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Article Title: High Water: Flooding in the Elkhorn Basin 1823-1940

Full Citation: Todd M Kerstetter, "High Water: Flooding in the Elkhorn Basin," *Nebraska History* 76 (1995): 176-187.

URL of article: http://www.nebraskahistory.org/publish/publicat/history/full-text/NH1995Elkhorn_Water.pdf

Date: 4/2/2013

Article Summary: This article explores the floods in the Elkhorn River Basin from an early report of 1823 through 1940, including the various efforts of residents to deal with the flooding effects. Within the text of the article is a chart record of the number of major and minor floods by stream and county, as well as a chart by date of the various floods with comments.

Cataloging Information:

Names: Paul Wilhelm, C A Davis

Nebraska Place Names: Elkhorn River Basin, Elkhorn, Waterloo, Fremont, Neligh, Hooper, Clearwater, North Fork, West Point, Gretna, Stanton, Pierce, Beemer, O'Neill, Tilden, Pilger, Winslow, Nickerson, Beemer

Keywords: *West Point Republican*; *Fremont Herald*; *Journal [Norfolk]*; Western Sarpy County Drainage District; *Norfolk Daily News*; Norfolk Sanitary District; Works Progress Administration; Red Cross; U S Department of Agriculture; Army Corps of Engineers

Photographs / Images: Map of the Elkhorn River Basin; Ox team on flooded Norfolk street, about 1870-1880; Flooded homes on the outskirts of Norfolk; Norfolk flooded business and residential districts; rowboat on Norfolk's flooded streets; Floods in the Elkhorn Basin by stream (chart); Flooded rural road near Beemer; Flooding in Beemer about 1917; Floods, Droughts and River Modifications in the Elkhorn Basin to 1944 by date (chart); washed out approach to the Elkhorn Bridge at Tilden, 1920; Constructing a dike at the Pierce Dam; West Point, Nebraska flooding

High Water

Flooding in the Elkhorn Basin 1823-1940

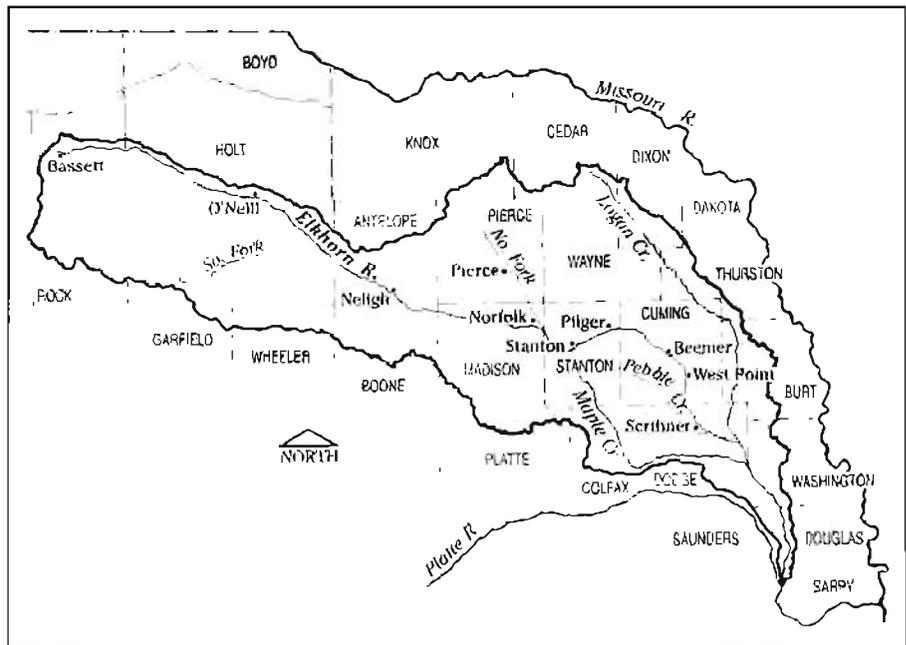
By Todd M. Kerstetter

For thousands of years Nebraska's fertile river valleys have drawn human inhabitants. And for as long as people have lived near rivers, they have contended with flooding. As recently as 1993, spring floods damaged more than \$16 million worth of Nebraska property. For several days a swollen Platte River, gorged in part by an overflowing Elkhorn, threatened to cut off the city of Lincoln's water supply.¹ That incident dramatized flooding's implications but only as a variation on a familiar theme. Ever since Euro-Americans settled permanently in the Elkhorn basin they have used a variety of strategies, first defensive, then offensive, and subsequently a combination of both, to control the river and protect their property. However, none of these strategies has succeeded.

Although little is known about how the Elkhorn basin's earliest residents dealt with floods, historical records indicate some degree of flooding occurs in the basin practically every year. Figure 1 lists floods recorded since official measurements have been kept. Figure 2 lists floods deemed noteworthy by the basin's newspapers and by the U.S. Army Corps of Engineers. It also includes other water-related events.

A German duke may have made the first written record of an Elkhorn flood when he visited the basin in 1823. Paul Wilhelm, Duke of Württemberg, who toured North America from 1822 to 1824, traveled up the Missouri River as far as present South Dakota in 1823.

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The Elkhorn River Basin.

That trip took him overland through the Elkhorn Valley, where he experienced an impressive rain storm and flood. On August 12, after covering about thirty miles in sweltering 102-degree heat, the duke's entourage camped near the Elkhorn. A "hurricane-like storm" blew from the southwest for several hours before the winds subsided, giving way to a torrential downpour. The rains crushed a shelter erected by the party and wind blew down the duke's tent, which the storm's runoff "washed away with all other objects that were not too heavy to be carried along."

Daylight revealed "giant" cottonwoods lying on the ground, either blown down by the storm or split by

lightning. Runoff had transformed the Elkhorn into a "torrent," which had flooded Indian earthlodges abandoned for the summer. The duke learned, to his surprise, that crops growing in the Indians' fields survived the storm. Although he gave no basis for his conclusion, the duke reported that "the Indians are so clever in the choice of their various fields and so accustomed to such storms that the crops will rarely be harmed."² These unidentified Indians had developed agricultural practices that protected their crops from destruction by the Elkhorn's predictable overflows.

Visions of fertile soil beneath prairie grasses drew aspiring farmers from the

Elkhorn Basin

United States and abroad to Nebraska Territory in the late 1850s. As they staked claims westward from Missouri River settlements, they often followed streams, hoping to reap a bountiful harvest from rich bottomlands. In some places rivers or creeks also powered mills that could convert bottomland harvests into commercial goods such as flour. Such an economic package attracted settlers after the Omahas to the Elkhorn River basin.

The Elkhorn did not offer a honeymoon to the new arrivals, but greeted them from the beginning with flooding that was almost an annual occurrence. In the spring of 1857 West Point founder Uriah Bruner negotiated flood-damaged roads to reach the townsite.³ Having overcome a flood to found the town, settlers built a sawmill and later a flour mill to capitalize on the Elkhorn's current. But almost from the beginning, economic enterprises on the river's banks suffered from regular overflows.

Floodwaters again tested settlers when the deluge of May-June 1873 hit the basin. By May 29 the Elkhorn flowed at its highest level in six years. West Point residents "risked their lives . . . working like beavers" to clear driftwood from the bridge across the "troubled waters of the Elkhorn." By June 5 the expected flood had submerged parts of the city. On Tuesday, June 3, the Elkhorn overflowed the east side of the West Point mill dam and continued to rise until it reached the railroad tracks. The *West Point Republican* reported "much damage" to crops, but little damage other than to gardens in town.⁴

Receding waters, however, revealed extensive devastation. Mill dams apparently suffered severely, as indicated by a report in the *Republican* that West Point's mill dam and bridge withstood the high water better than any other in the area. Downstream, near the Elkhorn's confluence with the Platte, a westbound Union Pacific passenger train derailed when a trestle spanning a flooded slough east of the Elkhorn River collapsed. At least one crew member



Ox team on flooded Norfolk street, probably in the 1870s or early 1880s. (NSHS-M182:5-57)

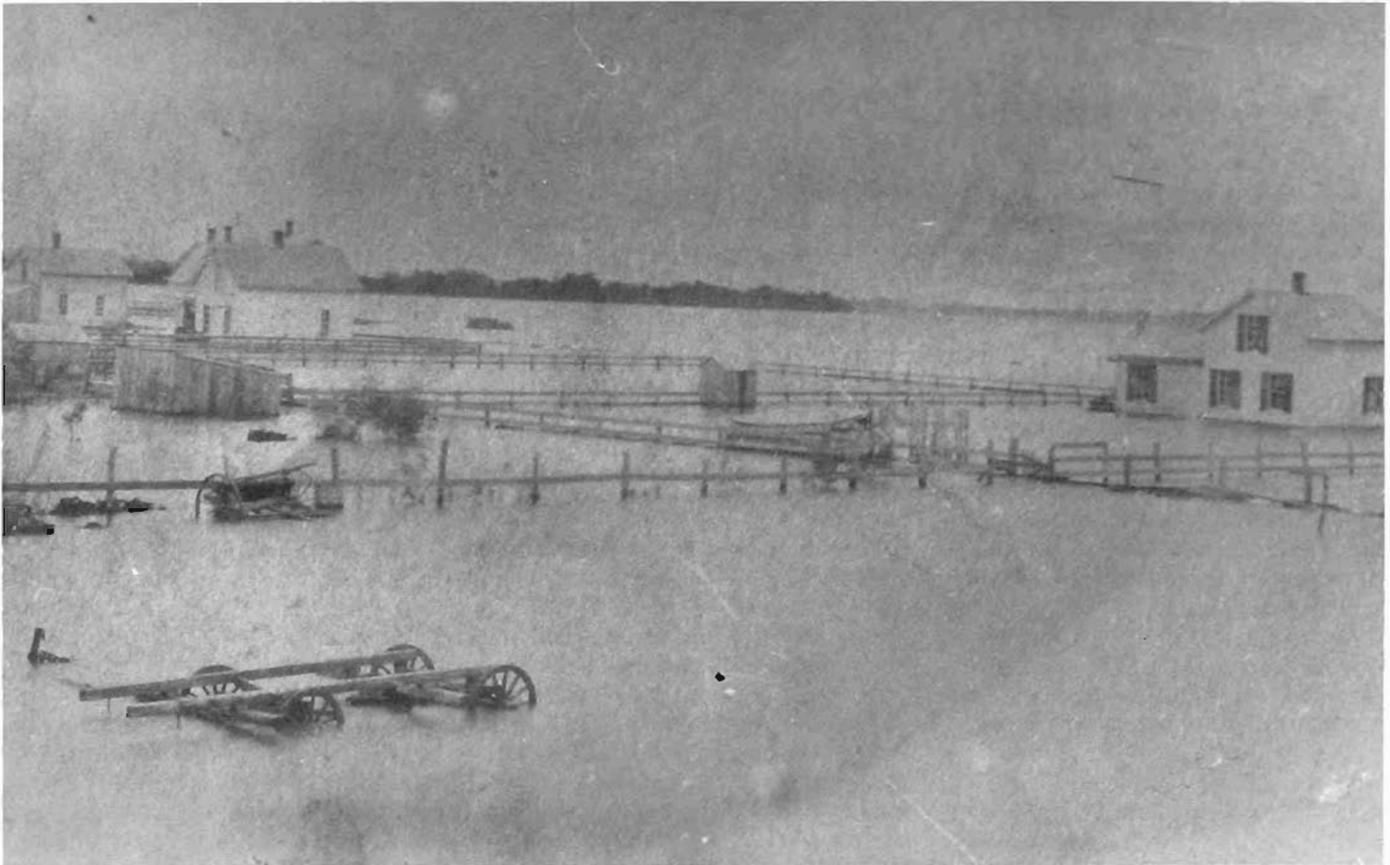
died in the accident, but hundreds of other lives were given a fresh start. The train's cargo included open tanks containing \$30,000 worth of live fish enroute from a Maine fish hatchery to stock California waters. Trout, pike, eel, lobster, bass, and other species escaped into the Elkhorn when the train derailed. Meanwhile, residents in and around West Point repaired roads, worried about disease from stagnant water in town, and probably rejoiced that crop damage turned out to be "hardly worth mentioning."⁵

Nearly eight years later, on March 31, 1881, the *West Point Republican* reported the Elkhorn had risen more than six feet above its low water mark and the highest water was still expected. Reports indicated that ice gorges on the river were at least partially responsible. At Waterloo, near the Elkhorn's mouth, a four-foot rise on Monday, March 28, lifted the Union Pacific Railroad bridge several inches off its foundation. In a prophetic forecast, the *Republican* estimated the river might take two or three weeks to return to normal. The problem was not limited to the Elkhorn. Ice gorges on the Missouri River also caused disastrous flooding in the spring of 1881.⁶

The April 21 *Fremont Herald* reported that the Elkhorn "dashes through the streets of Norfolk at will," doing much damage but making for wonderful boating. Reports do not indicate whether this was a continuation of the March flood, or whether the Elkhorn had returned to its channel only to overflow again. Norfolk's streets lay submerged under two to three feet of water, and the river washed out more than half a mile of railroad track upstream from the city. Two railroad bridges in the same vicinity also fell to the flood, cutting train service to the end of the line. Approaches to the railroad bridge at Neligh incurred damage, but the bridge held.⁷

Responses to these floods show that early settlers adapted to flood conditions while waiting for the waters to recede and then rebuilt their damaged structures, railroad lines for instance, in the same place that had just succumbed to the river. Hooper's innovative residents restored wagon travel by pooling their money to buy lumber, which they used to build a boat. They twisted fence wire into a cable, stretched it across the river, and began ferrying wagons and passengers across the swollen Elkhorn.⁸

The upper Elkhorn basin again felt the river's touch during the last week of



Clockwise: Flooded homes on the outskirts of Norfolk.
(NSHS-M182:5-56)

The Elkhorn overflowed through Norfolk's business and residential districts. (NSHS-M182:5-59)

These men used a rowboat to navigate Norfolk's flooded streets.
(NSHS-M182:5-53)

Elkhorn Basin

May 1888, as far upstream as Holt County. On Saturday, May 26, and Sunday, May 27, runoff from heavy rains filled the upper basin's streams to overflowing. Several bridges between Clearwater and Neligh washed out, halting rail traffic westward out of Neligh. The Elkhorn continued to rise until Tuesday night, when flood waters reached their highest point since 1881. At Neligh, soaked townspeople could locate the mill dam only by the ripple it produced in the swollen river's current.⁹

On Monday, May 28, Norfolk remained dry as levees along the North Fork contained the water, which had climbed to within eight inches of the levee's crown. Like the Elkhorn at Neligh, the North Fork reached its highest level since 1881. Between 3 A.M. and 4 A.M. on Tuesday, May 29, the North Fork broke a seventy-foot crevasse in the levee and flooded into Norfolk as far west as Main Street. Water ran deep enough for boating in the neighborhood's gutters. Residents scrambled to plug the gap with six hundred sandbags and later that day the flood began to recede. Fortunately for taxpayers, streets and sidewalks suffered "no great damage." But the freshet flooded houses, washed out an unreported length of railroad track, made the county bridge south of town impassable, and submerged a number of farms south of the Elkhorn.¹⁰

In response to the flood, a group of ingenious and civic-minded Neligh residents collected funds to build a four-oared flatboat to ferry passengers across the Elkhorn at no charge. The town council also authorized a bank stabilization project at the waterworks pumping station to prevent future floods from washing the building downstream. Norfolk's *Journal* credited the levee on the North Fork, just upstream from the mill dam, for minimizing damage. The paper also claimed that a larger, better-built levee would have kept the "raging Elkhorn within its proper bounds." The *Journal* renewed its call a week later, urging the town to enlarge and

Figure 1. Floods in the Elkhorn Basin

Stream	County	Period of record (years)	Major Floods	Minor Floods
Elkhorn River	Holt	56	2	1
	Antelope	66	2	9
	Madison	66	2	16
	Stanton	66	3	17
	Cuming	66	5	15
	Dodge	66	4	9
	Washington	56	4	2
	Douglas	56	4	5
Sarpy	56	4	2	
Cedar Creek	Antelope	66	4	2
Giles Creek	Madison	38	7	2
Buffalo Creek	Madison	10	2	3
Battle Creek	Madison	35	3	9
North Fork	Pierce	56	9	7
Meskenthine Creek	Stanton	39	1	5
Union Creek	Madison	35	3	3
	Stanton	35	3	3
Humbug Creek	Wayne	31	0	2
	Stanton	31	2	3
Plum Creek	Wayne	35	2	4
	Cuming	35	4	3
Pebble Creek	Dodge	66	1	7
Logan Creek	Cedar	66	0	2
	Dixon	66	1	3
	Wayne	66	1	8
	Thurston	66	2	6
	Cuming	66	1	4
	Burt	66	2	6
	Dodge	66	3	4
Maple Creek	Dodge	66	1	3
East Fork (Maple Creek)	Colfax	66	1	4
Middle Fork (Maple Creek)	Colfax	66	1	3
Rawhide Creek	Dodge	66	1	9
Bell Creek	Washington	66	1	0

Source: *Elkhorn River and Tributaries, Nebraska*, 81st Cong., 1st sess., H. Doc. 215 (Washington D.C.: GPO, 1949), 18.

strengthen the levee to prevent future flood damage.¹¹

West Point residents suffered again in 1891 when summer floods inundated the village. At about 3 P.M. on June 24 lightning ripped Cuming County's summer sky. Thunder rumbled over the horizon as sheets of water fell for five hours from a storm that dumped 7.3 inches of water on West Point and surrounding areas. Runoff transformed West Point's east-west streets into streams. Buggies, wagons, cultivators, mowers, lumber, and other flotsam and jetsam floated past downtown buildings toward the Elkhorn. The waters washed away the newly built gutters meant to channel them and unceremoniously dumped the gutter bricks in fields outside town. The flood also laid bare the pipes of West Point's waterworks. Only a few Main Street businesses escaped damage. Estimates put the city's loss at \$10,000; private losses in town at another \$10,000 to \$15,000; and county losses at an additional \$40,000.¹²

During the first decade of the twentieth century, the desire for flood control led people in several counties to form drainage districts—private, quasi-governmental organizations dedicated to improving drainage within their jurisdictions. One antiflood strategy was to “improve” the Elkhorn and its tributaries. So-called improvements consisted primarily of channel straightening without appreciable channel enlargement. On the lower Elkhorn in Dodge, Washington, Douglas, and Sarpy counties, the Elkhorn River Drainage District and the Elkhorn Valley Drainage District completed several such projects prior to 1912. According to an engineering report, the projects successfully drained the valley, but only during rains and floods of limited magnitude.¹³

Around 1910 the Western Sarpy County Drainage District dug a series of ditches to drain bottom lands just east and upstream from the Elkhorn's mouth near Gretna. Although this area normally lies outside the Elkhorn basin and drains east, ultimately into the Platte,

Elkhorn flood waters often wash into the area. About this time—sometime before 1911—several drainage districts modified Rawhide Creek, flowing through Colfax and Dodge counties, by constructing an extensive system of drainage ditches. However, when the districts dissolved, the ditches deteriorated from lack of maintenance. As the ditches and the Rawhide Creek channel filled with silt and debris, they ceased to function properly and caused an increase in the frequency of flooding experienced by adjacent lands.¹⁴ Although these projects succeeded when properly maintained, their neglect indicated the necessity of continual upkeep.

A severe flood in 1912 kept high water on the minds of basin residents. Melting snow contributed to the March-April flood of 1912, which washed out bridges in the valley and left oldtimers comparing it to the flood of 1881. At Stanton, centrally located in the basin, seventy-six inches of snow fell during the winter of 1911-12—more than double the thirty-inch annual average for the previous twenty years. March alone saw thirty-six inches of snow fall at Stanton. By March 25 ice still covered the Missouri River, and nearby residents expected serious flooding as warm weather melted snow and the icy crust on the rivers. Railroad officials, fearing for the well-being of their lines, met at Omaha to plan for the expected flood. They ordered dynamite distributed to explode river ice gorges and facilitate drainage.¹⁵

The expected flood materialized at Norfolk at 5 P.M. on Wednesday, March 27, when the North Fork, an Elkhorn tributary that joins the main river southeast of town, rose high enough to halt operations at the Norfolk mill. As had been the case historically, Norfolk's flood came as the North Fork overflowed north of town, flowed through the city, and rejoined its channel to the southeast. By 7 A.M. Thursday, flood warnings arrived from Pierce, a North Fork community upstream from Norfolk. Two hours later water covered the southeast section of the city, and by 10

A.M. people there were abandoning their homes for higher ground. Friday the waters crested eight to ten inches above the old mark recorded above the mill dam. Citizens armed with chalk congregated on the corner of Norfolk Avenue and Fourth Street to mark the height of the historic flood. As quickly as the flood materialized, it dissipated. At Clearwater, upstream from Neligh, the Elkhorn dropped four feet during the night of April 1-2.¹⁶

High water damaged structures in downtown Norfolk, washed out roads and railroads, and inundated farm land surrounding the city. Water undermined pavement in town and made jagged roller coasters of sidewalks. Flooding ruined goods stored in the basements of downtown businesses. Washed out railroads crippled train traffic to the south and east. Without freight service Norfolk's stores experienced shortages of meat, which sold out in several stores by Saturday night. Southwest of Norfolk the Elkhorn swelled to three-quarters of a mile wide and swamped farms. In one case it flooded a corral with as much as four feet of water.¹⁷

By the time of the 1912 flood, Norfolk's residents had made plans to respond. Twelve families in southeast Norfolk began collecting boats and wagons to seek higher ground within five minutes of a blast from the town's fire whistle—doubling as a flood warning device. As waters rose Thursday, laborers at the town's waterworks hustled to build a cofferdam that successfully protected the station's machinery and kept Norfolk supplied with potable water. Ironically, sewers engineered to drain water and waste from the town's buildings backed up, flooding a number of basements. With the sewer system disabled, wastewater from the electric light plant could not be disposed of, forcing the plant to shut down.

Reports of residents observing the rising waters from a dike and of waters streaming over a retaining wall indicate that the town had built structures to defend itself from freshets. Flood warnings

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Flooded rural road near Beemer.
(NSHS-C969:2-9)

from upstream gave entrepreneurs most of the day Thursday to move inventory from flood prone basements, thus averting costly losses. In other defensive or adaptive responses, Norfolk's residents turned to footwear and watercraft. One shoe dealer sold out a \$200 stock of boots Friday morning, restocked, and sold out again before noon. Businesses that normally delivered goods to customers by wagon resorted to using boats as delivery vehicles.¹⁸

Water from tributaries further swelled the lower Elkhorn. From the courthouse tower in West Point, the valley looked like a sea with islands of high land dotting the waterscape. The flood rendered all of Dodge County's "important" bridges inoperable, an estimated



Flooding in Beemer, Nebraska, about 1917. (NSHS-C969:2-9)

\$125,000 loss. Neighboring Cuming County also lost several small bridges and culverts, but the *Republican* claimed they were not significant. Water washed away the approaches to the river bridge at West Point, but again, the paper reported the damage as "not heavy." West Point lost its mill dam, a significant blow because the mill powered the pump for the town's waterworks.¹⁹

The *Republican's* report also underscored the significance of human changes to the basin's landscape. The paper argued that while the 1881 floodwaters likely reached farther into town, there were fewer sidewalks and other embankments to impede its progress. This, however, contradicts modern interpretations, which argue that structures in the floodway increase the severity of flooding.²⁰ Such misconceptions of flood mechanics mark human responses through much of history.

By 1912 inhabitants of the Elkhorn basin obviously had taken action to minimize the effects of flooding. By placing property of value in the flood plain, residents were motivated to try to control the river and also left themselves more vulnerable to its mercurial nature.

Between 1910 and 1920 flood fighters adopted an even more aggressive strategy. Around 1914 workers dredged the Elkhorn's final twenty miles, creating a channel combining segments of both old and new channels. The length and gradient of the natural channel can no longer be determined exactly. Subsequently, an entirely new channel was created for nearly all of Logan Creek, which flows almost due south from the vicinity of the Cedar-Dixon county line to its mouth near Winslow in east central Dodge County. Work began sometime before 1917 and continued sporadically until completion about 1926. The new Logan Creek ran about seventy miles, less than one-half its original 150-mile length. Several drainage districts participated in the project under a well-coordinated plan that brought relief through reduced severity and frequency

Figure 2. Floods, Droughts, and River Modifications In the Elkhorn Basin to 1944

Approximate Date	Event	Comments
August 12-13, 1823	Flood	Paul Wilhelm, Duke of Württemberg, makes first record of flood on Elkhorn; thunderstorm primary cause of flooding
Spring (March?) 1857	Flood	West Point founders hampered reaching town site
April-June 1873	Flood	Neligh, Norfolk, West Point; spring snows contributed to flooding
March-April 1881	Flood	Norfolk to Waterloo, damage as far upstream as Neligh; ice gorges contribute to flooding
1887	Drought	Nine-year dry spell begins
May 28-29, 1888	Flood	Holt County downstream to at least Norfolk
June 24 & July 23, 1891	Flood	Rainstorms create two separate floods at West Point
1896	Normal precipitation	Nine-year drought ends
Late 1900s	Organizations formed to combat flooding	Quasi-governmental drainage districts formed to modify streams in hopes of cutting flood losses
ca. 1917-ca. 1926	Logan Creek project	Several drainage districts combine resources to straighten the creek's channel. Resulting work cuts creek's length to less than half its original distance.
March 27-29 to early April 1912	Flood	Norfolk to Dodge County; ice jams, snow-melt clog river
March 1917	Flood	High water record set at Norfolk, runoff from melting snow and rain contributes to flood
May 28-29 to June 5, 1917	Flood	O'Neill to Gretna; Norfolk suffers damage comparable to 1912; heavy rains contribute to flood
April 20-26, 1920	Flood	Inman to West Point
1920s	Pebble Creek modifications	Pilger-area residents dig a new channel and build system of levees
1924	Drought; Norfolk Sanitary District formed	Three-year dry spell begins; Sanitary District undertakes improvements to North Fork at Norfolk
1927	Normal precipitation	Three-year drought ends
1934	Drought	Eight-year drought begins
1935	Dam built on North Fork at Plerce	W.P.A. laborers build dam
1936	Flood control structure installed at Norfolk mill dam	Installed by Norfolk Sanitary District
June 2, 1940	Flood	Basinwide; flood most damaging to date
1941	Normal precipitation	Eight-year drought ends
May 12-15, 1944 June 11-13, 1944	Flood	Basinwide; flood of record for Elkhorn and its tributaries

Elkhorn Basin

of flooding. According to the Army Corps of Engineers, this intensive, comprehensive, offensive approach to manipulating a waterway paid dividends in the form of reduced flood damages.²¹

The Elkhorn's main stem, however, received no such treatment and soon wrought more destruction on property in its flood plain. Norfolk felt a pair of floods in 1917. The first, in March, came when runoff from melting snow overwhelmed the capacity of local streams and sent flood waters to their highest mark yet in Norfolk. After the March flood, which surrounded a number of homes, disrupted commerce, and caused three deaths, Norfolk's city council assumed responsibility for flood control in town and, according to a newspaper report, began developing flood control plans.²²

Two months later, heavy rains in late May caused widespread flooding, including rare flooding on the Elkhorn as far upstream as O'Neill. Reports of high water on the North Fork at Pierce reached Norfolk on Saturday, May 26, prompting the mill operators at Norfolk to lower the gates of the mill dam to allow the maximum amount of water to escape downstream. In O'Neill the Elkhorn washed out one bridge and submerged another. Farther downstream at Neligh, the Elkhorn rose to record heights and breached the dike between the upper and lower mill dams in two places, each one hundred feet wide. South of town the river covered roads and flooded Riverside Park.²³

By Tuesday, May 29, the flood's crest reached the Norfolk vicinity, where farmers west and upstream of town awoke to find low-lying pastures submerged. Boys in the area made the best of the flood by scooping up fish that had been washed into the pastures. By this time the flood danger on the North Fork had passed and the Elkhorn's rise appeared to have slowed.²⁴

That appearance proved deceiving, however, as the river continued to rise at Norfolk through Wednesday morning, thanks to additional rain. Although ob-



A 1920 flood washed out the approach to the Elkhorn Bridge at Tilden. (NSHS-M182:6-11)

servers reported that the Elkhorn had reached lands never before affected by floods and covered considerable farm land west of Norfolk, it had not yet risen high enough to disrupt railroad traffic.²⁵

Elkhorn basin residents got a three-year reprieve from major flooding until two weeks of April rain in 1920, coupled with several feet of snow that had fallen earlier in the upper basin, prompted the *Republican* to lament in a headline, "Waters Cover the Earth." High water reached record heights at Inman—about fifteen miles downstream from O'Neill—on April 20, making roads impassable for miles. The Elkhorn swelled to two miles wide at Ewing. At Neligh, the river rose eighteen inches during the twenty-four hours between April 19 and 20. Around midnight, the Elkhorn destroyed the impoundment dam at the Neligh Mill, causing several thousand dollars worth of damage and ending the mill's reliance on direct hydro power. From then on, diesel-generated electricity would grind the mill's flour.²⁶

West Point received five inches of rain and about a foot of snow during April's final two weeks. This time the *Republican* proclaimed 1920 to be the banner flood year since 1891. As usual, the flood damaged several bridges, roads, sidewalks, and bottomland crops. Delays in train schedules and mail delivery resulted. Unlike previous floods, how-

ever, the spring 1920 flood involved channel modifications made the previous winter. A series of ripraps that had been built near the Elkhorn bridge at West Point diverted the channel, endangering the bridge's east end. Workers used dynamite to remove the obstructive ripraps from the channel.²⁷ Basin dwellers seemed to be learning by doing when it came to flood control and the implications of altering the flood plain.

Flood stories still dominated the front page of the *Norfolk Daily News* on April 26. Railroad bridges west of Norfolk, already weakened so that train traffic across them had been suspended, could no longer sustain even pedestrian traffic. Until then, trains apparently stopped at the bridges while passengers disembarked, walked across, and boarded another train. If the Elkhorn's swirling waters were not hazardous enough, uprooted trees and other debris carried by the swift current slammed into pilings, further weakening the structures. The flood also disrupted Norfolk's telecommunications; at least two telephone poles washed into the Elkhorn.²⁸

The Norfolk newspaper speculated on April 26 that the flood's crest had passed and downstream communities could soon expect to be inundated. Reports from Beemer and West Point that day both confirmed that flooding was

already underway. At West Point, the water reached its highest point since 1888, rushed down at least one of the town's streets, covered bottomland on the town's west end, and damaged surrounding farm land.²⁹

In a rare occurrence, the 1920 flood claimed a human life. After changing channels, the Elkhorn washed out the approach to the bridge at Tilden. To ferry people and supplies across the river, residents had strung a cable—with a boat attached—across the river. C. A. Davis, who lived seven miles north of Tilden, and another man tried to reach Tilden using the ferry, but the boat capsized. Davis's companion swam to safety, but the cold current swept Davis to his death.³⁰

At Norfolk, a channel change left thirty people stranded on a 160-acre island nestled between the new channel and water flowing through the old channel. The "victims" relied on boats to bring supplies from the mainland as they ran low on food. According to a *Norfolk Daily News* report, the new channel that stranded the thirty cut across a corn field from which it had been diverted for years by a dike.³¹ Human interference with the river kept it from its natural course and seemingly lulled inhabitants into a false sense of security that led them to build in an area rightfully belonging to the river—an area the river reclaimed during the 1920 flood.

Elkhorn bridges were reinforced against the effects of future floods. In Holt County, a new steel and concrete bridge was built across the river south of O'Neill. In addition, a bridge spanning an overflow channel was built. Finally, workers raised the road grade by two feet through the river bottoms. Similar bridges spanned the South Fork and Dry Creek, two Elkhorn tributaries.³²

Weeks later, in June 1920, landowners proposed an Elkhorn drainage district to undertake channel modifications and other measures to control the river. Opponents of the project wrote to the *West Point Republican* that the project

was too costly and that the unstable nature of the riverbed's soil made the project impractical. "It is generally known that a fallen tree in the stream is enough to so divert its flow as to form a new and different channel at that point, of such unstable character and nature are its banks and the lands tributary," they wrote. They also argued, "It does not logically follow that because of the unusually high water of this season, the highest of many years, that the same will recur every year hereafter."³³ They were right, of course, but a series of even worse floods twenty years later may have left them wishing they had supported the project.

It took Norfolk-area residents until 1924 to organize the Norfolk Sanitary District. It did not, however, take the district's organizers long to modify the North Fork of the Elkhorn to curb its destructive floods. From the mill dam at Norfolk to the North Fork's confluence with the Elkhorn, the district straightened and cleaned the channel and built several bridges. In 1936 the district built a flood control structure at the dam, which allowed operators to control the flow of water, to a certain extent, past the obstruction. In 1935 Works Progress Administration laborers finished a dam on the North Fork at the city of Pierce to form a small lake for recreational use and minor flood control.³⁴

Farther downstream, other communities tried to protect themselves from flooding through a variety of measures. During the 1920s Pilger area workers dug a new channel for Humbug Creek and built a system of levees along the lower three miles of the creek to protect Pilger and nearby farm land. Pebble Creek, which flows southeasterly through southern Cuming and northern Dodge counties, lost several sharp bends (dates of the work are unclear) when the banks were cut through to straighten the stream. Improvements also included a system of small levees. However, because individual landowners made these modifications piecemeal, they were reportedly only effective

in combating minor floods.³⁵

Despite such wide-ranging attempts to curb flooding along the Elkhorn and its tributaries, the 1940s brought two of the most devastating floods in history. During the night of Monday, June 1, 1940, cloudbursts dumped a foot or more of rain in the north-central basin swelling the North Fork. But Norfolk's citizens did not fear a North Fork flood because of the spillway channel straightening project built by the Norfolk Sanitary District in the 1920s and 1930s. The Elkhorn was a different matter. Just upstream from Norfolk, farmers reported a four-foot rise between 6 A.M. and 8 A.M. on June 2. Although it was on the storm's fringe and received only 1.08 inches of rain, the Elkhorn made a similar rapid rise Tuesday morning at West Point. Witnesses considered it "unbelievable that such a catastrophe that completely inundated all property in less than a half hour could happen."³⁶

At Pilger, high waters disrupted water and electrical service, leaving the town without power for more than ten hours during the night of the storm. Turbulent waters rushing through Humbug Creek to the Elkhorn churned through the earthen levees built during the 1920s.³⁷ Again, bridge damage threw railroad schedules behind for a week or more after the flood. Most damage to the Chicago and North Western Railway lines came between Norfolk and West Point, where a bridge sustained damage and several bridge approaches and about four miles of track were washed out, some of it carried a quarter of a mile downstream. The next day the Chicago and North Western reported thirty-five miles of track washed out in the West Point-Stanton area, and the Union Pacific closed its mainline traffic to Norfolk, West Point, Beemer, Pilger, Wisner, and Stanton were without rail service for at least ten days according to estimates. The flood also disrupted telephone service, leaving residents of West Point and Pender to communicate via short wave radio.³⁸

Like a wave, the crest of the flood

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Constructing a dike at the Pierce Dam, 1935. (NSHS-F293-2559)

rolled down the valley. By Wednesday morning the crest had passed Stanton, allowing residents there to begin assessing the damage. Mud and silt buried the corn crop, which would have to be replanted as soon as the soil dried, and covered pastures and grain fields. Highway traffic returned to near-normal in the Norfolk area by Wednesday afternoon, but washouts left some sections closed. The Nebraska Department of Roads warned motorists using Highway 275, the main route between Norfolk and Omaha, to beware of flooding as the crest moved toward West Point. When the flood swept over the highway, it deposited trees and other debris that effectively blocked the highway from 1 A.M. to 4 A.M. Thursday. Traffic returned to nearly normal by 8:30.³⁹

Even before the flood crested in West Point, rising water forced families to evacuate their homes or seek assistance. Some found food and shelter in a local church converted into the Red Cross relief headquarters. The hatchery at West Point lost more than 1,200 chickens and two tons of feed. Water in parts of the city reached higher levels than that of the 1912 flood, and the city lacked mail service from Monday until at least Thursday.⁴⁰

Despite these damages, West Point

went on with its eightieth birthday celebration while under warning that the flood's crest, which would peak at thirteen feet above normal, was expected to arrive sometime Thursday during the celebration. *The Norfolk Daily News* even reported that "no great trouble is anticipated" from the crest.⁴¹

Just as residents of the upper basin may have thought their flood adventures were ending on Wednesday and Thursday, a second storm hit Norfolk and areas east and south of Pilger. Downstream, counties near the Elkhorn's mouth began to feel the effects of the heavy rains. At Winslow and Nickerson, where Logan and Maple creeks, respectively, empty into the Elkhorn, water covered "great stretches" of farm land. In Dodge County Logan Creek and the Elkhorn overran their banks to flood an estimated sixty farms. Arlington in Washington County reported its highest water since the ice gorge of 1912. The Elkhorn left its banks in three places near Gretna on Thursday morning.⁴²

The renewed rains and flooding complicated the basin's already crippled transportation system. The Chicago and North Western, forced to reroute its Black Hills traffic from the washed out West Point-Norfolk section to its

Oakdale branch line, suffered a washout and wreck on the branch line early on the morning of June 6, injuring four people. As late as Saturday, June 8, reports from Scribner indicated the Elkhorn was still rising.⁴³

Responses to the 1940 flood, seemingly the worst to date, were among the most comprehensive. Representatives from the University of Nebraska's agricultural college visited flood-worn northeast Nebraska to assist county extension agents in advising farmers how to limit their crop losses. Their suggestions centered around replanting flood-damaged corn, sorghum, and forage crops with early-maturing varieties. Replanting, however, required the Agricultural Adjustment Administration to modify its regulations governing crop allotments. The Red Cross provided serum for typhus vaccinations and supervised the dispersal of lime and other fumigating agents used on the town after the flood receded.⁴⁴

Throughout the basin crews began repairing roads and bridges. Cuming County alone suffered an estimated \$200,000 damage to public facilities, more than \$100,000 from damages to roads and bridges. The Board of Supervisors of Cuming County called an emergency meeting on June 7 to explore



West Point, Nebraska, during one of the frequent Elkhorn floods. Courtesy of author.

sources of federal aid and requested \$100,000 to offset repairs to bridges and roads. Within two weeks of the flood, Works Progress Administration laborers repaired twenty-five bridges in Cuming County. In more unsavory work, they removed about eighty-five tons of debris from West Point's streets and buried rotting carcasses of drowned animals.⁴⁵

Railroad workers took two weeks to make temporary repairs to the Chicago and North Western line that allowed the railway to function while permanent repairs were underway. On July 2, the county supervisors spent \$5,463 from the Emergency Bridge Fund for further repairs. By August it had become apparent that the damage to Cuming County's bridges would exceed the amount budgeted for repairs, and the supervisors raised the Emergency Bridge Fund levy for 1940 from .0125 mills to .224 mills—nearly an eighteen-fold increase. Although the supervisors dropped the levy the following year, they lowered it only to .13 mills, perhaps indicating they had learned a lesson from the 1940 flood, that they were still paying for its damages, or both.⁴⁶

One 1940 response foreshadowed responses to the next serious floods. A representative of the U.S. Department of Agriculture visited the West Point Community Club's regular July meeting to gather information about damages incurred in the flood. The information was turned over to government engineers to help them formulate plans to avoid similar flood problems in the future. The engineers, however, apparently did not use the information, because a similar meeting four years later collected the same type of information for the same purpose and found its way into a report by the Army Corps of Engineers.⁴⁷

Through the first ninety years of permanent settlement in the Elkhorn basin, floods assumed increasing importance to its residents and elicited increasingly complex responses. In 1857 high waters merely impeded West Point's founders in their travels to the townsite. Early settlers had little choice other than to bear the flood's frustrations and wait for the water to recede. But as soon as they, and other town founders, built in the valley, especially in the flood plain,

floods became increasingly devastating. Accordingly, inhabitants began taking steps to safeguard their property, mainly the buildings that made up their towns. Initially, these efforts assumed a defensive character—dikes, levees, and floodways to halt rising water and divert it from buildings and farm land. Over time, flood protection efforts assumed an offensive character—altering the river, usually through straightening or otherwise "improving" its channel, to prevent flooding in a particular locale.

Examining the response to floods also casts light on human nature and the American political system. The 1940 flood clearly showed Elkhorn basin residents their continued vulnerability to flooding. Yet hardly any of them attended a hearing to assess flood damages and discuss projects to prevent or minimize future floods. A scant four years later, nature and the Elkhorn would twice send floodwaters, the highest and most destructive yet, onto the flood plain. Those floods would draw serious attention and deserve their own story.

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Notes

¹ "Flood Bill at \$16.6 Million," *Lincoln Journal*, Mar. 24, 1993.

² Paul Wilhelm, Duke of Württemberg, *Travels in North America, 1822-1824*, trans. W. Robert Nitske, ed. Savole Lottinville (Norman: University of Oklahoma Press, 1973), 334-5.

³ Frank Schmitt, "A Pioneer Nebraska Community," *Nebraska History* 18 (April-June, 1937): 80.

⁴ *West Point Republican*, May 29, June 5, 1873.

⁵ *Ibid.*, June 12, 19, 1873. Flood damage reports in newspapers of this era should be read carefully and critically.

⁶ *Fremont Weekly Herald*, Mar. 31, 1881; "The Flood," *West Point Republican*, Mar. 31, 1881. On Missouri River flooding see John E. Carter, "Niobrara, Nebraska: The Town Too Tough to Stay Put!," *Nebraska History* 72 (Fall 1991): 144-49.

⁷ *Fremont Weekly Herald*, Apr. 21, 1881.

⁸ *Ibid.*, Mar. 31, 1881; "The Flood," *West Point Republican*, Mar. 31, 1881.

⁹ "The Freshet," *Neligh Leader*, June 1, 1888; *ibid.*, June 8, 1888. Collections of lower basin newspapers are incomplete for May 1888; thus the discussion is limited to the upper basin.

¹⁰ "Raging Waters," *Norfolk Daily News*, May 29, 1888; "The Booming North Fork," *ibid.*, May 30, 1888; *ibid.*, May 31, 1888; *Norfolk Journal*, May 31, 1888; "The Flood," *ibid.*

¹¹ *Neligh Leader*, June 1, 7, 1888; "The Flood," *Norfolk Journal*, May 31, 1888; *ibid.*, June 7, 1888.

¹² *Cuming County Advertiser*, June 30, 1891.

¹³ U.S. Army Corps of Engineers, Omaha District, *Review Report on Improvement for Flood Control and Allied Purposes, Elkhorn River and its Tributaries, Nebraska* (Omaha: U.S. War Department, 1947), 44.

¹⁴ *Ibid.*, 44-46.

¹⁵ "Expected Flood Arrives," *West Point Republican and Cuming County Advertiser*, Apr. 5, 1912; "High Water," *ibid.*, Apr. 12, 1912; "Rivers are Rising Fast," and "The Winter of Big Snows," *Norfolk Daily News*, Mar. 25, 1912.

¹⁶ U.S. Engineer Office, *Interim Report on Flood Control for the City of Norfolk, Elkhorn River Basin, Nebraska* (Omaha: U.S. Engineer Office, 1946), 26; "Again Out of Water," *The Norfolk Daily News*, Apr. 1, 1912; "The Elkhorn is Falling," *ibid.*, Apr. 2, 1912.

¹⁷ "Again Out of Water," *Norfolk Daily News*, Apr. 1, 1912.

¹⁸ "Elkhorn Bridge Damaged," *West Point Republican and Cuming County Advertiser*, Apr. 12, 1912.

¹⁹ "Expected Flood Arrives," *ibid.*, Apr. 5, 1912.

²⁰ *Ibid.* Brian P. Dunnigan, Head, Flood Plain

Management, State of Nebraska Natural Resources Department, interview with the author, Lincoln, Feb. 11, 1992.

²¹ U.S. Army Corps of Engineers, Omaha District, *Review Report*, 46; Ray Bentall et al., *Water Supplies and the Land: The Elkhorn River Basin of Nebraska* (Lincoln: University of Nebraska, 1971), 19.

²² "Floods Follow Torrential Rain," *Norfolk Daily News*, May 28, 1917.

²³ *Ibid.*

²⁴ "Near Death at Battle Creek in Flooded River," *ibid.*, May 29, 1917.

²⁵ "Elkhorn Flood Covers Fields, Damages Crops," *ibid.*, May 30, 1917.

²⁶ "Waters Cover the Earth," *West Point Republican*, Apr. 30, 1920; "Damage by Flood Feared as River Overflows Bank," *Norfolk Daily News*, Apr. 20, 1920; Kent E. Martin, *Neligh Mill Museum, Neligh, Nebraska: A Self-Guided Tour* (Lincoln: Nebraska State Historical Society, n.d.), 26.

²⁷ "Waters Cover the Earth," *West Point Republican*, Apr. 30, 1920.

²⁸ "Flood Undermines Three Spans of Bridge. Cuts Off Train Service with West," *Norfolk Daily News*, Apr. 26, 1920.

²⁹ "Stores at Beemer Invaded by Flood," *ibid.*

³⁰ "Tilden Man Drowned in Flooded Elkhorn," *ibid.*, Apr. 29, 1920.

³¹ "30 Marooned as River Flood Forms Island," *ibid.*, Apr. 30, 1920.

³² "Highway Through Holl Being Made Safe From Flood," *ibid.*, May 7, 1920.

³³ "The Proposed Elkhorn Drainage District," *West Point Republican*, June 25, 1920.

³⁴ U.S. Army Corps of Engineers, Omaha District, *Review Report*, 45-46.

³⁵ *Ibid.*

³⁶ "Water Rising at Pierce; Madison, Battle Creek Hit," "Spillway Helps Prevent Flood in This City," *Norfolk Daily News*, June 4, 1940; "Worst Flood in History Inundates Much of Cuming County," *West Point Republican*, June 6, 1940.

³⁷ "Two Dead, 6 Missing in Flood," *Fremont Daily Tribune*, June 4, 1940. U.S. Army Corps of Engineers, Omaha District, *Review Report*, 45-46.

³⁸ "Railroad Service on Regular Schedule," "Emergency Work Opens Bridges," *West Point Republican*, June 20, 1940; "Farmland in County Flooded," *Fremont Daily Tribune*, June 5, 1940; "Water Rising at Pierce; Madison, Battle Creek Hit"; "Many Towns Are Lacking Rail Service," *Norfolk Daily News*, June 4, 5, 1940.

³⁹ "Farmers Find Flood Damage is Tremendous," *Norfolk Daily News*, June 5, 1940. "Pilger Flooded," *ibid.*, June 6, 1940.

⁴⁰ "Red Cross Closes Emergency Relief Station,"

West Point Republican, June 13, 1940; "150 Homeless in West Point Region," *Fremont Daily Tribune*, June 5, 1940. These accounts disagree on the number of people receiving aid from the Red Cross. "Red Cross Opens Local Relief Headquarters," "Worst Flood in History Inundates Much of Cuming County," *West Point Republican*, June 6, 1940.

⁴¹ "3 Inches More Rain Adding to Flood Worries," *Norfolk Daily News*, June 6, 1940; "Worst Flood in History Inundates Much of Cuming County," *West Point Republican*, June 6, 1940.

⁴² "3 Inches More Rain Adding to Flood Worries," *Norfolk Daily News*, June 6, 1940; "New Floods Threaten Pilger, Wisner," *Fremont Daily Tribune*, June 6, 1940.

⁴³ "Pilger Flooded"; "Waters Are High in Scribner Vicinity," *Norfolk Daily News*, June 8, 1940.

⁴⁴ "Experts Advise Crops for Area of Flood," *Fremont Daily Tribune*, June 6, 1940. "AAA Regulations Are Modified," *ibid.*, June 7, 1940; "Red Cross Opens Local Relief Headquarters," *West Point Republican*, June 6, 1940.

⁴⁵ "Board Seeks Bridge Repair Funds," *West Point Republican*, June 13, 1940. Cuming County, Nebraska, Board of Supervisors County *Board Proceedings*, June 7, 1940, 7:457-58. "Emergency Work Opens Bridges," *West Point Republican*, June 20, 1940.

⁴⁶ "Railroad Service on Regular Schedule," *West Point Republican*, June 20, 1940. Cuming County, Nebraska, Board of Supervisors, July 2, 1940, 7:459; Aug. 12, 1940, 7:475; Aug. 19, 1941, 8:53.

⁴⁷ "Ag Official Points to Flood Control Work," *West Point Republican*, July 11, 1940.