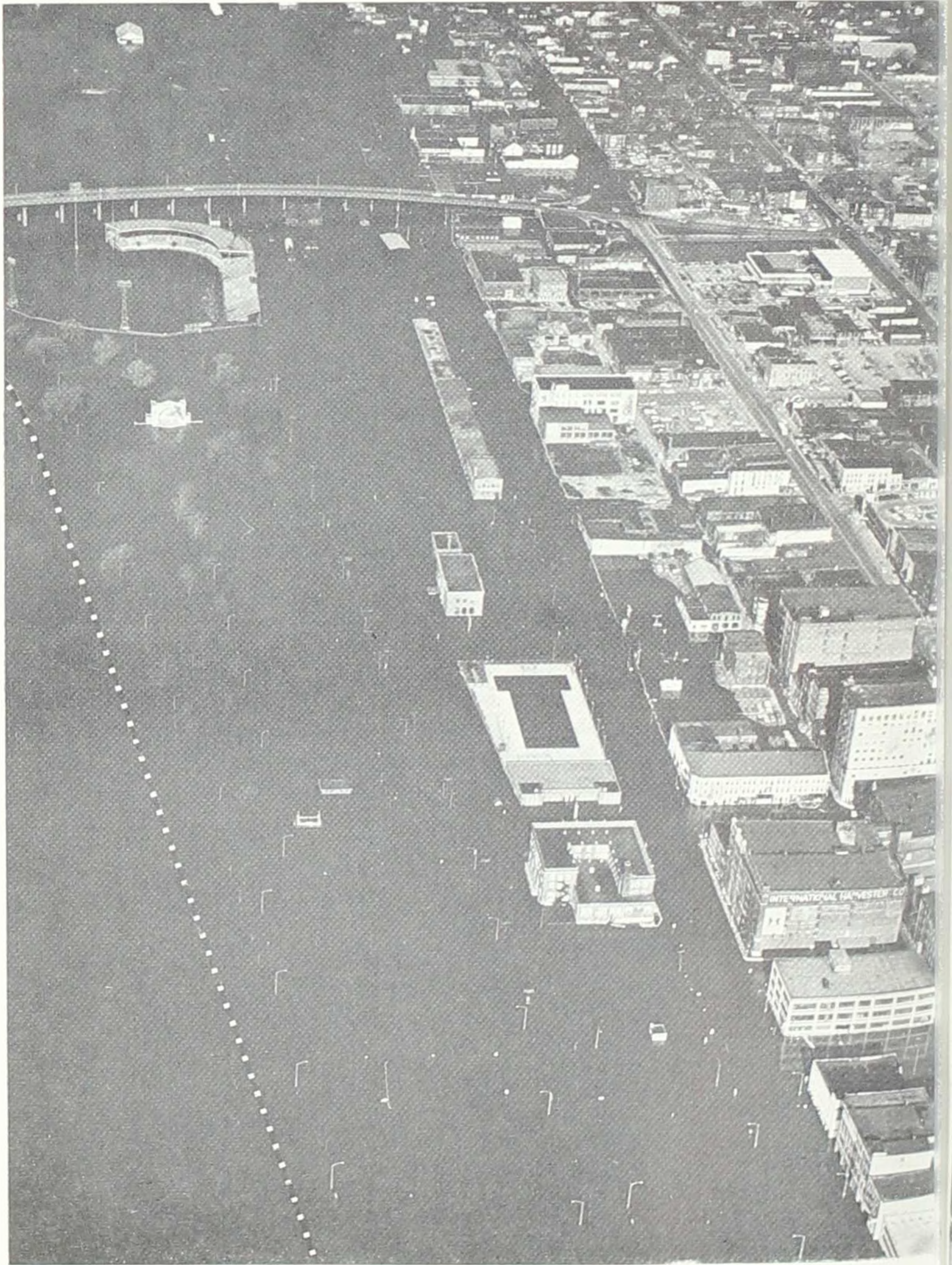
U. S. Army Engineers Photo

Clinton (looking north) fought long and hard to contain the swirling waters of the Mississippi. Lyons was completely awash and water was backed up in sewers flooding basements and cellars of Clinton.



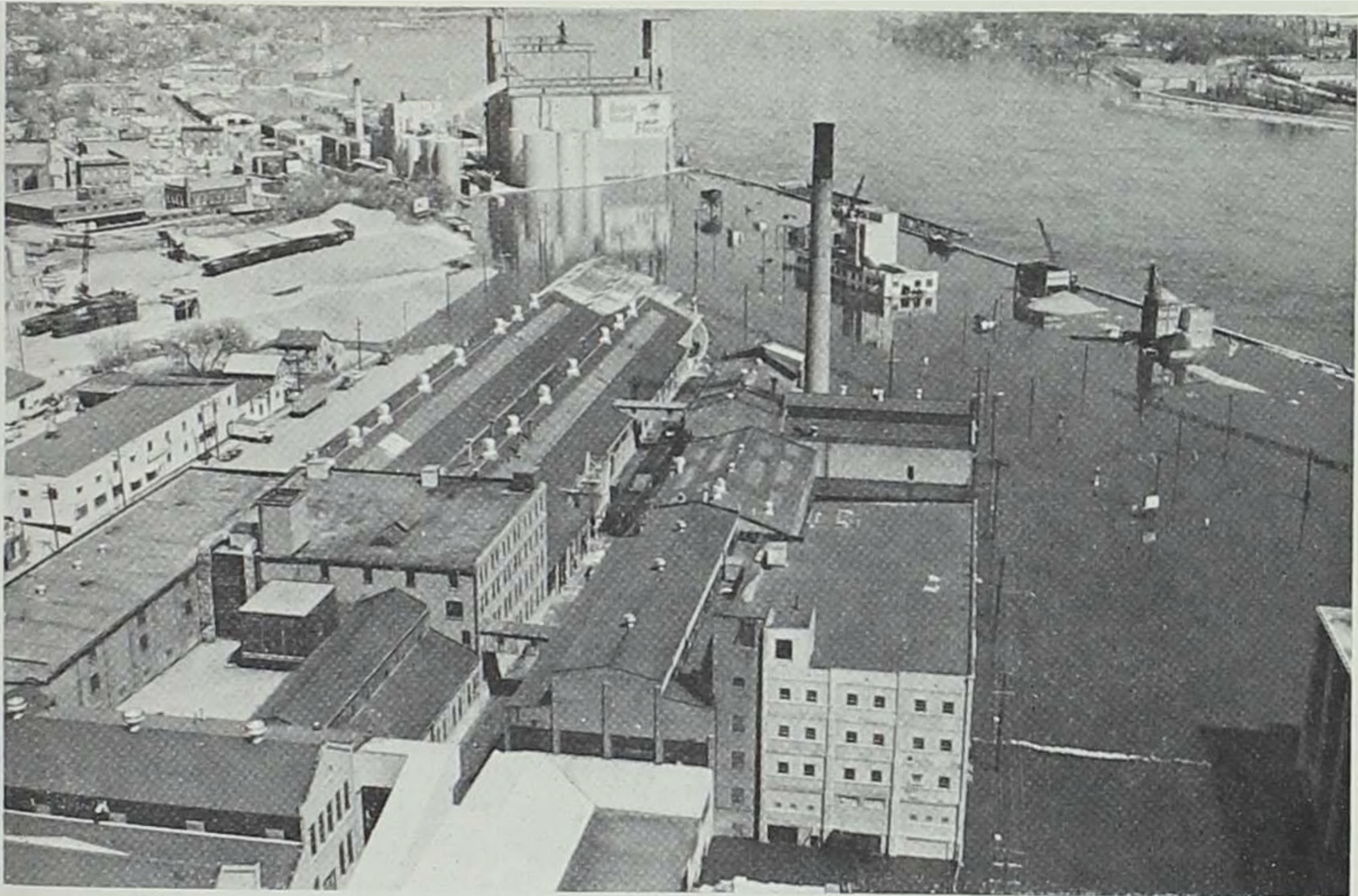
U. S. Army Engineers Photo

Another view of Clinton showing a section of the industrial area with Riverview baseball stadium and bandstand in immediate foreground. The Dubuque, Clinton, and Davenport baseball parks were completely submerged by the flood of 1965.



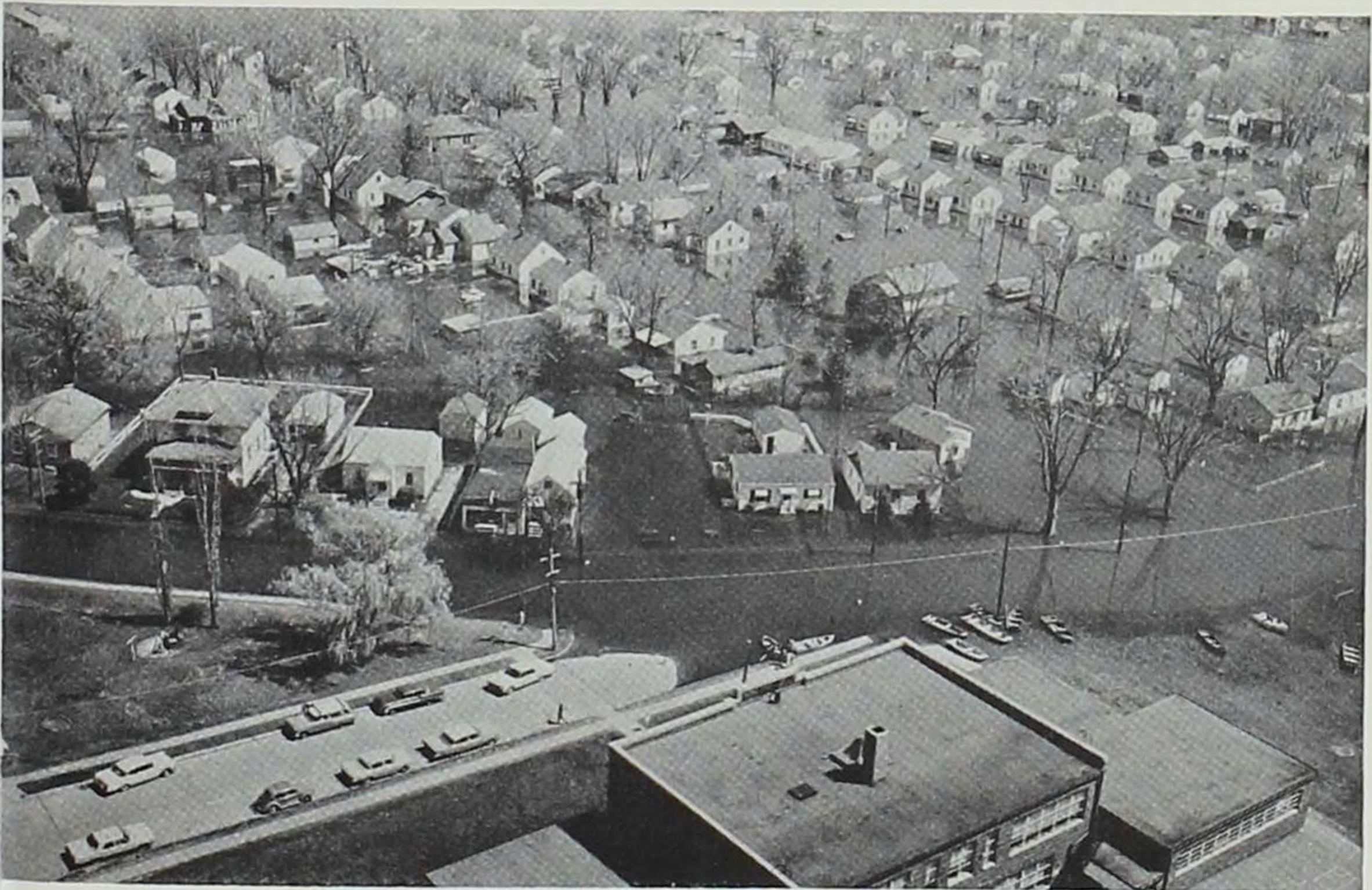
Davenport Times-Democrat Photo

Davenport, for more than a century, has battled the Mississippi along Front Street. Her failure to contain the rampaging waters in 1965 is demonstrated by the inundated baseball park, band shell, bus depot, swimming pool, and Lend-a-Hand Club. Not only were parking meters along the waterfront submerged, but her new parking ramp (lower right) was flooded, making even the top levels inaccessible until the waters receded.



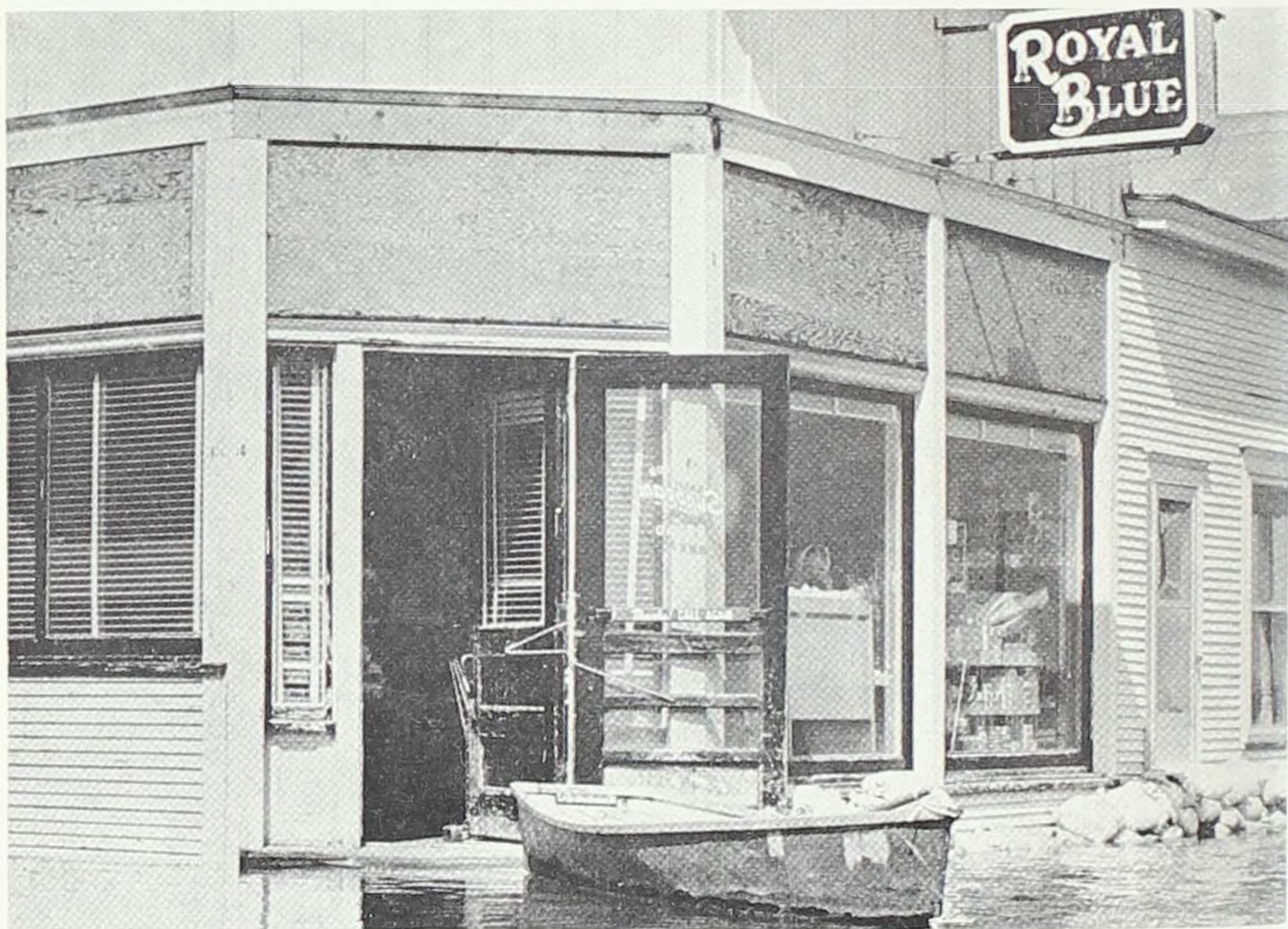
U. S. Army Engineers Photo

Davenport, looking north from the Government Bridge to the Robin Hood Mill, and showing the flooded streets and buildings.



U. S. Army Engineers Photo

Throughout the past century, the Garden Addition has been subjected to rampaging floods. The above is a clear indication of what happens when puny man dares to deny the Mississippi her prior claim to occupy her lowlands.



Davenport Times-Democrat Photo

The road from Davenport to Muscatine was closed to traffic for several days. The reason becomes obvious when one notes the store on Main Street in historic Buffalo, Iowa, which remained open to those fortunate enough to own a boat.



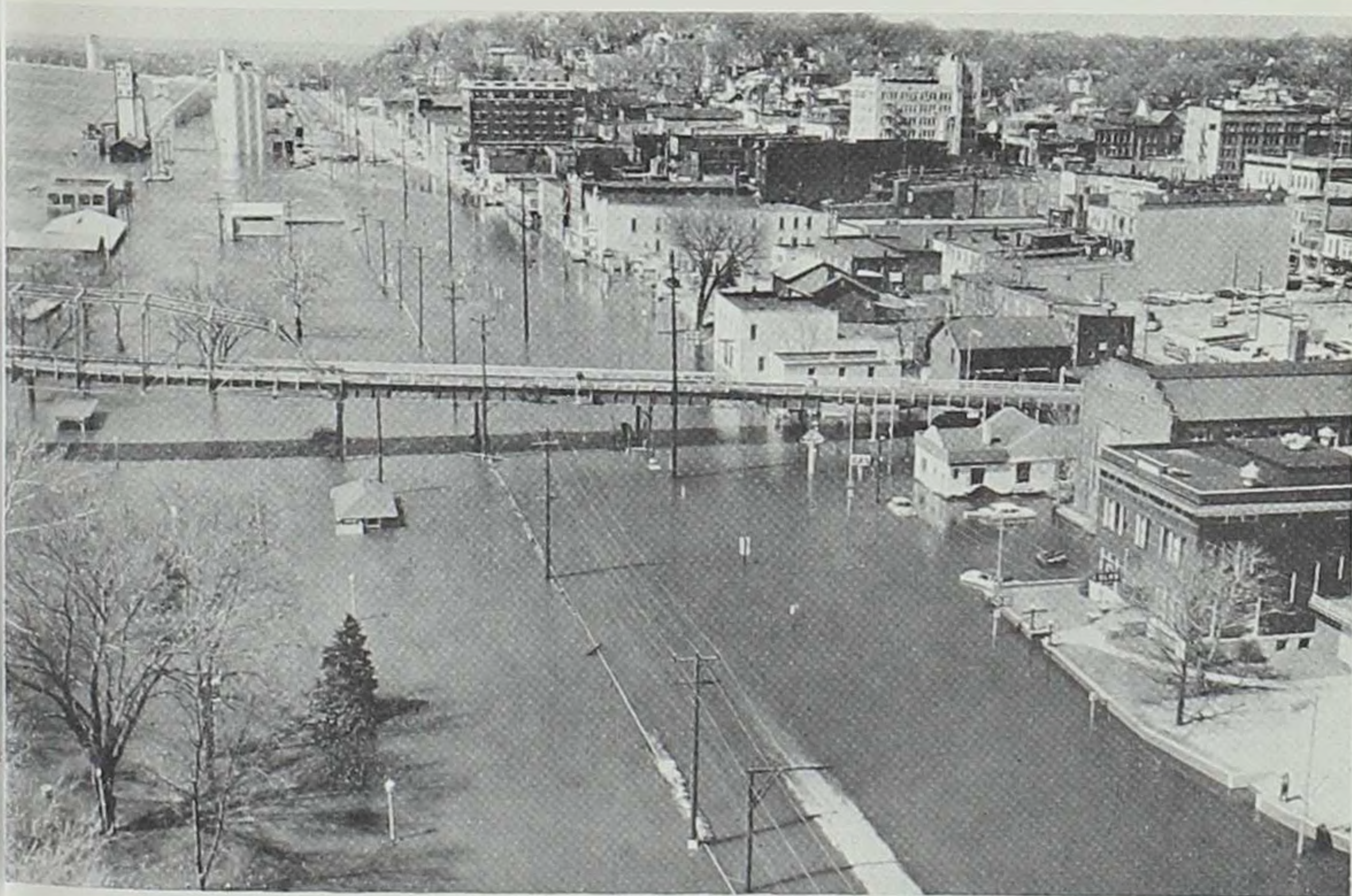
U.S. Army Engineers Photo

Looking south at Muscatine from the mouth of Mad Creek. All would have gone well at this point had not a close to 6-inch downpour swept into the dry area from the rear.



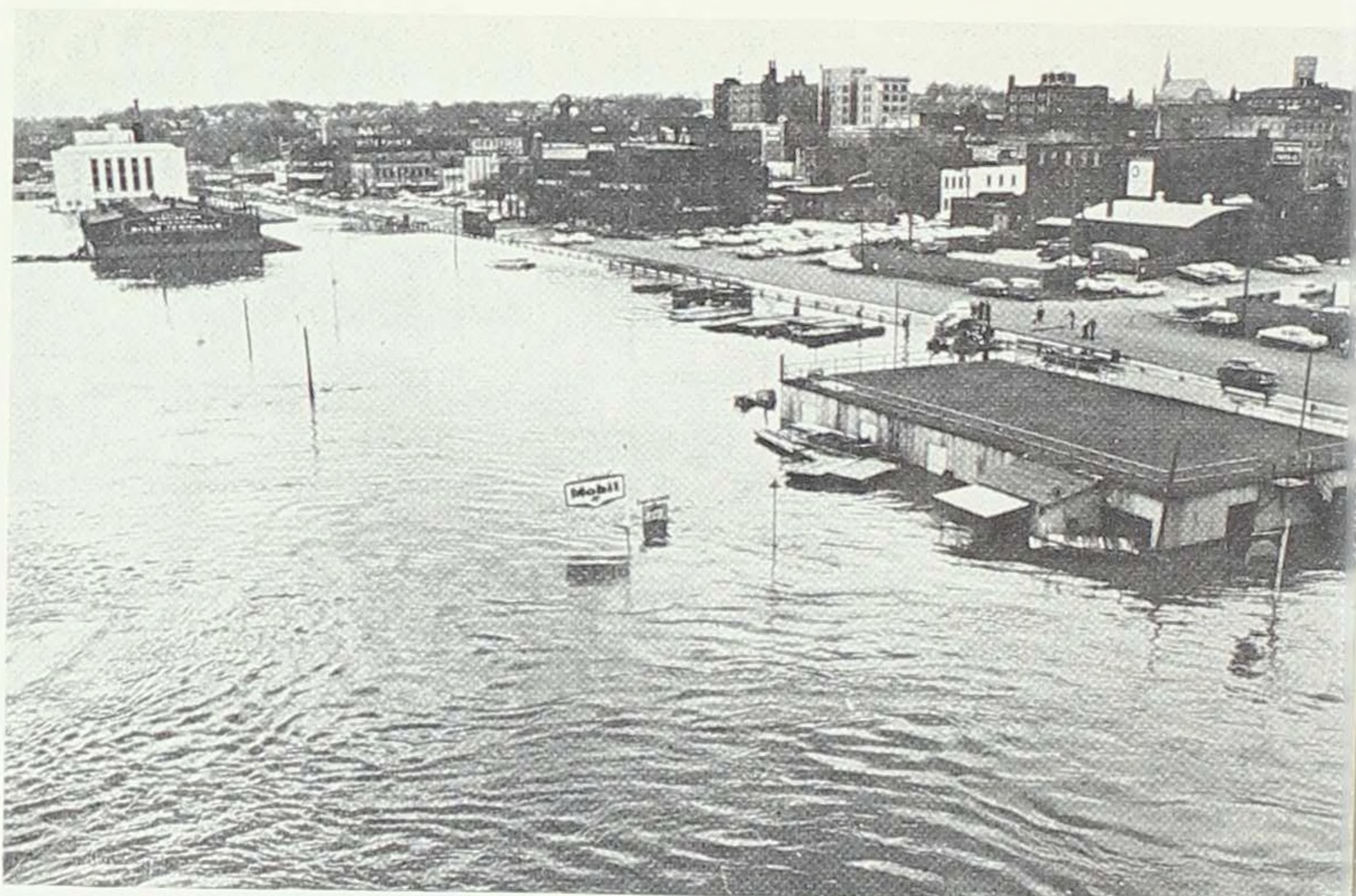
U. S. Army Engineers Photo

Thrice in the past fifteen years residents of Muscatine have witnessed this scene as flood waters invade the industrial area. View looking northeast on 2nd Street from Walnut Street.



U. S. Army Engineers Photo

Looking south along the Muscatine waterfront showing railroad tracks and parking area submerged and Highways 92 and 61 no longer in use. The river at its height reached to the outside steps of the Muscatine Hotel. The cars around the Elks Club were immobilized.



Burlington Hawk-Eye Photo
Burlington suffered less than its sister-cities but the land across the Mississippi around Gulf port, Illinois was overflowed as it has been for a score of times in more than a century.



Burlington Hawk-Eye Photo
The Iowa National Guard worked feverishly at Burlington to hold back the rampaging flood.



Davenport Times-Democrat Photo

Davenport Times-Democrat Photo

The Port Hole in Lyons didn't display a welcome mat during the flood of 1965. The "Al" Frields of Bettendorf wait out the flood atop their Canal Shore Drive home.

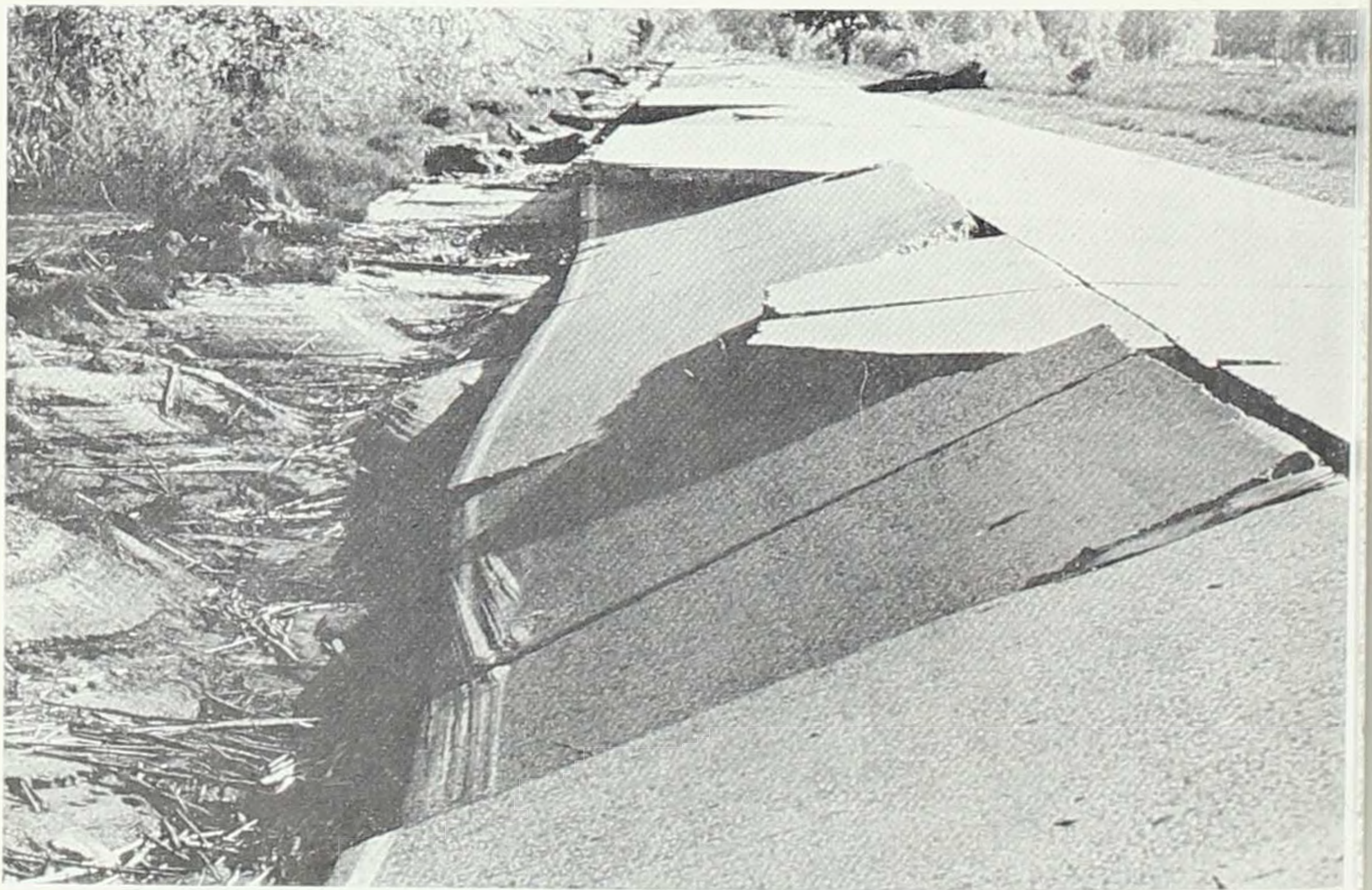


Davenport Times-Democrat Photo

Verily, the "oldest inhabitant" could not "top" the 1965 flood at Davenport.



Davenport Times-Democrat Photo
Motorists had difficulty following the yellow line along the Great River Road.



Davenport Times-Democrat Photo
They had even greater difficulty when Old Man River withdrew, leaving the results of his ravages open for man to behold.



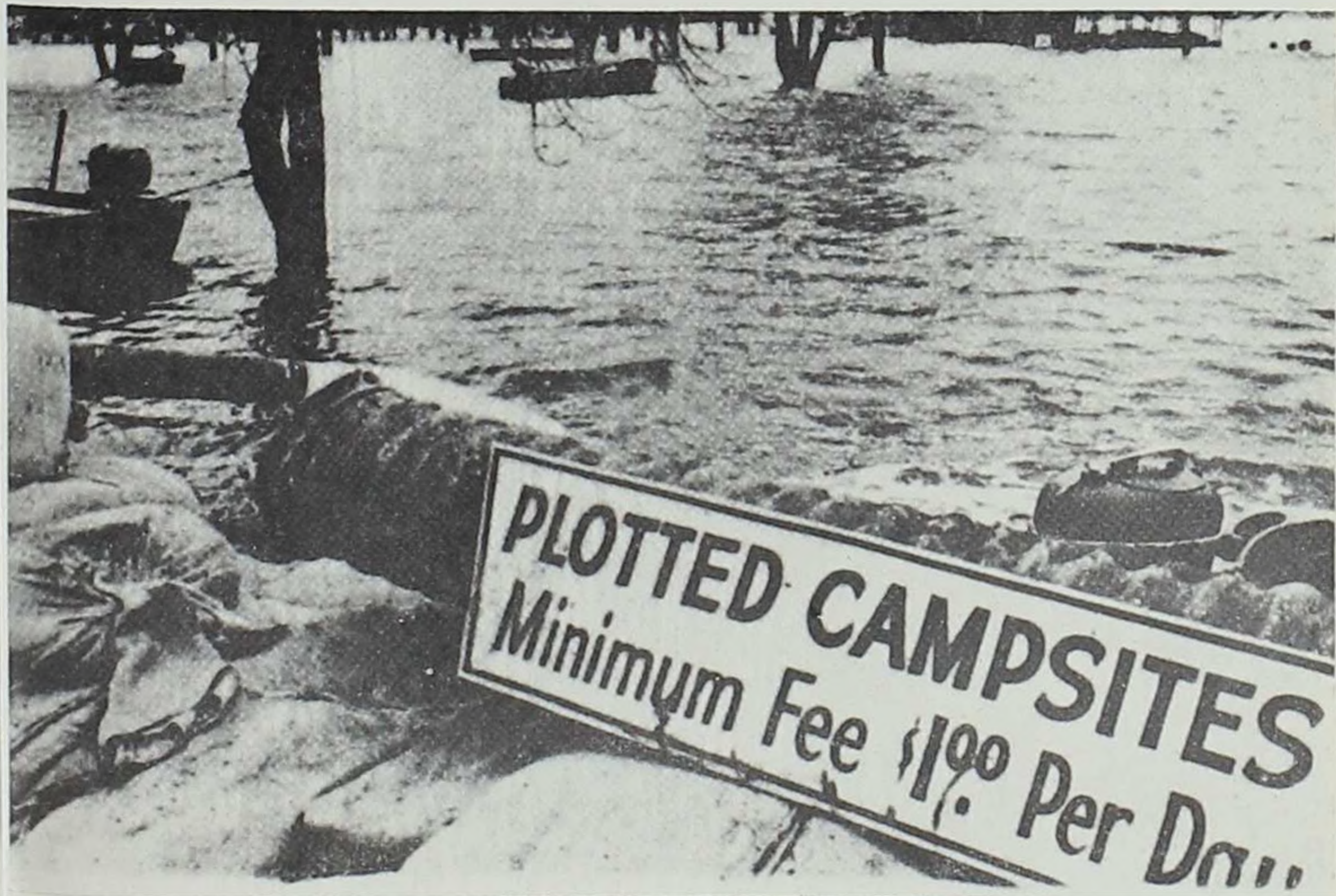
Davenport Times-Democrat Photo

The water reached the Levee Inn roof before it receded in Davenport.



Davenport Times-Democrat Photo

Officers were not needed to enforce this law in Davenport.

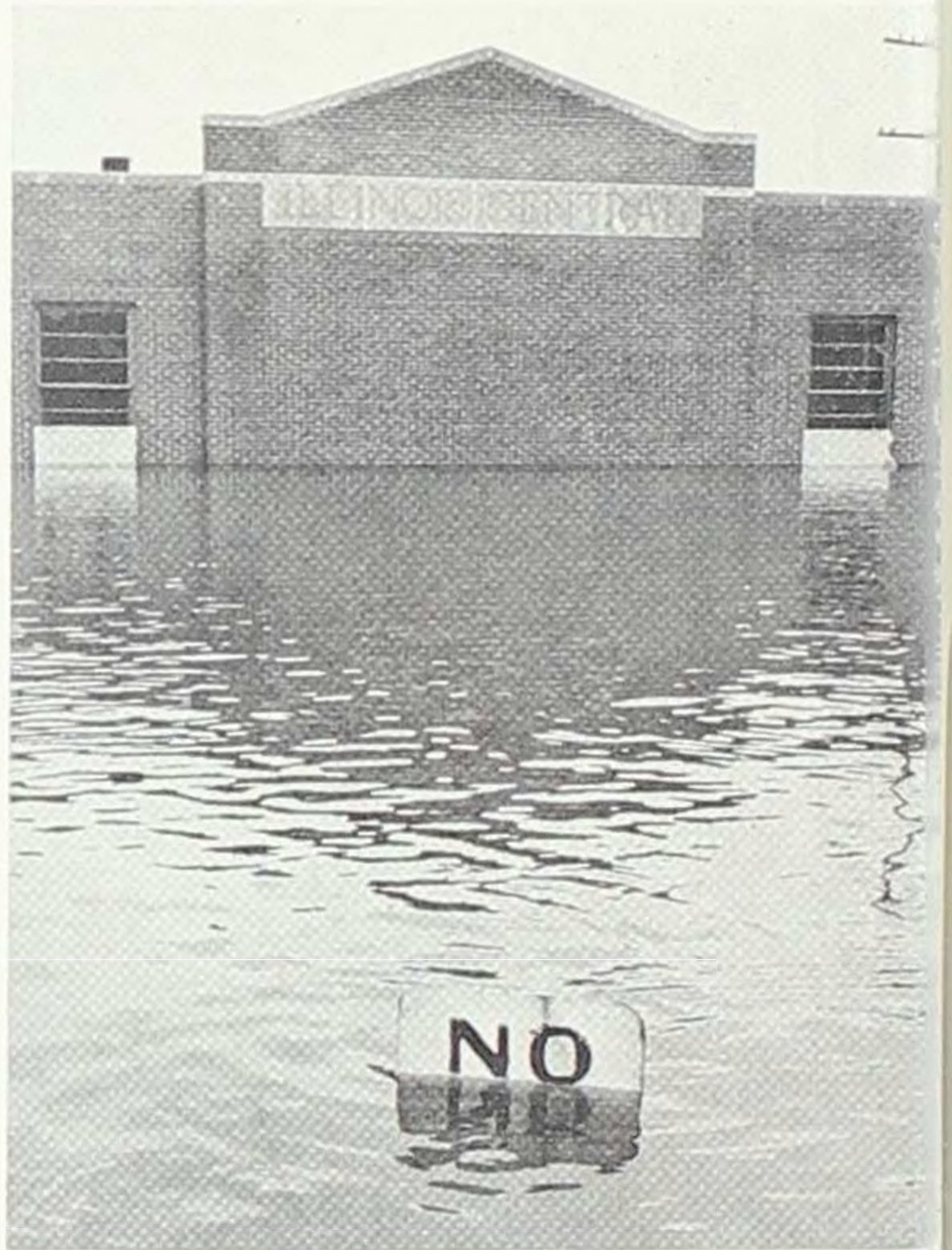


Associated Press Photo

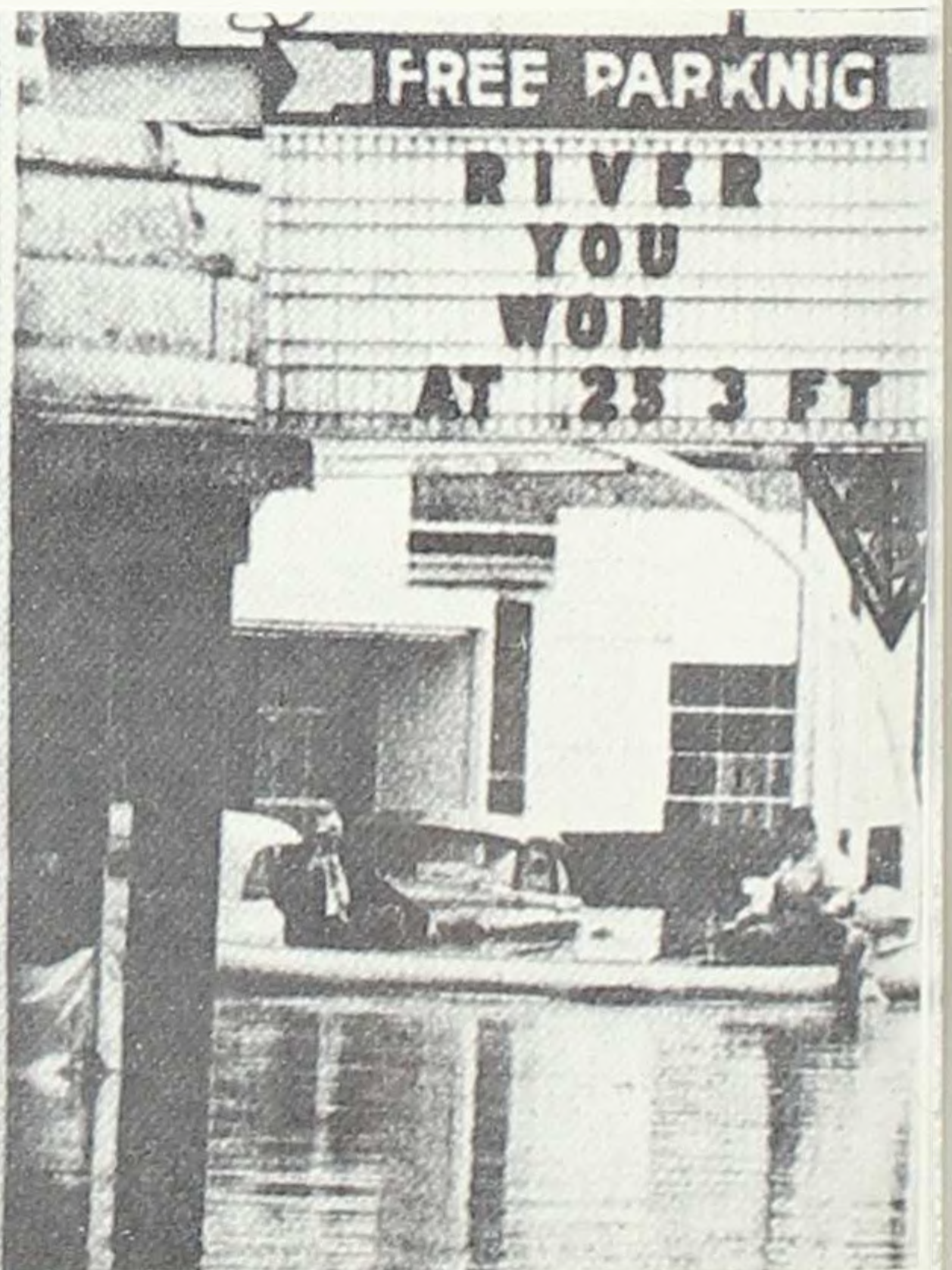
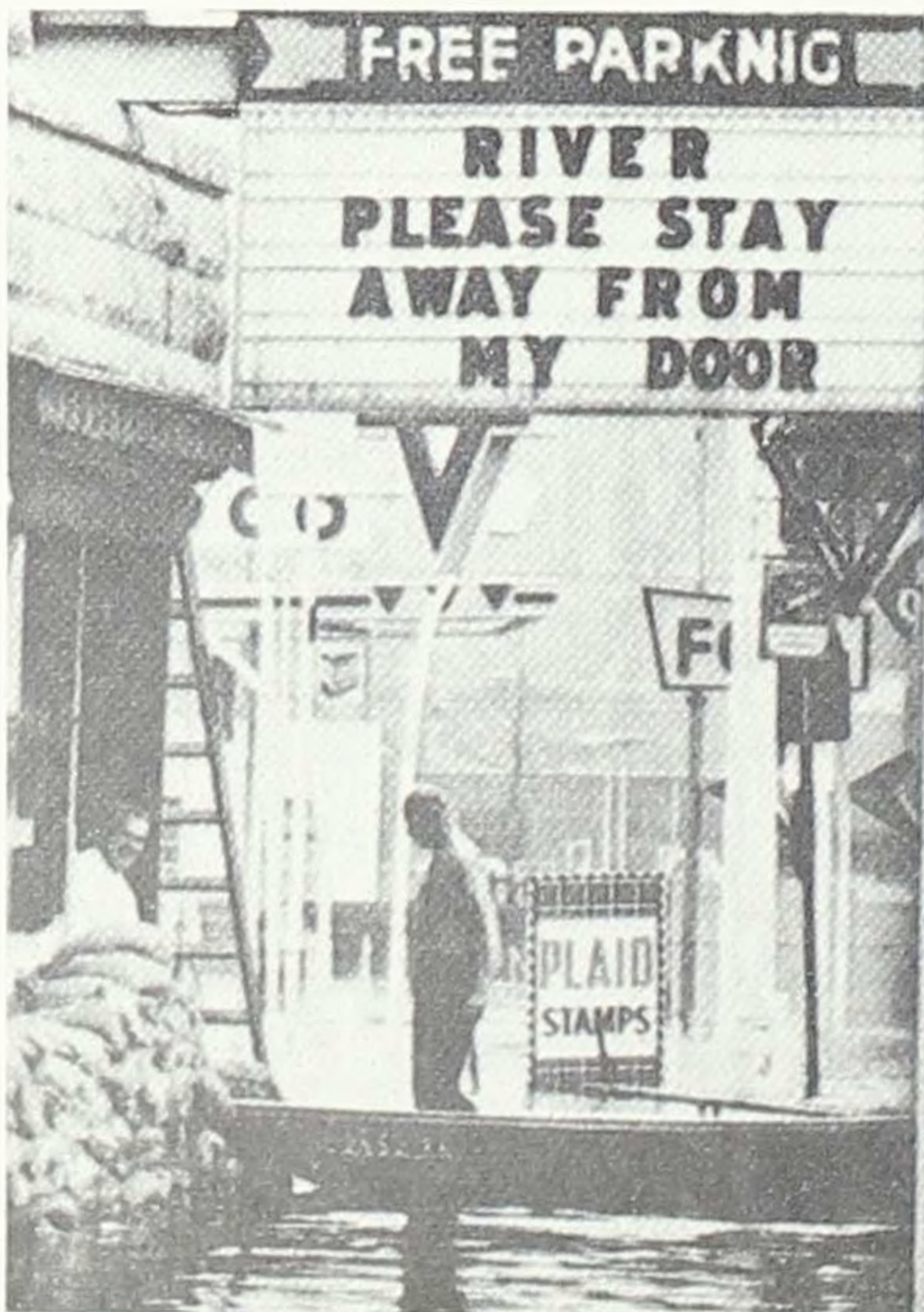
There was no business at this recreation area at Guttenberg as the flood neared its crest.



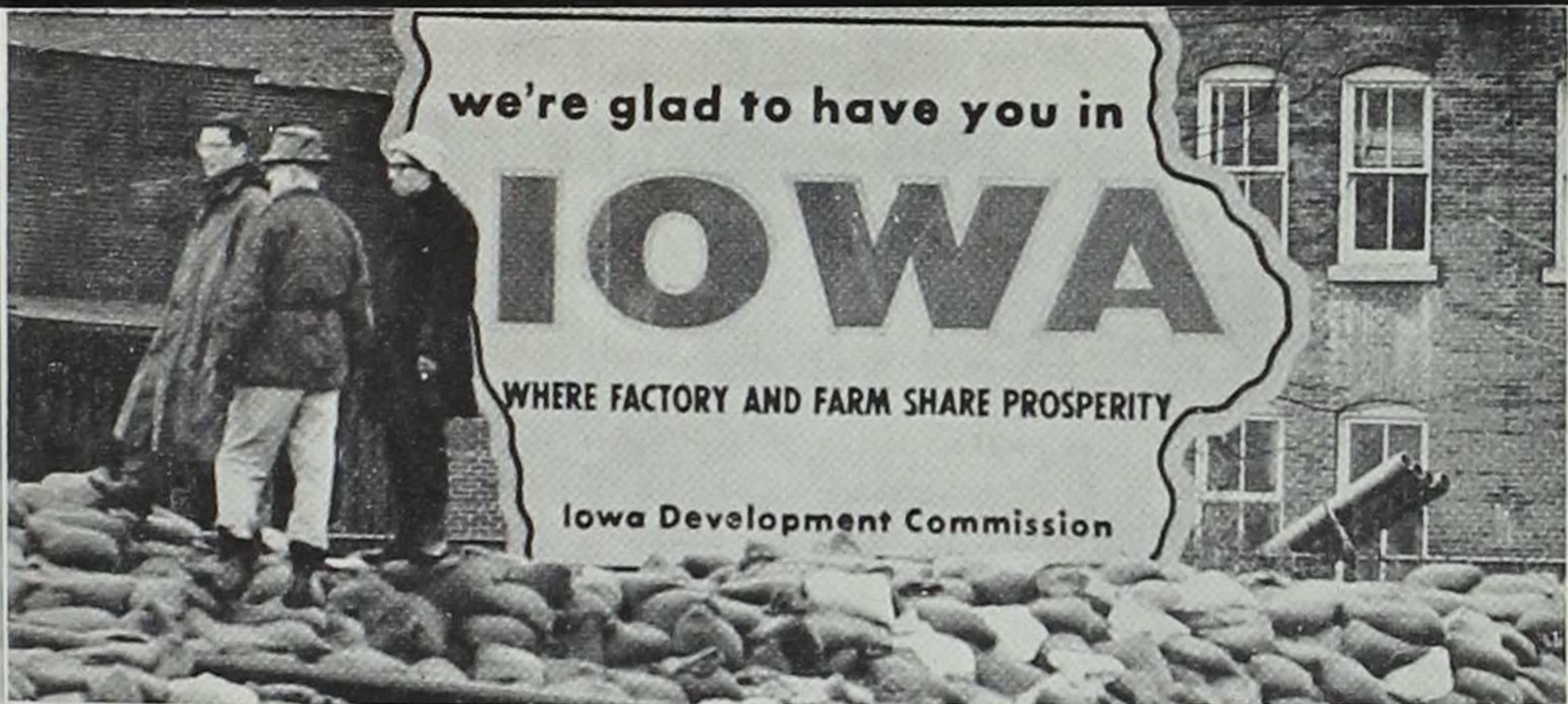
Dubuque Telegraph-Herald Photo
 Parking in Dubuque was not easy.



Dubuque Telegraph-Herald Photo
 There were "NO" Illinois Central trains out of Dubuque.



Dubuque Telegraph-Herald Photo
 The owner of this business in Dubuque did not lose his sense of humor.



Dubuque Telegraph-Herald Photo

Sandbags almost obliterate the "Welcome to Iowa" sign at Dubuque.



Dubuque Telegraph-Herald Photo

Some Dubuquers did not know when to quit; Noah McNamer finally leaves his Ark.

Dubuque Telegraph-Herald Photo

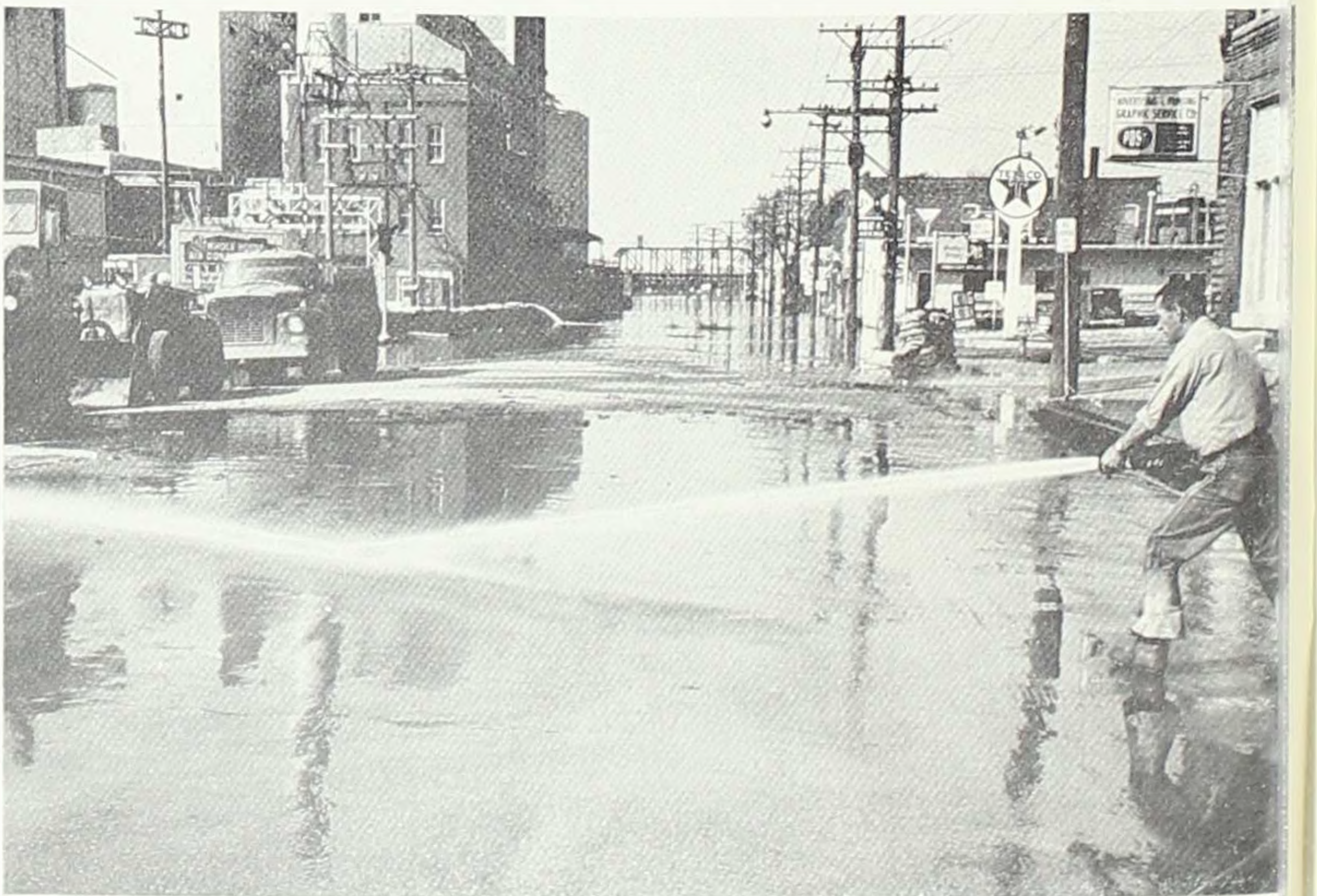
After a long fight this company did not forget to thank the Dubuquers who helped them.





Dubuque Telegraph-Herald Photo

After the flood came the cleanup—the river's "calling card" at Dubuque.



Davenport Times-Democrat Photo

It took many man-hours to clean up the mud and debris at Davenport.

built levee on Third Street was washed out. According to the *Times*:

Drift wood of every description is coming down freely, and many parties are making good wages in picking up cord wood, lumber, logs and other floating property. Many of the raft boats are lying up there being no work for them at present.

All the way from Dubuque to Keokuk the Mississippi set records or near records in 1888. The *Clinton Weekly Herald* of April 26, 1888 declared the river had been rising "continuously" since early spring. After a slight decline, the *Herald* of May 10 noted the Mississippi had reached the 17' 10" mark, the same point reached on April 26, 27, 28. All low places "in Lyons, Chancy, Fulton and East Clinton" were once more submerged and the editor suggested a "notice to quit" ought to be served on the rising waters. "Evidently the river is convalescent," the *Weekly Herald* concluded, "for it is out of its bed and running all over the country." By May 17 the *Weekly Herald* reported a stage of 20' 2" above the low water mark of 1864 or within two inches of its all-time high of 1880. The 1888 flood, lasting as it did over a long period of time, was one of the most costly in the bustling lumber town's history.

The *Muscatine Daily News* of May 14, 1888 reported a 17' 5" flood stage which "will stand as the highest on record for years, possibly for a century, as it is the highest point ever reached here of

which there is any authentic data. While this is barely an inch higher than the great rise of 1881, an inch added to that mad flood with a surface of 3 to 8 miles in width means a vast volume of water."

The same situation prevailed at Burlington where the river was within one inch of the 1881 mark on May 14. The Mississippi was from "7 to 9 miles wide," flooding bottom lands and filling Main Street basements with from 6 to 18 inches of water. The Burlington Lumber Company and the rolling mill were inundated and closed down.

At Keokuk the Mississippi crested at 19' 8". This surpassed the flood of 1881 and was only 12 inches below the great flood of 1851. After noting over several days the gradual diminution of activity, the *Keokuk Gate City* of May 18, 1888 declared:

The disastrous effect upon trade occasioned by the flood is severely felt in this city. Prices of country produce, the supply of which is daily being diminished, are advancing owing to the inability of farmers to reach the city. Hay and corn are quoted way up and products designed for the household have increased in price. Hancock and Clark county people cannot reach the city and the usual amount of trade which comes from these sections is lost to the retail merchants.

If things were bad in Keokuk, her neighbor, Alexandria, across the Des Moines River in Missouri, found herself even worse off. The *Daily*

Gate City of May 26 quoted the following eyewitness account of Alexandria by the *St. Louis Republican*:

It is an American Venice. Boats flit to and fro taking customers from mart to mart. The sturdy oarsman took the reporter up one of the principal streets. At one clothing store an enterprising clothier had removed his goods to the second story of the building and samples of his wares were hung on a wire stretched from his building to another. As the reporter passed along the merchant cried: "Come in, shentlemens! Don'd you mind the high waters. You get bargains here — great bargains!"

A little further on was a half submerged sign with the legend: "A great schooner for a nickel. Free lunch." The oarsman looked laughingly at it but kept steadily on. At a half submerged dwelling on the roof of which were a family of seven people — husband, wife and children — the boat was stopped.

"Wouldn't you like to get on dry land?" was asked.

"Oh, we don't care," they replied. "We might just as well live here as on the bluffs. The river will get down after a bit. We don't mind it."

And from the appearance of the wretched outfit, it was evident that they wouldn't mind anything so long as the quinine held out. Most of the people have fled from the city and are occupying tents on the bluffs some ten miles west of the city. Those who remain are old timers. Nothing can daunt them in the way of floods. A skiff was seen floating down a principal street and beside it was a tiny skiff safely secured, in which a babe slept peacefully. It was a novel method of going shopping, but that was the object of the lady with the babe.

The complacency, the fortitude, the stark cour-

age of these river folk has been demonstrated in every era from 1851 to 1965. Dwelling as they do along the banks of the Mighty Mississippi, they are a breed apart from most Iowans. Of simple faith and abiding trust, they might well be called the children of the Father of Waters.

The Flood of 1892

The year 1892 marks the most devastating Upper Mississippi flood in the closing decade of the Nineteenth Century. The 1892 flood actually exceeded all records in Davenport and Muscatine and came within a fraction of equaling the highest in Clinton and Burlington. Since Upper Mississippi river towns enjoyed their greatest growth between 1851 and 1900, the increasing population, the development of manufacturing, and the spread of agriculture to lowlands that were subject to inundation made floods more costly in each succeeding decade of this period.

POPULATION OF THE MAJOR RIVER TOWNS

	1850	1860	1870	1880	1890	1900
Dubuque	3,108	13,000	18,434	22,253	30,311	36,297
Clinton	*	*	6,129	9,052	13,619	22,698
Davenport	1,848	11,267	20,038	21,831	26,872	35,254
Muscatine	2,540	5,324	6,718	8,295	11,454	14,073
Burlington	4,082	6,706	14,930	19,450	22,565	23,201
Keokuk	2,478	8,136	12,766	12,117	14,101	14,641

*Lyons had 453 in 1850 and 2,703 in 1860.

Due in part to their rapid growth, and also to the fact that their topography made them more susceptible to the ravages of the river, Dubuque and Davenport always looked forward to costly floods.

A COMPARISON OF RECORD HIGHWATER MARKS IN
THE ABOVE TOWNS FOLLOWS:

	<i>Dubuque</i>	<i>Clinton</i>	<i>Daven- port</i>	<i>Musca- tine</i>	<i>Burling- ton</i>	<i>Keokuk</i>
1851	23.0	20.0	16.4	—	—	20.9
1870	21.83	19.73	16.9	—	15.0	16.4
1880	21.7	21.0	18.4	16.9	15.8	17.5
1881	20.2	19.5	17.7	16.8	16.53	18.9
1888	21.4	20.5	18.6	16.9	17.55	19.65
1892	17.6	20.0	19.4	17.6	17.5	19.25

The above statistics bear out the main facts of population growth and the relation of the major Upper Mississippi floods to this growth down to 1892. Since rafting, lumbering and wood-working were the major industries along the Mississippi at this time, it is not surprising that these should be especially subject to floods. And, since railroads had been constructed along both banks of the Father of Waters, their yards and depots were almost invariably located on or near the river bank. The Iron Horse, therefore, could be just as easily hampered, if not completely throttled by highwater, as could steamboating itself. In 1892, for example, the *Dubuque Daily Times* recorded:

The first accident attributable to the heavy rains and high water, to occur in this city happened this morning in the Burlington yard at the foot of Third street, resulting in throwing an engine into the slough and fatally injuring the fireman, Eddie Good.

Throughout May and June of 1892, railroad

tracks were inundated, undermined, and badly damaged. This caused frequent delays in transit and costly repairs along railroad right-of-ways.

The flood of 1892 swept down the Mississippi with devastating velocity, a rise of four feet in four days being chronicled by the *Dubuque Daily Times* of June 1892. "All lowlands are flooded," the editor declared. "Farmers were driven from their fields again, and may abandon corn planting altogether. It is still raining tonight."

The *Dubuque Herald* of June 2 reported the lowlands submerged and the Mississippi "a vast sheet of water from shore to shore."

Sawmills are closed, and large sawdust accretions are being cut away. The Burlington road's tracks are surrounded and caving in. All the cellars along Front street are filled with water from the seepage. Along the valley of Couler creek the worst situation is found. Sewers are reported washed out, the street cars are cut off, houses and streets under water, and bad damage being done by washing. This is only a hasty summary of the mischief. By the time this reaches the reader's eye it will have been considerably greater.

The *Davenport Democrat* of June 1, 1892 did not minimize the serious flood situation.

A continuation of rain and resulting high water will relieve the river engineers from the necessity of doing any great amount of work this summer. In the first place any efforts they might put forth in the way of keeping the channel clear will not be needed. Steamboating is very good over the cornfields now in a good many places and

the actual channel is of small moment. In the next place improvement work cannot be done, except in rare instances, at such a stage of water as this.

By June 2nd Muscatine Island was "largely under water" and hundreds of acres of melon and sweet potato lands were three to four feet beneath the surface. The river at Burlington was "eight miles wide," the lands on the Illinois side being completely submerged. Although Fort Madison had not been seriously damaged the farms around the mouth of the Skunk River and the Green Bay flats were inundated. Meanwhile, the Mississippi continued to rise.

Sometimes a larger Iowa tributary to the Upper Mississippi played a leading role at flood time. Thus, when the Mississippi at Keokuk rose 3.2 feet in 24 hours, the *Keokuk Daily Gate City* of May 6, 1892 explained:

This was due largely to back water from the Des Moines which is spread out all over the bottoms; but the rise up river was something remarkable. The Illinois bottoms opposite Keokuk do not often overflow, but now they are inundated.

The high water mark of 1851 was 20.93 feet, and that of 1888, 19.65. In that year the lower lock grounds were flooded. A couple of years ago the lock walls were raised four feet and the ground filled in, making them above high water mark. Yesterday the water had risen as high as the lock gates and they were opened, allowing steamers to pass through without interruption.

Iowa editors frequently rose to heights of real

literary charm in describing the ravages of a Mississippi flood. On May 6, 1892, the *Keokuk Daily Gate City* observed:

THE OLD MAN IS RAGING

The Father of Waters is on the rampage. Usually he is majestically beautiful in his tranquility. But now he is raging and his anger inspires apprehension. Each wave is so petulant that it wants to get up out of reach of its companions and as a result the turbid tide is rising at a remarkable rate. Every little tributary of the big stream received such a deluge from the clouds that it could not think of holding the water and so made haste to pour the flood out into the broad Mississippi. Along with the flood went trees, driftwood and all sorts of debris. In the hot summer time the great river is very thankful for the contribution of every rivulet. But now he has had so much thrust upon him that he is in a terrible mood. He swirls the debris about in the most violent manner and takes everything from the banks that he can get hold of and hauls it out into mid stream with the old trees, etc., or sinks it to the bottom. No partiality is shown, and he takes things valuable with no more remorse of conscience than he does the most worthless trash. He is encroaching at a rapid rate on the lowlands and if something is not speedily done to pacify him there is going to be no end of trouble.

By 1892 most river folk were keenly aware of the many moods of the Father of Waters. Despite its frequent depredations, they loved to dwell upon the bank of the majestic waterway and neither storm nor flood could lure them to a safer and more certain shore.

The Floods of 1920 and 1922

For almost three decades following 1892 the Mississippi desisted from its wayward course, confining itself to reasonable overflows during high-water that affected only lowlying farmlands and those areas where dwellings should never have been built in the first place. The destruction of property, the closing down of industry, and the interruption of transportation was slight.

There came a time, beginning with 1920, when the Father of Waters once more launched forth its flood waters with unparalleled ferocity. Thus, whereas the Mississippi had risen five times above the 20-foot stage at Dubuque between 1851 and 1888, it exceeded that figure six times between 1920 and 1965. In the latter year it set an all-time record for every river town.

	<i>Dubuque</i>	<i>Clinton</i>	<i>Davenport</i>	<i>Muscataine</i>	<i>Burlington</i>	<i>Keokuk</i>
1916	19.8	18.0	15.9	17.0	14.4	16.7
1920	21.0	19.0	17.1	18.0	14.99	16.7
1922	21.0	18.9	17.1	19.1	15.62	17.45
1938	20.6	18.3	15.8	18.5	15.2	16.4
1942	19.3	17.8	15.2	17.6	15.7	15.8
1951	22.6	20.7	18.2	21.0	17.9	20.2
1952	22.7	20.92	18.6	21.05	17.8	18.9
1965	26.81	24.85	22.48	24.81	21.0	22.14

The flood of 1920, declared the *Dubuque Times-Journal* of March 27, was "an extraordinary occurrence" because "high water usually comes during May and June." The flood was remarkable for several reasons: its early season — which began on March 22; its unprecedented rise of $4\frac{1}{2}$ feet in 48 hours — which the United States Weather Bureau at Dubuque felt was perhaps the greatest rise for a 48-hour period ever recorded in Dubuque; and its precipitate decline after cresting at 21.0 feet on April 6. "The present high water," the Dubuque editor concluded, "is a result of the large amount of rain and snow during March and the quick breakup of the ice in the river."

Although ample warning was given of the oncoming flood, the original forecasts fell short by three or four feet of the ultimate crest. During the last three days in March lowlands were flooded, cordwood and timber set adrift, and many small boats carried downstream. Then, on April 2, the *Times-Journal* reported a rise of 2.5 feet in 24 hours, bringing the stage to 15.8 feet. Many factories were forced to suspend operations and several residential areas were flooded, particularly on the flats east of the railroad tracks, and those in the Couler Avenue area because of the "backing up of the Bee branch sewer." The flood stage of 18 feet was passed on April 3, and a rise to the 21-foot mark was predicted over Sunday. The boat houses in the harbor would have to be "anchored" to pre-

vent their beginning "a journey up Main street." "The greatest inconvenience and damage," the Dubuque editor complained, "is caused by the backing up of the city sewers into residential basements."

The unparalleled rise of the Mississippi was recorded in the *Times-Journal* of April 5.

March 22.....7.1	March 27.....10.5	April 1.....13.5
March 23.....7.4	March 28.....11.0	April 2.....15.8
March 24.....8.2	March 29.....11.4	April 3.....18.0
March 25.....8.7	March 30.....11.8	April 4.....19.5
March 26.....9.8	March 31.....12.4	April 5.....20.6
		(9:00 a.m.)

The Dubuque editor felt the city was fortunate there had been no big rain in conjunction with the flood. According to the *Times-Journal*: "In the 1881 flood 9.31 inches fell in one week. During the 1888 flood, it rained every day but three in a 16 day period for a total of 5.49 inches."

The peak of the flood — 21 feet — was reached on Tuesday, April 6, at which time the United States Engineers estimated 130 billion gallons of water flowed by Dubuque within the 24-hour period. The Mississippi was three miles wide at Eagle Point Park and health authorities viewed with concern the thousands of rats from the sewers that were "infesting" the city. Of further concern were the dead animals — "horses, pigs, cows and a great variety of livestock" — that filled the trees both on the lowlands and on the islands.

Floods frequently come in successive years. Thus, the years 1880 and 1881, and 1951 and 1952 were marked by tremendous floods. Fortunately, Iowans dwelling along the Mississippi were given a slight respite as a year intervened between 1920 and 1922. Both these years, however, registered a 21-foot flood stage.

The flood of 1922 began a fortnight later than did that of 1920. It actually started at a higher level and it did not have the phenomenal rises recorded two years previously. Its starting date was virtually the ending date of the flood of 1920. Both floods, however, must be considered early in occurrence as compared with the proverbially normal June rise.

The uniformly steady march of the flood waters down the Mississippi from Lansing to Keokuk can be demonstrated by the following statistics:

Flood Stage	LANSING	DUBUQUE	LE CLAIRE	DAVENPORT	KEOKUK
	12-Foot	18-Foot	10-Foot	15-Foot	14-Foot
April 7	—	11.6	6.6	8.8	9.2
April 8	—	—	—	—	—
April 9	11.1	12.0	6.9	9.2	9.7
April 10	11.8	13.2	7.5	9.8	10.4
April 11	12.2	13.7	8.0	10.8	10.7
April 12	12.5	14.1	8.4	11.4	11.8
April 13	13.4	14.7	8.7	11.8	13.2
April 14	14.3	15.6	—	12.6	13.5
April 15	—	—	—	—	—
April 16	—	—	—	—	—
April 17	16.6	18.8	10.2	13.7	14.5
April 18	17.1	19.8	10.8	14.4	15.2

Flood Stage	LANSING	DUBUQUE	LE CLAIRE	DAVENPORT	KEOKUK
	12-Foot	18-Foot	10-Foot	15-Foot	14-Foot
April 19	17.3	20.6	11.5	15.2	15.6
April 20	17.1	20.9	12.1	15.9	16.2
April 21	16.7	21.0	12.4	16.5	16.5
April 22	16.1	20.7	12.8	16.9	17.0
April 23	—	—	—	—	—
April 24	14.9	19.7	12.7	17.0	17.4
April 25	14.3	19.0	12.5	16.7	17.4
April 26	13.7	18.3	12.2	16.4	17.2

Much the same area was inundated at Dubuque in both 1920 and 1922. "Snaggers, with boats in the water," the *Dubuque Times-Journal* of April 17, 1922 recorded, "are reaping a rich harvest in floating timber, boats and a wide variety of articles that are traveling south on the crest of the waves." As in the previous flood, a highly undesirable "harvest" was being reaped, one which local citizens hoped might be harvested for the last time. The harvest — hordes of rats were driven from the "dumps" to "seek food" up town, "cat or no cat."

Let it be recorded for posterity that the Dubuque Boy Scouts faced this challenge with characteristic courage, the *Times-Journal* noting that:

A total of 232 rats have been reported killed in the rat crusade being conducted by the Boy Scouts of the city, according to a statement from Scout Executive Earl G. Moore, Saturday morning.

Walter Kemp, of Scout Troop 8, broke all previous individual records, when he turned in 89 rat tails at Scout headquarters a few days ago.

Some Floods of Recent Date

Since 1922, Iowa river towns have been constantly reminded that the Mississippi could still go on its proverbial "bender." In 1938, the year the last of the 26 locks and dams was completed to create the 9-foot channel, the Mississippi surprised Iowans with one of its rare fall floods — something it had not done since 1881. The crest of 1938, however, was several feet below previous flood records and damage accordingly was relatively slight.

In sharp contrast were the floods of 1951 and 1952, each of which caused many living in the lowlands to evacuate their homes. On April 24, 1951, the *Burlington Hawk-Eye Gazette* reported the damage had mounted into the millions of dollars. The Red Cross estimated 7,000 had been made homeless in Iowa, Illinois, and Missouri. Sabula and Port Louisa were the hardest hit little river towns, but from Dubuque to Burlington vulnerable sections of the Mississippi were being sandbagged. The National Guard worked strenuously at various points to ward off the onslaught of Old Man River. The *Burlington Hawk-Eye Gazette* of April 24, 1951 declared there was "discomfort and dislocation" all along the river accom-

panied by the "constant threat of outbreaks of disease" as the rising Mississippi disrupted "water and sanitary facilities."

A difficult situation arises in almost every flood crisis when curious sightseers interfere with those engaged in fighting the rising torrent. On April 23, 1951, the *Dubuque Telegraph-Herald* noted that 10,971 cars had jammed the Julien Dubuque Bridge approach, creeping along bumper to bumper, and sometimes backed up for eight miles. Most of the cars were reported to be from the Cedar Rapids, Waterloo, and Oelwein areas.

Once again, in April 1952, the Mississippi dealt Iowa river towns its one-two punch, and this time the preliminary estimate of a 24-foot crest, which would have been much higher than in 1951, proved to be excessive. On April 20, the *Telegraph-Herald* reported some 250 families had been made homeless and 2,700 men thrown out of work when the Dubuque Packing Company and other firms suspended operations until the river subsided. The Illinois Central had stopped crossing the river, the CB&Q had closed its depot, and the Milwaukee was expected to do the same. Typhoid shots were given at the city's expense and J. C. members were planning an all-out war on rats, hoping to exterminate thousands by poison as they congregated on high ground. Both the 1951 and 1952 floods were finally credited with a stage of 22' 7".

The Great Flood of 1965

The great flood of 1965 was the most devastating in Iowa and Upper Mississippi Valley history. It struck with an overwhelming power and relentless fury that chilled the very marrow of those who fought back bravely against this remorseless foe. It left the Nation enthralled as it listened, watched, or read of new lessons in raw courage against insuperable odds, and of matchless devotion of men and communities as they sought to ward off the heavy blows of a tireless adversary that had never brooked defeat. It seemed to many, who watched vicariously on the sidelines, that man must ultimately yield and go down to defeat in this unequal struggle. And yet, almost every time, when the night seemed darkest and the battle lost, new strength, new courage, new resourcefulness spurred men on to victory.

The battle was a long one, and a hard one, for the Mississippi was no mean opponent. It had left in its wake while moving downstream to Iowa, scenes of desolation and destruction. It had proved no respecter of cities or states. It inundated St. Paul on April 17th with a crest that rose 9.9 feet above flood stage; it submerged Dubuque nine days later when it crested 9.8 feet above flood

stage. It continued its mad course down the Great Valley that bears its name — branding every community, large and small, rich and poor, powerful and weak, with the filthy mud and sickening stench that only a marauding wastrel carries in his folds. It seemed to say in passing: "I am the mighty Father of Waters! Let no mortal man forget my visit; let no Community, no State, no Nation dare to bridle my path or hinder my progress through a land which I have called my own for a thousand centuries — and more! Let no one forget me and my visit! I have spoken!"

Judging by news accounts carried in the press, on the radio, and on television, citizens of the Hawkeye State are not likely soon to forget the flood of 1965. Throughout the struggle newspapers were emblazoned with front page headlines about the flood. These headlines were accompanied by lurid, pulsing stories that were heartwarming to all Iowans. When the flood had passed and danger no longer threatened, several Iowa newspapers issued special flood editions which sold by the thousands to eager purchasers. These editions, drawn up while the conflict between Man and Nature was still fresh in the memories of the participants, reveal a depth of understanding and a keen appreciation of the drama in which each community had played a stellar role.

Typical of these first-hand, eye-witness, delayed-action reports, was the 48-page booklet is-

sued by the *Dubuque Telegraph-Herald* and entitled — *Flood '65*. Printed in the closing days of April, a few days after the Mississippi had crested and continued its march downstream, *Flood '65* is a colorful pictorial presentation with a graphic introduction telling of the intense struggle waged by the Key City of Iowa against the Father of Waters — a beloved and useful friend in balmy times, a cruel, merciless, and relentless tyrant when on a rampage.

Since Dubuque newspapers had been recording floods as early as 1844, the summary of that community's fight in 1965 is especially revealing.

Flood '65 — predicted to be the worst flood in the history of the Mississippi River — lived up to all the predictions.

The crest of 26.8 feet reached Dubuque on April 26; "Old Man River" was 9.8 feet over flood stage. The previous record was 22.7 feet, reached on April 25, 1952.

Dubuque was prepared for the flood. On April 12 residents in low-lying areas in Dubuque and East Dubuque were evacuated and work began in earnest on 3.5 miles of dikes in Dubuque and another mile of dikes in East Dubuque. The dikes, some of them 13 feet thick, held throughout the worst the Mississippi could muster.

Expert planning set up the defenses, but the city's heart went out to the estimated 3,500 volunteers who worked anywhere from one to five days each to build the dikes and patch the holes.

Most of the dike workers were young people and their efforts drew nationwide praise.

Early on the morning of April 24, fire broke out in the

Standard Brands Frozen Egg Division plant in the flood-swamped Sixth Street area. Firemen went by boat to the scene to contain the blaze, a half mile from the closest dry area.

When the crest was finally reached there was cheering by workers atop the 400,000 sandbags used in Dubuque and 100,000 in East Dubuque. Throughout the battle the Julien Dubuque Bridge, surrounded by threatening flood waters, had been kept open to traffic.

Dubuque had used 108 trucks, six bulldozers, plus other equipment in building and holding the dikes. Service and welfare organizations had given workers in the Dubuque area more than 80 cases of soft drinks, 900 gallons of coffee, 22,000 sandwiches, 6,200 cartons of milk, 19,000 candy bars, and 5,200 hot meals.

Flood '65 was over and Dubuque and East Dubuque had beaten — as much as it was possible — the Mississippi.

Iowa towns — large and small — had felt the brunt of the mighty Mississippi's power as it moved irresistibly downstream from flood-stricken Dubuque to Clinton. That power had been indelibly impressed on the minds of the thousands who had been driven from their homes and suffered millions of dollars property damage, or through loss of employment. The triumphal march of the Father of Waters was as overwhelming as it was costly to those who dwelt along the way. The following record-breaking crests tell a story of heroic courage on the part of eight communities in Minnesota, Wisconsin, and Iowa, before the rampaging waters reached Clinton.

<i>Town</i>	<i>Crest</i>	<i>Date</i>	<i>Over Flood Stage</i>
St. Paul	26.0	April 17	9.9
LaCrosse	17.9	April 20	6.0
McGregor	25.4	April 24	7.3
Guttenberg	23.7	April 25	8.7
Cassville	24.1	April 25	7.1
Dubuque	26.8	April 26	9.8
Bellevue	23.5	April 26	5.5
Sabula	22.9	April 28	7.9

Days before the arrival of the flood, the *Clinton Herald* had warned its readers of the impending onslaught. As reports of the havoc wrought upstream were flashed to Clinton, the crest was moved up by the United States Army Engineers.

Each report called for more feverish defense measures on the part of an embattled citizenry whose lives as well as property hung on the outcome. The river stage at Clinton during the 22-day nightmare is revealed in part by the following:

River Stage at Clinton

April 12....14.3	April 20....19.1	April 28....24.85
April 13....14.9	April 21....19.85	April 29....24.54
April 14....15.7	April 22....20.95	April 30....24.26
April 15....16.4	April 23....22.04	May 123.84
April 16....16.9	April 24....22.76	May 223.52
April 17....17.2	April 25....23.54	May 322.84
April 18....17.7	April 26....24.40	May 422.43
April 19....18.4	April 27....24.70	

The *Clinton Herald* issued a handsome souvenir book on May 9 recording the giant effort of Clin-

tonians whose "magnificent courage and determination" would always be held in "grateful appreciation" by posterity. The introduction to the *Clinton Herald* brochure follows:

Dedicated To — The People

Historians are sure to describe the Mississippi river flood of 1965 as one of the greatest disasters of all time in the midwest.

They will write of death and destruction at the hands of the savage river which soared many feet above previous record crests.

They will write of property damage in the hundreds of millions of dollars; how much of Iowa and Illinois was designated as disaster areas; how homes, stores and factories were wrecked; how thousands of acres of rich farmland were inundated; how entire communities were ravaged.

But the story they might not tell is one of PEOPLE . . . people in the Clinton area who fought the river around the clock; day after day; week after week.

. . . old people, young people, middle-aged people.

. . . people in uniforms and in blue jeans; in house dresses and business suits.

. . . people unaccustomed to manual labor who blistered their hands working unbelievably long hours at the grueling task of filling and piling sandbags.

. . . people who lost track of time and ignored bonegnawing fatigue to provide leadership and supervision needed in a succession of emergencies which never seemed to end.

. . . people who always were able to furnish all the services and assistance constantly in demand.

. . . people who answered every call for help, whether it was for food, hip boots or more volunteer labor.

Like its sister-cities to the north, Davenport and the surrounding countryside felt the full force of the Great Flood of 1965. The intensity of the drama was magnified by the large number of people in the Davenport-Bettendorf area, where 2,000 were made homeless by the flood. The losses from all sources in the Quad-Cities, representing the greatest concentration of population between St. Louis and St. Paul, were staggering. The *Davenport Times-Democrat* presented its report in a special tabloid edition entitled *The Great Flood of 1965*. The following are excerpts from the section entitled "River on a Rampage."

In one way or another it touched the lives of everyone in the Quad-City area.

Certainly no one who lived through the long nightmare of the great Mississippi River flood of 1965 will ever forget it.

It was epic, it was history-in-the-making, it was awe-inspiring. . . .

No one will ever be able to figure the total damages. They will run into millions of dollars. An estimated 12,000 persons in the area were driven from their homes. Many of the homes were destroyed. . . .

All up and down the river, communities began sounding the plea for volunteers to help with the sandbagging. In no time the entire area was soon the scene of millions of sandbags in endless rows, one atop the other, and long dikes in unexpected places. Sandbags were everywhere, being passed along the lines of lengthy human chains to fortify store fronts and protect industrial plants.

By the end of the week, some 2,000 had left their homes

in the Quad-City area. Barge traffic was halted on the Mississippi. All river towns were digging in. The flood stage had been reached and preparations were feverishly being carried on around-the-clock. . . .

A new menace appeared — rats. Forced to higher ground, sewer rats posed a problem in many places. Police sharpshooters were pressed into service. . . .

National Guard units were dispatched to the more critical points along the rampaging river. Some communities took on the air of armed camps and of areas under siege as the guardsmen moved in. . . .

Camanche, down river from Clinton, was virtually surrounded, and in Pleasant Valley water rose as high as some rooftops.

Buffalo, in Scott County, struggled mightily against the river. Damage in Buffalo was estimated at \$200,000. Most businesses were forced to close. . . .

The honor roll in this biggest Mississippi flood of them all goes on and on.

Sabula, Clinton, Fulton, Camanche, Princeton, Bettendorf, Moline, East Moline, Davenport, Rock Island, Buffalo, Keithsburg and Muscatine — they all proved themselves big in heart as they fought to save themselves.

And they hardly had time to draw a breath before they began the big, dirty job of cleaning up.

All this — and much, much more — was the great Mississippi River flood of 1965.

Although the surging waters of the Mississippi took their toll at Muscatine and Burlington, and to a lesser degree at Fort Madison and Keokuk, the ravages were by no means as great as in the river towns to the north. True, a portion of the Muscatine waterfront, including railroad tracks, parking

areas, and the major highways along the river, were completely submerged and made of no use until the waters receded. For the most part, however, with the exception of the breakthrough in the Lake Odessa area, the levees at Muscatine held back much of the Mississippi's overflow.

At Burlington, aside from the riverfront that included the Municipal Barge Terminal and Memorial Auditorium, damage was relatively slight. The cultivated lowlands north and south of Burlington were inundated while across the river in Illinois, the Mississippi broadened to eight miles as had been customary over a century of time since 1844. Nature clearly had never intended a settlement at Gulfport and all who elected to dwell there did so at their own risk.

Once past Keokuk, the Mississippi overflowed lowlands and invaded towns that have always been a fair play for its caprices. As Mark Twain once said:

You can't say that the river is very charitable on the measure of a flood in a town. Except for the fact that the streets are quiet of kids and drays, there really is nothing good to say about a flood.

In a day that was marked by little levity and much soul-searching, it was not surprising that the clergy of many denominations should ask for Divine interposition followed by thanks for those who had given their full measure to protect their homes and community. The prayer of Reverend

Emerson Miller of St. Paul's Lutheran Church in Davenport is worthy of recording at this time.

Great Lord and God, in the midst of these days in which our community is threatened with disaster by the overwhelming forces of nature, by the ravages of flood and destruction; we thank Thee for the men and women in our midst who have been moved by Thy Spirit of compassion and responsibility to give of themselves to organize and inspire our efforts to preserve our homes, our businesses, and our lives.

We thank Thee for our youth, for their energy and strength, for their willingness to toil and to persevere in throwing up bulwarks around us. Wouldst Thou continue to bless and to keep strong the results of their labor. Give heart, we pray, to those upon whom great loss has come. Save them from despair and make strong their hands as they seek to re-establish and refound their homes.

May this lesson in the hard school of life, be a means of teaching us all that we are indeed our brother's keeper, and only as we work and plan and live together — as we render "service above self" — can we have and hold those things which make life worth the while.

It can be truly said of the flood fighters of 1965, as it was said by Winston Churchill of the small but determined force that beat back the Nazi onslaught in 1940 — "Never in the field of human conflict was so much owed by so many to so few."

Causes and Results

Throughout the spring of 1965 many inquiries were made regarding the relation of the Mississippi River dams to the great flood. On May 28, 1965, the Corps of Engineers issued a six-page pamphlet pointing out that, with the exception of the power dams at Minneapolis and Keokuk, the remaining dams were constructed solely as aids to navigation in maintaining the nine-foot channel.

Of the tremendous flood crest the Corps of Engineers declared:

A number of factors accounted for the 1965 flood crest being so high this year. The winter of 1964-65 was very severe through northern Iowa, central and southern Minnesota and southwestern Wisconsin. The winter was unusually cold. An early severe cold period gave the ground an initial freeze-up. Continued sub-zero weather throughout the winter froze the ground to a depth greater than normal. This made the ground more impervious to infiltration of snowmelt into the ground. During the winter period there accumulated a large snow cover that did not have much opportunity to melt due to the sustained cold weather.

At St. Paul the Weather Bureau recorded a total winter snowfall of about 73 inches. This compares to a normal winter fall of about 45-50 inches. As the winter wore on the snow cover condensed and packed into an unusually heavy water content. By mid-March with no alternate

warming temperatures during the day and cooler temperatures at night to permit some gradual melting it became apparent that a potential flood was contained in the snow cover. On top of this snow cover, with its already large water content, heavy rains fell at the end of March and the snow cover absorbed this rainfall with little or no runoff. Finally, in early April, there was a sudden warm period that began a rapid melt of the snow. Since the ground was frozen so deeply most of the melting snow found its way into the streams rather than soaking into the ground.

Man himself is in large measure responsible for the staggering cost to replace the damage wrought. The Report of the Corps of Engineers continues:

This is brought about by man-made encroachments such as levees, highway and railroad embankments, homes and factories that now occupy important portions of the flood plain that previously were used by the river. Unfortunately, data are not available that would permit accurate quantitative evaluation of the effect of these encroachments but unquestionably the qualitative and cumulative effect of encroachments on the regimen of the stream has been to significantly increase stages of major flood flows.

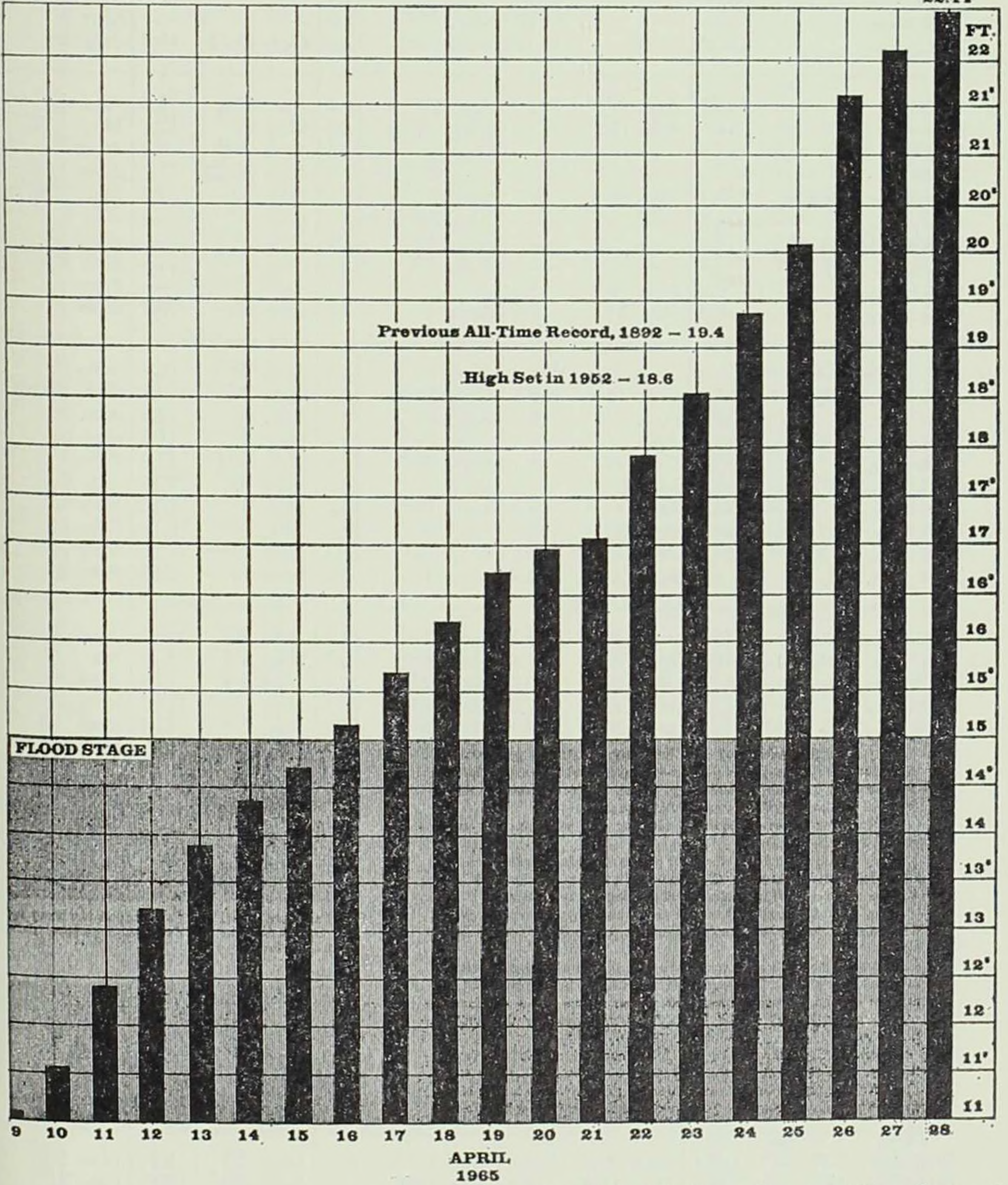
From 1844, when the first reasonably accurate measurement of floods was made, to the year 1965, thoughtful persons have seen the folly of encroaching on a domain clearly preempted by the Father of Waters. In the ever-recurring battle between Man and Nature, it seems incredible that Man's own folly should create his own so-called Disaster Areas.

THE RIVER GOES UP, UP, UP IN DAVENPORT

CREST!!
22.44

6 A.M. READINGS

Flood '65 — Davenport Times-Democrat



Special Flood Edition — Davenport Times-Democrat

RECORD MISSISSIPPI HIGH WATER STAGES, 1864-1965

Year	Dubuque	Clinton	Davenport	Burlington	Keokuk
1864	—	L.W. 0.0	Feb. 27 7.8	—	—
1865	—	15.58	Mar. 4 11.1	—	—
1866	May 3 20.17	14.93	May 4 15.8	—	—
1867	—	16.78	June 27-8 14.4	—	—
1868	—	16.08	Mar. 10* 22.0	—	May 8 14.5
1869	15.02	18.18	Oct. 9-10 12.1	Oct. 12-13 11.8	July 16 14.7
1870	Apr. 20 21.83	Apr. 27 19.73	Apr. 25 16.9	Apr. 26-8 15.0	Apr. 27 16.0
1871	—	Apr. 15 18.50	May 14-16 12.10	May 21 12.1	May 17-20 12.0
1872	—	—	May 28 9.15	June 7-8 9.6	June 7 12.0
1873	—	—	May 8 12.9	June 18-20 11.2	June 14-5 12.0
1874	May 13-17 10.4	Mar. 9 17.2	Mar. 9 15.6	Mar. 27 7.7	Mar. 12+ 8.0
1875	Apr. 26 15.5	—	Apr. 29 12.11	—	July 9 12.0
1876	May 27-9 15.4	—	Apr. 16 13.9	—	Apr. 17 16.0
1877	July 18-9 7.7	—	Apr. 4-5 9.11	—	Apr. 9-10 11.0
1878	Aug. 1 5.4	June 4 7.0	July 17 7.1	—	Aug. 1 6.0
1879	May 30 9.7	May 31 8.5	June 1 7.8	July 15 7.07	June 2 8.0
1880	June 23-4 21.7	June 26 21.0	June 26 18.4	June 28 15.8	June 29 17.0
1881	Oct. 24-5 20.2	Oct. 15 19.5	Oct. 27 17.7	Oct. 31 16.53	Oct. 29-30 18.0
1882	Apr. 20 15.7	Apr. 21 15.7	Apr. 23 14.1	Apr. 25 13.3	Apr. 25 15.0
1883	Apr. 27-9 15.7	Apr. 30 14.8	May 2 13.3	May 5 11.8	May 18 15.0
1884	Oct. 16 13.6	Oct. 19 11.3	Mar. 28-9 11.9	Mar. 30-1 13.8	Apr. 1 16.0
1885	May 6-7 11.5	May 8-9 10.5	May 8 10.1	May 10 9.78	Jan. 9 15.0
1886	Apr. 29 14.4	May 1 13.4	May 1-3 12.5	May 7 12.0	May 6 15.0
1887	Apr. 25-7 14.0	Apr. 27 12.9	Feb. 12 12.9	Feb. 14 9.78	Feb. 11 13.0
1888	May 12-3 21.4	June 1 20.5	May 16 18.6	May 18+ 17.55	May 16-7 19.0
1889	Apr. 1-3, My. 30 6.4	May 3 5.3	Mar. 12 7.8	May 24 6.00	Feb. 26 10.0
1890	June 26 13.2	June 28 12.2	July 1 11.9	June 30 11.62	June 30+ 12.0
1891	Apr. 30-My 1-2 12.9	May 2 12.5	May 3-5 10.3	May 5-6 9.70	Mar. 28 11.0
1892	June 24 17.6	June 26 20.0	June 27 19.4	June 8-9 17.5	June 30 19.0
1893	May 11 15.7	May 13-5 14.8	Mar. 13 15.1	May 16 12.47	May 15 14.0
1894	May 29 15.5	May 30 14.3	May 31 12.3	June 3-4 10.4	June 3-5 11.0
1895	June 24-6 6.3	Mar. 2 7.0	Mar. 4 8.9	Mar. 2-3 5.3	Mar. 4 11.0
1896	May 29 13.9	May 28-9 13.5	May 28-30 12.0	June 3 10.25	June 3-4 11.0
1897	Apr. 15 17.9	Apr. 17-8 16.8	Apr. 17 15.1	Apr. 27-9 13.2	Apr. 28 18.0
1898	June 21-3 9.4	June 24-6 8.7	Feb. 14 9.9	Mar. 15 6.8	Feb. 13 11.0
1899	June 22-4 14.8	June 25 13.9	June 25-6 11.85	June 28+ 10.3	May 22 12.0
1900	Oct. 17 14.6	Oct. 20 13.3	Mar. 13 13.1	Oct. 23-4 9.0	Mar. 12 13.0
1901	Apr. 20 11.0	Apr. 23 10.4	Mar. 16 9.6	Mar. 24 9.4	Mar. 25 11.0
1902	May 24 12.6	May 26 11.7	May 29 10.5	July 21 10.8	July 21 15.0
1903	Sept. 27 17.4	Sept. 29-30 15.6	Oct. 1 13.65	June 5-6 14.9	June 5 19.0
1904	June 8-9 11.7	Apr. 25 10.7	Mar. 22 13.2	Mar. 29 10.8	Apr. 30 12.0
1905	June 18-9 17.4	June 21 15.7	June 21 14.3	June 25 12.2	June 10 18.0
1906	Apr. 21-5 16.6	Apr. 22-7 15.3	Apr. 22-6 13.9	Apr. 24-6 12.3	Apr. 24-7 14.0
1907	Apr. 9-10 16.1	Apr. 11-3 14.8	Apr. 13 13.6	Apr. 15-6 11.4	Feb. 11 14.0
1908	July 19 14.9	July 20 13.9	July 21 12.25	June 9 11.25	May 30 15.0
1909	Apr. 20 13.2	May 2 12.5	Dec. 25 13.7	May 5-6 11.7	May 6 13.0
1910	Apr. 2-3 9.1	Apr. 7 8.6	Jan. 1 11.9	Mar. 22 8.35	Mar. 20 16.0
1911	Oct. 19 14.6	Oct. 21-2 12.9	Oct. 22-3 11.2	Feb. 20 10.2	Feb. 21 12.0
1912	Apr. 4 12.2	Apr. 6 11.4	Mar. 30 12.7	Apr. 5-6 13.35	Apr. 5 17.0
1913	Mar. 25 12.6	Mar. 26-7 12.5	Mar. 28-9 12.8	Mar. 29-30 11.7	Mar. 30 13.0
1914	July 12 14.4	July 14-5 12.6	July 14-5 10.65	June 23 9.32	June 24 11.0

*17-22 Ice Gorge
5 ft. in 1 day.

RECORD MISSISSIPPI HIGH WATER STAGES, 1864-1965

Year	Dubuque	Clinton	Davenport	Burlington	Keokuk
915	Apr. 21-2 12.1	Apr. 23-4 10.5	June 3-5, 7 9.5	June 7-8 10.4	June 6 13.75
916	May 3 19.8	May 5 18.0	May 5 15.9	May 9 14.2	May 14 16.7
917	Apr. 18-9 15.5	Apr. 21-2 14.1	Apr. 21 12.35	June 17 11.62	June 13 14.9
918	June 11-2 13.6	June 13-4 12.3	June 14 10.35	June 12 12.95	June 12 16.7
919	Apr. 22-3 16.6	Apr. 24 15.4	Apr. 25 13.7	May 8 13.79	May 7-8 17.15
920	Apr. 7 21.0	Apr. 8 19.0	Apr. 9 17.1	Apr. 11 14.79	Apr. 21 16.7
921	May 10 10.7	May 13 9.4	Jan. 18 10.1	May 13 9.42	Sept. 22 9.8
922	Apr. 21 21.0	Apr. 22-3 18.9	Apr. 23 17.1	Apr. 24-5 15.42	Apr. 25 17.45
923	May 3-4 12.4	Apr. 7 11.2	Apr. 8 10.4	Apr. 10 11.18	Apr. 10-11 12.0
924	May 8 11.7	Aug. 23 11.0	Aug. 23 10.9	Aug. 25 12.16	June 30 14.0
925	June 25 11.1	June 19 10.7	June 20 8.6	June 23 9.4	June 23 10.3
926	Oct. 5 11.3	Oct. 4-8 11.2	Oct. 6-7 9.7	Oct. 6-9 11.53	Oct. 2 13.55
927	Mar. 28 15.6	Mar. 30-1 14.5	Mar. 31 12.2	Apr. 3 12.88	Apr. 21, 23 14.9
928	Apr. 7-8 14.0	Apr. 9-10 13.2	Apr. 10 11.45	Dec. 28 14.09	Nov. 18 12.45
929	Apr. 17 17.0	Apr. 20 15.7	Apr. 20-1 14.2	Mar. 23 15.82	Mar. 23 19.3
930	June 26-7 11.0	June 28-9 9.8	June 28-9 8.4	June 18 11.8	June 18 13.9
931	Dec. 3-4 7.6	Dec. 4 7.3	Dec. 1-3 7.0	Dec. 3 9.5	Nov. 28-30 10.5
932	Apr. 20-1 13.1	Apr. 22-3 11.7	Apr. 23-4 10.2	Mar. 9 11.4	Apr. 24 10.2
933	Apr. 11 11.9	Apr. 12-3 10.9	Apr. 10 10.3	Apr. 10 12.4	Apr. 9-10 14.5
934	Apr. 17 12.0	Apr. 19-20 10.4	Apr. 20 8.5	Dec. 12 11.5	Dec. 5 7.9
935	Apr. 3-5 16.2	Apr. 6-7 14.3	Apr. 6-8 12.1	Apr. 11 11.7	July 7 13.1
936	Apr. 5 16.8	Apr. 7-8 15.5	Apr. 7-9 13.0	Apr. 10 12.6	Apr. 9, 11 12.3
937	Mar 8* 12.2	Mar. 9 11.7	Mar. 9 12.2	Mar. 10-12 13.8	Mar. 10-1 16.1
938	Sept. 2 20.6	Sept. 23 18.3	Sept. 24 15.8	Sept. 25-6 15.0	Sept. 26 16.4
939	Apr. 6 17.5	Apr. 8 15.8	Apr. 9 13.2	Apr. 11-2 13.1	Mar. 16 14.0
940	June 18 11.4	June 19 7.2	Apr. 18 7.9	Apr. 19-20 9.3	Apr. 20 6.4
941	Apr. 23 16.4	Apr. 24-6 15.2	Apr. 23-6 12.6	Apr. 27 13.0	Apr. 27 12.3
942	June 12 19.3	June 13-4 17.8	June 14-5 15.2	June 16-7 15.5	June 16 15.80
943	June 29 18.9	Je 30-Jy 1 17.1	Apr. 16-9 14.2	Apr. 18-9 14.1	June 18 14.45
944	June 27 19.0	June 29 18.5	June 29 16.4	May 27 17.1	May 27-8 20.8
945	Mar. 29-30 18.9	Mar. 31 17.6	Mar. 31+ 15.0	Apr. 1-2 15.4	Mar. 27 16.80
946	Mar. 27 17.8	Mar. 29 16.6	Mar. 28-30 14.4	Jan. 11 17.1	Jan. 11 16.95
947	June 14 15.5	June 16 15.4	June 17 13.1	June 20-1 17.0	June 8, 19 20.20
948	Mar. 31-Apr. 1 14.2	Mar. 21 14.2	Mar. 22 13.7	Mar. 23 16.4	Mar. 24 18.9
949	Apr. 4-6 12.4	Apr. 6-10, 15 11.7	Mar 9, Apr. 6 9.8	Mar. 12 12.2	Mar. 10 13.8
950	May 20 16.7	May 22-3 15.4	Apr. 30+ 13.5	Apr. 26+ 13.8	Apr. 25 14.5
951	Apr. 22 22.7	Apr. 26 20.70	Apr. 28-9 18.3	Apr. 29 18.1	May 12 20.2
952	Apr. 25-6 22.7	Apr. 28 20.92	Apr. 28 18.63	Apr. 28-30 17.85	Apr. 25 18.95
953	April 2, 4** 14.0	Apr. 4-6 13.2	Apr. 4-5 11.1	Apr. 3-6 12.3	Apr. 1-2 12.5
954	May 12 20.2	May 14 18.2	May 15 15.54	May 16-8 14.8	July 1 14.30
955	Apr. 14-5 13.3	Apr. 25 12.8	Apr. 25-7 10.8	Apr. 27 13.2	Apr. 25 12.7
956	Apr. 19 16.0	Apr. 20-1 14.6	Apr. 21 12.1	Apr. 21 12.2	Apr. 22 10.20
957	July 13 13.7	July 14 13.1	July 14 10.4	July 15 11.1	July 16 8.70
958	Apr. 16-7 10.0	Apr. 15-8 9.2	Apr. 17 7.2	June 13 9.8	June 13 8.23
959	Apr. 2 14.3	Apr. 3 14.1	Apr. 4 13.1	Apr. 5-6 14.5	Apr. 6 14.17
960	May 17 17.5	May 18-9 16.3	Apr. 3 15.3	Apr. 4 18.7	Apr. 4 21.83
961	Mar. 31 16.7	Apr. 2 15.4	Apr. 3-4 13.7	Apr. 5 16.3	Apr. 5 17.11
962	Apr. 19 16.3	Apr. 20 15.2	Apr. 7 13.9	Apr. 7 16.7	Apr. 8 18.58
963	Apr. 2-4 12.5	Apr. 1-2 11.9	Mar. 27+ 10.0	Mar. 22 12.1	Mar. 22 10.76
964	May 18-21 12.20	May 20 11.50	May 20 9.40	May 21-3 10.4	Apr. 22 7.96
965	Apr. 26 26.8	Apr. 28 24.85	Apr. 28 22.44	Apr. 30-M. 2 21.0	May 2 22.14

May 6
July 6, Aug. 7

RECORD MISSISSIPPI HIGH WATER STAGES, 1864-1965

Year	Dubuque	Clinton	Davenport	Burlington	Keokuk
1864	—	—	—	—	—
1865	—	L.W. 0.0	Feb. 27	—	—
1866	20.17	—	Mar. 4	—	—
1867	—	—	May 4	—	—
1868	—	—	June 27-8	—	—
1869	—	—	Mar. 10*	—	—
1870	21.83	—	Oct. 9-10	Oct. 12-13	July 16
1871	—	—	—	—	—
1872	—	—	—	—	—
1873	—	—	—	—	—
1874	10.4	—	—	—	—
1875	15.5	—	—	—	—
1876	15.4	—	—	—	—
1877	7.7	—	—	—	—
1878	5.4	—	—	—	—
1879	9.7	—	—	—	—
1880	21.7	—	—	—	—
1881	20.2	—	—	—	—
1882	15.7	—	—	—	—
1883	15.7	—	—	—	—
1884	13.6	—	—	—	—
1885	11.5	—	—	—	—
1886	14.4	—	—	—	—
1887	14.0	—	—	—	—
1888	21.4	—	—	—	—
1889	6.4	—	—	—	—
1890	13.2	—	—	—	—
1891	12.9	—	—	—	—
1892	17.6	—	—	—	—
1893	15.7	—	—	—	—
1894	15.5	—	—	—	—
1895	6.3	—	—	—	—
1896	13.9	—	—	—	—
1897	17.9	—	—	—	—
1898	9.4	—	—	—	—
1899	14.8	—	—	—	—
1900	14.6	—	—	—	—
1901	11.0	—	—	—	—
1902	12.6	—	—	—	—
1903	17.4	—	—	—	—
1904	11.7	—	—	—	—
1905	17.4	—	—	—	—
1906	16.6	—	—	—	—
1907	16.1	—	—	—	—
1908	14.9	—	—	—	—
1909	13.2	—	—	—	—
1910	9.1	—	—	—	—
1911	14.6	—	—	—	—
1912	12.2	—	—	—	—
1913	12.6	—	—	—	—
1914	14.4	—	—	—	—

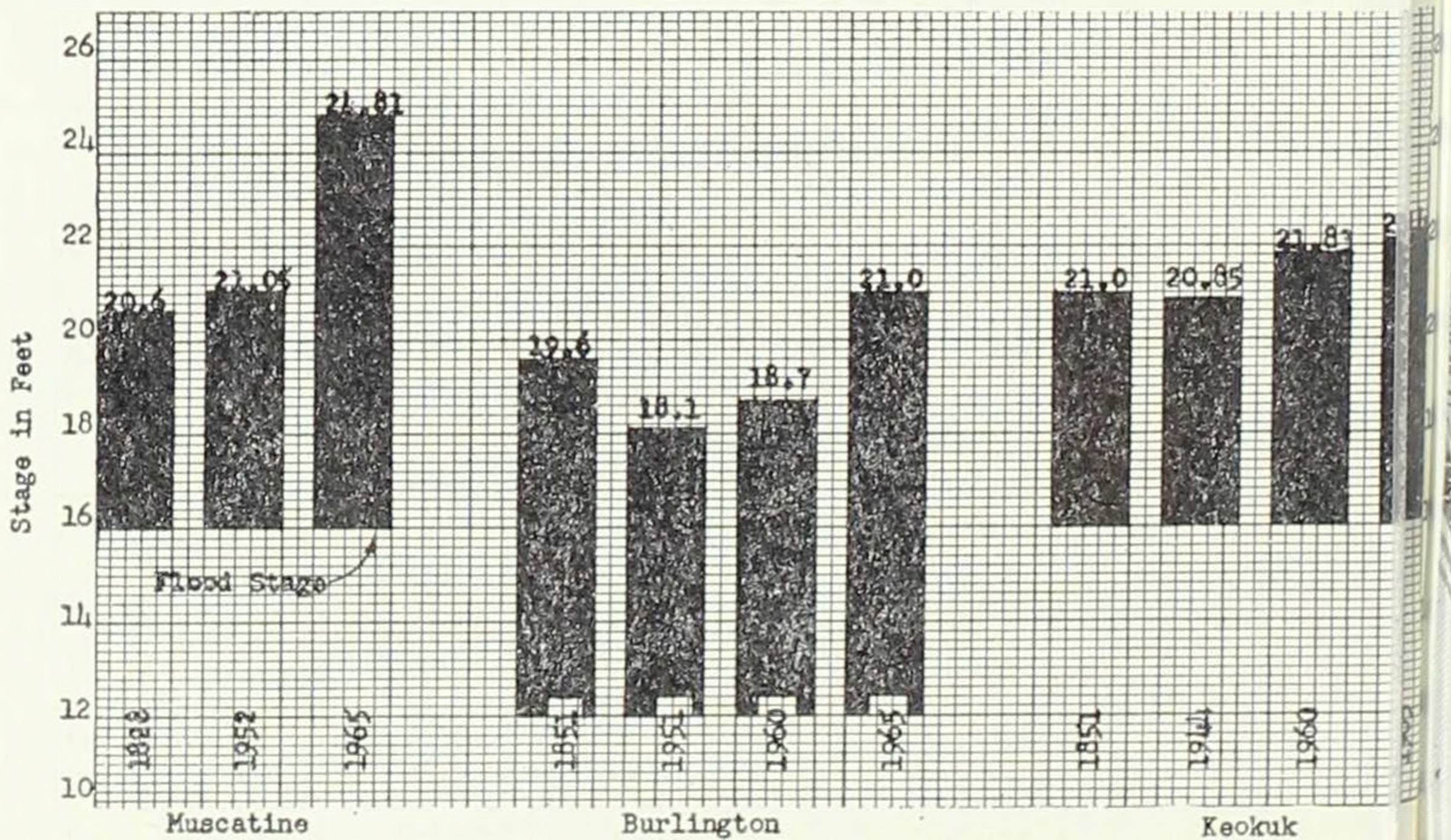
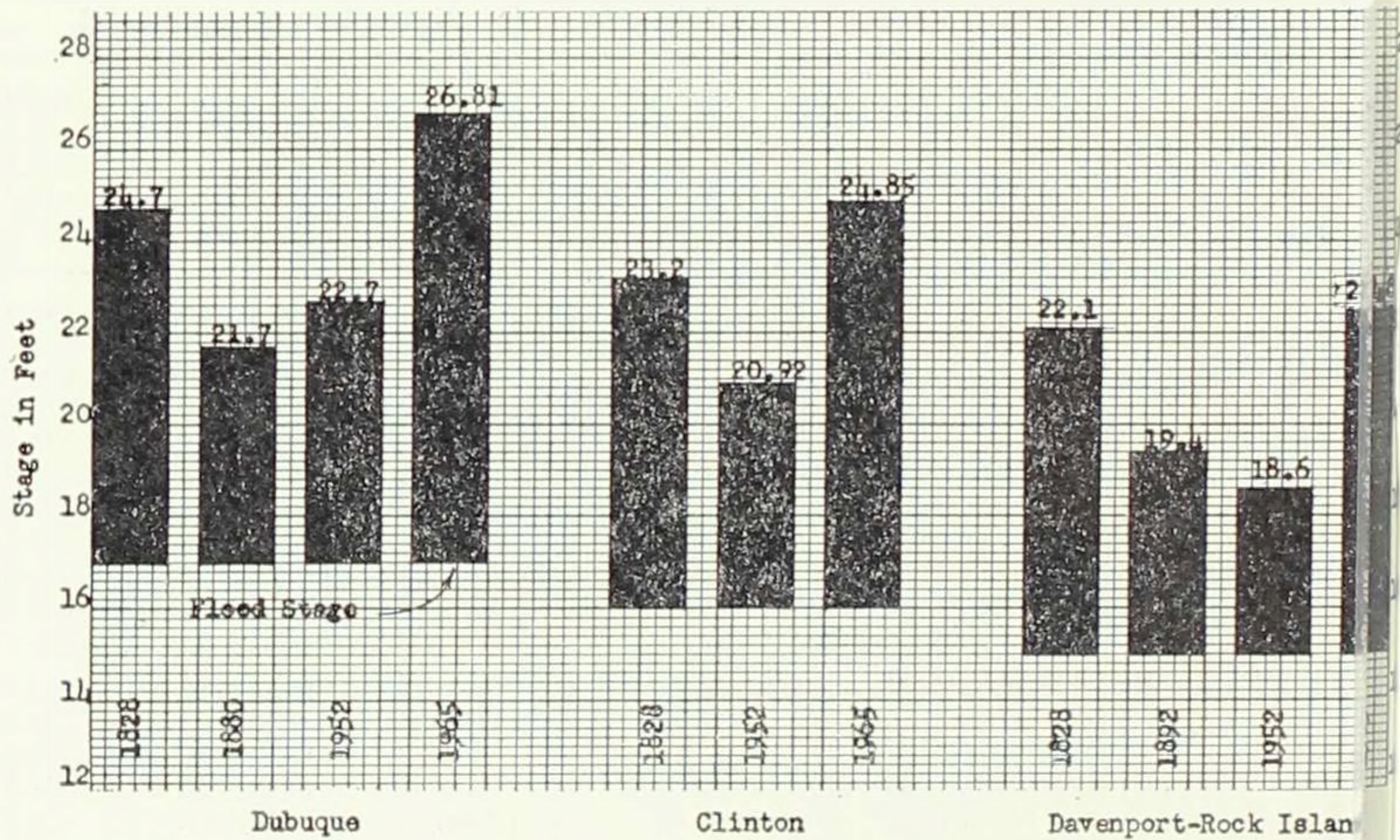
RECORD MISSISSIPPI HIGH WATER STAGES, 1864-1965

Year	Dubuque	Clinton	Davenport	Burlington	Keokuk
1915	12.1	—	—	—	—
1916	19.8	—	—	—	—
1917	15.5	—	—	—	—
1918	13.6	—	—	—	—
1919	16.6	—	—	—	—
1920	21.0	—	—	—	—
1921	10.7	—	—	—	—
1922	21.0	—	—	—	—
1923	12.4	—	—	—	—
1924	11.7	—	—	—	—
1925	11.1	—	—	—	—
1926	11.3	—	—	—	—
1927	15.6	—	—	—	—
1928	14.0	—	—	—	—
1929	17.0	—	—	—	—
1930	11.0	—	—	—	—
1931	7.6	—	—	—	—
1932	13.1	—	—	—	—
1933	11.9	—	—	—	—
1934	12.0	—	—	—	—
1935	16.2	—	—	—	—
1936	16.8	—	—	—	—
1937	12.2	—	—	—	—
1938	20.6	—	—	—	—
1939	17.5	—	—	—	—
1940	11.4	—	—	—	—
1941	16.4	—	—	—	—
1942	19.3	—	—	—	—
1943	18.9	—	—	—	—
1944	19.0	—	—	—	—
1945	18.9	—	—	—	—
1946	17.8	—	—	—	—
1947	15.5	—	—	—	—
1948	14.2	—	—	—	—
1949	12.4	—	—	—	—
1950	16.7	—	—	—	—
1951	22.7	—	—	—	—
1952	22.7	—	—	—	—
1953	14.0	—	—	—	—
1954	20.2	—	—	—	—
1955	13.3	—	—	—	—
1956	16.0	—	—	—	—
1957	13.7	—	—	—	—
1958	10.0	—	—	—	—
1959	14.3	—	—	—	—
1960	17.5	—	—	—	—
1961	16.7	—	—	—	—
1962	16.3	—	—	—	—
1963	12.5	—	—	—	—
1964	12.20	—	—	—	—
1965	26.8	—	—	—	—
1915	12.1	—	—	—	—
1916	19.8	—	—	—	—
1917	15.5	—	—	—	—
1918	13.6	—	—	—	—
1919	16.6	—	—	—	—
1920	21.0	—	—	—	—
1921	10.7	—	—	—	—
1922	21.0	—	—	—	—
1923	12.4	—	—	—	—
1924	11.7	—	—	—	—
1925	11.1	—	—	—	—
1926	11.3	—	—	—	—
1927	15.6	—	—	—	—
1928	14.0	—	—	—	—
1929	17.0	—	—	—	—
1930	11.0	—	—	—	—
1931	7.6	—	—	—	—
1932	13.1	—	—	—	—
1933	11.9	—	—	—	—
1934	12.0	—	—	—	—
1935	16.2	—	—	—	—
1936	16.8	—	—	—	—
1937	12.2	—	—	—	—
1938	20.6	—	—	—	—
1939	17.5	—	—	—	—
1940	11.4	—	—	—	—
1941	16.4	—	—	—	—
1942	19.3	—	—	—	—
1943	18.9	—	—	—	—
1944	19.0	—	—	—	—
1945	18.9	—	—	—	—
1946	17.8	—	—	—	—
1947	15.5	—	—	—	—
1948	14.2	—	—	—	—
1949	12.4	—	—	—	—
1950	16.7	—	—	—	—
1951	22.7	—	—	—	—
1952	22.7	—	—	—	—
1953	14.0	—	—	—	—
1954	20.2	—	—	—	—
1955	13.3	—	—	—	—
1956	16.0	—	—	—	—
1957	13.7	—	—	—	—
1958	10.0	—	—	—	—
1959	14.3	—	—	—	—
1960	17.5	—	—	—	—
1961	16.7	—	—	—	—
1962	16.3	—	—	—	—
1963	12.5	—	—	—	—
1964	12.20	—	—	—	—
1965	26.8	—	—	—	—
1915	12.1	—	—	—	—
1916	19.8	—	—	—	—
1917	15.5	—	—	—	—
1918	13.6	—	—	—	—
1919	16.6	—	—	—	—
1920	21.0	—	—	—	—
1921	10.7	—	—	—	—
1922	21.0	—	—	—	—
1923	12.4	—	—	—	—
1924	11.7	—	—	—	—
1925	11.1	—	—	—	—
1926	11.3	—	—	—	—
1927	15.6	—	—	—	—
1928	14.0	—	—	—	—
1929	17.0	—	—	—	—
1930	11.0	—	—	—	—
1931	7.6	—	—	—	—
1932	13.1	—	—	—	—
1933	11.9	—	—	—	—
1934	12.0	—	—	—	—
1935	16.2	—	—	—	—
1936	16.8	—	—	—	—
1937	12.2	—	—	—	—
1938	20.6	—	—	—	—
1939	17.5	—	—	—	—
1940	11.4	—	—	—	—
1941	16.4	—	—	—	—
1942	19.3	—	—	—	—
1943	18.9	—	—	—	—
1944	19.0	—	—	—	—
1945	18.9	—	—	—	—
1946	17.8	—	—	—	—
1947	15.5	—	—	—	—
1948	14.2	—	—	—	—
1949	12.4	—	—	—	—
1950	16.7	—	—	—	—
1951	22.7	—	—	—	—
1952	22.7	—	—	—	—
1953	14.0	—	—	—	—
1954	20.2	—	—	—	—
1955	13.3	—	—	—	—
1956	16.0	—	—	—	—
1957	13.7	—	—	—	—
1958	10.0	—	—	—	—
1959	14.3	—	—	—	—
1960	17.5	—	—	—	—
1961	16.7	—	—	—	—
1962	16.3	—	—	—	—
1963	12.5	—	—	—	—
1964	12.20	—	—	—	—
1965	26.8	—	—	—	—

*17-22 Ice Gorge
F ft in 1 day

*May 6
**July 6, Aug. 7

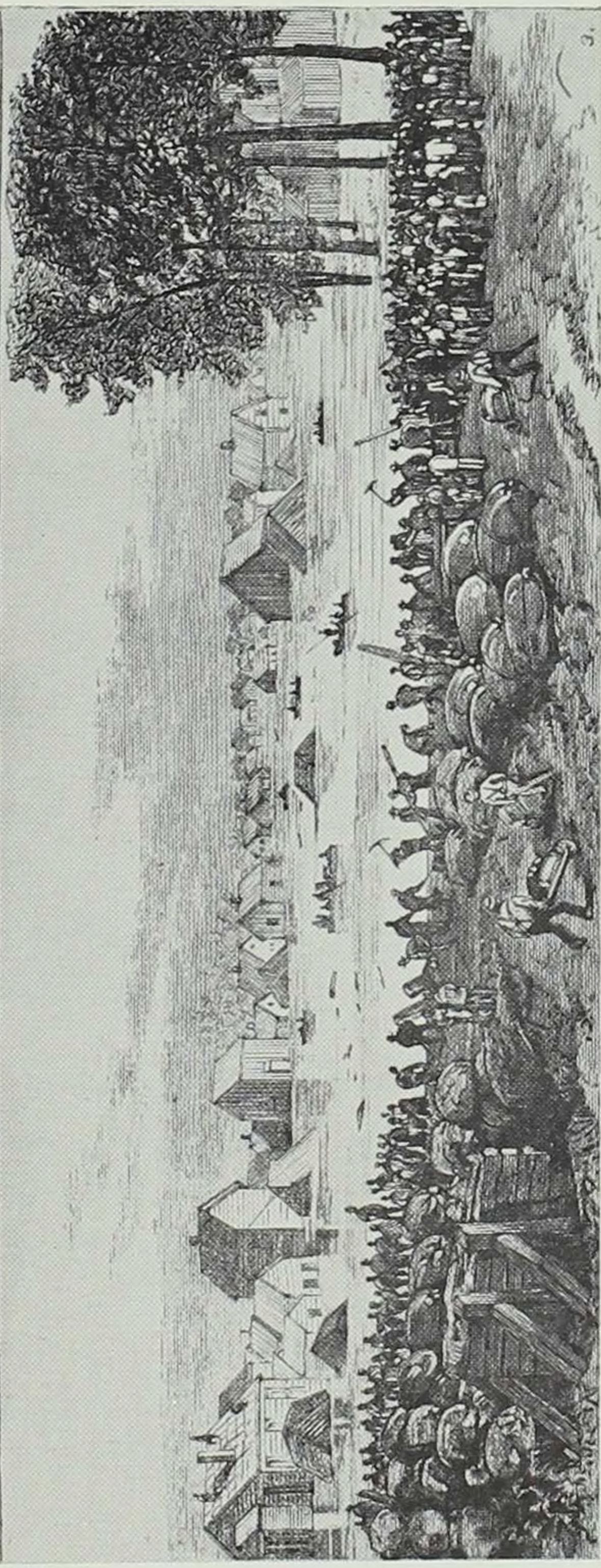
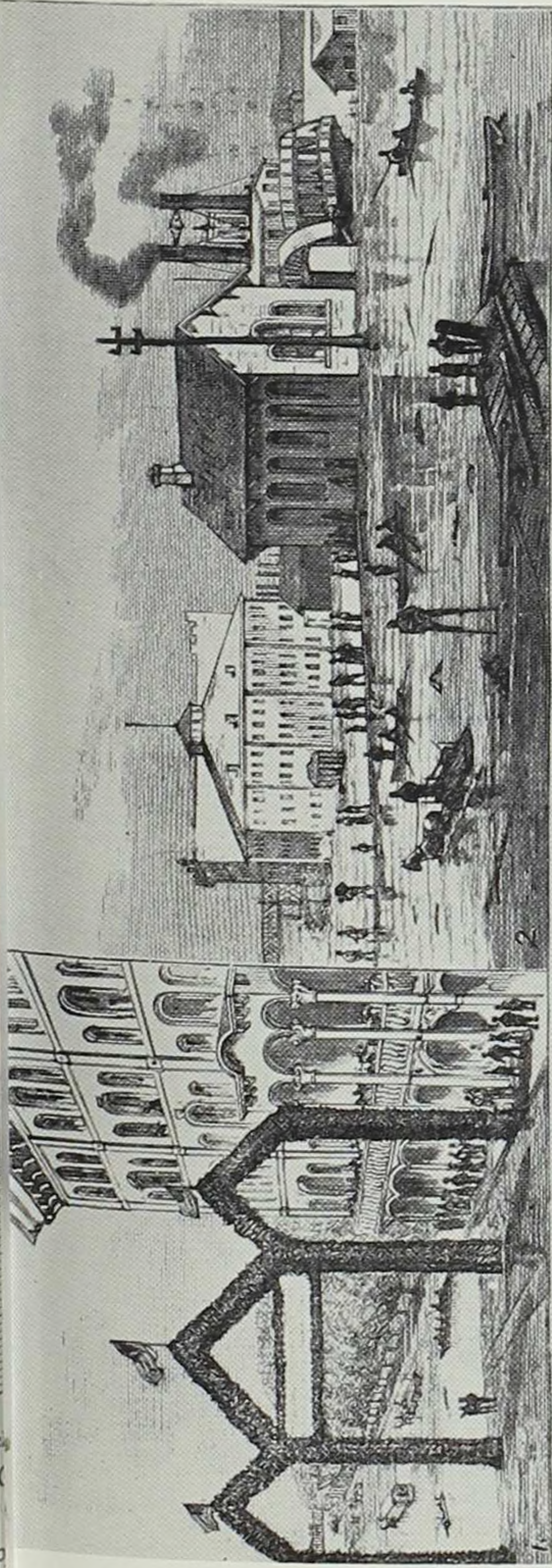
HIGH MISSISSIPPI CRESTS IN IOWA CITIES OVER THE PAST CENTURY



Courtesy U. S. Army Corps of Engineers, Rock Island

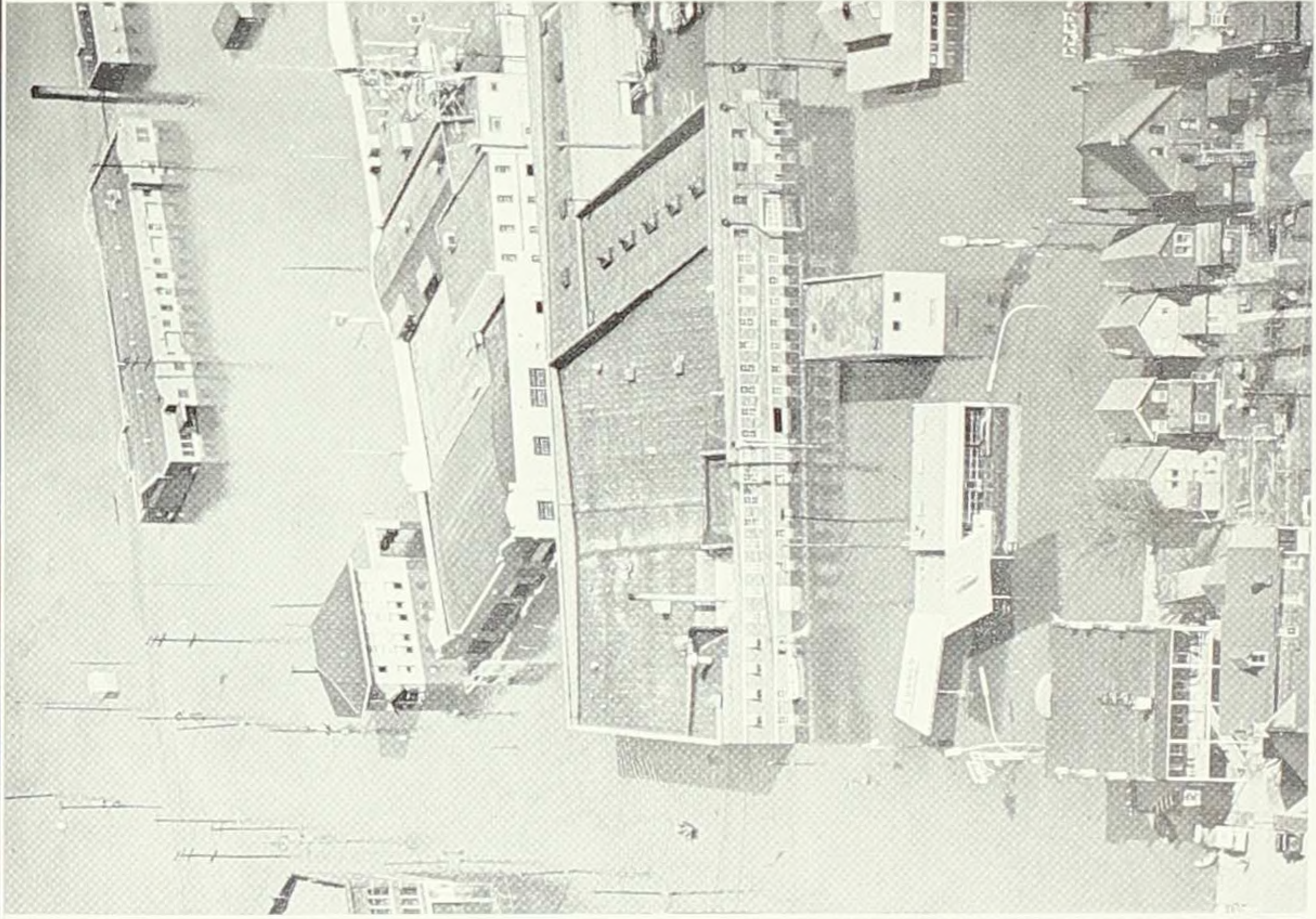
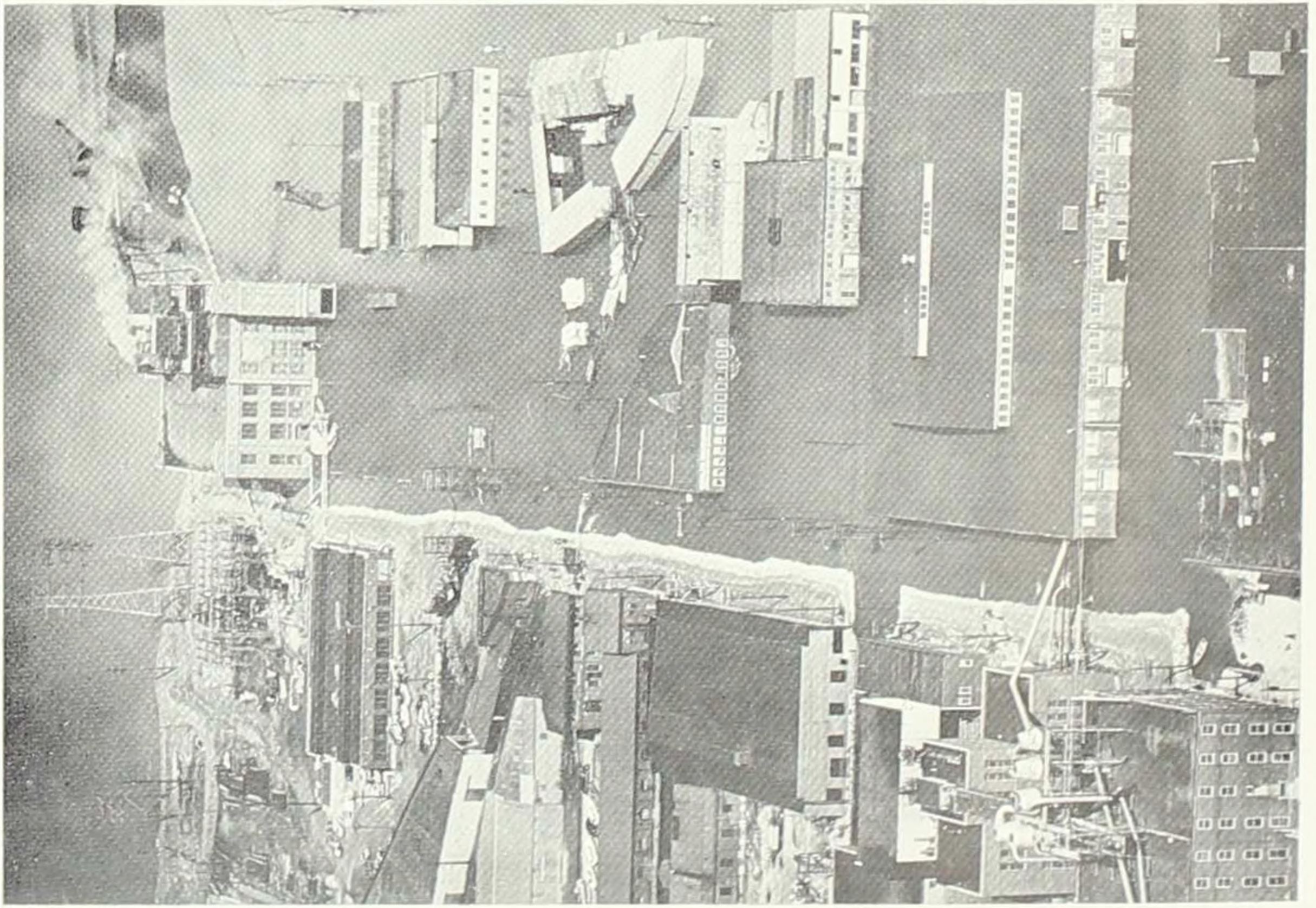
The writer has records of floods earlier than that of 1828. Note the following letter from Josiah Snelling to Captain J. B. Brant, Assistant Quarter-Master, St. Louis, May 8, 1826.

"You will doubtless have heard of our disasters by the Lawrence [steamboat], the two have subsided but very little & the whole Country in front of this garrison is a lake. — boats were lost & we have no means of moving a corporals guard. I would suggest to propriety of including some Batteaux or Keel-Boats in your next Estimates. We should have enough to move the troops and stores in cases of emergency. We have had no spring plough or spade has yet been put in the ground, nor a seed sown."



Frank Leslie's Illustrated Newspaper, July 24, 1880

Incidents of the Recent Flood in Iowa-Illinois sketched by H. Lambach. 1. View of the Public Square, Rock Island. 2. Ferry Landing and Depot, Davenport. 3. The Flood at Ninth Street, Rock Island.



The Flood of 1965 at Dubuque. (Left) The Eighth Street battle line where Dubuquers grimly declared — "Thus far can you go, Old Man River, but no farther!" Interstate Power Company plant and coal pile in upper right. (Right) Looking down Jones Street