

HYDROGRAPHIC REPORT
OF STATE ENGINEER

—
NEBRASKA

—
1914

—
PRICE

**HYDROGRAPHIC REPORT OF
NEBRASKA**

APPENDIX TO

TENTH BIENNIAL REPORT

**The State Board of Irrigation,
Highways and Drainage**

TO

THE GOVERNOR OF NEBRASKA

1914

**THE WOODRUFF PRESS
LINCOLN, NEB.**

**OFFICE OF THE STATE BOARD OF IRRIGATION, HIGHWAYS
AND DRAINAGE**

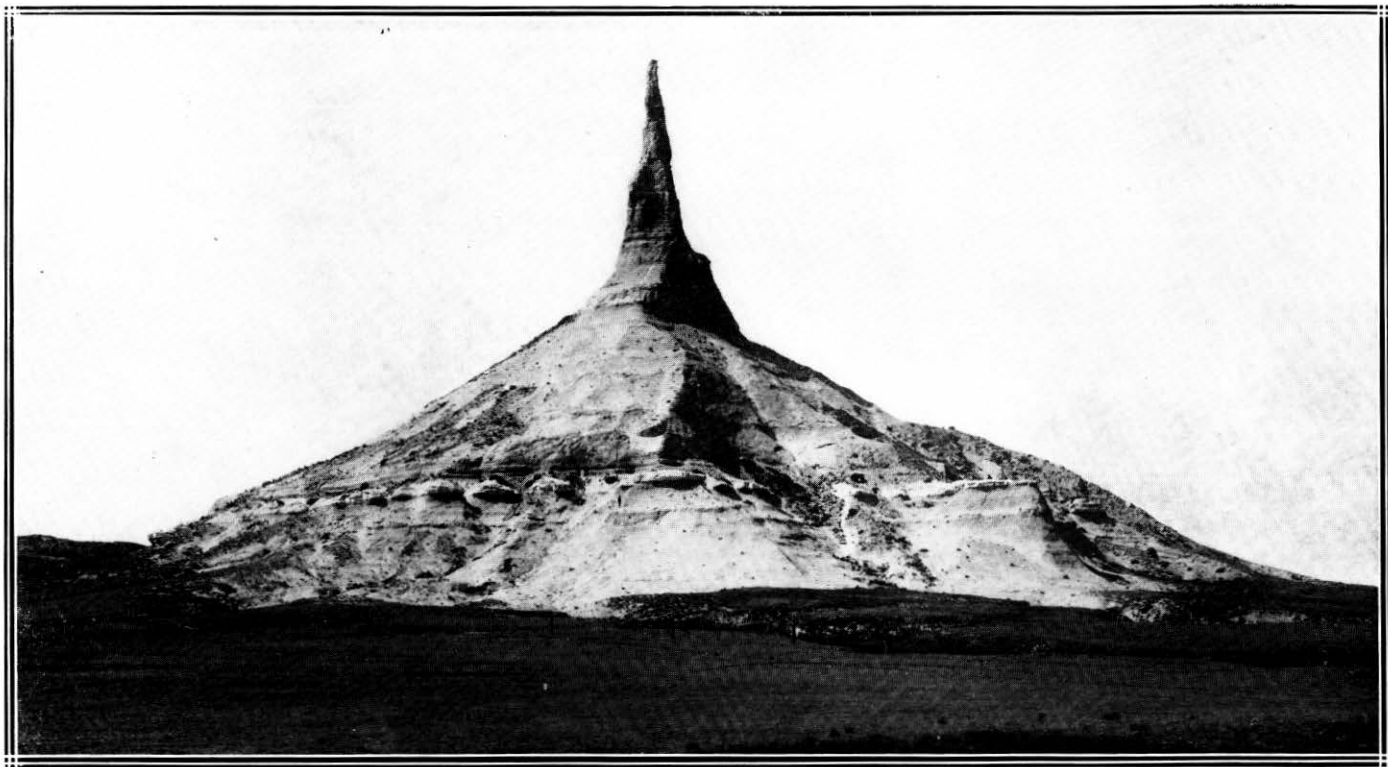
To His Excellency, John H. Morehead, Governor of Nebraska:

SIR: I have the honor to submit to you herewith the following Hydrographic Report of Nebraska, as an Appendix to the Tenth Biennial Report of the State Board of Irrigation, Highways and Drainage.

Very respectfully yours,

DONALD D. PRICE,
State Engineer.

Lincoln, Nebraska
September 30, 1914



Chimney Rock, Scotts Bluff County, Nebraska

**LIST OF OFFICERS, HYDROGRAPHERS AND RIVER OBSERVERS
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DRAINAGE, STATE OF NEBRASKA**

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INTRODUCTION

Purpose of Publication. Following the creation of the State Board of Irrigation in 1895, authority was given the State Engineer, Secretary of the Board, to make discharge measurements of certain streams in the state. The law giving this authority is as follows:

“MEASUREMENT OF WATER IN STREAMS: It shall be the duty of the secretary of the board to measure, or cause to be measured, the quantity of water flowing in the several streams in the state and to make a record thereof in the office of the board; and he shall from time to time make such additional measurements as may be necessary, or cause the same to be made for the information of such board in considering applications for water appropriations and such controversies as may arise regarding the distribution of water. (Cobbey's Annotated Statutes 1911, Section 6796.)”

Up to the present time only summaries of stream discharge measurements have been published in the Biennial Reports of the State Board of Irrigation. Complete records may be found in the various publications of the United States Geological Survey, but owing to the great importance of these records they have here been incorporated into a single volume which it is thought will be of great value to water appropriators in this state.

Co-operation. The great amount of work and expense represented by these investigations has been made possible only by a system of co-operation with the United States Geological Survey. Daily estimates of discharge have been made by that department from actual measurements and gage heights furnished by this office.

Certain differences will be observed in the summaries contained in this volume and those heretofore published in the Biennial Reports. These variations are due to a thorough revision and check with the computations of the United States Geological Survey. Various water supply papers published by them have aided greatly in compiling these records.

During the past season the State Engineer of Colorado has united with this office and the United States Geological Survey in making measurements on the South Platte River at Julesburg, Colorado.

The United States Reclamation Service has furnished estimates of discharge made by them at Pathfinder and Whalen on the North Platte project in Wyoming.

It has been possible in many cases to co-operate with individuals who have furnished daily gage heights and, in some instances, part of the expense of making discharge measurements.

Acknowledgement. In collecting material for the descriptive part of this work, various sketches on the physical characteristics of Nebraska have been used as references, among which are: Geography of Nebraska by G. E. Condra, Report of State Geologist by Prof. E. H. Barbour, and Water Supply Papers of the United States Geological Survey, Nos. 230 and 216.

SURFACE WATER RESOURCES OF NEBRASKA

Physical Characteristics. Nebraska as a whole represents a more or less level plain carved in some places into a very rolling surface by the different drainage systems. From a topographic standpoint the state is divided into four regions. The largest of these is the loess region, which comprises more than one-half of the state, lying in the southeast and extending to Colorado in the southwest. Comparatively unbroken by abrupt changes in elevation this portion of the state is characterized by its broad gently sloping plains with only an occasional knoll or depression. There is, however, in many portions, especially in the east, areas which have assumed a very hilly nature, the result of years of erosion. Flood plains of very different character from the surrounding country have been built up in various river basins.

The soil in many places has been cut through and rock formations have been uncovered. Drainage basins in the loess region are well defined and tributaries numerous.

The Sand Hill region is not so well defined in extent and area as the Loess region, but, with the exception of a few areas detached from the main region, its general location lies across the central and west central portion of the state from northeast to southwest. The topography of this region is characterized by shifting dunes of wind blown sands, but in many portions the surface has become grass grown and a more permanent nature given to the soil. Basins in dry valleys abound over a large portion of the region and some of these being filled with water form many lakes and wet weather ponds. Unlike the drainage basins in the Loess region, the tributaries in the Sand Hills are few in number and banks of the streams are poorly defined.

The vegetation of this section consists principally of various grasses of the hard stem and hard leaf variety. Sharp yucca and the small cactus are found in some portions. Shrubs, such as the wild rose, dog wood and grease wood, and a small amount of sage brush, are widely scattered. Along the few streams cottonwoods, box-elders, species of ash and a few cedars and pines are to be found, which extend small distances into the hills.

The High Plains region, characterized by its light colored soil, extends to the western edges of the two regions just described. For the most part its surface is smooth, but in many portions rough lands and buttes are found. This region like the Loess has had its level surface cut up in many places by the action of winds and water. The stream basins in this section are cut down to great depths, forming high bluffs and deep canyons. In this area may be found the highest altitudes in the state. The table land in the southwestern portion of Banner county rises to an elevation of 5,300 feet, while Pine Ridge in the northwestern part of the state in Sioux, Dawes and Sheridan counties and Wild Cat Range, which lies between the North Platte and Pumpkin Seed valleys, are other instances of the high altitudes in the state. The latter range is a spur terminating in Wild Cat and Hog Back mountains, which are 5,034 and 5,082 feet in height respectively.

The vegetation is somewhat similar to the Sand Hill region, consisting of several kinds of low grasses, the small cactus and various shrubs. Willows and cottonwoods are found along the streams while pines and cedars are found on the ridges.



RELIEF MAP OF NEBRASKA SHOWING LEVEL PRAIRIE, VALLEYS, SAND HILLS, BAD LANDS, AND TABLE LANDS. THE DARK BACKGROUND REPRESENTS SEA LEVEL.
BY N. H. DARTON, UNITED STATES GEOLOGICAL SURVEY

The Bad Lands occupy only a small area in Nebraska, comprising about one thousand square miles lying north of Pine Ridge in the White river and Hat creek basins. This region is characterized by its barren waste of buff, gray, shaley clays, termed the Brule clay. Under this formation, which is about five hundred feet thick, lies a more sandy material, containing considerable sand and gravel giving it a more resistant nature than the overburden. This layer, of a thickness varying from twenty-five to one hundred feet, is called the Chadron formation. This country has been eroded into a very irregular surface, the underlying formation giving shapes peculiar to this region alone. Vegetation is very scant and only on the very gradual slopes is the grass able to gain a footing. Shrubs are found along the few streams.

Drainage Systems. Just as the nature of the regions that have been described owe their general topographic features, to a large extent, to the flow of water from them, the drainage systems themselves have derived their characteristics from the nature of the regions. Nebraska lies in the heart of the Missouri river drainage basin, entirely to the west and southwest of that river. The direction of the flow of the various streams has been determined by the general slope of the country which they drain. The general slope of the state is to the east, while the northern part has a tendency toward the northeast and the southern portion to the southeast.

The area drained by the Missouri river proper, not taking into account large tributaries which will be explained in detail, is small. The economic value or importance of this river is not for power or irrigation but in its geologic importance, in so far as it has unearthed many valuable building materials during its process of erosion. The importance of this river in the early development of the state cannot be overlooked as it formed the principal highway for the early settlers. The rapidly shifting sandbars in its course account for the small extent to which navigation has been practised. The fall of the river is less than one foot per mile along that portion adjacent to Nebraska.

WHITE RIVER AND HAT CREEK

Carved out of the Bad Lands previously described are the tributaries of Hat creek which flows directly north leaving the state in the northern part of Sioux county, eventually reaching the Missouri river by way of Cheyenne river. The many tributaries are for the most part dry, but the small flow is utilized, in a number of instances, by the construction of dams for the storage of water for irrigation.

White river has its source in Pine Ridge, flows northeast, enters South Dakota from northeastern Dawes county and joins the Missouri about fifty miles north of the northern boundary of Nebraska. Within this state the river is small but the entire flow is beneficially used for irrigation and the watering of stock. A remarkable feature is the tremendous fall, which for some distance from the source is more than fifty feet per mile.

NIORRARA RIVER

The source of the Niobrara river is in the high table lands in eastern Wyoming. It flows across the western boundary of Sioux county about thirty

miles from the northwestern corner of the state and follows a generally eastward course across the state and is received by the Missouri river in the northern part of Knox county. In the western part of the state the stream is small, gradually increasing in size as it receives the water from a number of small tributaries along its course.

Where it enters a canyon in the western part of Cherry county the average width is about two hundred fifty feet. The river remains in this canyon through Cherry county and along the southern boundary of Keya Paha county and the northern boundary of Brown and Rock counties. In the eastern part of Keya Paha county the valley broadens and the bluffs recede a considerable distance from the water's edge. From here to the mouth, the river flows in a wider valley, bordered by rolling hills which occasionally draw in toward the water's edge from each side giving suitable sites for power development.

This portion of the valley is underlaid by Pierre clay which comes to the surface in many places and gives rise to steep slopes. For the most part the clay is covered with tertiary sands and other formations brought down by the river. Near its mouth the river turns abruptly north and exposes high bluffs of Niobrara chalk rock on its west bank.

Tributaries in the western part of the state are comparatively few in number among which may be mentioned Whistle creek in Sioux county, Rush creek in Sheridan county and Antelope creek, which has its source and flows a short distance in Cherry county. In Cherry county the tributaries on the south become important and greater in number. Snake river, Plum, Long Pine, Eagle and Red Bird creeks, Vertigree river and several small tributaries enter the south side of the river, while Minnechaduza creek and Keya Paha river are the principal tributaries from the north. These tributaries have a very constant flow and are capable of some power development.

A striking feature of the whole valley is its narrowness. The larger tributaries run for a great part of their length in a more or less parallel direction with the main stream. Drainage from the Platte river starts a few miles south of the river while the tributaries from the Missouri river pick up the runoff a short distance to the north. For about fifty miles in the lower course its valley extends little over a mile to the north. A divide sends the drainage from this portion into Ponca creek which parallels the river to the Missouri.

Through the greater part of the river valley trees are scarce, a few evergreens being scattered along the sides of the steep slopes. There are sections, however, where the natural timber is abundant, an instance being along the river and its tributaries in Brown, Rock and Holt counties.

PLATTE RIVER SYSTEM

The Platte river is formed by the junction of the North and South Platte rivers at North Platte, Nebraska. From here it flows in a southeasterly direction to the northern boundary of Phelps and Kearney counties, turns northeasterly to the southern boundary of Platte county, easterly to the southern boundary of Dodge county, and completes the last fifty miles of its course after making an abrupt bend to the south and another to the east. The characteristic features of the river are its broad valley, shifting bed and its

many sandbars and islands. The valley, upon the floor of which is a flood plain of materials brought down by the river, is cut through the Loess plains above described. For the most part of its course the adjoining uplands have been rounded off and the slope to the higher elevations is gradual. Near its mouth, however, the river has cut through underlying formations of limestone and clays where the bluff rises to two hundred feet above the water's surface. The valley on the south is very narrow, the waters of the Kansas river basin rising within a few miles of the Platte river itself, while on the north side of the river its tributaries extend north for a considerable distance, the most important of which are the Loup, Elkhorn and Wood rivers.

Elevations taken from the United States topographic sheets show the fall from the mouth of the North Platte river to Gothenburg averaging a little over six feet per mile; from Gothenburg to Lexington there is a variable fall which averages between eight and nine feet per mile; below Lexington for one hundred forty miles to Columbus there is a gradual slope of eight feet per mile; below the mouth of the Loup at Columbus the slope changes to seven feet per mile to Fremont where a slight increase in grade to seven and seven-tenths feet is found which extends to Ashland, and between Ashland and its mouth the average grade is a trifle over four feet per mile.

North Platte River. The North Platte river, which is the main branch of the Platte river proper, has its source in the mountains of Colorado near North Park. It flows north and then east through Wyoming, crosses the western boundary of Nebraska in the northwest corner of Scottsbluff county. From here it flows in a southeasterly direction to its junction with the South Platte river in Lincoln county.

The character of the stream to a considerable distance below its headwaters is entirely unlike that of its lower portion, being confined in deep canyons with a great amount of fall. The steep walls of these narrow canyons afford many possibilities for reservoir sites, the most important of these having been developed at Pathfinder, Wyoming, where 1,070,000 acre feet of water can be stored, a large portion of which is used in Nebraska. After leaving Wyoming the river has a valley of ten to fifteen miles wide and a little more than three hundred feet deep. The river has built up a flood plain in the valley consisting of sediments deposited in an early period. It is bordered by terraces and tablelands through which the tributaries have cut, leaving a rugged appearance to the bordering uplands.

The stream itself is broad and shallow with a bed similar to the Platte in which sandbars appear during lower stages. The soil of the valley is sandy but very fertile and when water is plentiful for irrigation abundant crops are produced. Pumpkin Seed, Rush, Blue and Birdwood creeks are the only tributaries in Nebraska worthy of mention. The flow of these creeks is comparatively small but constant and there are possibilities of power development and storage for irrigation.

Elevations from topographic sheets of the United States Geological Survey are as follows: State Line, 4,020 feet; Minatare, 3,840 feet; Bridgeport, 3,680 feet; mouth of Rush creek, 3,440 feet. From here to its mouth the fall will average approximately eight feet.

South Platte River.* The headwaters of the South Platte have their sources in the mountainous region surrounding the large basin near the center of Colorado known as South Park, and in the long eastern slopes of the high mountains forming the Continental Divide. The general course of the stream is eastward to Lake George, thence through Platte Canyon northward to the junction with Cache La Poudre river near Greeley, Colorado, and then eastward until it joins the North Platte at the town of North Platte, Nebraska.

The drainage basin, which is about 20,000 square miles in extent above Julesburg, Colorado, is bisected in an irregular way by the channel of the South Platte. To the north and west lies the mountainous portion, which consists of a long narrow strip lying in a north-south direction along the foothills from a point a short distance within Wyoming to Palmer Lake, Colorado. This area produces at least ninety percent of the total runoff of the basin. South and east of the river the basin lies entirely within the plains region.

The mountainous region consists of peaks and jagged masses of granite, with sedimentary rocks cut and gashed by stream channels along the foothills. The stream gradients are steep, and many of the streams consist of series of cascades and rapids. The soil cover as a whole is light, and except during spring freshets or heavy storms the streams are remarkably free from sediments in suspension. The forest cover of the mountains, consisting originally of coniferous trees, is rapidly disappearing, but through the occurrence of fires a foothold has been furnished for the deciduous aspen, which is gradually increasing its dominion. The South Platte, Plum creek, and Medicine Bow national forests are in part comprised within this area.

The lower basin, somewhat broken and scarred along the foothills, gradually merges farther east into the undulating prairies so characteristic of the Great Plains east of Rocky mountains. The soils of the plains are the product of the disintegration of shales and sandstones and range from adobe clays to sandy loams. The controlling vegetation consists largely of native grasses, the only timber being the few bunches of scraggly cottonwoods along the stream channels and small patches of pine, cedar and piñon along the higher portions.

In the mountainous region the flow of the South Platte and its tributaries is perennial; but in the plains area the volume is greatly diminished, owing to the fact that the normal waters are completely diverted for irrigation, the acreage capacity of the canals far exceeding the capacity of the river. At North Platte, Nebraska, just above the mouth of the river, the stream channel is dry for the greater part of the year or consists of several small channels carrying a few second feet of water.

The tributaries of the South Platte comprise, first the small streams that rise on the eastern slope of the Rocky mountains, and second, plains streams. The mountain streams furnish a perennial supply of water, the amount of which, however, varies with the snowfall, being light during the latter part of the summer and in the fall and winter, and large during the spring floods. This water is almost entirely diverted for irrigation and does not reach the South Platte except in times of heavy floods. The principal streams of this

* From United States Geological Survey Water Supply Paper No. 230, by J. C. Stevens.

class are Bear, Clear, Boulder, St. Vrain and Thompson creeks and Cache la Poudre river. The plains streams are all intermittent in nature and furnish water only during storms or in the season of melting snow. The chief streams of this class are Cherry, Lone Tree, Kiowa, Boxelder, Bijou, Beaver and Pawnee creeks.

The South Platte is subject to periodic floods, which occur in May and June, the magnitude of which varies from year to year with seasonal precipitation and temperature.

Wood River. The source of Wood river is in southern Custer county. From here it flows southeastward to Kearney, from which place it parallels the Platte river for a distance, flowing into its north channel a few miles southwest of Grand Island. Its drainage area comprises approximately eight thousand square miles lying between the South Loup and Platte rivers.

Loup Rivers.* The Loup and its tributaries, as a system, form the most important feeders of the Platte and merit special description.

The stream is formed by three main branches, the North, Middle and South Loups, which drain a broad area comprising 13,540 square miles, lying in the heart of Nebraska. In a former geologic age the three streams emptied into the Platte as separate and distinct tributaries; later the Platte, while building its bed, obstructed the flow of these streams by throwing sand across their mouths forcing them to shift their channels eastward and down the Platte valley until they united.

The Loup proper is formed by the junction of the North and Middle Loups near the city of St. Paul, the Middle Loup receiving the South Loup above this junction. The principal tributaries are Beaver, Cedar, Calamus and Dismal rivers.

The drainage area as a whole is generally rolling, with scattered high plains or table lands. The immediate valleys are composed of alluvial deposits of loam, sand and gravel. Beyond the valleys the area is composed of yellow clays and fine sandy loam in the lower portions; in the upper portions sand hills abound. The soil is generally fertile, and large quantities of hay, grains, etc., are grown.

The streams are subject to a succession of floods during the spring and early summer months, caused by melting snows and heavy rainfall during the spring months. As a large part of the area is grass grown, the evaporation is considerable.

The North and Middle Loups drain an area of sand hills in which there are numerous lakes ranging in size from small ponds to lakes several square miles in area. Among these may be mentioned Stevenson lake, Moon lake, Pelican lake, and Soda lake. The region abounds in springs caused by the percolation of the precipitation through the sandy soil to the impervious clays below. This fact, no doubt, accounts for the remarkable constancy of flow of these streams. A comparatively small amount of water is diverted for irrigation, the ditches generally being small and covering moderate areas. A number of power plants are in operation, and others of considerable extent

* From United States Geological Survey Water Supply Paper No. 230 by J. C. Stevens.

have been proposed, particularly one near Columbus by which it is believed that about 20,000 continuous horsepower may be developed.

The Total Theoretical Power of the Loups.* The accompanying diagram has been prepared to illustrate a method of estimating the total theoretical power of the streams of a given drainage area. The drainage area represented is that of the Loup river.

The rate of discharge and the fall of the streams is represented by the irregular inclined lines in the diagram. Any point on one of these lines represents by its vertical ordinate the elevation of the point at which the normal discharge of the stream is that which is proportional to the horizontal distance which the point is from the next heavy vertical line to the left of it.

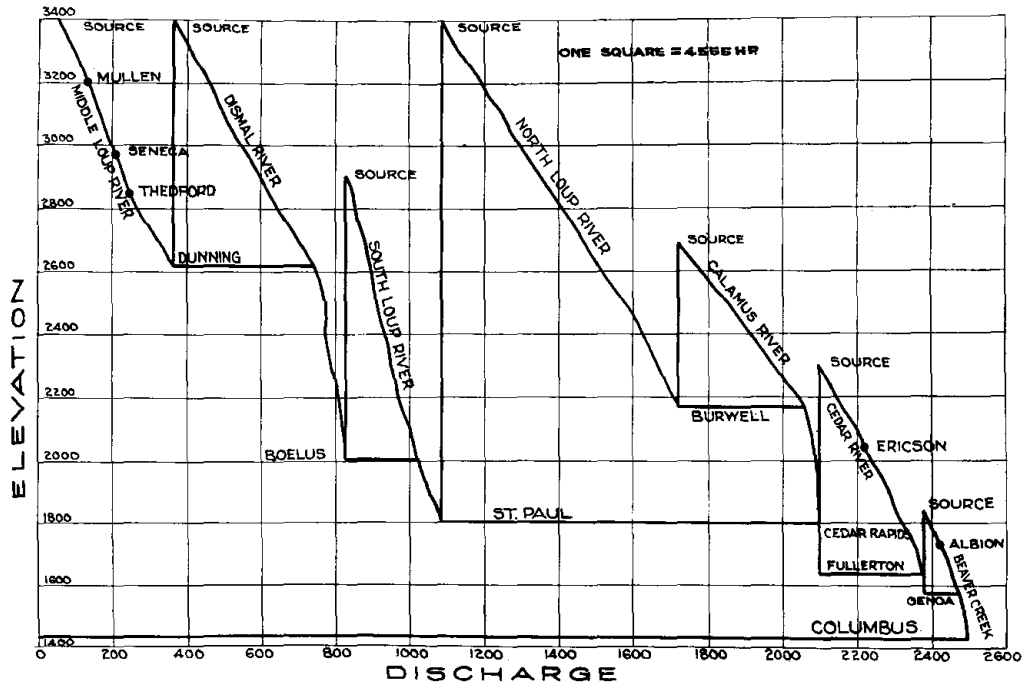
It is easy to see that the total theoretical power of the stream of the drainage area is proportional to the area bounded by the horizontal line drawn through the point representing Columbus, the vertical line at the left of the diagram, and the series of inclined and vertical lines extending from the upper left-hand corner of the diagram to the point representing Columbus, near the lower right-hand corner of the diagram. It is also evident that the total theoretical power of any one of the tributaries is represented by a definite portion of this area.

It is no part of this brief discussion to point out the labor and time involved in obtaining records of discharge sufficiently precise and extended to serve adequately for the preparation of such a diagram, nor to take up the question of the ratio of the power actually obtained to that which is indicated on such a diagram.

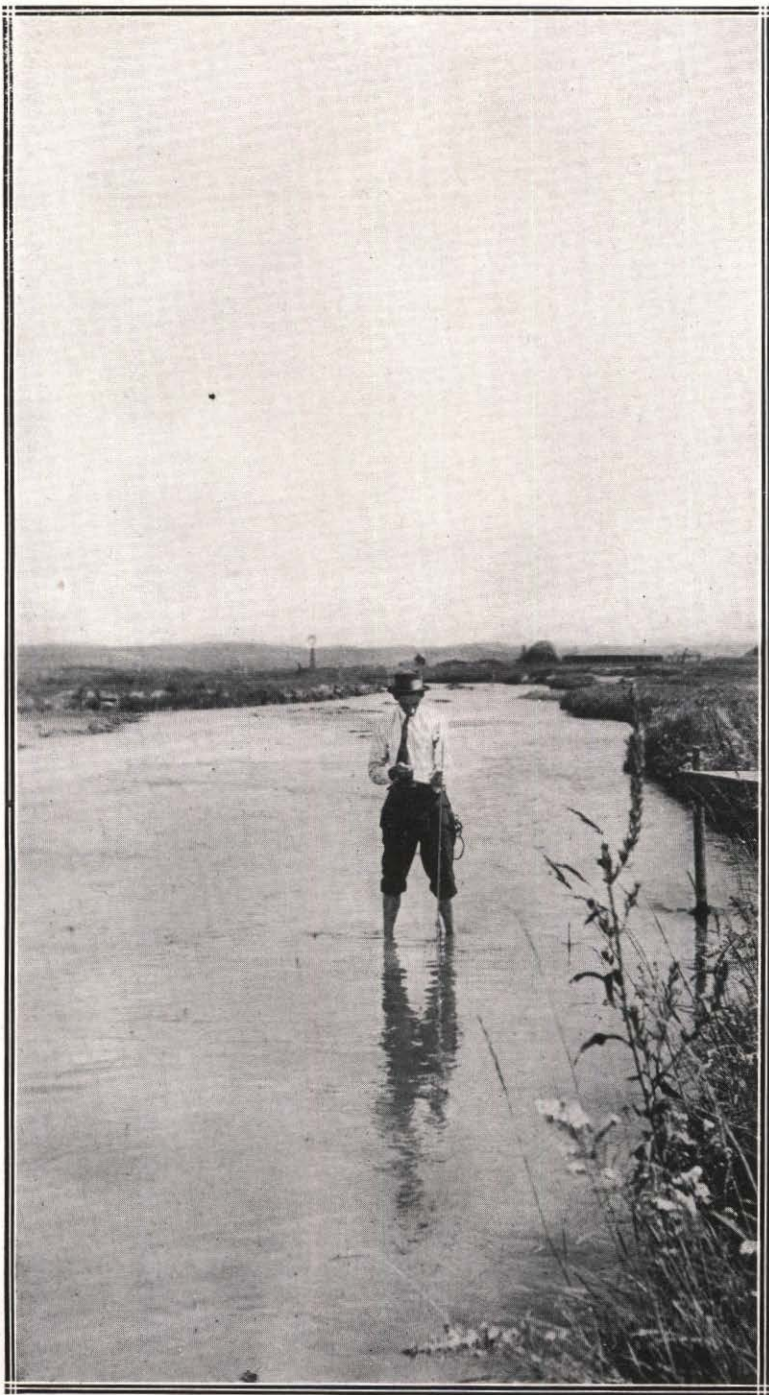
Elkhorn River. The source of the Elkhorn river is in central Rock county, flowing from here in a southeasterly direction through, Holt, Antelope, Madison, Stanton, Cuming, Dodge, Washington and Douglas counties to its confluence with the Platte river about twenty miles west of Omaha. It is joined by the south fork, which drains the southern part of Holt county, at Ewing, and by the north fork, which drains Pierce and portions of adjoining counties, near Norfolk. Many other small tributaries enter between Norfolk and the mouth draining a considerable area between the Platte and Missouri river valleys. Logan creek which rises in Wayne and Cedar counties is the principal branch. This creek flows generally southward near the Missouri river, greatly reducing flow toward that stream. The course of the Elkhorn is very tortuous and at many bends the river has cut across the narrow necks of land forming oxbow lakes. With the exception of its headwaters the river lies within the loess region through which it has cut a very beautiful valley, bordered by rounded hills. The economic value of the river is principally for power, which has been developed only to a small extent. The abundance of the rainfall and fertile soils in this section make it possible to raise abundant crops without resorting to irrigation.

Salt and Wahoo^o Creeks. These streams have their sources and nearly their entire drainage areas in the two counties of Lancaster and Saunders,

* By Dean O. V. P. Stout, of the University of Nebraska.



STATE OF NEBRASKA.
 CHART SHOWING
 POWER OF THE LOUPS
 COMPILED BY DEAN STOUT U.S.N.



Republican River at Colorado—Nebraska State Line

draining that portion between the Blue river tributaries and the head waters of the Nemaha rivers.

NEMAHA RIVERS

Practically all of the counties of Otoe, Johnson, Nemaha and Richardson and small portions of Lancaster and Gage, comprising an area of about two thousand square miles, are drained by the Nemahas. Both the Little Nemaha and Nemaha rivers rise in the southwestern portion of Lancaster county. From here the Little Nemaha, fed by many tributaries, flows in a southeastward direction to the Missouri river in southeastern Nemaha county. Among the principal tributaries are the north and south forks of Rock creek.

The Nemaha flows to the south of the Little Nemaha, reaching the Missouri in the extreme southeastern portion of the state. This river is joined in its course by the south fork, which dips down into Kansas and then back into Richardson county, terminating near Salem. Long Branch and Muddy creeks are other important tributaries.

The Nemahas rise in a section of the state where the rainfall is at a maximum and although the loess soils through which they flow are to a great extent absorbent, the meandering channels are often overtaxed and the adjoining farm land inundated. Much progress has been made in the past few years by way of drainage developments and in many localities the situation has been greatly relieved.

STREAMS IN KANSAS RIVER BASIN

The Kansas river, which with its tributaries drains nearly the entire north half of Kansas has two of its feeders, i. e., the Blue and Republican rivers, extending into southern Nebraska.

Blue Rivers. That portion of the Blue river basin which rises in Nebraska consists of two main forks. The Big Blue rises in Hamilton county and flows in a northeasterly and finally southeasterly direction and passes through the counties of Polk, Butler, Seward, Saline and Gage, leaving the state at the southern boundary of the latter. The Big Blue is enlarged at Ulysses by the North Fork, at Seward by Lincoln creek and near the northern boundary of Saline county by the West or South Fork, which is fed by many creeks of considerable size. Turkey and Indian creeks enter farther south in Gage county.

The Little Blue rises in the vicinity of Hastings, Adams county, flows south of the tributaries of the Big Blue and enters Kansas from the southeastern portion of Jefferson county. Its drainage area comprises about 1,300 square miles in Webster, Nuckolls, Adams, Thayer, Clay and Jefferson counties.

The Blue river basin extends to within a few miles of the Platte river and lies entirely within the loess region. The flow of the rivers is constant except during freshets when their discharge assumes large proportions.

Republican River. The Republican river is formed in the extreme southwestern portion of the state by the North Fork, which rises in the table lands of eastern Colorado and by the Arickaree which also rises in Colorado and crosses a small portion of Kansas into Nebraska. From the forks of these

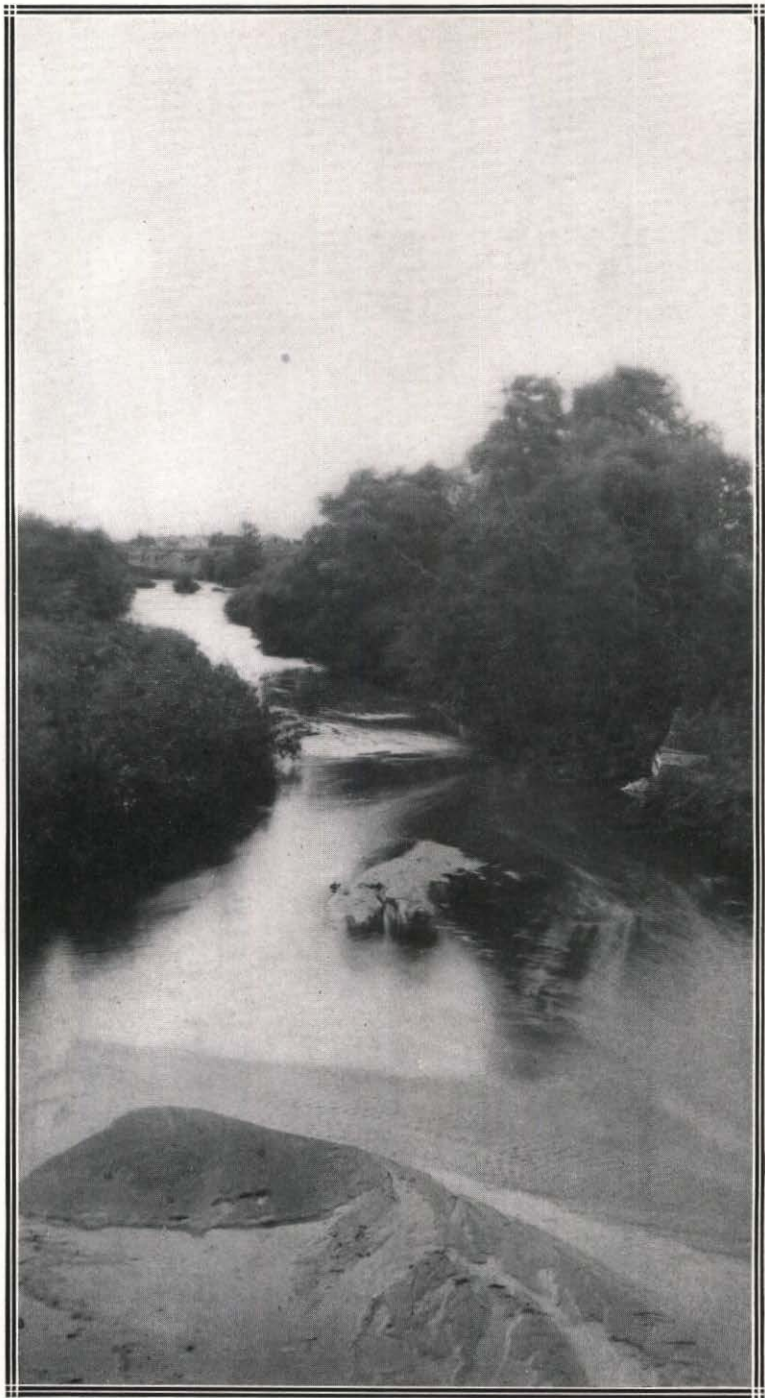
two rivers at Haigler the Republican river flows eastward two hundred fifty miles across the state, turning south into Kansas in the southern part of Nuckolls county, near Superior. The depth of the valley below the bordering table lands varies from two hundred to four hundred feet. It is excavated in tertiary cretaceous rock. The stream itself is shallow and wide with a sandy bed and low sandy banks. Occasionally the bordering terraces are cut into by the river leaving high bluffs, some of which are composed of hardened shales and cretaceous rocks.

The South Fork enters the river at Benkelman after flowing across the Kansas line a few miles to the south. In the eastern part of Hitchcock county the Frenchman river is received which is among the most important tributaries.

The Frenchman river is fed by tributaries in Chase, Perkins and Hayes counties, flowing eastward to the Republican at Culbertson. Its upper tributaries, which are fed by springs, are in deep walled canyons. The lower portion widens out in Pierre clay. The stream is shallow at its mouth and from seventy-five to one hundred feet wide. It flows over a sandy bed in which are small sand bars and islands. At Wauneta in Chase county, the river falls over a hard ledge of tertiary rock. The fall thus obtained operates a small flour mill.

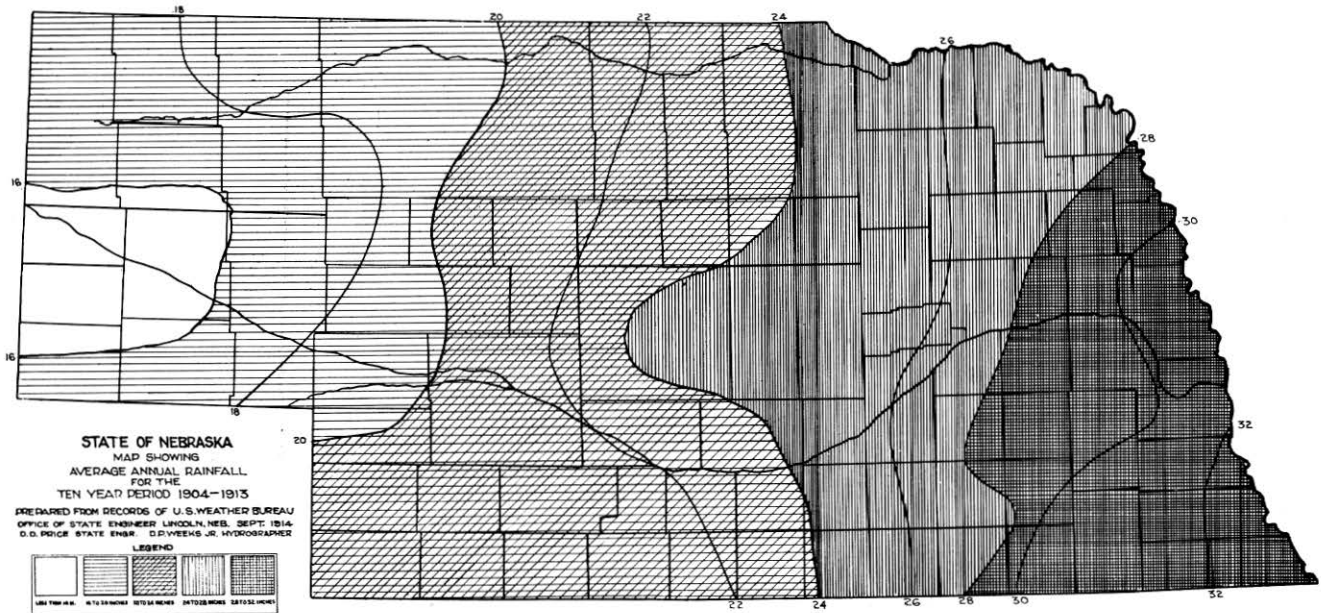
Red Willow and Medicine creeks rise in canyons near the Platte rivers in Lincoln county, flowing to the Republican through deep narrow valleys in nearly level uplands. Each has sufficient power for the operation of small mills. Beaver and Sappa creeks head near the Colorado state line and after crossing northwestern Kansas flow northeastward parallel to the Republican river, uniting in eastern Furnas county and joining the Republican near Orleans, Harlan county. Prairie Dog creek rises in Kansas and after flowing a few miles through Harlan county enters the river in southern Harlan county. Its bed is cut in Niobrara chalk.

Elevations of the Republican from topographic sheets of the United States Geological Survey are as follows: Arapahoe, 2,140 feet; Oxford, 2,070 feet; Orleans, 1,960 feet; Republican, 1,900 feet; Bloomington, 1,840 feet; Franklin, 1,800 feet; Riverton, 1,750 feet; Red Cloud, 1,690 feet; Guide Rock, 1,630 feet; Bostwick, 1,580 feet; and Superior, 1,540 feet. These are taken at the water surface in the river.

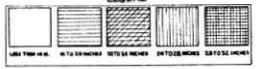


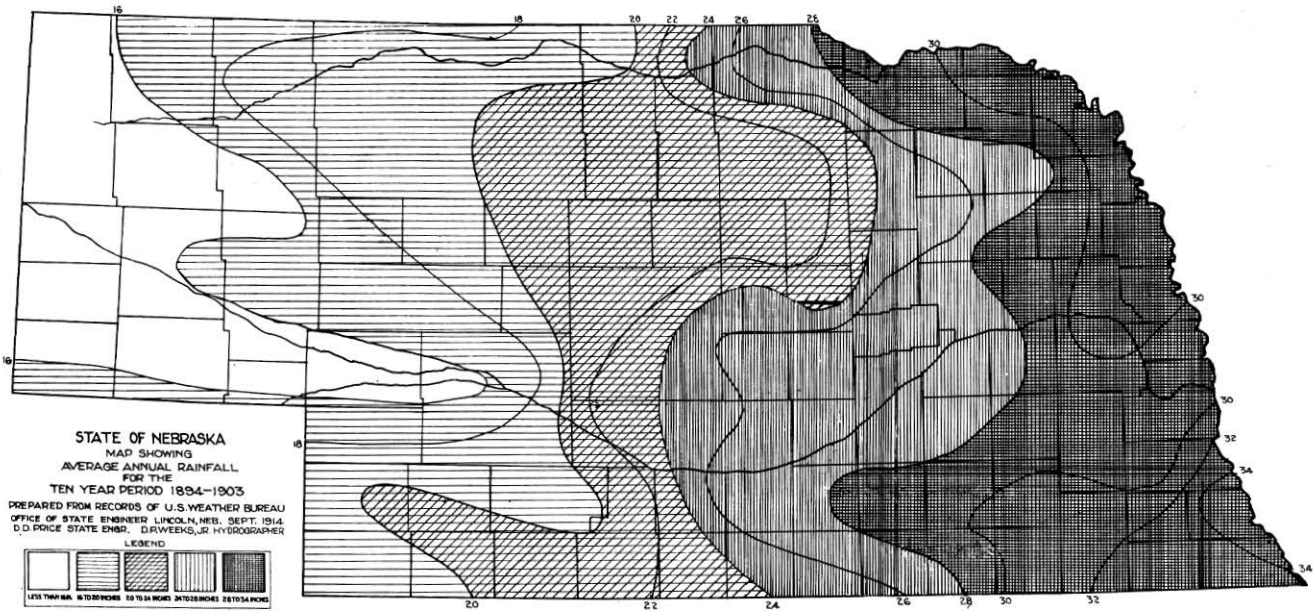
Frenchman River near Mouth



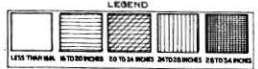


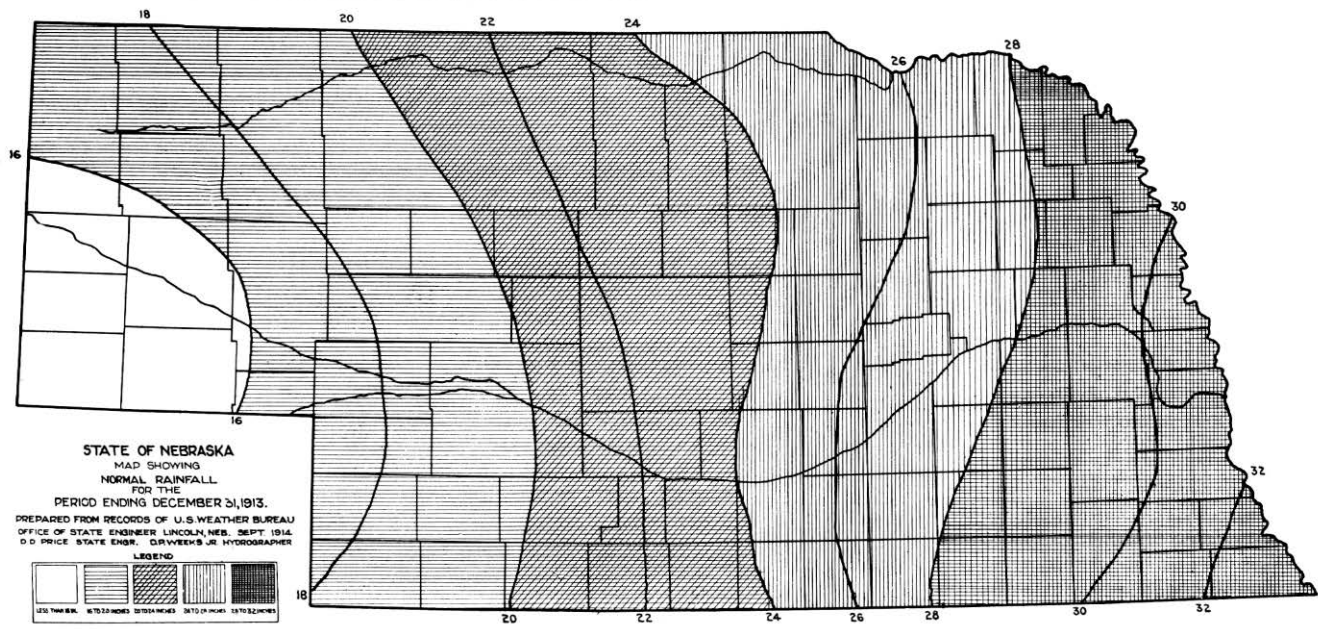
STATE OF NEBRASKA
 MAP SHOWING
 AVERAGE ANNUAL RAINFALL
 FOR THE
 TEN YEAR PERIOD 1904-1913
 PREPARED FROM RECORDS OF U.S. WEATHER BUREAU
 OFFICE OF STATE ENGINEER LINCOLN, NEB. SEPT. 1914
 D.D. PRICE STATE ENGR. D.P. VEEKS JR. HYDROGRAPHER





STATE OF NEBRASKA
 MAP SHOWING
 AVERAGE ANNUAL RAINFALL
 FOR THE
 TEN YEAR PERIOD 1894-1903
 PREPARED FROM RECORDS OF U.S. WEATHER BUREAU
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RAINFALL

In connection with the water supply of this state it is important at this point to bring up the matter of precipitation. Not that it bears an important relation to the run-off, for attempts made at applying formulae devised for this purpose have given results that are of little or no value for practical purposes in this region. The importance of a knowledge of the run-off lies in the fact that a great part of the precipitation, which never reaches our drainage systems, forms an important part of our surface water resources.

It has been a much discussed question as to whether the rainfall of the state has increased or decreased in amount. Many have held that the area of the humid section is gradually increasing, while others have maintained that the arid portions are becoming more predominant.

For the purpose of arriving at some definite conclusion in the matter, the accompanying rainfall charts have been prepared. Average annual rainfall charts for three ten year periods have been prepared from which it may be seen that for the past thirty years there has been little eastward or westward movement of the various rainbelts and, but for the exception of a few pronounced irregularities, the charts are practically alike. There is also printed here a chart showing the normal rainfall for the entire period over which records have been made by the United States Weather Bureau.

It is thought that these graphic representations will provide a much clearer conception of our rainfall than the publishing of the many tables from which they were prepared.

PROGRESS REPORT FOR 1913-14

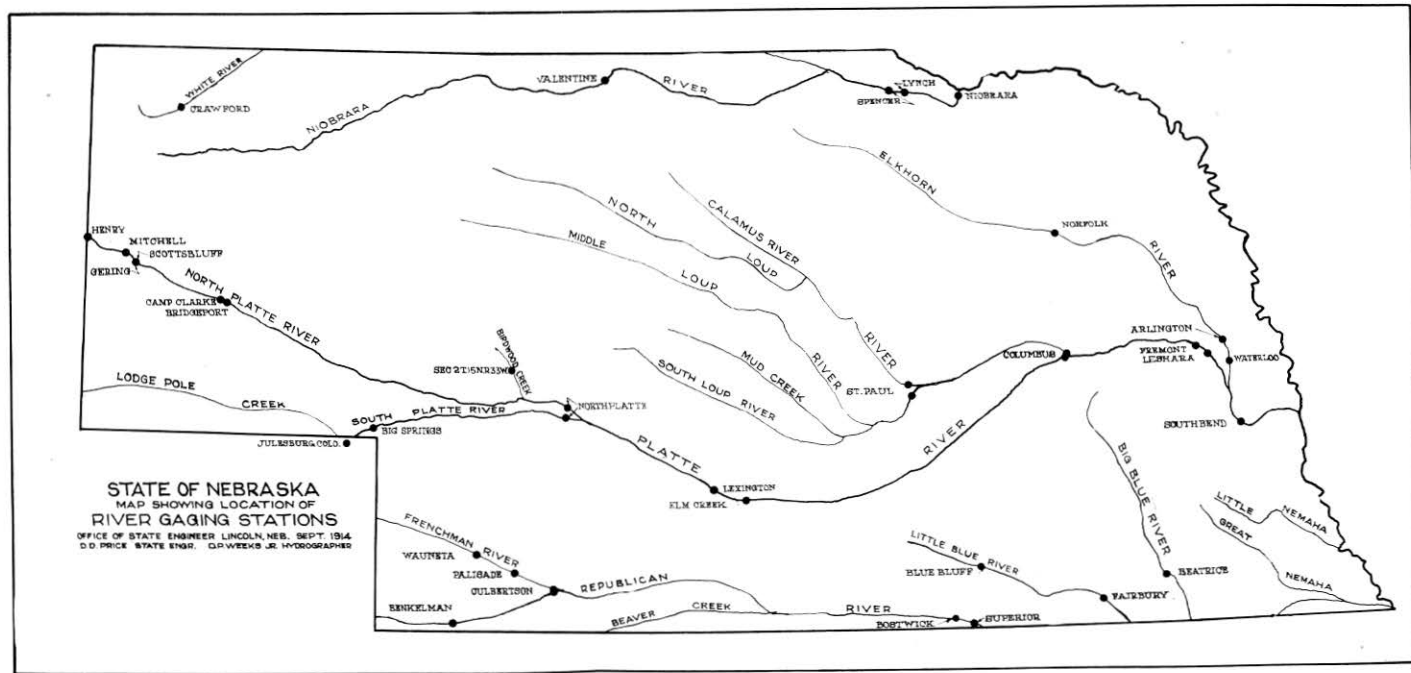
Gaging stations that have been maintained in the state during the past biennium are as follows: Niobrara at Lynch, Niobrara at Niobrara, Platte at Elm Creek, Platte at Columbus, Platte at Fremont, Platte at Leshara, North Platte at Henry, North Platte at North Platte, South Platte at Julesburg, Colorado; South Platte at North Platte, Loup at Columbus, Elkhorn at Arlington, Big Blue at Beatrice, Little Blue at Blue Bluffs, near Edgar, Little Blue at Fairbury, Republican at Culbertson, Republican at Bostwick, Frenchman at Culbertson, and the Elkhorn at Waterloo.

Of these the following were established during the biennium. Niobrara at Lynch, Platte at Elm creek, Platte at Fremont, South Platte at North Platte, Elkhorn at Arlington (re-established), Republican at Culbertson, Frenchman at Culbertson. Those discontinued during the biennium are: Niobrara at Niobrara, Platte at Leshara, Elkhorn at Waterloo, and Little Blue at Blue Bluffs, near Edgar.

The following is a list of the stations maintained at the present time: Niobrara at Lynch, Platte at Elm Creek, Platte at Columbus, Platte at Fremont, North Platte at Henry, North Platte at North Platte, South Platte at Julesburg, Colorado; South Platte at North Platte, Loup at Columbus, Elkhorn at Arlington, Big Blue at Beatrice, Little Blue at Fairbury, Republican at Culbertson, Republican at Bostwick, and Frenchman at Culbertson.

Field Work. Owing to the changeable nature of the beds of Nebraska streams the work in the field has become a never-ending task. Three hydrographers have been employed, while numerous measurements have been made by others of the office and field forces and engineers on special duty. Several daily gage height observers have been employed. Great stress has been laid upon accuracy and in an effort to give the maximum value to investigations a number of changes have been made in the location of the gaging stations. These changes have already been listed. It has been a practise to keep a constant check on gage data and an occasional check has been made at all stations by the use of a level and rod. Very few gaging stations in the state are free from the existence of a varying angle of the stream from normal to the gaging section. These have, however, been carefully accounted for in all measurements.

Winter Flow. The records found in the following tables are for the open season of the year only. Most Nebraska streams are shallow and ice conditions are extremely unfavorable for winter measurements. Comparatively little is known of the flow of the rivers during the winter months. Where the supply of water is used for direct irrigation the information at hand is sufficient for all needs, but where storage is practiced to a great extent or if power developments are anticipated, knowledge of the flow for the entire year is most desirable. A few miscellaneous measurements have been made by this department through the ice on the Loup river but insufficient in number to give an idea of its flow during the frozen season. It is expected, however, to maintain the station on the Loup river at Columbus during the entire winter season of 1914-15.



Arrangement of Records. Several systems have presented themselves for the organization of the material at hand. The one which has seemed most desirable and which is here used is the tracing of drainage systems from their source, giving the information about those points farthest up stream, followed by the lower parts of the drainage system. Accordingly tributaries of the Missouri lying in Nebraska and farthest up are given first, these being Hat creek, White and Niobrara rivers. The Platte river system is then grouped with the information concerning the main stream first. Gaging stations and descriptions farther up the river are to be found first followed in the same order to its mouth. Tributaries are treated in like manner beginning with the North Platte river and concluding the system with Wahoo and Salt creeks. Other streams in the state are treated in like manner.

WHITE RIVER NEAR CRAWFORD

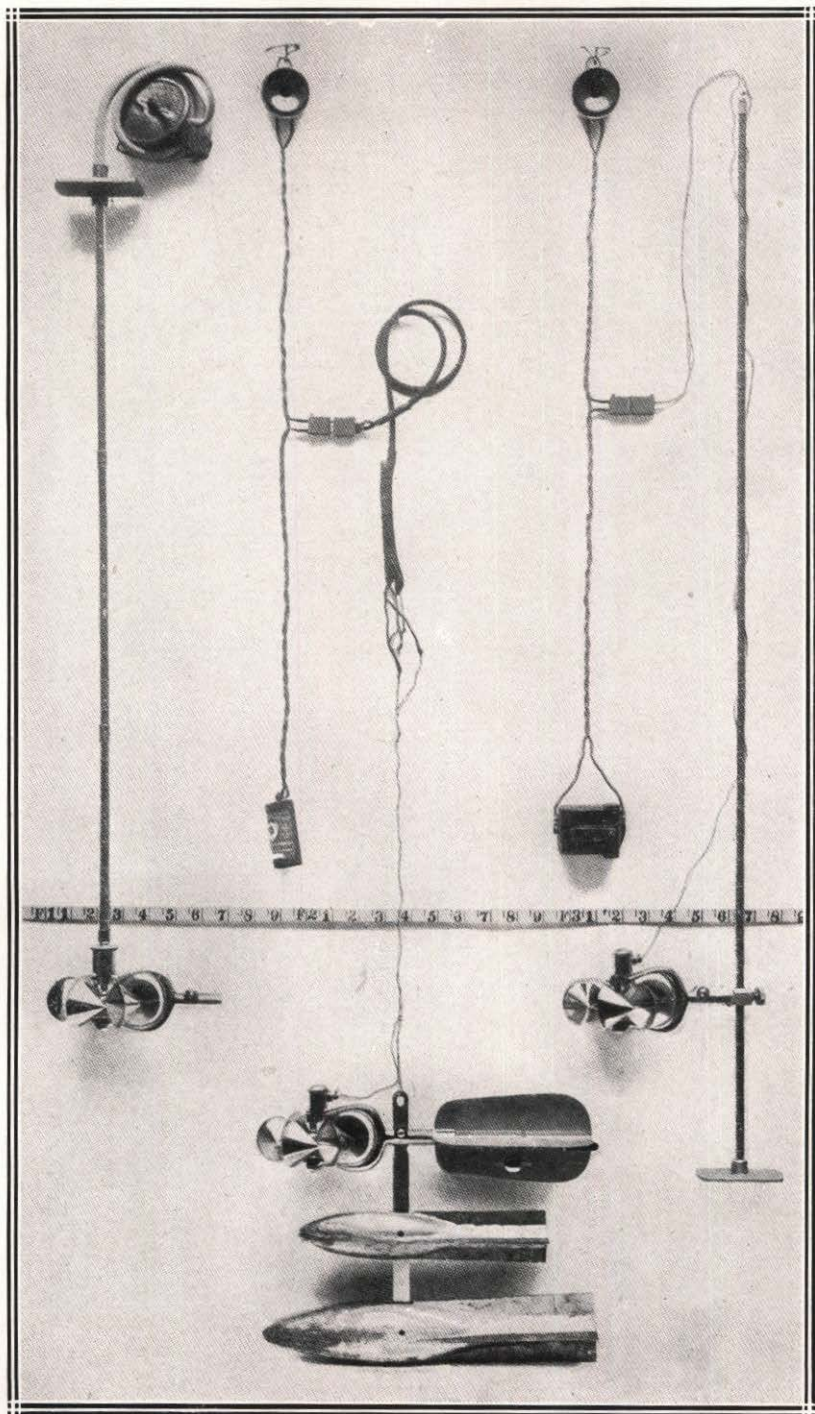
Location. Six miles southwest of Crawford in the Canal of the Crawford Canal and Irrigation Company into which the entire flow of White river was diverted.

Records Available. From July 13 to October 30, 1897.

Gage. Vertical staff fastened to a stop gate in the canal.

Actual Discharge measurements of White River at Crawford

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1896		Feet	Sec.-ft.	1905		Feet	Sec.-ft.
June 24	E. T. Youngfelt . . . . .	.....	31	April 20	Page T. Francis . . . . .	.....	21
1897				May 4	do . . . . .	.....	51
June 16	O. V. P. Stout . . . . .	.42	14	15	do . . . . .	.....	28
July 21	do . . . . .	.62	14	29	do . . . . .	.....	25
Aug. 14	do . . . . .	.6	12	June 3	do . . . . .	.....	34
Sept. 6	do . . . . .	.4	9	10	do . . . . .	.....	21
20	A. B. McCoskey . . . . .	.62	10	July 29	do . . . . .	.....	55
21	do . . . . .	.64	11	29	do . . . . .	.....	96
Oct. 15	do . . . . .	.89	15	30	do . . . . .	.....	400
Nov. 5	do . . . . .	.92	16	30	do . . . . .	.....	120
1901				31	do . . . . .	.....	63
July 11	B. E. Forbes . . . . .	.....	11	Aug. 4	Page T. Francis . . . . .	.....	41
1903				7	do . . . . .	.....	35
April 27	J. C. Stevens . . . . .	.....	31	12	do . . . . .	.....	302
May 27	do . . . . .	.....	19	13	do . . . . .	.....	92
				20	do . . . . .	.....	36



Hydrographer's Equipment for Making Stream Measurements. (U. S. G. S.)

NIOBRARA RIVER AT VALENTINE

Location. Borman Bridge in Section 4 Township 34 North, Range 28 West, about three miles southeast of town.

Records Available. From June 24, 1897 to December 17, 1906.

Gage. Originally a wire and weight supported by frame built on bank about one thousand feet up stream from the bridge. Scale is graduated to one-half tenths. Distance from end of weight to index or marker is 9.90 feet. Later this was substituted by similar frame but of different dimensions with length from end of weight to marker 11.80 feet.

Bench Marks. No. 1. Head of nail driven in stump of box-elder tree one of a clump of four just east of Borman's house. Elevation 17.26 feet. No. 2. A six inch by six inch pine block set on end at the west end of wagon gate opening into yard on which Mr. Borman's house stands and is the post or head block on which the gate rests when closed. Elevation 16.19 feet. Datum is zero of gage.

Channel. Straight for about one hundred feet above and below the bridge, then an easy bend to the east. Shifting sand and gravel.

Accuracy. The scouring out of the shifting bed and the swiftness of the water cause difficulty in the construction of a rating curve, and the indirect method has been used to a large extent.

Actual discharge measurements of Niobrara River near Valentine, 1897-1906

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1897		Feet	Sec.-ft.	1902		Feet	Sec.-ft.
June 24	O. V. P. Stout	.59	925	July 15	J. C. Stevens	1.3	585
July 22	do	.48	883	July 4	do	1.6	800
Aug. 15	do	.38	703	Aug. 20	do	1.4	727
Sept. 5	do	.46	730	Aug. 20	do	1.4	681
Oct. 16	Adna Dobson	.21	845	Sept. 26	do	1.55	733
1898 ¹				Nov. 13	do	1.6	764
April 25	Glenn E. Smith	.05	987	1903			
May 13	do	.23	1,588	April 26	do	1.55	766
May 24	do	.1	1,156	May 26	do	1.55	878
June 12	do	.05	876	June 26	do	1.55	894
July 27	do	.35	690	June 25	do	1.4	714
Aug. 21	do	.39	677	Aug. 25	do	1.3	602
Sept. 7	do	.32	748	Sept. 17	E. C. Murphy	1.38	705
Oct. 26	do	.28	840	Aug. 25	do	1.38	715
Nov. 17	do	.18	867	Dec. 23	J. C. Stevens	1.75	706
Dec. 17	do	.12	960	1904			
Dec. 28	do	.5	960	April 17	do	1.57	683
1899 ¹		Ice	843	July 17	do	1.57	640
Jan. 27	do	Ice	964	July 11	do	1.44	761
Mar. 15	do	Ice	623	11	do	1.47	760
Mar. 15	do	Ice	726	11	do	1.48	756
Apr. 15	do	Ice	7650	11	do	1.51	752
Apr. 25	do	1.15	952	Aug. 11	do	1.53	801
May 11	do	1.18	867	Aug. 11	do	1.26	584
May 26	do	1.44	1,031	24	do	1.3	638
June 23	do	1.24	733	1905			
July 16	do	1.52	788	Mar. 13	E. L. Thomas	1.64	910
Aug. 13	do	1.3	718	31	H. C. Gardner	1.85	1,142
Sept. 30	do	1.35	700	June 29	do	1.8	1,111
Sept. 13	do	1.15	695	July 19	G. W. Bates	1.5	818
Oct. 26	do	1.05	732	Aug. 15	H. C. Gardner	1.65	978
Oct. 7	do	1.15	776	Oct. 15	do	1.55	834
Nov. 20	do	.8	849	Nov. 15	G. W. Bates	1.65	886
1901				Dec. 27	do	1.75	940
June 26	O. V. P. Stout	1.46	724	1906			
Aug. 1	do	1.45	951	Mar. 14	Geo. W. Bates	1.55	483
May 12	C. B. Channel		628	April 18	do	1.1	1,121
Nov. 14	B. E. Forbes	1.54	818	May 1	do	1.75	998
1902				11	do	1.65	819
Mar. 22	J. C. Stevens	1.66	971	June 30	F. S. Dobson	1.35	627
April 12	do	1.50	785	Sept. 21	Adna Dobson	1.45	813
				Dec. 17	Geo. W. Bates	1.7	776

¹ Measurements during 1897, 1898, and 1899, made at Fort Niobrara, 3 miles below present station.

² Measurement made 3 miles below Fort Niobrara Bridge.

³ Slush ice running and edges frozen.

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Valentine, for 1901

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1													1.61	865	1.35	805	1.55	805	1.38	655	1.53	805	1.53	805		1
2													1.35	620	1.4	655	1.5	750	1.46	700	1.49	750				2
3													1.37	620	1.4	655	1.47	700	1.48	750	1.47	700				3
4													1.32	580	1.38	655	1.75	1,080	1.46	700	1.46	700				4
5													1.3	580	1.3	580	1.62	865	1.4	655	1.53	805				5
6													1.28	580	1.32	580	1.42	655	1.43	700	1.49	750				6
7													1.24	555	1.28	580	2.68	4,330	1.52	750	1.51	750				7
8													1.25	555	1.25	555	1.8	1,155	1.55	805	1.5	750				8
9													1.4	655	1.29	580	1.65	930	1.63	930	1.55	805				9
10													1.3	580	1.35	620	1.53	805	1.9	1,330	1.5	750				10
11													1.35	620	1.4	655	1.6	865	1.7	1,000	1.68	1,000				11
12													1.3	580	1.25	555	1.58	865	1.68	1,000	1.7	1,000				12
13													1.2	525	1.28	580	1.53	805	1.65	930	1.63	930				13
14													1.21	525	1.4	655	1.58	865	1.55	805	1.54	805				14
15													1.2	525	1.3	580	1.5	750	1.52	750	1.7	1,000				15
16													1.18	525	1.35	620	1.52	750	1.53	805	1.68	1,000				16
17													1.22	525	1.32	580	1.45	700	1.45	700	1.67	930				17
18													1.2	525	1.3	580	1.36	620	1.49	750	1.63	930				18
19													1.4	655	1.27	555	1.42	655	1.55	805	1.65	930				19
20													1.35	620	1.25	555	1.38	655	1.54	805	1.7	1,000				20
21													1.25	555	1.4	655	1.33	620	1.49	750	1.63	930				21
22													1.22	525	1.35	620	1.45	700	1.48	750	1.68	1,000				22
23													1.18	525	1.29	580	1.36	620	1.46	700	1.65	930				23
24													1.15	510	1.4	655	1.45	700	1.52	750	1.66	930				24
25													1.25	555	1.35	620	1.43	700	1.45	700	1.65	930				25
26													1.3	580	1.45	700	1.35	620	1.5	750	1.66	930				26
27													1.4	655	1.39	655	1.43	700	1.45	700	1.64	930				27
28													1.38	620	1.38	655	1.48	750	1.45	700	1.65	930				28
29													1.37	620	1.38	580	1.38	655	1.45	700	1.51	750	1.69	1,000		29
30													1.36	620	1.4	655	1.4	655	1.52	750	1.7	1,000				30
31													1.3	580	1.55	700			1.54	805						31
Mean													585		624		879		788		887					
Run-off in acre-ft.													36,000		38,400		52,300		48,400		52,800					
Maximum												865		805		4,330		1,330		1,000						
Minimum												510		555		620		655		700		700				

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Valentine, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					1.58	865	1.63	890	1.5	750	3.1	4,260	1.31	580	1.4	655	1.43	700	1.58	865	1.55	805	1.46	700	1
2					1.61	865	1.65	930	1.42	655	1.95	1,425	1.32	580	1.38	655	1.47	700	1.64	930	1.46	700	1.58	805	2
3					1.64	930	1.6	865	1.44	700	1.73	1,075	1.38	655	1.3	580	1.42	655	1.53	805	1.16	805	1.4	505	3
4					1.7	1,000	1.58	865	1.45	700	1.56	805	1.31	580	1.27	550	1.44	700	1.5	750	1.4	505	1.4	505	4
5					1.68	1,000	1.65	930	1.54	805	1.58	865	1.42	655	1.28	580	1.47	700	1.57	805	1.48	655	1.48	655	5
6					1.75	1,075	1.53	805	1.55	805	1.38	655	1.38	655	1.3	580	1.45	700	1.55	805	1.55	750	1.55	750	6
7					1.5	750	1.47	700	1.44	700	1.25	550	1.31	580	1.27	550	1.44	700	1.54	805	1.55	750	1.54	750	7
8					1.58	865	1.56	805	1.58	865	1.9	1,330	1.43	700	1.41	655	1.45	700	1.58	865	1.55	805	1.58	865	8
9					1.54	805	1.6	865	1.42	655	1.38	655	1.48	750	1.28	580	1.46	700	1.54	805	1.55	750	1.54	805	9
10					1.78	1,155	1.55	805	1.54	805	1.4	655	1.32	580	1.4	655	1.26	550	1.51	750	1.52	750	1.52	750	10
11					1.8	1,155	1.44	700	1.52	750	1.42	655	1.32	580	1.24	550	1.33	615	1.53	805	1.5	750	1.53	750	11
12					1.75	1,075	1.54	805	1.64	930	1.5	750	1.36	615	1.2	525	1.32	580	1.55	805	1.56	805	1.55	805	12
13					1.79	1,155	1.58	865	1.57	805	1.48	750	1.27	550	1.26	615	1.29	580	1.52	750	1.6	865	1.56	865	13
14					1.67	930	1.6	865	1.55	805	1.41	655	1.32	580	1.38	655	1.37	615	1.49	750	1.58	865	1.57	865	14
15					1.65	930	1.54	805	1.63	930	1.26	580	1.26	550	1.39	655	1.33	615	1.48	750	1.56	805	1.56	805	15
16					1.4	655	1.64	930	1.47	700	1.42	655	1.25	550	1.38	655	1.35	615	1.55	805	1.62	865	1.57	865	16
17					1.33	615	1.72	1,000	1.52	750	1.47	700	1.26	550	1.44	700	1.34	615	1.52	750	1.56	805	1.57	805	17
18					1.6	865	1.66	930	1.49	750	1.34	615	1.4	655	1.37	615	1.45	700	1.48	750	1.61	865	1.58	865	18
19					1.95	1,425	1.58	865	1.83	1,240	1.52	750	1.42	655	1.38	655	1.4	655	1.5	750	1.54	805	1.59	805	19
20					1.85	1,240	1.56	805	1.78	1,155	1.47	700	1.4	655	1.34	615	1.48	750	1.49	750	1.57	805	1.57	805	20
21					2.05	1,630	1.47	700	1.51	750	1.36	615	1.34	615	1.45	700	1.45	700	1.48	750	1.5	750	1.57	750	21
22					1.66	970	1.74	1,075	1.45	700	1.3	580	1.32	580	1.43	700	1.47	700	1.51	750	1.56	805	1.57	805	22
23					1.75	1,075	1.69	1,000	1.51	750	1.32	580	1.37	615	1.34	615	1.33	615	1.55	805	1.52	750	1.58	750	23
24					1.98	1,525	1.52	750	1.46	700	1.36	615	1.41	655	1.43	700	1.37	615	1.5	750	1.53	805	1.59	805	24
25					1.9	1,330	1.8	1,155	1.44	700	1.33	615	1.32	580	1.62	865	1.48	750	1.51	750	1.6	865	1.6	865	25
26					1.96	1,425	1.75	1,075	1.42	655	1.34	615	1.38	655	1.45	700	1.59	865	1.56	805	1.51	750	1.59	750	26
27					1.93	1,330	1.54	805	1.48	750	1.37	615	1.35	615	1.31	580	1.53	805	1.53	805	1.56	805	1.59	805	27
28					1.89	1,330	1.72	1,000	1.37	615	1.46	700	1.32	580	1.38	655	1.45	700	1.52	750	1.53	805	1.6	805	28
29					1.83	1,240	1.58	865	1.4	655	1.95	1,425	1.34	615	1.4	655	1.57	800	1.51	750	1.46	700	1.61	700	29
30					1.97	1,425	1.65	930	1.33	615	2.1	1,740	1.45	700	1.43	700	1.42	655	1.54	805	1.48	750	1.62	750	30
31					1.85	1,240	1.56	805	1.42	655	1.36	615	1.32	580	1.62	865	1.48	750	1.51	750	1.6	865	1.6	865	31
Mean					1.69		896		802		740		805		653		649		745		807				
Run-off in acre-ft.					71,900		53,300		49,300		44,000		49,500		40,100		38,600		45,800		48,000				
Maximum					1,630		1,150		1,240		1,740		4,260		865		865		805		930				
Minimum					615		700		615		580		550		525		550		655		700				

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Valentine, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					1.18	525	1.9	1,330	1.5	750	1.5	805	1.4	700	1.56	805	1.3	580	1.38	655	1.52	750	1.58	755	1
2					1.67	930	1.94	1,425	1.52	750	1.43	750	1.37	655	1.95	1,425	1.33	615	1.41	655	1.5	750	1.62	750	2
3					1.9	1,330	1.92	1,330	1.5	750	1.42	700	1.35	655	3.2	6,800	1.31	580	1.45	700	1.51	750	1.67	700	3
4					1.75	1,075	1.8	1,155	1.55	805	1.47	750	1.37	655	1.6	865	1.37	615	1.38	655	1.55	805	1.6	750	4
5					1.8	1,155	1.85	1,240	1.55	805	1.43	750	1.3	615	1.51	750	1.29	580	1.42	655	1.46	700		5	
6					1.78	1,155	1.65	930	1.57	805	1.4	700	1.33	655	1.25	550	1.32	580	1.41	655	1.5	750	1.55	700	6
7					1.9	1,330	1.63	930	1.62	865	1.38	700	1.3	615	1.26	550	1.35	615	1.4	655	1.5	750	1.6	750	7
8					1.95	1,425	1.65	930	1.6	865	1.44	750	1.3	615	1.27	550	1.33	615	1.32	580	1.5	750	1.62	655	8
9					1.98	1,525	1.68	1,000	1.61	865	1.48	805	1.29	615	1.2	525	1.31	580	1.34	615	1.52	750	1.68	750	9
10					2.1	1,740	1.85	1,240	1.72	1,000	1.39	700	1.31	615	1.22	525	1.32	580	1.35	615	1.5	750	1.62	655	10
11					2.05	1,630	1.7	1,000	1.68	1,075	1.41	700	1.33	655	1.24	550	1.29	580	1.44	700	1.52	750	1.61	655	11
12					2.13	1,860	1.58	865	1.55	865	1.31	615	1.35	655	1.28	580	1.32	580	1.5	750	1.56	805	1.6	655	12
13					2.15	1,860	1.62	865	1.53	865	1.28	615	1.32	615	1.3	580	1.33	615	1.42	655	1.58	865	1.51	580	13
14					2.1	1,740	1.6	865	1.48	805	1.3	615	1.38	700	1.42	655	1.35	615	1.43	700	1.55	805	1.41	525	14
15		1.26	550	2.05	1,630	1.52	750	1.47	750	1.32	615	1.4	700	1.35	615	1.43	700	1.45	700	1.6	(a)	1.45	550	15	
16		1.22	525	1.98	1,525	1.57	805	1.45	750	1.3	615	1.37	655	1.4	655	1.4	700	1.51	750		(a)	1.65	655	16	
17		1.13	505	2.02	1,625	1.6	865	1.5	805	1.34	655	2.12	1,860	1.39	655	1.38	700	1.4	655		(a)	1.8	750	17	
18		1.56	805	2.05	1,630	1.68	1,000	1.51	805	1.3	615	1.37	615	1.35	615	1.37	655	1.41	655		(a)	1.82	750	18	
19		1.66	930	2.03	1,630	1.9	1,240	1.48	805	1.42	700	2	1,525	1.33	615	1.35	655	1.39	655		(a)	1.88	865	19	
20		1.75	1,075	1.78	1,155	1.87	1,155	1.45	750	1.35	655	1.55	805	1.34	615	1.38	700	1.42	655		(a)	1.82	750	20	
21		1.84	1,240	1.85	1,240	1.75	1,000	1.47	750	1.52	805	1.41	655	1.33	615	1.41	700	1.45	700		(a)	1.89	865	21	
22		1.95	1,425	1.72	1,000	1.7	930	1.45	750	1.35	655	1.35	615	1.34	615	1.45	750	1.48	750	1.8	750	1.78	750	22	
23		1.7	1,000	1.8	1,155	1.72	930	1.4	700	1.48	805	1.34	615	1.31	580	1.34	655	1.48	750	1.75	700	1.8	750	23	
24		1.83	1,240	1.75	1,075	1.58	805	1.42	700	1.4	700	1.32	580	1.32	580	1.35	655	1.47	700	1.65	615	1.79	750	24	
25		1.76	1,075	1.78	1,155	1.63	865	1.38	700	1.4	700	1.33	615	1.29	580	1.42	700	1.45	700	1.62	580	1.9	865	25	
26		1.98	1,525	1.96	1,425	1.55	750	1.57	865	1.35	655	1.35	615	1.35	615	1.4	655	1.4	655	1.6	655	2	1,000	26	
27		1.95	1,425	1.95	1,425	1.53	750	1.4	700	1.36	655	1.3	580	1.45	700	1.34	615	1.45	700	1.62	655	1.8	750	27	
28		1.42	655	1.9	1,330	1.65	865	1.4	700	1.4	700	1.25	550	1.37	615	1.36	615	1.48	750	1.63	700	1.75	700	28	
29					1.88	1,330	1.6	805	1.5	805	1.35	655	1.3	580	1.33	615	1.4	655	1.49	750	1.57	615	1.74	700	29
30					1.85	1,240	1.57	750	1.41	700	1.33	615	1.36	615	1.27	550	1.45	700	1.47	700	1.52	655	1.72	655	30
31					1.88	1,330			1.42	700			1.47	700	1.31	580			1.48	750			1.73	700	31
Mean			998		1,357		979		794		692		912		843		638		685		724		723		
Run-off in acre-ft.			27,700		83,400		58,200		48,800		41,200		56,100		51,800		38,000		42,100		43,100		43,000		
Maximum			1,520		1,860		1,425		1,070		805		7,000		6,800		750		750		865		1,000		
Minimum			505		525		750		700		615		550		525		580		580		580		525		

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Valentine, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2	1.65	615	2.3	600	2.05	600	1.56	655	1.55	700	1.86	1,155	1.35	615	1.3	615	1.54	805	1.51	750	1.55	805	1.54	805	2
3	1.74	700	2.25	600	1.9	865	1.53	655	1.6	750	1.78	1,075	1.35	615	1.6	930	1.36	615	1.5	750	1.52	750	1.51	750	3
4	1.63	615	2.35	600	1.55	550	1.55	655	1.55	700	2.05	1,525	1.37	615	1.33	655	1.37	615	1.55	805	1.53	805	1.5	750	3
5	1.67	615	2.15	600	1.8	750	1.57	655	1.75	930	1.85	1,155	1.4	655	1.4	700	1.49	750	1.53	805	1.55	805	1.58	865	4
6	1.68	655	2.25	600	1.75	700	1.6	700	1.7	865	1.58	805	1.92	1,330	1.38	700	1.5	750	1.52	750	1.54	805	1.51	865	5
6	1.75	700	2.4	600	2.02	1,000	1.56	655	1.65	805	1.55	750	1.5	750	1.4	700	1.38	655	1.45	700	1.57	805	1.56	805	6
7	1.8	750	1.95	600	1.87	865	1.58	700	1.57	700	1.55	750	1.8	1,155	1.32	615	1.4	655	1.36	615	1.55	805	1.65	865	7
8	1.8	750	1.82	750	1.8	805	1.6	700	1.72	865	1.85	1,155	1.53	805	1.3	615	1.39	655	1.38	655	1.52	750	1.64	930	8
9	1.76	700	1.8	750	1.7	615	1.56	665	1.6	750	2.3	2,115	1.42	655	1.31	615	1.37	615	1.42	655	1.56	805	1.6	865	9
10	1.73	700	1.95	930	1.78	865	1.6	700	1.5	655	1.6	805	1.4	655	1.3	615	1.34	615	1.47	700	1.6	865	1.66	930	10
11	1.7	655	1.83	805	1.67	700	1.6	700	1.52	655	1.61	805	1.55	805	1.25	580	1.36	615	1.48	750	1.58	865	1.61	865	11
12	1.74	700	1.96	930	1.65	700	1.55	655	1.72	865	1.57	750	1.47	700	1.29	615	1.35	615	1.45	700	1.55	805	1.55	805	12
13	1.73	700	2.36	600	1.6	655	1.56	655	1.6	750	1.55	750	1.45	700	1.3	615	1.35	615	1.46	700	1.54	805	1.56	805	13
14	1.74	700	2.32	600	1.62	655	1.6	700	1.55	700	1.45	655	1.42	655	1.35	655	1.25	550	1.43	700	1.52	750	1.67	930	14
15	1.75	700	1.96	600	1.58	700	1.58	700	1.51	655	1.54	750	1.42	655	1.25	580	1.3	580	1.41	655	1.55	805	1.6	865	15
16	1.71	655	2	600	1.6	700	1.58	700	1.52	655	1.5	700	1.31	580	1.3	615	1.26	550	1.48	750	1.53	805	1.71	800	16
17	1.7	655	2.28	600	1.6	700	1.58	700	1.49	655	1.42	615	1.32	580	1.35	700	1.28	580	1.43	700	1.52	750	1.65	800	17
18	1.75	700	2.2	600	1.57	655	1.55	655	1.51	655	1.4	615	1.3	580	1.33	700	1.3	580	1.62	865	1.56	805	1.72	800	18
19	1.66	615	2.25	600	1.55	655	1.5	615	1.48	655	1.47	655	1.31	580	1.44	750	1.36	615	1.63	930	1.57	805	1.57	800	19
20	1.61	580	2.32	600	1.55	655	1.49	615	1.5	655	1.7	930	1.26	550	1.4	700	1.35	615	1.55	805	1.52	750	1.64	800	20
21	1.56	550	2.31	600	1.58	700	1.53	655	1.52	655	1.46	655	1.37	615	1.36	655	1.26	550	1.54	805	1.58	865	1.72	800	21
22	1.6	580	2.4	600	1.5	615	1.62	700	1.5	655	1.42	615	1.32	580	1.34	655	1.3	580	1.56	805	1.51	750	1.78	800	22
23	1.61	580	2.42	600	1.41	550	1.55	655	1.52	655	1.45	655	1.3	580	1.3	615	1.32	580	1.54	805	1.54	805	1.74	800	23
24	1.4	490	2.2	600	1.52	615	1.63	750	1.5	655	1.35	615	1.23	550	1.31	615	1.33	615	1.54	805	1.53	805	1.77	800	24
25	.95	450	2.15	600	1.53	655	1.6	700	1.51	655	1.51	750	1.32	580	1.27	580	1.36	615	1.53	805	1.48	750	1.72	800	25
26	1.45	505	2.2	600	1.39	550	1.58	700	1.45	655	1.41	655	1.27	580	1.25	580	1.35	615	1.51	750	1.54	805	1.1	800	26
27	1.72	655	2.23	600	1.52	615	1.61	700	1.47	655	1.35	615	1.34	655	1.26	580	1.37	615	1.5	750	1.53	805	1.4	800	27
28	2.15	600	2.32	600	1.58	700	1.5	615	1.45	655	1.36	615	1.37	655	1.35	615	1.42	655	1.55	805	1.6	865	1.85	800	28
29	2.25	600	2.15	600	1.6	700	1.57	655	1.45	655	1.38	655	1.3	615	1.35	615	1.4	655	1.57	805	1.54	805	1.75	800	29
30	2.2	600	.....	.....	1.55	655	1.65	655	1.46	655	1.36	615	1.35	655	1.32	580	1.45	700	1.58	865	1.56	805	1.3	800	30
31	2.55	600	.....	.....	1.62	700	.....	.....	1.48	700	.....	.....	1.32	615	1.34	615	.....	.....	1.54	805	.....	.....	2.2	800	31
Mean	634		640		692		674		705		832		675		644		627		760		800		823		
Run-off in acre-ft.	39,000		36,800		82,500		40,100		43,300		49,500		41,500		39,600		37,300		46,700		47,600		50,600		
Maximum	750		930		1,000		750		930		2,110		1,330		930		805		930		865		930		
Minimum	450		600		550		615		655		615		550		580		550		615		750		750		

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Valentine, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	1.75	930	1.97	1,060	1.9	835	2.6	1,710	1.9	1,180	1.45	672	1.35	632	1.25	595	1.35	700	1.25	573	1.7	985	.....	.....	1
2	1.7	875	1.92	1,000	.....	1,080	2.35	1,850	2	1,300	1.5	720	1.35	632	1.25	595	1.3	660	1.4	685	1.7	985	.....	.....	2
3	1.76	940	1.95	1,040	.....	1,340	2.15	1,120	1.9	1,170	1.5	720	1.35	632	1.25	595	1.3	660	1.5	645	1.75	1,040	.....	.....	3
4	1.8	985	1.9	985	2.55	1,590	2.12	1,080	1.9	1,160	1.6	815	1.35	632	1.6	907	1.25	625	1.3	608	1.75	1,040	.....	.....	4
5	1.82	997	1.62	685	2.8	1,950	2.07	1,030	1.85	1,100	1.55	770	1.4	675	1.45	1,060	1.25	625	1.3	608	1.75	930	.....	.....	5
6	1.85	1,040	1.5	595	2.55	1,590	1.96	905	1.9	1,140	1.55	770	1.35	635	1.5	810	1.25	625	1.25	573	1.68	980	.....	.....	6
7	1.78	950	1.75	805	2.2	1,120	1.96	900	1.75	967	1.45	682	1.4	675	1.6	915	1.3	665	1.35	645	1.6	870	.....	.....	7
8	1.55	705	1.83	890	2.5	1,520	2.1	1,070	1.65	840	1.4	645	1.3	600	1.5	810	1.3	665	1.35	645	1.6	870	.....	.....	8
9	1.6	750	1.78	725	2.25	1,180	2.12	1,100	1.65	835	1.3	575	1.25	573	1.45	760	1.3	665	1.3	608	1.55	820	.....	.....	9
10	1.68	828	1.85	890	2.05	940	2.07	1,050	1.6	780	1.3	577	1.3	607	1.55	865	1.25	625	1.3	608	1.55	820	.....	.....	10
11	1.63	778	1.87	895	1.75	630	1.98	945	1.65	820	1.45	690	1.55	820	1.5	815	1.55	910	1.25	573	1.5	770	.....	.....	11
12	1.82	970	1.95	985	1.32	390	2.08	1,080	1.55	725	1.4	648	1.4	685	1.4	720	1.35	710	1.3	608	1.5	770	.....	.....	12
13	1.93	1,100	1.75	770	1.35	400	2.3	1,350	1.6	775	1.35	642	1.35	645	1.45	765	1.35	710	1.35	645	1.55	820	.....	.....	13
14	1.85	1,000	1.7	725	1.65	562	2.32	1,370	1.55	730	1.35	616	1.4	685	1.4	725	1.3	670	1.35	645	1.55	820	.....	.....	14
15	1.87	1,030	1.75	755	1.6	510	2.07	1,070	1.55	735	1.4	655	1.4	685	1.35	685	1.4	760	1.4	685	1.6	870	.....	.....	15
16	1.8	930	1.95	965	1.85	680	2.12	1,130	1.5	690	1.35	620	1.35	645	1.3	642	1.35	715	1.35	645	1.6	870	.....	.....	16
17	1.85	990	2.08	1,120	1.9	720	2.05	1,060	1.55	735	1.4	655	1.35	652	1.3	642	1.3	675	1.45	730	1.45	730	.....	.....	17
18	1.85	990	2.03	1,060	1.95	790	2.06	1,070	1.4	665	1.35	620	1.35	652	1.3	647	1.3	675	1.4	685	1.5	770	.....	.....	18
19	1.9	1,050	2.15	1,180	1.95	790	2.02	1,020	1.4	620	1.4	657	1.3	615	1.25	610	1.4	765	1.4	685	1.4	685	.....	.....	19
20	1.85	978	2	995	1.95	800	2.05	1,060	1.4	620	1.3	585	1.3	615	1.25	610	1.4	765	1.7	985	1.3	607	.....	.....	20
21	1.65	768	1.95	940	2.12	985	1.9	925	1.45	660	1.3	585	1.3	620	1.3	647	1.45	810	1.6	870	1.45	730	.....	.....	21
22	1.7	815	1.9	885	2.07	945	1.95	1,000	1.45	660	1.35	620	1.3	620	1.3	650	1.4	685	1.55	820	1.50	770	.....	.....	22
23	2.45	1,750	2	970	2	860	1.95	1,020	1.5	795	1.35	620	1.3	620	1.5	830	1.3	607	1.5	770	1.55	820	.....	.....	23
24	2.2	1,400	1.9	860	2.1	995	1.9	990	1.5	705	1.4	662	1.25	585	1.55	880	1.3	607	1.75	1,040	1.7	985	.....	.....	24
25	2.2	1,400	1.85	810	2	875	1.85	950	1.55	750	1.4	662	1.25	590	1.5	830	1.4	685	1.5	770	1.65	930	.....	.....	25
26	2.15	1,330	1.95	915	2.08	990	1.85	980	1.95	1,200	1.45	705	1.25	590	1.4	740	1.35	645	1.65	930	1.6	870	.....	.....	26
27	2.18	1,370	1.85	785	2.15	1,060	1.8	940	1.6	805	1.45	705	1.3	625	1.3	655	1.3	607	1.7	985	1.55	820	.....	.....	27
28	2.1	1,240	1.92	855	2.2	1,140	1.8	960	1.5	710	1.4	666	1.25	590	1.35	695	1.3	607	1.75	1,040	1.6	870	.....	.....	28
29	2.1	1,240	.....	.....	2.25	1,200	1.75	930	1.6	810	1.4	666	1.25	595	1.3	655	1.3	607	1.85	1,160	1.7	985	.....	.....	29
30	2.05	1,180	.....	.....	2.25	1,220	1.75	960	1.55	760	1.35	630	1.25	595	1.3	660	1.3	607	1.8	1,100	1.65	930	.....	.....	30
31	1.95	1,060	.....	.....	2.18	1,130	.....	.....	1.5	715	.....	.....	1.25	595	1.3	660	.....	.....	1.7	985	.....	.....	.....	.....	31
Mean . . .	1,040	.....	898	.....	994	.....	1,070	.....	843	.....	662	.....	633	.....	731	.....	678	.....	760	.....	859	.....	.....	.....	.....
Run-off in acre-ft.	64,000	.....	49,900	.....	61,200	.....	63,700	.....	51,800	.....	39,400	.....	38,900	.....	44,900	.....	40,300	.....	46,700	.....	51,100	.....	.....	.....	.....
Maximum	1,750	.....	1,180	.....	1,950	.....	1,710	.....	1,300	.....	815	.....	820	.....	1,060	.....	910	.....	1,160	.....	1,040	.....	.....	.....	.....
Minimum	705	.....	595	.....	390	.....	900	.....	620	.....	575	.....	573	.....	595	.....	607	.....	573	.....	607	.....	.....	.....	.....

NIOBRARA RIVER NEAR SPENCER

Location. At the Whiting bridge about six miles south of town.

Records Available. From May 15, to December 31, 1908.

Gage. A standard chain and weight gage fastened to the lower chord of the second panel of the bridge from the north end. Length of chain from end of weight to marker 14.37 feet.

Bench Marks. No. 1. Top of north concrete pier six inches west of shoe of west truss. Elevation 14.87 feet. No. 2. Top of south concrete pier, one foot east of upstream point of pier. Elevation, 14.46 feet. No. 3. Top of north end of gage box, when cover is closed. Elevation 6.26 feet. Bench mark datum is zero of gage.

Channel. Narrow at this point and straight for about one hundred twenty-five feet above and a thousand feet below the bridge.

Accuracy. The very high velocity makes it difficult to make measurements. Gage heights will also be uncertain.

Actual Discharge Measurements of Niobrara River, near Spencer, During Year Ending September 30, 1908

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1908		Feet	Sec.-ft.	1908		Feet	Sec.-ft.
May 15	G. W. Bates	4.8	2,830	July 23	Arthur Dobson	4.6	1,280
16	do	4.7	2,830	Sept. 9	do	4.62	867
June 11	Arthur Dobson	4.55	2,590				



Niobrara South of Spencer

NIOBRARA RIVER NEAR LYNCH

Location. Six miles south of Lynch in Section 2 Township 32 North, Range 10 West.

Records Available. From August 1, 1913 to September 30, 1914.

Channel. Very shifting.

Gage. The gage No. 1, is a staff nailed to a pile which is part of a pier of an old highway bridge. This pile is about twenty feet from the south bank and under the present highway bridge. Gage No. 2, is a chain and weight which is kept at the house of the observer and used over a pulley riveted to the handrail which is graduated to read the same as the staff gage.

Bench Mark. The point of the ice breaker on the south abutment. Elevation, 13.25 feet above zero of the gage.

Accuracy. The shifting bed and also piles of an old bridge will be sources of error. After proper deductions are made for the piles they will cause little trouble.

Actual Discharge Measurements of Niobrara River, at Lynch

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1914		Feet	Sec.-ft.	1914		Feet	Sec.-ft.
Apr. 4....	D. P. Weeks, Jr...	1.93	1,763	July 11....	D. P. Weeks, Jr...	1.55	741
May 8....	do	1.91	1,875	Aug. 7....	do	1.72	799
June 10....	do	1.7	1,506	Sept. 2....	do	2.08	1,063

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, at Lynch, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1															2.1	970	2.1	1,150	2.3	1,370	2	1,200	2.1	1,200	1	
2															2.2	1,050	2.2	1,240	2.4	1,480		1,250	2.4	1,300	2	
3															2.2	1,050	2.2	1,240	2.3	1,370	2.1	1,300	2.3	1,300	3	
4															2.2	1,050	2.2	1,240	2.3	1,370	2.1	1,300	2.4	1,300	4	
5															2.3	1,140	2.2	1,240		1,360	2	1,200	2.3	1,200	5	
6															2.3	1,140	2.1	1,150		1,360	1.9	1,170	2.3	1,170	6	
7															2.3	1,140	2.1	1,150		1,350	2	1,260	2.3	1,260	7	
8															2.2	1,050	2.2	1,240		1,350	1.9	1,170	2.3	1,170	8	
9															2.6	1,550	2.2	1,240		1,340	2.1	1,360	2.2	1,360	9	
10															2.6	1,670	2.4	1,440		1,340	2.1	1,360	2.2	1,360	10	
11															2.5	1,550	2.3	1,380		1,330		1,470	2.3	1,470	11	
12															2.2	1,240	2.2	1,240		1,330	2.3	1,580	2.1	1,580	12	
13															2.3	1,330	2.2	1,240	2.2	1,320	2.3	1,580	2.1	1,580	13	
14															2.2	1,240	2.3	1,330	2.3	1,430	2.3	1,580	2.3	1,580	14	
15															2.2	1,240	2.2	1,240	2.3	1,430	2.4	1,710	2.2	1,710	15	
16															2.3	1,330		1,240	2.2	1,370	2.15	1,410	2.3	1,410	16	
17															2	1,050		1,270		1,370	2.3	1,580	2.2	1,580	17	
18															2.2	1,240		1,300	2.2	1,370	2.2	1,470	2.1	1,470	18	
19															2.2	1,240		1,330	2	1,180	2.1	1,360	2.5	1,360	19	
20															2.3	1,330	2.3	1,330	2.2	1,370	2.1	1,360	2.4	1,360	20	
21															2.2	1,240	2.3	1,330	2.2	1,370	2.2	1,470	2.4	1,470	21	
22															2.2	1,240	2.3	1,330	2.1	1,270	2.3	1,580		1,580	22	
23															2.3	1,330	2.4	1,480	2	1,180	2.2	1,470		1,470	23	
24															2	1,000	2.4	1,480	2.2	1,370	2.1	1,360		1,360	24	
25															2	1,240	2.5	1,600		1,370	2.1	1,360		1,360	25	
26															2.1	1,150	2.4	1,480	2.2	1,370	2.3	1,580		1,580	26	
27															2.1	1,150	2.4	1,480	1.9	1,120	2.2	1,470		1,470	27	
28															2.1	1,150	2.5	1,600	2	1,200	2.2	1,470		1,470	28	
29															2.1	1,150	2.4	1,480		1,200	2.3	1,580	2.4	1,580	29	
30															2	1,050	2.3	1,370		1,200	2.2	1,470	2.2	1,470	30	
31															2.1	1,150				2	1,200					31
Mean															1,210		1,330		1,320		1,420					
Run-off in acre-ft.															74,400		79,100		81,200		84,500					
Maximum															1,670		1,600		1,480		1,710					
Minimum															970		1,150		1,120		1,170					

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, near Lynch, for 1914

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.1	2,050	2.3	2,520	1.85	1,700	2.2	1,500	1.9	930	1.85	895							1
2							1.8	1,620	1.8	1,740	1.85	1,700	2.08	1,320		912	2	1,000							2
3							1.8	1,620	2.2	2,340	1.9	1,770	2.15	1,390	1.85	895	1.9	930							3
4							1.9	1,750	2.1	2,170	1.85	1,700	2.2	1,400	1.8	860	1.95	965							4
5							1.8	1,620	2.1	2,170	1.9	1,770		1,200	1.7	800	1.9	930							5
6							2	1,920	1.9	1,880	2.35	2,500	1.8	980	1.7	800	2	1,000							6
7							2.3	2,420	1.9	1,880	2	1,900	1.8	980	1.7	800	2.35	1,320							7
8							2.4	2,620	1.8	1,650	1.9	1,750	1.85	980	1.75	830	2.3	1,270							8
9							2.1	2,070	1.8	1,650	2.2	2,200	1.88	1,000	1.55	725	2.2	1,170							9
10							2.4	2,620	2.2	2,320	1.7	1,510	1.8	870	1.7	800	2.2	1,170							10
11							2.3	2,440	2.1	2,150	1.7	1,510	1.8	860	1.6	750		1,050							11
12							2.3	2,440	2.2	2,320	1.78	1,550	1.7	800	1.8	860	1.9	930							12
13							1.9	1,790	2.1	2,150	2.3	2,300		830	1.82	874	2.25	1,220							13
14							2.2	2,260	2	2,000		1,900	1.8	860	1.8	860	2.25	1,220							14
15							2	1,940	2.2	2,320	1.85	1,550	1.85	895	1.85	895	2.2	1,170							15
16							2.2	2,280		2,360	2.25	2,050	1.8	860	1.8	860	1.95	965							16
17				1.7	1,500		2.2	2,280		2,400	2.15	1,900	1.72	812	1.9	930	1.8	860							17
18					1,950		2.1	2,110		2,440	1.9	1,500	1.78	848	1.8	860	2	1,000							18
19				2.3	2,400		2.3	2,280	2.3	2,480	1.8	1,400	1.95	965	1.8	860	2	1,000							19
20				2.2	2,200		2.3	2,460	3.8	6,000	1.82	1,400	1.88	916	2	1,000	1.8	860							20
21					2,200		2.3	2,480		3,000		1,340	1.88	916	2	1,000	1.8	860							21
22					2,200		2.2	2,300	2.08	2,100	1.8	1,280	1.9	930		1,040	2.1	1,080							22
23					2,200		2.2	2,200	2.1	2,130	2.2	2,280	2	1,500	1.82	874	2.1	1,080	1.8	860					23
24				2.4	2,600		2.4	2,680	3.1	4,200	1.9	1,340	1.8	860	1.85	895	1.92	944							24
25					2,500		2.4	2,680	1.5	1,360	1.95	1,380	1.9	930	2	1,000	2	1,000							25
26					2,400		2.3	2,700	1.82	1,690	1.85	1,250	1.9	930	1.8	860	2.1	1,080							26
27				1.9	1,750		2.3	2,500	1.7	1,540	1.85	1,250	1.8	860	2	1,000	1.98	986							27
28				2.1	2,050		2.5	2,900	1.98	1,920	2.02	1,360	1.9	930	2	1,000	2	1,000							28
29					1,900		2.3	2,500	1.88	1,770	2.05	1,400	1.88	916	1.9	930	1.9	930							29
30				1.9	1,750		2.3	2,500	1.88	1,770	2.3	1,620	3.45	3,060	2	1,000	1.8	860							30
31				1.9	1,750				1.9	1,790			2.15	1,120	1.92	944									31
Mean					2,096			2,270		2,270		1,640		1,050		900		1,020							
Run-off in acre-ft.					62,200			135,000		140,000		97,600		64,600		55,300		60,700							
Maximum					2,600			2,900		6,000		2,500		3,060		1,080		1,320							
Minimum					1,500			1,620		1,360		1,250		800		725		860							

NIOBRARA AT NIOBRARA

Location. At the government highway bridge spanning the main channel in the southeast quarter of Section 18, Township 32 North, Range 6 West; a half mile from the depot at Niobrara. The station is one and one-half miles above the mouth. No tributaries enter below.

Records Available. From May 19 to October 25, 1902, and from August 19, 1910 to July 30, 1913.

Drainage Area. Not measured.

Gage. A vertical staff on the pile on the southwest end of the bridge.

Bench Marks. No. 1. Telephone pole one hundred fifty feet south and two hundred feet west of the west end of the bridge about two feet above ground, two wire nails. Elevation, 6.84 feet above zero of the gage. No. 2. Top of first pile to the south of group of three piles forming a support for the west end of truss south side of bridge. Elevation, 10.41 feet above zero of gage.

Channel. Shifting and within the influence of the back water of the Missouri river.

Accuracy. Owing to the shifting channel and the back water from the Missouri river and often very swift water, measurements have been very unsatisfactory and during part of the period no estimates of discharge have been made.

Actual Discharge Measurements of Niobrara River, at Niobrara

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1897		Feet	Sec.-ft.	1911		Feet	Sec.-ft.
June 22	O. V. P. Stout	1.8	759	Aug. 4	A. B. Price	1.5	1,080
1901				Aug. 26	do	1.5	1,150
April 6	do	1.8	1,591	Sept. 25	do	1.4	1,100
7	do	1.8	2,115	Oct. 5	do	1.3	1,210
Aug. 27	do	1.8	990	1912			
1902				Apr. 27	C. G. Hrubesky	1.8	2,395
May 11	J. C. Stevens	2.55	1,637	May 5	A. B. Price	1.9	2,683
July 6	do	2.85	2,021	May 24	H. W. Roberts	1.8	2,017
25	do	2	1,401	June 20	D. P. Weeks, Jr.	2.1	1,601
Aug. 21	do	2.1	1,106	July 25	do	1.9	1,277
Sept. 28	do	1.9	2,201	Aug. 22	do	1.5	1,231
1910				Sept. 23	do	1.1	2,113
Aug. 26	D. D. Price	2.1	1,040	Oct. 28	do	1.8	1,842
Oct. 9	A. A. Dobson	1.8	1,000	Nov. 30	do	0.9	2,390
Nov. 26	do	1.5	1,650	1913			
1911				Mar. 20	D. P. Weeks, Jr.	1.8	1,336
Mar. 31	A. A. Dobson	0.85	2,240	Apr. 21	do	2.7	2,334
Apr. 26	A. B. Price	1.3	1,860	May 26	do	1.8	2,356
May 27	do	1.4	1,960	June 26	do	2.2	2,800
June 22	do	1.4	1,140	July 29	do	1.85	1,007

Discontinued July 29, 1913.

Daily Gage Height (in feet) and Discharge (in second-feet) of Niobrara River, at Niobrara, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							.9	1,290	1.8	2,510	1.4	1,955	1		1.3	1,060	1.2	1,015	1.3	1,219	1.4	1,219	1.4	2.9		1
2							1	1,430	1.6	2,230	1.3	1,815	1.1	900	1.3	1,060	1.3	1,100	1.4	1,310	1.3	1,310	1.4	2.8		2
3							1.1	1,570	1.6	2,230	1.3	1,815	1.1	900	1.4	1,070	1.3	1,100	1.3	1,217	1.3	1,217	1.3	2.8		3
4							1.1	1,570	1.6	2,230	1.2	1,675	1.2	980	1.5	1,080	1.5	1,220	1.5	1,400	1.3	1,400	1.3	2		4
5							1.2	1,720	1.5	2,100	1.3	1,815	1.3	1,060	1.5	1,080	1.5	1,220	1.4	1,214	1.3	1,214	1.3	.7		5
6							1.3	1,860	1.5	2,100	1.3	1,815	1.3	1,060	1.5	1,080	1.6	1,355	1.4	1,310	.7	1,310	.7	.7		6
7							1.1	1,570	1.5	2,100	1.4	1,142	1.2	980	1.5	1,230	1.5	1,270	1.8	1,680	1.2	1,680	1.2	.7		7
8							1.1	1,570	1.5	2,100	1.4	1,142	1.2	980	1.6	1,230	1.5	1,270	1.6	1,495	1.1	1,495	1.1	.7		8
9							1	1,430	1.5	2,100	1.3	1,060	1.4	1,142	1.7	1,310	1.4	1,185	1.6	1,495	1.3	1,495	1.3	.7		9
10							.8	1,145	1.5	2,100	1.3	1,060	1.2	980	1.6	1,230	1.4	1,185	1.4	1,310	1.3	1,310	1.3	.6		10
11							.9	1,290	1.4	1,955	1.3	1,060	1.2	980	1.6	1,230	1.4	1,185	1	934	1.4	934	1.4	.7		11
12							.9	1,290	1.4	1,955	1.2	980	1.3	1,060	1.6	1,230	1.4	1,185	.8	747	.9	747	.9	.8		12
13							.9	1,290	1.4	1,955	1.2	980	1.3	1,060	1.5	1,155	1.3	1,100	.8	747	.7	747	.7	.9		13
14							.9	1,290	1.5	2,100	1.3	1,060	1.3	1,060	1.5	1,155	1.4	1,185	1	934	.7	934	.7	.8		14
15							.8	1,145	1.4	1,955	1.4	1,142	1.4	1,142	1.5	1,155	1.4	1,185	1.5	1,400	.8	1,400	.8	.8		15
16							1.6	2,290	1.4	1,955	1.3	1,060	1.4	1,142	1.5	1,155	1.5	1,270	1.9	1,775	1	1,775	1	.9		16
17							1	1,430	1.4	1,955	1.3	1,060	1.4	1,142	1.4	1,076	1.4	1,185	2	1,868	1.2	1,868	1.2	2.3		17
18							.9	1,290	1.5	2,100	1.5	1,225	1.4	1,142	1.5	1,153	1.4	1,185	1.9	1,775	2	1,775	2	2.4		18
19							.9	1,290	1.4	1,955	1.5	1,225	1.5	1,225	1.6	1,230	1.5	1,270	1.7	1,588	2.2	1,588	2.2	3.5		19
20							1	1,430	1.3	1,815	1.5	1,225	1.5	1,225	1.6	1,230	1.3	1,100	1.4	1,310	2	1,310	2	4.9		20
21							1.2	1,720	1.3	1,815	1.5	1,225	1.4	1,142	1.5	1,153	1.4	1,185	1.4	1,310	1.5	1,310	1.5	4		21
22							1.2	1,720	1.5	2,100	1.4	1,142	1.4	1,142	1.4	1,076	1.4	1,185	1.1	1,025	1.3	1,025	1.3	4		22
23							1.2	1,720	1.5	2,100	1.4	1,142	1.4	1,142	1.5	1,154	1.4	1,185	1	934	1.1	934	1.1	4		23
24							1.2	1,720	1.4	1,955	1.3	1,060	1.5	1,225	1.5	1,154	1.4	1,185	1	934	1.1	934	1.1	4		24
25							1.2	1,720	1.4	1,955	1.3	1,060	1.5	1,225	1.6	1,230	1.3	1,100	1.2	1,120	1.1	1,120	1.1	3.8		25
26							1.3	1,860	1.4	1,955	1.4	1,142	1.5	1,225	1.5	1,153	1.4	1,185	1.3	1,214	1.3	1,214	1.3	3.8		26
27							1.2	1,720	1.4	1,955	1.6	1,305	1.4	1,142	1.4	1,076	1.4	1,185	1.3	1,214	1.3	1,214	1.3	3.9		27
28							1.2	1,720	1.3	1,815	1.4	1,142	1.3	1,060	1.5	1,153	1.4	1,185	1.3	1,214	2.4	1,214	2.4	3.4		28
29							1.2	1,720	1.4	1,955	1.2	980	1.3	1,060	1.5	1,153	1.4	1,185	1.4	1,310	2.6	1,310	2.6	3		29
30							1.4	2,000	1.2	1,675	1	816	1.3	1,060	1.4	1,076	1.3	1,100	1.5	1,400	2.8	1,400	2.8	3		30
31						.85				1.2	1,675		816	1.3	1,060	1.4	1,076		1.4	1,310		1,310		2.8		31
Mean								1,560		2,015		1,229		1,034		1,150		1,184		1,280		1,280				
Run-off in acre-ft.								89,830		123,900		75,500		63,500		70,750		70,500		78,750		78,750				
Maximum								2,290		2,510		1,305		1,225		1,310		1,355		1,775		1,775				
Minimum								1,145		1,675		816		900		1,060		1,015		747		747				

Daily Gage Height (in feet) of Niobrara River, at Niobrara, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2	1.9	.....	.....	.....	.....	.....	1.8	.....	1.7	.....	1.8	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
3	1.8	.....	.....	.....	.....	.....	2	.....	2.1	.....	1.8	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
4	1.7	.....	.....	.....	.....	.....	1.8	.....	2	.....	1.8	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
5	1.8	.....	.....	.....	.....	.....	1.8	.....	1.9	.....	1.8	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
6	1.6	.....	1.8	.....	1.8	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6
7	1.8	.....	1.8	.....	1.7	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7
8	1.7	.....	1.9	.....	1.8	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8
9	1.8	.....	2	.....	1.9	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
10	1.8	.....	1.9	.....	1.8	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10
11	1.9	.....	1.8	.....	1.8	.....	2.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11
12	1.9	.....	1.9	.....	1.8	.....	2.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12
13	2.2	.....	3	.....	1.8	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13
14	2.8	.....	2.1	.....	1.8	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14
15	1.9	.....	1.6	.....	1.8	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15
16	1.8	.....	1.7	.....	1.8	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16
17	1.7	.....	1.7	.....	1.9	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17
18	1.7	.....	1.7	.....	1.9	.....	2.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18
19	1.8	.....	1.8	.....	1.9	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19
20	1.8	.....	2.1	.....	1.8	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20
21	1.7	.....	2	.....	1.9	.....	2.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21
22	1.8	.....	1.9	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22
23	2	.....	1.9	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23
24	2.1	.....	1.8	.....	1.9	.....	2.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24
25	1.9	.....	1.8	.....	1.8	.....	2.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25
26	1.8	.....	1.8	.....	1.8	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26
27	1.8	.....	1.7	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27
28	1.7	.....	1.7	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	28
29	1.6	.....	1.8	.....	1.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29
30	1.7	.....	1.7	.....	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30
31	1.8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31
Mean
Run-off in acre-ft.
Maximum
Minimum

Discontinued July 1913

SOUTH PLATTE RIVER AT JULESBURG, COLORADO

Location. At pile bridge about one mile south of town.

Records Available. From April 1, 1902 to November 14, 1906; from May 12, 1908 to September 30, 1914.

Drainage Area. 20,600 square miles.

Gage. The original gage was a vertical staff spiked to pile on the downstream side of the bridge 1,600 feet from the north end. When the station was re-established in 1908 the gage was moved two hundred feet up stream and it is in no way referred to the old gage. This gage was a standard chain and weight on the downstream handrail of the bridge. Chain length, 14.30 feet from end of weight to index. There is also a rod gage nailed to the downstream side nailed to fifth pile from the right abutment which is at the same datum as the chain gage. Another rod gage is nailed to the downstream side of the thirty-ninth pile from the north abutment with elevation which is practically the same as the chain gage.

Bench Mark. No. 1. A spike in the south face of the pile directly over the gage, marked B. M. Elevation, 8.00 feet above zero of the gage. No. 2. Cross marked with white paint on top of 6"x6" post driven in ground on downstream side of right or south approach to bridge. Elevation, 10.18 feet above zero of the chain gage.

Channel. Fairly straight at the gaging section at high stages. At low stages small channels wind about at various angles.

Accuracy. Affected by shifting sand.

Co-operation. During 1914 the field work in connection with maintaining this station was furnished jointly by the states of Colorado and Nebraska and the United States Geological Survey. Records previous to 1914 have been obtained from water supply papers of the U. S. G. S.

Discharge Measurements of South Platte River, at Julesburg, Colorado

Date	Hydrographer	Gage height	Discharge	Date	Hydrographer	Gage height	Discharge
1902		Feet	Sec.-ft.	1909		Feet	Sec.-ft.
April 2	J. E. Field	1.3	35	Sept. 2	G. H. Russell	1.2	276
Oct. 10	S. G. Lees	1.58	133	Sept. 25	do	3.05	2,960
Nov. 8	R. W. Hawley	1.15	31	Nov. 13	do	2.4	1,190
1903				Dec. 14 ²	do	3.2	800
April 1	J. C. Stevens	2.35	1,145	1910			
May 9	do	1	25	Feb. 11 ³	G. H. Russell	2.95	1,031
Sept. 22	E. C. Murphy	1	4	Mar. 22	do	2.23	670
April 17	M. C. Hinderlider	1.22	40	Apr. 26	do	1.8	169
May 11	R. I. Meeker	1.09	36	May 17	do	1.4	33
11	do	42	1	June 10	do	1.3	22
July 23	M. C. Hinderlider	.95	1	July 15	do	1.2	5
June 13	do	1	11	Aug. 10	do	1.31	11
Dec. 23	do	2.68	526	Sept. 13	do	1.3	13
1904				30	do	1.41	22
Mar. 8	do	1.35	88	Oct. 28 ⁵	do	1.55	21
16	T. W. Jenkins	1.18	19	Nov. 25	Padgett and Miles	1.4	22
26	do	1.18	23	Dec. 28 ⁶	E. O. Christiansen	2.04	234
April 2	do	1.17	15	1911			
9	do	1.18	16	Jan. 31 ⁷	R. H. Fletcher	2.46	683
April 16	T. W. Jenkins	1.1	12	Mar. 23	do	1.1	39
30	do	1.42	65	Apr. 21	do	.96	16
May 9	do	2.02	546	May 26	R. C. Miles	.9	7
June 3	do	1.76	228	June 28	E. O. Christiansen	.9	7
July 27	do	2.6	1,542	July 14	G. H. Russell	.85	5
7	do	2.98	2,988	Aug. 15	R. H. Fletcher	.85	7
1905				Sept. 15	G. H. Russell	.82	13
May 6	do	3.75	5,643	Oct. 31	do	1.07	30
10	M. C. Hinderlider	3.5	5,216	Dec. 14 ⁷	R. H. Fletcher	1.04	18
20	T. W. Jenkins	3.27	4,130	1912			
25	do	3.48	4,748	Jan. 15 ²	G. H. Russell	1.75	78
27	do	3.99	7,405	Feb. 12 ²	do	1.95	366
Oct. 4	M. C. Hinderlider	1.05	37	Mar. 5 ²	do	2.2	168
1906				May 7	M. E. Bunger	1.15	73
Feb. 24	do	1.9	918	22	R. Follansbee	1.58	141
Mar. 30	do	2.2	1,200	June 26	H. B. Waha	.52	13
June 23	do	1.48	71	July 26	F. Cogswell	.65	14
Nov. 6	R. I. Meeker	2.78	1,940	Aug. 3	do	2.8	798
1908				22	R. Follansbee	2.09	326
May 12	W. B. Freeman	1.3	29	28	F. Cogswell	1.15	193
June 10	do	1.34	45	Oct. 29	R. Richards	1.52	210
July 22	J. B. Stewart	1.22	36	Nov. 19	M. E. Bunger	1.91	413
Aug. 21	do	1.33	64	1913			
Nov. 2	do	1.45	140	July 24	R. Follansbee	.55	21
1909				Nov. 19	Thos. Griere, Jr.	.8	42
Feb. 25 ²	W. B. Freeman	2.7	298	1914			
Mar. 20	do	2.25	760	May 5	D.L. Bundy (Colo.)	3.62	5,072
Apr. 23	do	2.53	1,270	16	C. J. McNamara	3.75	6,796
May 24	do	1.5	164	June 27	do	2.75	1,760
June 18	G. J. Lyons	3.38	4,710	30	A.F. Hewitt (Colo.)	2.35	1,042
26	do	3.36	4,580	Sept. 28	C. J. McNamara	1.2	296

Daily Gage heights are taken by Colorado State Engineers office.

¹ Made by wading.

² Ice conditions.

³ Measurement made through ice and by wading.

⁴ Gage probably taken to bottom of ice.

⁵ Some thin ice in measuring section.

⁶ Made 1½ miles below bridge by wading. Slush ice in channels.

NOTE—All measurements in 1910 were made by wading at various sections.

⁷ Ice present.

⁸ Gage height to ground-water level caused by seepage. Gage 40 feet from edge of first channel.

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							2.3	1,089	1	9	1	9	1	9	1	1	1	9	1.05	22	19	1.7		1		
2							2.3	1,089	1	9	1.05	22	.95	3	.9	1	1	9	1.05	22		9	1.6		2	
3							2.3	1,089	1	9	1.05	22	.95	3	.9	1	1	9	1.05	22		9	1.55		3	
4							2.3	1,089	1	9	1.05	22	.95	3	.9	1	1	9	1.05	22		9	1.5		4	
5							2.25	1,043	1	9	1.05	22	.95	3	.9	1	1	9	1.05	22		9	1.45		5	
6							2.15	952	1	9	1.05	22	.95	3	.9	1	1	9	1.05	22		22	1.75		6	
7							2.5	1,271	1.1	42	1.05	22	.95	3	.9	1	1	9	1.05	22		22	1.8		7	
8							2	816		22	1.05	22	.95	3	.95	3	1	9	1.05	22		22	1.9		8	
9							2	816		22	1.05	22	.95	3	.95	3	1	9	1.05	22		22	1.1		9	
10							1.95	770	1	9	1.1	42	.95	3	.95	3	1	9	1.05	22	1.05	22	2		10	
11							1.85	679	1.5	361	1.05	22	.95	3	.95	3	1	9	1.05	22	1.05	22	2.1		11	
12							1.8	634	1	9	1.05	22	.95	3	.95	3	1	9	1.05	22	1.05	22	2.15		12	
13							1.5	361	1	9	1	9	.95	3	.95	3	1	9	1.05	22	1.05	22	2.15		13	
14							1.5	361	1	9	1	9	.95	3	.95	3	1	9	1.05	22	1.05	22	2.15		14	
15					3.3		1.3	180	1	9	1	9	.95	3	.95	3	1	9	1.05	22	1.05	22	2.2		15	
16							1.2	96	1	9	1	9	.95	3	2.28	31,071	1	9	1.05	22	1.1	42	2.4		16	
17							1.15	66	1.15	66	1	9	.95	3	1.73	570	1.05	22	1.05	22	1.1	42	2.4		17	
18					2.65		1.15	66	1.1	42	1	9	.95	3	1.2	96	1.05	22	1	9	1.1	42	2.4		18	
19					2.6		1.25	138	1	9	1	9	.95	3	1.1	42	1.05	22	1	9	1.1	42	2.45		19	
20					2.55		1.3	180	1	9	1	9	.95	3	1.1	42	1.05	22	1	9	1.1	42	2.7		20	
21					2.5		1.2	96	1	9	1	9	.95	3	1.05	22	1.05	22	1	9	1.1	42	2.7		21	
22					2.5		1.1	42	1	9	1	9	.95	3	1.05	22	1.05	22	1	9	1.1	42	2.9		22	
23					2.5		1.1	42	1	9	1	9	.95	3	2.2	998	1.05	22	1	9	1.1	42	2.7		23	
24					2.65		1	9	1	9	1	9	.95	3	1.95	770	1.05	22	1	9	1.1	42	2.65		24	
25					2.4		1	9	1	9	1	9	.95	1	1.35	225	1.05	22	1	9	1.6	42	2.6		25	
26					2.4		.95	3	1	9	1	9	.9	1	1.1	42	1.05	22	1	9	1.9		2.5		26	
27					2.3		.95	3	1	9	1	9	.9	1	1.05	22	1.05	22	1	9	1.85		2.4		27	
28					2.3		.95	3	1	9	1	9	.9	1	1.05	22	1.05	22	1	9	1.85		2.4		28	
29					2.3		1	9	1	42	1	9	.9	1	1.05	22	1.05	22	1	9	1.85		2.4		29	
30					2.3		1.5	361	1.5	361	1	9	.9	1	1	9	1.05	22	1	9	1.75		2.4		30	
31					2.3				1	9			.9	1	1	9		1	9			2.4			31	
Mean							445		38		14		3		130		15		16		27					
Run-off							26,500		2,300		833		184		8,000		893		984		1,300					
in acre-ft.							1,270		361		42		9		1,070		22		22		42					
Maximum							3		9		9		1		1		9		9		9					
Minimum																										

¹November 1-9. Estimated.

²Ice. March 15-31.

³Heavy rain.

⁴Ice. November 25 to December 31.

⁵May 8-9, gage height. Estimated.

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	Gage height	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					1.9	360			1.4	60	2	465	2.1	590	1.3	35	1.3	35	1.6	140	1.4	60	1.65	165	1
2					1.75	230			1.5	35	2.61	1,576	1.85	315	1.3	35	1.3	35	1.6	140	1.35	45	1.65	165	2
3					1.65	165			1.5	35	2.5	1,315	1.85	315	2.15	660	1.25	25	1.55	115	1.35	45	1.6	140	3
4					1.65	115			1.5	35	2.2	735	1.75	230	1.4	60	1.25	25	1.5	95	1.3	35	1.6	140	4
5					1.6	140			2	60	2	465	1.65	165	1.35	45	1.2	20	1.5	95	1.3	35	1.75	230	5
6					1.6	140	1.2	20	1.4	60	3.15	3,780	1.6	140	1.35	45	1.2	20	1.45	75	1.3	35	1.8	270	6
7					1.45	75	1.2	20	1.35	45	3	3,060	1.85	315	1.35	45	1.2	20	1.45	75	1.3	35	1.75	230	7
8					1.35	45	1.2	20	1.35	45	3.2	4,040	1.8	270	1.3	35	1.2	20	1.65	165	1.3	35	1.85	315	8
9					1.35	45	1.2	20	2	465	3	3,060	1.7	195	1.3	35	1.2	20	1.6	140	1.3	35	1.85	315	9
10					1.3	35	1.2	20	1.8	270	2.9	2,620	1.6	140	1.3	35	1.2	20	1.55	115	1.3	35	1.85	315	10
11					1.25	25	1.2	20	1.7	195	2.65	1,680	1.6	140	1.25	25	1.2	20	1.55	115	1.3	35	1.85	315	11
12					1.2	20	1.15	15	1.6	140	2.55	1,430	1.95	410	1.25	25	1.2	20	1.5	95	1.3	35	1.85	315	12
13					1.2	20	1.15	15	1.45	75	2.5	1,315	1.9	360	1.25	25	1.2	20	1.4	60	1.3	35	1.85	315	13
14					1.2	20	1.15	15	1.4	60	2.75	2,000	1.8	270	1.25	25	1.2	20	1.4	60	1.35	45	1.9	360	14
15					1.2	20	1	4	1.35	45	2.8	2,200	1.6	140	1.25	25	1.15	15	1.35	45	1.4	60	1.9	360	15
16					1.2	20	1	4	1.35	45	2.7	1,830	1.55	115	1.2	20	1.15	15	1.3	35	1.65	165		16	
17					1.2	20	1	4	1.3	35	2.7	1,830	1.5	95	1.2	20	1.15	15	1.3	35	1.6	140		17	
18					1.2	20	1	4	1.3	35	2.7	1,830	1.45	75	1.35	45	1.15	15	1.4	60	1.55	115		18	
19					1.2	20	1	4	1.3	35	2.7	1,830	1.45	75	1.3	35	1.15	15	1.45	75	1.55	115		19	
20					1.2	20	1.15	15	1.3	35	2.65	1,680	1.6	140	1.25	25	1.15	15	1.4	60	1.55	115		20	
21					1.2	20	1.2	20	1.3	35	2.6	1,550	1.6	140	1.25	25	1.15	15	1.35	45	1.55	115		21	
22					1.2	20	1.2	20	1.3	35	2.55	1,430	1.6	140	1.25	25	1.15	15	1.3	35	1.6	140		22	
23					1.2	20	1.2	20	1.3	35	2.5	1,315	1.6	140	1.2	20	1.15	15	1.3	35	1.6	140		23	
24					1.2	20	1.2	20	1.3	35	2.45	1,205	1.6	140	1.2	20	1.15	15	1.3	35	1.65	165		24	
25					1.2	20	1.25	25	1.3	35	2.4	1,100	1.6	140	1.2	20	1.15	15	1.3	35	1.8	270		25	
26					1.2	20	1.2	20	1.3	35	2.4	1,100	1.55	115	1.2	20	1.15	15	1.3	35	1.8	270		26	
27					1.2	20	1.15	15	1.75	230	2.35	1,000	1.5	95	1.2	20	1.15	15	1.3	35	1.8	270		27	
28					1.2	20	1	4	1.6	140	2.3	905	1.5	95	1.2	20	1.15	15	1.35	45	1.75	230		28	
29					1.2	20	1.2	20	1.6	140	2.25	815	1.45	75	1.2	20	1.15	15	1.55	115	1.75	230		29	
30					1.15	15	1.45	75	1.65	165	2.2	735	1.35	45	1.2	20	1.65	165	1.5	95	1.7	195		30	
31					1.15	15			1.8	270			1.3	35	1.2	20			1.45	75				31	
Mean					57		17.3		96		1,663		182		49		23.7		77		109		263		
Run-off in acre-ft.					3,500		1,000		5,900		99,000		11,200		3,000		1,400		4,700		6,500		7,800		
Maximum					360		75		465		4,040		590		660		165		165		270		360		
Minimum					15		4		35		465		35		20		15		35		35		140		

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.55	1,425			2	470	1.95	422	3.65	5,745	4.35	9,230	.75	17	1.63	192	1.2	50	1.05	34	1.5	131	1.65	202	1
2	2.6	1,550			2	470	2.5	1,300	3.75	6,220	4.35	9,230	1.5	131	1.85	335	1.15	44	1.05	34	1.65	202	1.65	202	2
3	2.6	1,550			2	470	1.95	442	3.85	6,705	4.0	7,450	1.4	98	2.05	530	1.15	44	1.05	34	1.85	335	1.65	202	3
4	2.6	1,550			2	470	1.9	375	3.85	6,705	3.85	6,705	1.2	50	3	2,870	1.1	37	1.05	34	1.9	375	1.65	202	4
5	2.6	1,550			2	470	1.95	422	3.8	6,460	3.8	6,460	.7	15	2.8	2,140	1.15	44	1.05	34	2	470	1.9	375	5
6	2.7	1,830			2.15	660	1.95	422	3.75	6,220	3.85	6,705	.6	12	2.9	2,490	1.2	50	1.05	34	2	470	1.9	375	6
7	2.8	2,140			2.05	530	2.5	1,300	3.7	5,980	3.9	6,950	.55	11	2.75	1,985	1.2	50	1.05	34	2	470	1.9	375	7
8	2.8	2,140			2.1	590	2.5	1,300	3.75	6,220	4	7,450	.5	10	2.3	890	1.35	84	1.05	34	2.25	810	1.95	422	8
9	2.75	1,985			2.15	660	2.5	1,300	3.75	6,220	4.5	10,010	.5	10	2.2	730	1.15	44	1.05	34	2	470	2	470	9
10	2.7	1,830			2	470	2.1	590	3.6	5,510	4	7,450	.45	9	2.15	660	1.15	44	1.05	34	1.9	375	2.1	590	10
11					2	470	2.15	660	3.45	4,810	4.95	12,385	.4	9	2.5	1,300	1.1	37	1.05	34	1.9	375	2.1	590	11
12					2.5	1,300	2.25	810	3.35	4,355	4.95	12,385	.4	9	2.45	1,190	1.1	37	1.15	44	1.9	375	2.1	590	12
13	2.65	1,690			1.95	422	2.25	810	3.45	4,810	4	7,450	2	470	2.35	985	1.1	37	1.25	60	2	470	2.1	590	13
14	2.65	1,690			2	470	2.25	810	3.5	5,040	3.95	7,200	1.9	375	2.3	890	1.1	37	1.2	50	2	470	2.15	660	14
15	2.65	1,690			2.5	1,300	2.5	1,300	3.5	5,040	3.55	5,275	1.8	295	2	470	1.1	37	1.25	60	1.9	375	2.2	730	15
16	2.65	1,690			2.1	590	2.4	1,080	3.45	4,810	3.5	5,040	1.75	262	2.1	590	1.15	44	1.35	84	1.8	295	2.2	730	16
17	2.7	1,830			2.5	1,300	2.5	1,300	3.35	4,355	3.3	4,130	1.9	375	2.15	660	1.2	50	1.25	60	1.75	262	2.15	590	17
18	2.8	2,410			2.5	1,300	2.55	1,425	3.35	4,355	3.1	3,270	1.8	295	2.2	730	1.15	44	1.3	70	1.65	202	2.15	660	18
19	2.95	2,680			2.2	730	2.4	1,080	3.4	4,580	3	2,870	1.85	335	2.25	810	1.15	44	1.35	84	1.7	230	2.2	730	19
20	3.15	3,480			2.1	590	2.75	1,985	3.3	4,130	3	2,870	1.75	262	1.75	262	1.1	37	1.32	76	1.6	175	2.15	660	20
21	3.25	3,910			2	470	2.7	1,830	3.45	4,810	2.85	2,315	1.7	230	1.65	202	1.1	37	1.35	84	1.65	202	2.25	810	21
22					1.9	375	2.65	1,690	3.45	4,810	2.4	1,080	2	470	1.6	175	1.1	37	1.4	98	1.6	175	2.2	730	22
23					1.95	422	2.7	1,830	3.45	4,810	1	30	1.95	422	1.45	114	1.1	37	1.4	98	1.75	162	2.2	730	23
24					1.95	422	3.5	5,040	3.5	5,040	.85	22	1.9	375	1.3	70	1.05	34	1.35	84	1.65	202	2.15	660	24
25					1.9	375	3.2	3,690	3.5	5,040	.95	27	1.85	335	1.2	50	1.05	34	1.5	84	1.65	202	2	470	25
26					1.9	375	3.1	3,270	4	7,450	1	30	1.7	230	1.15	44	1.05	34	1.5	84	1.65	202	2.1	590	26
27					1.9	375	3.5	5,040	4	7,450	.95	27	1.65	202	1.1	37	1.05	34	1.45	114	1.65	202	2.1	590	27
28					1.9	375	3.4	4,580	4.2	8,460	.95	27	1.6	175	1.1	37	1.05	34	1.5	131	1.65	202	2.2	730	28
29					1.9	375	3.6	5,510	4.3	8,970	.95	27	1.65	202	1.1	37	1	34	1.5	131	1.65	202	2.2	730	29
30					1.8	295	3.6	5,510	4.3	8,970	.9	24	1.75	262	1.12	40	1.15	44	1.5	131	1.65	202	2.2	730	30
31					1.95	442			4.35	9,230			1.7	230	1.12	40		1.5	131			2.25	810		31
Mean	2,018				581		1,903		5,913		4,804		199		695		42		69		310		565		
Run-off in acre-ft.	76,000				35,700		113,200		363,600		285,800		12,200		42,700		2,500		4,200		18,450		34,740		
Maximum	3,910				1,300		5,510		9,230		12,380		470		2,870		84		131		810		810		
Minimum	1,420				295		375		4,130		24		9		37		34		34		131		202		

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1			1.9	920			2.2	1,200	1.6	210	1.5	77	1.4	48			21	21	21	50	2.6	1,430			1	
2			1.9	920			2.25	1,300	1.6	210	1.4	48	48	1.2	14	1.3	28	28	1.45	62		1,430			2	
3			1.9	920	1.9	920	2.2	1,200	1.6	210	1.45	62	1.4	48	14		28	28		50		1,430			3	
4			1.85	870	1.9	920	1.95	700	1.6	210	1.45	62	1.4	48	1.2	14	1.3	28	1.35	28	2.6	1,430			4	
5			1.85	870	1.9	920	2	780	1.7	250	1.4	48	1.4	48			14	18		50		1,430			5	
6				870	1.9	920	1.95	700	1.75	290	1.4	48		43	1.2	14	1.1	7	1.45	62	2.6	1,430			6	
7				920	2.2	1,350	1.95	700	2	570	1.35	38	1.35	38	1.45	62		8		211		1,430			7	
8			1.9	920	2.75	2,800	1.85	560	2.2	880	1.35	38		33	33	62	1.15	10	1.95	360	2.6	1,430			8	
9			1.9	920	2.85	3,120	1.9	630	2.05	640	1.3	28	1.3	28	1.45	62		10		360		1,430			9	
10			1.9	920			1.9	630	2.05	640	1.35	38		38		42	1.15	10	1.95	360	2.6	1,430			10	
11			1.9	920	2.7	2,650	1.9	630	2.05	640	1.3	28	1.4	48	1.25	21		29		360	2.5	1,200			11	
12			2.2	1,350			1.9	580	2.05	640	1.4	48		43		21	1.4	48	1.95	360	2.75	1,850			12	
13			2.75	2,800			2.5	1,800	2	530	1.35	38	1.35	38	1.25	21		43		360		1,850			13	
14							1.95	650	1.9	410	1.5	77		50		24	1.35	38	1.95	360	2.75	1,850			14	
15							1.9	580	1.8	310	1.3	28	1.45	42	1.3	28		38		360		1,850			15	
16							1.8	460	1.75	260	1.3	28		50		28	1.35	38	1.95	360	2.75	1,850			16	
17							1.9	580	1.6	170	1.3	28	1.35	38	1.3	28		38		315					17	
18							1.9	580	1.55	140	1.3	28		38		21	1.35	38	1.85	270					18	
19							1.95	650	1.5	115	1.3	28	1.35	38	1.2	14	1.35	38		315					19	
20							1.9	540	1.4	75	1.25	21		38		12	1.35	38	1.95	360					20	
21							1.85	480	1.35	50	1.2	14	1.35	38	1.15	10		38		360					21	
22							1.8	420	1.35	50	1.3	28		33		10	1.35	38	1.95	360					22	
23							1.8	420	1.5	100	1.45	62	1.3	28	1.15	10		43		780					23	
24			1.9	920			1.8	420	1.55	120	1.4	48		28		10	1.4	48	2.5	1,200					24	
25			1.9	920			1.8	420	1.7	200	1.4	48	1.3	28	1.15	10		43		1,600					25	
26			1.9	920			1.8	420	1.9	370	1.4	48		33		10	1.35	38	2.8	2,000					26	
27			1.85	870	2.25	1,300	1.8	420	1.9	370	1.4	48	1.35	38	1.15	10		38		2,000					27	
28			1.85	870	2.45	1,730	1.6	210	1.85	320	1.4	48		33		10	1.35	38	2.8	2,000					28	
29					2.25	1,300	1.6	210	1.7	165	1.4	48	1.3	28	1.15	10		38		2,000					29	
30					2.25	1,300	1.6	210	1.6	115	1.4	48		28		10	1.35	38	2.8	2,000					30	
31					2.25	1,300			1.55	95			1.3	28	1.2	14				1,720					31	
Mean				1,030		1,580		636		302		43		39		21		31		679		1,550				
Run-off																										
in acre-ft.				36,800		40,700		37,800		18,600		2,530		2,390		1,300		1,810		41,800		49,200				
Maximum				2,800		3,120		1,800		880		77		62		62		48		2,000		1,850				
Minimum				870		920		210		50		15		28		10		7		38		1,200				

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					3.05		1,040		860		80	2.7	1,680				1.15	2.6	1,570		1,080		2.65		1
2							1,020		890		76	2.45	1,080						1,500	2.3	1,040		2.6		2
3							1,000		920		73	2.4	980						1,430		1,200				3
4							980		950	1.35	70	2.35	905						1,360	2.5	1,370				4
5					2.85		960	2.4	980		310		865					2.45	1,280	2.45	1,280				5
6							940		910		550	2.3	830					2.4	1,190		1,250				6
7							920		840		790		1,800					2.45	1,280		1,220				7
8							905	2.35	770		1,080		2,760					2.45	1,280	2.4	1,190				8
9					2.5		905		700		1,270	3.2	3,730	1.2				2.45	1,280	2.4	1,190				9
10							905	2.15	640		1,510	3.5	5,420	1.1					1,140	2.4	1,190				10
11							985		555		1,740		4,530								1,000		1,190		11
12							1,070		470	2.8	1,980		3,640					2.15	855		1,190				12
13					2.35		1,150	1.9	380		3,330	3	2,750					2.15	855	2.4	1,190				13
14							1,230		380		4,680	2.85	2,160				2.6	1,570			882		1,260	3.1	14
15							1,310	1.9	380	3.6	6,040	2.7	1,680					1,760	2.2		910		1,320	3.1	15
16							1,400		325		5,430	2.5	1,170				2.75	1,960					1,390	3.1	16
17							1,540		270	3.4	4,320	2.15	640				2.85	2,260	2.25		975		1,450	3.1	17
18							1,400	1.65	210	3.35	4,540						2.9	2,430			1,050		1,510	3.1	18
19							1,320		190		4,400						2.9	2,430			1,120	2.6	1,570	3.1	19
20					2.25	765	1,240		170	3.3	4,250						2.95	2,620	2.4	1,190	2.6	1,570	3.1	20	
21	3						1,170	1.5	155		4,320	1.5						2,920	2.4	1,190			1,430	3.1	21
22	3.05						835	2.5	150		4,390						3.1	3,230	2.4	1,190	2.45	1,280	3.1	22	
23	3.05						870	2.55	140		4,460	1.45					3.05	3,020	2.35	1,120	2.6	1,570	1.8	23	
24	3.1						905		130	3.35	4,540						3.05	3,020			1,160		1,470	1.8	24
25	3		2.7				940		122		4,540						3.05	3,020	2.4	1,190	2.5	1,370	1.8	25	
26	3				2.4		980	2.3	830		114	3.35	4,540	1.15			2.95	2,620	2.4	1,190			1,400	1.8	26
27					2.4		980		830		106	3.1	3,220	1.1			2.85	2,260	2.45	1,280			1,430	1.75	27
28							1,030		830		98	3.05	2,980				2.75	1,960	2.45	1,280	2.55	1,470	3.4	28	
29					2.45		1,080	2.3	830	1.4	90	3	2,750				2.75	1,960			1,230	2.6	1,370	3.4	29
30							830		87	2.85	2,160	1					2.6	1,570			1,180	2.6	1,570	3.4 2	30
31									83			.95									1,130			3.45	31
Mean					1,080		1,070		421		2,830		2,150					2,390		1,170		1,340			
Run-off in acre-ft.					22,500		63,700		25,900		168,000		72,500					80,600		71,900		79,700			
Maximum					1,080		1,540		980		6,040		5,420					3,230		1,570		1,570			
Minimum					765		830		83		70		640					1,570		855		1,040			

NOTE—Discharges, July 18 to August 31, small but very uncertain as to quantity. Discharges interpolated for days when gage was not read.

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1910

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day			
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge				
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.				
1	3.7		3.7		3.2	2.25	682	1.6	87	1.25	16	1.1	1	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	1.4	23	1		
2	3.8		3.7		3.2	2.2	605	1.6	87	1.25	16	1.1	1	1.45	23	1.35	18	1.4	23	1.4	23	1.4	23	1.5	40	2		
3	3.8		3.7		3	2	358	1.55	72	1.2	11	1.1	1	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	1.5	40	3		
4	3.8		3.7		2.5	1,150	2.1	472	1.55	72	1.2	11	1.1	1	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	1.5	40	4	
5	3.8		3.7		2.4	938	2.2	605	1.6	87	1.2	11	1.1	1	1.35	18	1.35	18	1.4	23	1.4	23	1.4	23	1.5	40	5	
6	3.8		3.6		2.4	938	2.1	472	1.6	87	1.25	16	1.1	1	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	1.6	65	6	
7	3.8		3.55		2.4	938	2.05	415	1.6	87	1.25	16	1.1	1	1.35	18	1.4	23	1.4	23	1.4	23	1.4	23	1.7	100	7	
8	3.8		3.55		2.5	1,150	2	358	1.6	87	1.2	11	1.1	1	1.35	18	1.35	18	1.4	23	1.4	23	1.7	100	8	8		
9	3.8				2.3	758	2	358	1.55	72	1.2	11	1.1	1	1.35	18	1.35	18	1.4	23	1.4	23	1.7	100	9	9		
10	3.8				2.3	758	2	358	1.55	72	1.25	16	1.1	1	1.35	18	1.35	18	1.4	23	1.4	23	1.7	100	10	10		
11	3.8		3.4		14.75	12,900	2	358	1.5	57	1.2	11	1.1	1	1.35	18	1.35	18	1.4	23	1.4	23	2			11	11	
12	3.8		3.4		2.7	1,660	1.95	310	1.45	46	1.2	11	1.1	1	1.3	12	1.35	18	1.4	23	1.4	23	2			12	12	
13	3.8				2.4	938	1.9	263	1.45	46	1.2	11	1.15	2	1.35	18	1.3	12	1.4	23	1.4	23	2.1			13	13	
14	3.8				2.5	1,150	1.95	310	1.4	36	1.2	11	1.15	2	1.35	18	1.3	12	1.4	23	1.4	23	2.1			14	14	
15	3.8				2.4	938	2	358	1.4	36	1.25	10	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.1			15	15	
16	3.8				2.3	758	2	358	1.4	36	1.2	10	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.2			16	16	
17	3.8		3.4		2.3	758	1.9	263	1.3	21	1.2	10	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.2			17	17	
18	3.8		3.45		2.3	758	1.8	187	1.3	21	1.2	10	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.2			18	18	
19	3.8		3.4		2.2	605	1.8	187	1.35	28	1.1	3	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.1			19	19	
20	3.8		3.4		2.2	605	1.75	158	1.35	28	1.1	3	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.1			20	20	
21	3.8		3.5		2.2	605	1.7	129	1.3	21	1.1	3	1.1	1	1.35	18	1.3	12	1.4	23	1.3	23	2.2			21	21	
22	3.8		3.6		2.2	605	1.75	158	1.3	21	1.1	3	1.25	8	1.35	18	1.3	12	1.4	23	1.3	23	2.2			22	22	
23	3.8		3.55		2.2	605	1.75	158	1.3	21	1.1	3	1.3	12	1.35	18	1.4	23	1.4	23	1.3	23	2.2			23	23	
24	3.8		3.6		2.2	605	1.75	158	1.3	21	1.1	3	1.3	12	1.35	18	1.4	23	1.4	23	1.3	23	2.2			24	24	
25	3.8		3.6		2.1	472	1.65	108	1.35	28	1.1	3	1.3	12	1.4	23	1.4	23	1.4	23	1.3	23	2.2			25	25	
26	3.8		3.5		2	358	1.6	87	1.35	28	1.1	2	1.3	12	1.35	18	1.4	23	1.4	23	1.3	23	2.2			26	26	
27	3.75		3.4		2.1	472	1.6	87	1.3	21	1.1	2	1.3	12	1.35	18	1.4	23	1.4	23	1.3	23	2.2			27	27	
28	3.75		3.3		2.2	605	1.65	108	1.3	21	1.1	2	1.35	18	1.4	23	1.35	18	1.4	23	1.3	23	2.1			28	28	
29	3.75				2.15	538	1.6	87	1.3	21	1.1	2	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	2.1			29	29	
30	3.75				2.2	605	1.6	87	1.3	21	1.1	2	1.4	23	1.35	18	1.4	23	1.4	23	1.4	23	2.2			30	30	
31	3.7				2.25	682			1.25	16			1.4	23	1.35	18			1.4	23			2.2			31	31	
Mean						1210		287		45.3		8.33		5.74		19.2		17.3		23		23				151		
Run-off in acre-ft.						67,200		17,100		2,790		500		353		1,180		1,030		1,410		1,370		9,280				
Maximum						12,900		682		87		16		23		32		23		23		23						
Minimum						358		87		16		2		1		12		12		23		12						

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge		
1	2.2	230	2.3	680	2	670	1.1	34	1.3	75	1	21	.8	8	.8	8	1	21	.8	8	1.1	34	1	21	1	1
2	2.2	230	2.2	675	2.3	670	1.1	34	1.2	52	1	21	.8	8	.8	8	1	21	.8	8	1.1	34	1	21	2	2
3	2.2	230	2.2	670	2.2	670	1.1	34	1.2	52	.9	12	.8	8	.8	8	1	21	.8	8	1.1	34	1	21	3	3
4	2.3	300	2	670	2	670	1.1	34	1.2	52	.9	12	.8	8	.8	8	1	21	.9	12	1.1	34	1	21	4	4
5	2.4	350	2	670	1.5	153	1.1	34	1.2	52	.9	12	.8	8	.8	8	1	21	.9	12	1.1	34	1	21	5	5
6	2.4	350	2	670	1.6	210	1.1	34	1.1	34	.9	12	.8	8	.8	8	1	21	.9	12	1.1	34	1	21	6	6
7	2.4	350	2	670	1.6	210	1.1	34	1.1	34	.9	12	.8	8	.8	8	.9	12	.9	12	1.1	34	1	21	7	7
8	2.3	700	2	670	1.6	210	1	21	1.1	34	.9	12	.8	8	.8	8	.9	12	.9	12	1.1	34	1	21	8	8
9	2.3	700	1.9	510	1.5	153	1	21	1.1	34	.9	12	.8	8	.8	8	.9	12	1	21	1.1	34	1	21	9	9
10	2.3	700	2	670	1.4	112	1	21	1	21	.9	12	.8	8	.8	8	.9	12	1	21	1.1	34	1	21	10	10
11	2.3	700	1.9	510	1.4	112	1	21	1	21	.9	12	.8	8	.8	8	.9	12	1	21	1.1	34	1	21	11	11
12	2.3	700	1.9	510	1.3	81	1	21	1	21	.9	12	.8	8	.8	8	.9	12	1	21	1.1	34	1	21	12	12
13	2.3	700	1.9	510	1.3	81	1	21	1	21	.9	12	.8	8	.8	8	.9	12	1	21	1.1	34	1	21	13	13
14	2.3	700	1.8	375	1.2	57	1	21	.9	12	.9	12	.8	8	.8	8	.9	12	1	21	1	21	1	21	14	14
15	2.3	700	1.8	375	1.2	57	1	21	.9	12	1	21	.8	8	.8	8	.8	8	1	21	1	21	1	21	15	15
16	2.8	700	1.7	270	1.2	57	1	21	.9	12	1.3	75	.8	8	.8	8	.8	8	1	21	1	21	1	21	16	16
17	2.8	700	1.7	270	1.1	38	1	21	.9	12	1.2	52	.8	8	.8	8	.8	8	1	21	1	21	1	21	17	17
18	2.8	700	1.6	195	1.1	38	1	21	.9	12	1.1	34	.8	8	.8	8	.8	8	1	21	1	21	1	21	18	18
19	2.8	700	1.6	195	1.1	38	1	21	.9	12	1	21	.8	8	1.7	270	.8	8	1	21	1	21	1	21	19	19
20	2.8	700	1.6	195	1.1	38	1	21	.9	12	1	21	.9	12	1.7	270	.8	8	1	21	1	21	1	21	20	20
21	2.8	700	1.6	195	1.1	38	.9	12	.9	12	.9	12	1	21	1.6	195	.8	8	1	21	1	21	1	21	21	21
22	2.8	700	1.5	142	1.1	38	1	21	.9	12	.9	12	1	21	1.5	142	.8	8	1	21	1	21	1	21	22	22
23	2.8	700	1.5	142	1.1	38	1	21	.9	12	.9	12	1	21	1.4	105	.8	8	1	21	1	21	1	21	23	23
24	2.8	700	1.5	142	1.1	38	1	21	.9	12	.8	8	1	21	1.4	105	.8	8	1	21	1	21	1	21	24	24
25	2.8	700	1.8	375	1	24	1	21	.9	12	.8	8	1	21	1.4	105	.8	8	1	21	1	21	1	21	25	25
26	2.8	700	2	670	1.1	38	1	21	.9	12	.8	8	1	21	1.4	105	.8	8	1	21	1	21	1	21	26	26
27	2.7	685	2	670	1	24	1	21	.9	12	.8	8	1	21	1.3	75	.8	8	1.1	34	1	21	1	21	27	27
28	2.7	685	2	670	1.2	52	.9	12	.9	12	.8	8	1	21	1.2	52	.8	8	1.1	34	1	21	1	21	28	28
29	2.7	685	2	670	1.2	52	1	21	.8	12	.8	8	1	21	1.2	52	.8	8	1.1	34	1	21	1	21	29	29
30	2.7	685	2	670	1.2	52	1.3	75	1	21	1	21	.8	8	1.2	34	.8	8	1.1	34	1	21	1	21	30	30
31	2.5	685	2	670	1.1	34	1	21	.9	12	1	21	.8	8	1	21	.8	8	1.1	34	1	21	1	21	31	31
Mean	605	463	153	25.9	24.1	16.7	10.9	54.6	11.7	20.4	26.6	18.2														
Run-off in acre-ft.	37,200	25,700	9,430	1,540	1,480	996	668	3,360	694	1,250	1,580	1,120														
Maximum	700	680	670	75	75	75	21	270	21	21	21	21														
Minimum	230	142	24	12	12	8	7	8	8	8	8	8														

NOTE—Ice conditions: January 4 to February 1, February 19 to March 3, and December 17 to 31.

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1912

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1	1	20	2.2	320	170	2.4	574	1.65	161	.9	38	.4	8	1.6	148	.9	100	2.4	741	1.7	292	.....	.....	.....	1	
2	1	20	2	320	170	2.5	506	1.6	148	.9	38	.4	8	2.4	506	.9	99	2.35	705	1.65	269	.....	.....	.....	2	
3	1	20	2	320	168	2.3	448	.....	.....	.9	38	.4	8	2.7	720	.9	90	2.3	669	1.6	245	.....	.....	.....	3	
4	1	20	1.9	320	168	2.25	413	.....	.....	.9	38	.95	44	3	960	.85	75	2.3	669	1.6	245	.....	.....	.....	4	
5	1	20	1.9	320	168	2.15	358	.....	.....	.8	38	1.5	126	3.2	1,126	.85	70	2.25	633	1.6	245	.....	.....	.....	5	
6	1	30	1.9	340	2.3	200	2.1	332	.....	.8	28	1.5	126	3.25	1,169	.8	55	2.2	597	1.6	245	.....	.....	.....	6	
7	.9	30	1.9	340	2.3	200	2.05	308	1.15	69	.8	28	1.5	126	3.2	1,126	.8	55	2.1	530	1.6	245	.....	.....	.....	7
8	.9	30	1.7	340	2.3	200	2	284	.....	.8	28	1.55	137	3.05	1,001	.85	60	2.05	497	1.65	269	.....	.....	.....	8	
9	.9	50	1.6	340	2.3	200	2	284	.....	.8	28	1.7	174	3.2	1,126	.9	65	2	463	1.65	269	.....	.....	.....	9	
10	.9	50	1.6	365	2.3	200	2	284	.....	.8	28	1.7	174	2.9	878	1.1	105	2	463	1.7	292	.....	.....	.....	10	
11	.9	50	1.6	365	2.3	200	2	234	.....	.8	28	1.6	148	2.85	838	1.4	200	1.95	432	1.7	292	.....	.....	.....	11	
12	.9	50	1.7	365	2.3	200	2	234	1.65	161	.8	28	1.5	126	2.8	798	1.5	230	1.9	401	1.75	318	.....	.....	.....	12
13	.9	50	1.7	365	2.3	200	2	2.4	1.6	148	.8	28	1.3	90	2.7	720	1.6	265	1.8	344	1.7	292	.....	.....	.....	13
14	1.6	75	1.8	340	2.3	200	2	2.4	1.6	148	.8	28	1.05	56	2.7	720	1.8	385	1.75	318	1.7	292	.....	.....	.....	14
15	1.7	78	1.8	340	2.3	200	2	2.4	1.6	148	.8	28	1	50	2.6	647	2	463	1.7	292	1.75	318	.....	.....	.....	15
16	.....	80	1.8	270	2.3	200	1.95	233	1.55	137	.8	28	.9	38	2.5	574	2	463	1.6	245	1.8	344	.....	.....	.....	16
17	2	100	1.8	270	2.4	270	1.9	242	1.5	123	.8	28	.9	38	2.4	506	2.05	497	1.5	203	1.9	401	.....	.....	.....	17
18	2.1	105	2	270	2.4	270	1.85	233	1.5	126	.85	33	.8	28	2.3	443	2.2	597	1.5	203	1.9	401	.....	.....	.....	18
19	2.2	140	2	270	2.4	270	1.8	234	1.55	137	.85	33	.75	24	2.15	358	2.3	669	1.4	165	1.95	432	.....	.....	.....	19
20	2.3	150	2	270	2.4	270	1.9	232	1.5	126	.85	33	.7	20	2.15	358	2.3	669	1.4	165	1.95	432	.....	.....	.....	20
21	2.3	150	2	200	2.4	270	1.9	232	1.5	126	.85	33	.7	20	.....	345	2.4	741	1.5	203	1.9	401	.....	.....	.....	21
22	2.3	150	2	200	2.9	620	1.8	234	1.5	126	.75	24	.65	16	.....	352	2.5	818	1.5	203	1.9	401	.....	.....	.....	22
23	2.3	150	2	200	2.9	620	1.8	234	1.4	106	.65	16	.65	16	1.8	230	2.5	818	1.6	245	1.9	401	.....	.....	.....	23
24	2.4	160	2	200	3.1	620	1.85	223	1.4	106	.6	13	.65	16	1.75	265	2.5	818	1.6	245	1.9	401	.....	.....	.....	24
25	2.65	180	1.9	170	3.2	620	1.85	223	1.3	90	.6	13	.65	16	1.75	255	2.5	818	1.6	245	1.9	401	.....	.....	.....	25
26	2.6	200	1.9	170	3.15	620	1.8	204	1.1	62	.55	12	.65	16	.....	265	2.5	818	1.6	245	1.9	401	.....	.....	.....	26
27	2.4	200	1.9	170	2.95	620	1.8	204	1.1	62	.55	12	.65	16	1.5	255	2.45	779	1.6	245	1.95	432	.....	.....	.....	27
28	2.4	200	1.9	170	2.6	647	1.8	204	1.1	62	.4	8	.4	8	1.4	235	2.45	779	1.6	245	1.95	432	.....	.....	.....	28
29	2.5	300	.....	170	2.6	647	1.75	184	1.1	62	.4	8	.....	20	1.3	245	2.45	779	1.6	245	1.95	432	.....	.....	.....	29
30	2.4	300	.....	.....	2.7	720	1.7	174	1.1	62	.4	8	.....	30	1.1	165	2.4	741	1.6	245	1.95	432	.....	.....	.....	30
31	2.3	300	.....	.....	2.5	574	.....	1	50	.....	.....	.9	38	1.1	165	.....	.....	1.6	245	.....	.....	.....	.....	.....	.....	31
Mean	.....	112	.....	279	.....	345	.....	282	.....	111	.....	25	.....	57	.....	565	.....	437	.....	366	.....	342	.....	.....	.....	.....
Run-off	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
in acre-ft.	.....	6,859	.....	16,066	.....	21,227	.....	16,765	.....	5,056	.....	1,511	.....	3,493	.....	34,769	.....	26,018	.....	22,505	.....	20,374	.....	.....	.....	.....
Maximum	.....	365	.....	365	.....	720	.....	574	.....	161	.....	38	.....	174	.....	1,169	.....	818	.....	741	.....	432	.....	.....	.....	.....
Minimum	.....	20	.....	170	.....	168	.....	174	.....	50	.....	8	.....	8	.....	148	.....	55	.....	165	.....	235	.....	.....	.....	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, near Julesburg, Colorado, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2	2.6	.65	.....	.75	.....	.55	.....	.6	.....	.6	.....	.....	.....	.....	.....	.....	2
3	2.5	.7	.....	.6	.....	.5	.....	.6	.....	.55	.....	.....	.....	.....	.....	.....	3
4	2.5	.65	.....	.5	.....	.5	.....	.6	.....	.55	.....	.....	.....	.....	.....	.....	4
5	2.2	.65	.....	.5	.....	.5	.....	.6	.....	.6	.....	.....	.....	.....	.....	.....	5
6	2	.65	.....	.5	.....	.5	.....	.55	.....	.....	.....	.....	.....	.....	.....	.....	6
7	1.7	.6	.....	.5	.....	.5	.....	.55	.....	.6	.....	.....	.....	.....	.....	.....	7
8	1.6	.6	.....	.5	.....	.6	.....	.55	.....	.5	.....	.....	.....	.....	.....	.....	8
9	1.6	.6	.....	.45	.....	.6	.....	.55	.....	.5	.....	.....	.....	.....	.....	.....	9
10	1.5	.6	.....	.45	.....	.5	.....	.6	.....	.55	.....	.....	.....	.....	.....	.....	10
11	1.4	.65	.....	.5	.....	.5	.....	.....	.55	.....	.....	.....	.....	.....	.....	.....	11
12	1.3	.65	.....	.5	.....	.6	.....	.....	.55	.....	.....	.....	.....	.....	.....	.....	12
13	2.3	1.25	.....	.7	.....	.5	.....	.6	.....	.55	.....	.....	.....	.....	.....	.....	13
14	2.3	1.25	.....	.7	.....	.45	.....	.55	.....	.55	.....	.....	.....	.....	.....	.....	14
15	2.2	1.2	.....	.7	.....	.45	.....	.5	.....	.5	.....	.....	.....	.....	.....	.....	15
16	2.15	1.2	.....	.7	.....	.45	.....	.5	.....	.5	.....	.....	.....	.....	.....	.....	16
17	2.05	1.1	.....	.6	.....	.45	.....	.5	.....	.55	.....	.....	.....	.....	.....	.....	17
18	2	1.1	.....	.55	.....	.45	.....	.5	.....	.6	.....	.....	.....	.....	.....	.....	18
19	2	1.05	.....	.55	.....	.5	.....	.5	.....	.6	.....	.....	.....	.....	.....	.....	19
20	1.95	1	.....	.55	.....	.5	.....	.5	.....	.6	.....	.....	.....	.....	.....	.....	20
21	2	.6	.....	.5	.....	.55	.....	.....	1.05	.....	.....	.....	.....	.....	.....	.....	21
22	1.9	.9	.....	.65	.....	.5	.....	.55	.....	.6	.....	.....	.....	.....	.....	.....	22
23	2	.9	.....	.5	.....	.5	.....	.6	.....	.6	.....	.....	.....	.....	.....	.....	23
24	2.1	.9	.....	.5	.....	.5	.....	.65	.....	.6	.....	.....	.....	.....	.....	.....	24
25	2.3	.8	.....	.5	.....	.55	.....	.65	.....	.6	.....	.....	.....	.....	.....	.....	25
26	2.5	.8	.....	.4	.....	.5	.....	.6	.....	.6	.....	.....	.....	.....	.....	.....	26
27	2.6	.8	.....	.5	.....	.6	.....	.65	.....	.6	.....	.....	.....	.....	.....	.....	27
28	2.6	.8	.....	.5	.....	.6	.....	.7	.....	.6	.....	.....	.....	.....	.....	.....	28
29	2.7	.8	.....	.6	.....	.6	.....	.6	.....	.6	.....	.....	.....	.....	.....	.....	29
30	2.65	.7	.....	.8	.....	.6	.....	.55	.....	.65	.....	.....	.....	.....	.....	.....	30
31	2.6	.65	.....	.9	.....	.6	.....	.55	.....	.6	.....	.55	.....	.....	.....	.....	31

SOUTH PLATTE RIVER AT BIG SPRINGS

Location. About one-fourth of a mile south of U. P. depot at highway bridge, ten miles below Julesburg, Colorado.

Records Available. From September 5, 1902 to November 21, 1903.

Gage. Weight and chain fastened to upstream girder of the bridge near the north end of the bridge. Distance from end of weight to index on chain 9.45 feet.

Bench Marks. No. 1. A standard four foot iron pipe marked U. S. G. S., located two hundred feet north of U. P. depot on west side of street. Elevation, 3,370 feet above sea level. No. 2. Floor of bridge over zero mark on the gage scale. Elevation, 3,373.95 feet. Bench mark datum is mean sea level. Elevation of zero on gage is 3,364.85 feet.

Channel. Straight at gaging section.

Accuracy. Shifting sand and vegetation in channel will render computations of discharge difficult.

Actual Discharge Measurements of South Platte River, at Big Springs, During Year Ending September 30, 1903

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1902		Feet	Sec.-ft.	1903		Feet	Sec.-ft.
Sept. 5	J. C. Stevens	1	0	May 9	J. C. Stevens	1.98	20
23	H. O. Smith	1.65	2	July 8	do	1.8	Pools
1903				28	do	1.8	2
April 1	J. C. Stevens	2.85	1,299	Aug. 20	do	1.96	10

Daily Gage Height (in feet) and Discharge (in second-feet) of South Platte River, at Big Springs, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.9	1,880	2	20	2	20	1.8	1.85	1.9	5	20	2.12	70					1	
2							2.95	1,470	2	20	2	20	1.75	1.85	1.85	2	20	2.15	110					2	
3					3.75		2.65	930	2	20	2	20	1.85	1.8	1.85	2	20							3	
4							2.65	930	2	20	2	20	1.85	1.75	1.85	2.05	40	2.15	110					4	
5							2.75	1,110	2	20	2.05	40	1.8	1.75	1.9	5	2.05	40	2.12	70				5	
6							2.6	840	2	20	2	20	1.75	1.7	1.9	5	2.1	70	2.12	70				6	
7							2.65	930	2	20			1.85	1.7	1.9	5	2.05	40	2.12	70				7	
8							2.65	930	1.95	10			1.8	1.75	1.9	5	2	20	2.11	70				8	
9							2.6	840	2	20	1.9		1.75	1.75	1.9	5	2.05	40	2.1	70				9	
10					4		2.5	660	2.05	40	1.85		1.85	1.75	1.9	5	2.05	40	2.1	70				10	
11					3.9		2.4	480	2	20	1.8		1.8	1.8			2.05	40	2.15	110				11	
12					3.9		2.4	480	2	20	1.8		1.8	1.8		1.9	5	2.1	70	2.1	70			12	
13					3.75		2.4	480	1.75		1.8		1.8	1.75		1.9	5	2.1	70	2.1	70			13	
14					3.55		2	20	1.8		1.8		1.9	5		1.9	5	2.13	110	2.13	110			14	
15					3.25		2.3	310	1.75		1.8		1.8	1.7		1.9	5	2.11	70	2.1	70			15	
16					3.25		2	20	1.75		1.8		1.8	1.85		1.9	5	2.1	70	2.1	70			16	
17					2.8		1,200	20	1.8		1.8		1.8	2.45	570	1.95	5	2.1	70					17	
18					2.6		840	20	1.8		1.8		1.8	2.25	230	1.95	10	2.11	70	2.1	70			18	
19					2.25		230	2	20	1.9	5	1.9	5	1.8	2	20	1.9	5	2.1	70	2.1	70			19
20					2.25		230	2	20	1.95	10	1.9	5	1.75	1.93	10	1.9	5	2.1	70	2.1	70			20
21					2.2		160	2	20	1.9	5	1.9	5	1.85				2.1	70					21	
22					2.2		160	2	20	1.95	10	1.95	10	1.8	1.85		1.95	10	2.08	70	2.23	230			22
23					2.2		160	2	20	1.95	10	1.95	10	1.8	2.25	230	1.95	10	2.07	40				23	
24					2.15		110	2	20	2	20	1.95	10	1.75	2.05	40	1.95	10	2.07	40				24	
25					2.15		110	2.75	1,110	2	20	1.9	5	1.75	2	20	1.95	10	2.11	70				25	
26					2.25		230	2	20	1.95	10	1.85		1.75	2	20	1.95	10	2.11	70				26	
27					2.2		160	2	20	1.95	10	1.85		1.8	2.13	110	1.95	10	2.15	110				27	
28					2.15		110	2	20	1.9	5	1.8		1.75	2	20	2	20	2.15	110				28	
29					2.2		160	3.2	1,920	2	20	1.8		1.75	2	20	2	20	2.16	110				29	
30					2.15		110	3.1	1,740	2	20	1.8		1.8	1.95	10	2	20	2.12	70				30	
31					2.15		110							1.9	1.95	10		2.12	70					31	

SOUTH PLATTE RIVER AT NORTH PLATTE

Location. Section 4 and 9 Township 13 North, Range 30 West, about four miles above its junction with the North Platte.

Records Available. From June 1, 1914 to September 20, 1914.

Gage. Vertical staff nailed to the west pile on the nineteenth pier from the south abutment on the up stream side of the bridge.

Bench Mark. U. S. Bench mark located on top of floor of the bridge on the west side at a distance of one hundred thirty-two feet north of the south abutment. Elevation, 2,808.46 feet above mean sea level. Elevation of zero of the gage is 2,796.47 feet.

Channel. Two channels, 920 feet apart.

Accuracy. Affected by shifting sand.

Actual Discharge Measurements of South Platte River, at North Platte

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1892		Feet	Sec.-ft.	1904		Feet	Sec.-ft.
Early Nov...	U. S. G. S. ....	....	450	Mar. 26....	J. C. Stevens....	....	0
Late Nov...	do	....	645	May 27....	R. D. Hubbard....	....	11
1896				June 13....	J. C. Stevens....	....	2,231
June 29....	O. V. P. Stout....	....	0	1905			
1899				Mar. 31....	G. W. Bates....	....	382
April 19....	Glen Smith....	....	883	June 14....	H. C. Gardner....	....	7,614
May 6....	do	....	87	July 13....	do	....	170
22....	do	....	88				
June 6....	do	....	0	1908			
19....	do	....	0	June 2....	A. Dobson....	....	95
1901							
July 17....	O. V. P. Stout....	....	0	1909			
1902				Mar. 23....	G. W. Bates....	....	814
April 9....	H. O. Smith....	....	0				
May 20....	do	....	200	1914			
1903				May 30....	C. J. McNamara..	5.	7,392
April 2....	J. C. Stevens....	....	909	June 18....	do	4.3	2,905
May 8....	do	....	50	July 3....	do	3.6	788
June 29....	do	....	0	18....	do	3.	31

Daily Storage (in acre-feet) in Pathfinder Reservoir (North Platte River), for 1913

	January	February	March	April	May	June	July	August	September	October	November	December		
	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage		
	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet		
1			24,870			575,870	605,780	469,640	320,150	209,260	230,000	268,820	1	
2						583,930	602,470	464,980	315,420	209,260	231,380	269,580	2	
3						593,420	598,220	460,580	310,910	208,950	232,760	270,340	3	
4						601,640	593,150	456,200	306,430	208,640	234,140	271,100	4	
5				135,560		608,550	588,800	451,640	302,290	208,020	235,520	272,250	5	
6						614,110	584,200	446,480	298,030	207,710	236,900	273,020	6	
7						618,300	579,900	442,200	293,700	207,400	238,300	273,790	7	
8			31,900				573,480	436,920	289,700	207,090	239,700	274,560	8	
9							567,810	432,490	285,530	207,090	241,100	274,940	9	
10					419,310		563,610	426,980	281,490	207,090	242,500	275,710	10	
11							558,520	422,380	276,630	206,780	243,910	276,480	11	
12				210,500		622,000	554,230	417,090	271,560	206,470	245,340	276,870	12	
13							549,590	411,580	266,400	207,400	246,780	277,250	13	
14							554,650	406,480	261,190	208,640	247,860	277,640	14	
15			41,940			634,470	540,060	401,360	256,210	209,880	248,940	278,020	15	
16						634,750	534,550	395,470	251,320	211,120	250,380	278,410	16	
17					466,090	634,040	529,790	390,640	246,790	212,060	251,830	278,790	17	
18						632,890	523,820	384,900	241,800	213,320	253,290	279,560	18	
19				281,870		631,300	519,650	379,800	236,210	214,580	254,750	280,370	19	
20						629,720	514,720	374,580	236,210	215,840	256,210	281,100	20	
21						628,580	509,900	368,580	226,630	217,120	257,670	281,870	21	
22		15,510	54,910				506,150	364,480	222,650	218,080	258,130	282,640	22	
23							501,500	360,020	218,730	219,380	260,230	283,030	23	
24							497,960	356,120	214,910	220,680	261,340	283,420	24	
25					512,290	622,590	495,040	351,800	213,000	221,980	262,450	283,810	25	
26					517,160									
27						522,080	493,310	347,760	211,760	223,300	263,560	284,200	26	
28						528,290	490,150	343,570	210,810	223,960	264,680	284,980	27	
29						535,790	486,380	338,500	210,190	225,290	265,800	285,760	28	
30			65,040			547,170	482,710	333,300	209,880	226,630	266,930	286,540	29	
						556,180	609,110	478,400	328,940	208,950	227,300	268,060	286,930	30
31						566,620		474,010	324,510		228,640		287,720	31

Daily Storage (in acre-feet) in Pathfinder Reservoir (North Platte River), for 1914

	January	February	March	April	May	June	July	August	September	October	November	December	
	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	Storage	
	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	Acre-feet	
1	288,110	308,420	329,200	389,680	585,960	856,750	1,087,180	883,330	627,430	.....	.....	.....	1
2	288,510	308,250	330,500	393,050	593,420	873,430	1,084,690	877,610	618,160	.....	.....	.....	2
3	289,300	308,670	331,810	395,930	600,270	891,910	1,074,520	871,540	609,250	.....	.....	.....	3
4	289,700	310,080	333,120	400,850	607,360	911,690	1,070,000	865,710	600,410	.....	.....	.....	4
5	290,500	310,910	334,440	406,780	612,720	930,610	1,065,480	859,730	591,920	.....	.....	.....	5
6	291,300	311,330	335,760	412,780	617,600	954,590	1,060,970	853,230	584,370	.....	.....	.....	6
7	292,100	312,160	336,640	420,830	625,430	975,780	1,056,470	846,230	575,600	.....	.....	.....	7
8	292,500	312,570	337,970	431,140	633,320	994,180	1,052,430	836,960	566,620	.....	.....	.....	8
9	292,900	312,990	339,750	441,140	640,560	1,008,230	1,048,400	830,960	557,480	.....	.....	.....	9
10	293,300	313,820	341,530	448,620	644,180	1,017,240	1,048,000	823,130	548,700	.....	.....	.....	10
11	293,700	314,240	342,860	454,020	646,370	1,024,240	1,035,700	815,430	539,810	.....	.....	.....	11
12	294,100	315,080	344,200	458,930	652,250	1,029,070	1,029,950	807,620	530,790	.....	.....	.....	12
13	294,900	315,500	345,530	462,780	659,630	1,033,930	1,022,480	800,070	521,710	.....	.....	.....	13
14	295,700	315,920	347,310	466,090	666,330	1,039,260	1,014,850	793,260	512,770	.....	.....	.....	14
15	296,500	316,760	349,100	470,540	672,050	1,045,050	1,007,260	783,750	503,640	.....	.....	.....	15
16	296,900	317,600	351,350	474,460	673,860	1,052,200	998,880	774,480	494,680	.....	.....	.....	16
17	297,710	318,020	353,600	481,230	677,510	1,059,400	989,070	764,140	485,900	.....	.....	.....	17
18	298,520	318,860	356,750	489,230	681,800	1,065,710	979,770	753,590	477,380	.....	.....	.....	18
19	299,340	319,290	359,480	495,620	687,960	1,071,580	972,640	743,770	469,310	.....	.....	.....	19
20	300,160	320,140	362,210	502,690	694,480	1,075,650	965,970	734,240	460,800	.....	.....	.....	20
21	300,980	320,990	364,940	509,870	701,690	1,080,620	958,510	725,300	452,400	.....	.....	.....	21
22	301,390	321,840	366,300	515,330	711,500	1,085,370	952,130	716,610	444,010	.....	.....	.....	22
23	301,800	322,700	368,120	522,080	720,550	1,088,760	944,970	707,680	435,610	.....	.....	.....	23
24	302,620	323,990	369,960	538,930	734,240	1,091,700	938,060	698,550	427,290	.....	.....	.....	24
25	303,440	324,850	372,260	538,930	749,070	1,093,700	931,400	689,670	419,010	.....	.....	.....	25
26	304,270	326,150	374,570	547,170	764,140	1,091,700	924,590	680,730	410,980	.....	.....	.....	26
27	305,100	327,020	376,900	555,530	779,790	1,089,890	917,620	671,900	402,720	.....	.....	.....	27
28	305,930	327,890	379,240	564,000	794,310	1,087,180	910,110	663,040	394,400	.....	.....	.....	28
29	306,550	.....	381,590	571,900	809,030	1,084,690	902,660	654,300	396,140	.....	.....	.....	29
30	306,760	.....	383,950	578,540	824,740	1,082,200	896,050	645,490	377,960	.....	.....	.....	30
31	307,590	.....	386,330	.....	.....	.....	889,660	636,500	.....	.....	.....	.....	31

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, below Whalen, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1		259		1,871		667		360		1,982		1,291		1,599		1,598		952		1,796		835		239	1
2		170		1,919		615		310		3,008		1,450		3,008		1,598		894		1,218		646		249	2
3		160		1,273		624		324		2,369		1,797		2,573		1,598		890		1,012		646		593	3
4		175		1,206		642		411		2,369		1,373		2,466		1,598		890		684		730		539	4
5		578		1,022		607		752		2,472		1,079		2,264		1,598		833		634		835		648	5
6		521		1,140		622		1,025		2,069		952		2,264		1,598		833		888		950		606	6
7		521		916		697		827		1,536		1,079		2,264		2,475		781		1,010		835		556	7
8		521		1,079		774		633		1,295		1,079		2,165		2,269		833		1,077		835		556	8
9		521		911		1,311		1,203		1,077		1,012		2,165		1,708		890		1,218		835		556	9
10		521		713		1,224		835		950		1,147		2,165		1,598		893		1,218		835		556	10
11		521		741		1,409		624		894		1,077		2,067		1,598		953		1,147		362		498	11
12		575		821		1,407		624		956		1,216		1,973		1,598		1,081		1,533		280		498	12
13		519		785		1,467		624		898		1,448		1,975		1,597		1,081		1,216		308		498	13
14		759		961		1,512		624		786		1,529		1,882		1,531		1,150		781		340		498	14
15		820		1,040		1,552		598		611		1,703		1,882		1,531		1,295		833		386		498	15
16		1,296		918		1,599		544		550		3,124		2,684		1,531		1,295		1,079		448		498	16
17		1,260		945		1,763		506		1,080		4,587		3,585		1,449		1,294		1,079		448		498	17
18		810		901		3,479		731		1,298		4,481		3,585		1,449		1,218		1,014		481		498	18
19		675		682		3,469		729		1,298		3,511		3,585		1,449		1,218		950		656		498	18
20		675		339		2,416		641		1,221		2,896		3,513		1,450		1,294		950		765		498	20
21		525		259		1,714		642		1,150		2,788		3,515		1,450		1,294		950		823		441	21
22		525		234		1,289		1,077		1,150		2,680		3,010		1,450		1,294		950		1,093		441	22
23		470		157		952		1,010		1,016		2,165		2,684		1,450		1,294		950		1,093		441	23
24		470		375		952		1,010		952		2,468		2,069		1,370		1,295		950		890		441	24
25		470		519		785		1,010		786		2,678		1,885		1,370		1,373		950		828		441	25
26		540		691		918		1,012		691		2,571		1,885		1,370		1,707		950		711		441	26
27		675		519		1,015		1,012		550		2,678		1,795		1,370		1,707		950		642		441	27
28		675		564		874		1,147		496		2,678		1,705		1,370		1,888		950		324		400	28
29		675		625		625		1,215		508		1,884		1,598		1,292		2,173		892		317		350	29
30		675		480		1,889		545		545		1,373		1,598		1,081		2,368		835		230		350	30
31		1,150		422		1,214		1,214		1,214		1,214		1,598		952		952		835		350		350	31
Mean		617				1,221		798		714		1,181		895		1,227		1,020		1,064					
Run-off in acre-ft.		37,913		46,602		75,074		47,491		43,880		70,230		55,030		75,400		60,680		65,427		38,484		28,982	
Maximum		1,296		1,919		3,479		1,889		1,130		1,285		1,330		1,295		1,225		2,000		1,093		648	
Minimum		160		157		422		310		73		250		770		238		781		230		230		239	

Daily Gage Height (in feet) and Discharge (in second-feet) of Interstate Canal, at Whalen, for 1911

	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1								448		740		1,165	1.7	175		1,250		1,225		204					1
2								461		469		1,200		674		1,250		1,225		51					2
3								478		469		1,225		950		1,270		1,225							3
4								482		469		1,225		1,160		1,235		1,225		195					4
5								535		400		1,280		1,210		1,235		1,225		270					5
6								601		73		1,230		1,210		1,285		1,225		275					6
7								667		101		1,230		1,210		770		1,225		280					7
8								680		341		1,250		1,260		910		1,145		170					8
9								822		350		1,270		1,260		1,180		1,115							9
10								862		549		1,270		1,260		1,200		1,115							10
11								956		592		1,270		1,260		1,200		1,010							11
12								944		645		1,270		1,275		1,200		900							12
13								974		703		1,220		1,300		1,200		895							13
14								974		698		1,200		1,320		1,225		923							14
15								1,009		712		1,240		1,330		1,260		985							15
16								1,040		715		1,260		560		1,260		1,000							16
17								1,053		723		1,235				1,260		1,000							17
18								1,090		713		1,285				1,260		1,000							18
19								1,120		713		1,235				1,260		1,000							19
20								1,055		732		1,285				1,295		1,000							20
21								1,040		811		1,235				1,235		1,000							21
22								1,050		815		1,235		52		1,295		1,000							22
23								1,090		920		1,260		416		1,295		1,000							23
24								1,090		990		1,190		624		1,295		1,000							24
25								1,090		1,035		1,110		943		1,295		1,000							25
26								1,090		1,050		1,080		1,100		1,295		1,000							26
27								1,120		1,080		1,080		1,170		1,250		1,000							27
28						20		1,135		1,130		1,080		1,225		1,225		950							28
29						178		1,160		1,130		850		1,240		1,225		751							29
30						346		850		1,130		250		1,245		1,225		238							30
31						414				1,130				1,250		1,225									31
Mean						240		901		714		1,181		895		1,227		1,020							
Run-off in acre-ft.						1,900		53,570		43,880		70,230		55,030		75,400		60,680							
Maximum						414		1,185		1,130		1,285		1,330		1,295		1,225							
Minimum						20		448		73		250				770		235							

NORTH PLATTE RIVER AT HENRY

Location. About half a mile south of town.

Records Available. From May 12, 1912 to September 30, 1914.

Gage. Vertical staff in each of three channels.

Channels. Three channels at all stages. Spring creek enters the river just below the station flowing under the same bridge as the north channel of the river. Bed of shifting sand.

Accuracy. Almost daily measurements have been made during the open seasons which has reduced error in estimations to a minimum.

Actual Discharge Measurements of North Platte River, at Henry

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1910		Feet	Sec.-ft.	1912		Feet	Sec.-ft.
July 20	U. S. R. S.		526	July 8	W. E. Woods	3	2,862
1912				9	do	3.45	3,664
May 12	W. E. Woods	3.9	4,417	10	do	3.15	3,210
11	do	3	3,192	11	do	3.05	2,955
13	do	4.1	5,279	12	do	3.05	3,073
14	do	3.7	4,511	18	do	3.85	4,576
15	do	3.4	4,250	19	do	3.9	4,841
16	do	3.1	3,413	20	do	4.2	5,145
17	do	3	3,209	22	do	4.85	7,160
18	do	2.85	2,967	24	do	4.1	5,115
20	do	3.15	3,558	25	do	4.1	5,051
21	do	3.2	3,636	26	do	4.05	5,231
22	do	3.3	3,936	27	do	4.1	5,281
31	do	1.95	1,452	29	do	4.1	5,363
June 1	do	1.8	1,237	30	do	4.15	5,210
3	do	1.7	1,152	31	do	4.7	6,444
4	do	2	1,525	Aug. 1	do	4.2	5,959
5	do	1.95	1,567	2	do	4.6	6,812
7	do	2.4	1,626	6	do	4.5	7,012
8	do	2.15	1,706	8	do	4.45	6,998
12	do	2.9	2,584	12	do	4.3	6,831
13	do	3.3	3,738	13	do	4.25	6,577
14	do	3.3	3,486	14	do	4.25	6,420
17	do	2.95	3,128	16	do	4.25	6,075
18	do	2.9	2,969	17	do	4.55	7,456
19	do	2.9	3,035	19	do	4.45	6,914
20	do	2.95	3,145	20	do	4.5	7,974
21	do	2.95	3,136	23	do	4.35	6,554
22	do	2.95	3,102	24	do	4.2	6,179
24	do	2.85	3,112	26	do	4.2	6,120
25	do	2.85	2,925	27	do	4.15	5,944
26	do	2.8	3,000	28	do	4.15	5,865
27	do	2.8	2,837	Sept. 6	do	3.75	4,960
July 3	do	2.6	2,445	7	do	3.7	5,103
5	do	2.75	3,124	10	do	4.0	5,639
6	do	3	2,942	11	do	4.2	6,095

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Henry, for 1912

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1											1.8														1		
2											1,250	2.4	2,050	4.2	5,500											2	
3											1,200	2.5	2,200	4.6	6,500											3	
4											1,150	2.6	2,400	4.6	7,300											4	
5											1,450	2.85	2,900	4.7	7,600											5	
6											1,95	1,400	3,300	4.7	7,600			3.75								6	
7												1,720	3	2,900	4.5	7,000			3.75							7	
8											2.4	2,050	3.2	3,300	4.5	7,000			4.7							8	
9											2.15	1,680	3	2,900	4.45	6,850			3.75							9	
10												1,950	3.45	3,800	4.4	6,700			3.75							10	
11										3	2,900		2,490	3.05	3,000	4.35	6,550			4.2						11	
12										3.9	4,750	2.9	2,750	3.05	3,000	4.3	6,400									12	
13										4.1	5,250	3.3	3,500	3.25	3,400	4.25	6,250			4.25						13	
14										3.7	4,500	3.3	3,500	3.85	4,620	4.25	6,250			4.2						14	
15										3.4	4,050	3.25	3,400	3.9	4,750	4.25	6,250			4.2						15	
16										3.1	3,400	3	2,900	3.9	4,750	4.25	6,250			4.15						16	
17										3	3,200	2.95	2,820	3.85	4,620	4.55	7,150			4.15						17	
18										2.85	2,900	2.9	2,750	3.85	4,620	4.6	7,300									18	
19											3,200	2.9	3,000	3.9	4,750	4.45	6,850									19	
20										3.15	3,500	2.95	3,100	4.2	5,500	4.5	7,000									20	
21										3.2	3,600	2.95	3,100	4.2	5,500	4.4	6,700									21	
22										3.3	3,800	2.95	3,100	4.85	7,150	4.35	6,550									22	
23											3,540		3,000	4.1	5,250	4.35	6,550									23	
24											3,280	2.85	2,900	4.1	5,250	4.3	6,400									24	
25											3,020	2.85	2,900	4.1	5,250	4.3	6,400									25	
26											2,750	2.8	2,800	4.05	5,120	4.2	6,100									26	
27											2,480	2.8	2,800	4.1	5,250	4.15	5,950									27	
28											2,210		2,620	4.1	5,250	4.15	5,950									28	
29											1,940		2,430	4.1	5,250	4.1	5,800									29	
30											1,670		2,240	4.15	5,380	4	5,550									30	
31										1.95	1,400			4.7	6,750		5,450									31	
Mean											3,210		2,470		4,300		6,530			5,500							
Run-off																											
in acre-ft.											133,000		147,000		264,000		402,000			185,000							
Maximum											5,250		3,500		7,150		7,600			6,250							
Minimum											1,400		1,150		2,050		5,450			4,920							

Discharge Measurements of North Platte River at Henry—1913

Date	Hydrographer	Channel No. 1		Channel No. 2		Channel No. 3		Total
		Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Dis-charge
		Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
June 4	C. H. Aldrich, Jr.	271	2,084	...	...	...	...	118
5	do	244	1,747	1.35	121	2,773		2,108
10	do	244	1,871	1.2	113	2,029		2,003
11	do	1.25	1,712	1.15	106	2,159		114
12	do	1.75	1,712	1.1	105	2,439		2,679
13	do	1.8	251	2.3	114	2,124		2,499
14	do	1.8	281	3.35	97	2,439		2,679
15	do	1.8	269	3.25	120	2,636		2,139
16	do	1.85	281	3.35	127	2,153		2,189
17	do	1.75	275	3.3	64	2,346		1,950
20	do	1.65	221	2.2	83	2,132		2,841
21	do	1.7	234	3.2	101	2,382		2,562
22	do	1.8	265	3.2	77	2,197		2,080
23	do	1.8	276	3.4	78	1,950		2,132
24	do	1.65	163	3.05	98	2,841		2,132
25	do	1.7	209	3.2	100	2,382		2,841
26	do	1.7	225	3.3	78	2,562		2,197
27	do	1.8	256	3.4	82	2,197		2,080
28	do	1.8	286	3.4	52	2,080		2,080
29	do	1.7	269	3.3	86	2,080		2,080
30	do	1.65	267	3.2	88	2,446		1,850
July 1	do	1.7	285	3.35	98	1,843		1,843
2	do	...	152	3.1	7	1,747		1,848
3	do	...	149	3.1	44	1,671		1,805
4	do	1.45	3	3	22	1,747		1,848
5	do	1.5	143	3.2	23	1,671		1,805
6	do	1.4	138	3.25	22	1,848		1,671
7	do	1.45	130	3.1	23	1,805		1,763
8	do	1.4	128	3.05	47	1,763		1,584
9	do	1.35	113	2.95	65	1,631		1,353
10	do	1.3	107	2.9	42	1,631		1,266
11	do	1.35	109	2.95	27	1,180		1,043
13	do	1.2	90	2.7	17	1,043		1,180
14	do	1.1	59	2.6	12	1,180		1,043
15	do	1	37	2.5	18	1,043		1,180
16	do	1.85	29	2.45	11	1,043		1,180
17	do	2.25	39	2.5	20	1,073		1,365
18	do	2.2	444	3	184	3,365		1,438
19	do	2.4	663	4	167	3,365		3,416
20	do	2.3	513	4.15	177	3,416		2,903
21	do	2.15	563	4.1	159	2,903		2,311
22	do	2.1	440	3.85	99	2,311		2,270
23	do	1.85	329	3.5	102	2,270		2,305
24	do	1.85	327	3.45	102	2,305		2,184
25	do	1.7	317	3.4	97	2,184		1,948
26	do	1.7	277	3.3	158	2,144		2,360
27	do	1.5	246	3.15	196	2,360		2,059
28	do	1.6	240	3.4	200	2,059		2,065
29	do	1.7	270	3.4	194	2,065		1,747
30	do	1.65	196	3.35	226	1,747		1,428
31	do	1.5	184	3.2	141	1,367		1,316
Aug. 1	do	1.15	93	3	155	1,532		1,621
2	do	1.2	84	3	137	1,388		1,674
3	do	1	66	3.1	175	1,724		1,683
4	do	1.1	56	3.1	202	1,683		1,651
5	do	1.1	66	3	191	1,651		1,682
6	do	1.15	56	3	225	2,109		1,891
7	do	1.2	89	3.15	236	1,860		1,862
8	do	1.2	78	3.1	239	1,862		1,930
9	do	1.2	80	3	252	1,970		1,894
10	do	1.2	82	3	246	1,894		1,932
12	do	1.3	119	3.05	232	2,078		2,078
13	do	1.4	142	3.35	225	2,109		1,891
14	do	1.3	101	3.2	236	1,860		1,862
15	do	1.15	89	3.15	239	1,862		1,930
16	do	1.2	89	3.1	252	1,970		1,894
17	do	1.2	89	3.15	246	1,894		1,932
18	do	1.15	94	3.1	242	1,932		2,078
19	do	1.2	96	3.1	246	1,894		1,932
20	do	1.2	98	3.15	242	1,932		2,078
21	do	1.25	100	3.2	232	2,078		2,078

Discharge Measurements of North Platte River at Henry—1913

Date	Hydrographer	Channel No. 1		Channel No. 2		Channel No. 3		Total
		Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Dis-charge
		Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
Aug. 22	C. H. Aldrich, Jr.	1.15	81	3.1	1,504	1.7	305	1,890
23	do	1.15	74	3.05	1,451	1.5	247	1,773
24	do	1.15	77	3	1,384	1.5	245	1,706
25	do	1.15	80	3.1	1,434	1.5	250	1,763
26	do	1.1	11	2.6	1,129	.9	126	1,265
27	do	1.1	9	2.45	951	.85	121	1,081
28	do	1.15	10	2.4	954	.85	139	1,104
29	do	1.15	11	2.45	958	.9	144	1,113
30	do	1.15	11	2.45	919	.4	55	986
31	do	1.15	11	2.5	961	.4	56	1,029
Sept. 1	do	1.15	11	2.4	886	.4	57	944
2	do	1.4	127	3.2	1,817	1	136	2,080
3	do	1.35	136	3.25	1,864	1	139	2,138
4	do	1.15	8	2.6	1,160	.4	57	1,225
5	do	1.1	8	2.55	1,147	.6	87	1,243
6	do	1.1	7	2.55	1,178	.65	82	1,268
7	do	1.1	8	2.6	1,239	.55	83	1,329
8	do	1.05	9	2.4	987	.85	151	1,147
9	do	1.05	8	2.4	1,031	.8	143	1,183
10	do	1.05	9	2.3	952	.8	106	1,067
11	do	1.05	8	2.5	1,018	1	161	1,186
13	do	1.05	8	2.4	926	.95	188	1,121
14	do	1.05	8	2.45	966	.9	176	1,149
15	do	1	36	2.8	1,356	.8	135	1,528
16	do	1	36	2.8	1,362	.8	135	1,534
17	do	1.6	214	3.85	2,297	.....	242	2,753
18	do	1.6	209	3.55	2,076	1.3	254	2,539
19	do	1.5	169	3.4	1,792	1.2	226	2,387
20	do	1.6	212	3.45	1,919	1.1	220	2,348
21	do	1.5	175	3.4	1,989	1.1	217	2,381
22	do	1.75	230	3.65	2,266	.6	100	2,596
23	do	1.8	243	3.65	2,278	.6	97	2,618
24	do	1.8	243	3.65	2,280	.6	98	2,620
25	do	1.7	216	3.6	2,162	.5	85	2,463
26	do	1.6	200	3.1	1,903	.3	67	2,170
27	do	1.6	203	3.1	1,897	.3	86	2,186
29	do	1.4	146	2.9	1,598	.2	53	1,797
30	do	1.2	61	2.5	1,213	.....	12	1,286
Oct. 1	do	1.2	63	2.75	1,332	.....	11	1,406
2	do	1.2	64	2.5	1,246	.....	10	1,320
3	do	1.2	60	2.3	952	.....	12	1,024
4	do	1.1	59	2.7	1,252	.....	29	1,340
5	do	1.1	67	2.65	1,333	.....	30	1,430
7	do	1.1	66	2.6	1,387	.....	29	1,482
8	do	1.1	67	2.6	1,392	.....	24	1,483
9	do	1.2	80	2.7	1,475	.....	27	1,582
10	do	1.1	63	2.6	1,342	.....	31	1,436
11	do	1.1	64	2.6	1,369	.....	29	1,483
13	do	1	39	2.6	1,076	.2	35	1,150
14	do	1	40	2.65	1,093	.2	33	1,166
15	do	1	39	2.65	1,168	.25	35	1,243
16	do	1	39	2.6	1,163	.2	32	1,235
17	do	1	39	2.6	1,120	.2	30	1,189
18	do	1	42	2.55	1,079	.2	29	1,149
20	do	.85	37	2.55	1,042	.2	35	1,114
21	do	.95	23	2.35	670	.....	13	706
23	do	.9	21	2.4	698	.....	13	732
24	do	.85	19	2.35	685	.....	13	717
25	do	.85	18	2.4	694	.....	14	727
27	do	1	36	2.45	695	.....	13	743
28	do	.85	23	2.4	695	.....	12	730
29	do	.85	23	2.4	671	.....	13	707
30	do	1	10	2.35	671	.....	.....	681
Nov. 1	do	1.15	11	2.1	496	.1	10	517
3	do	1.15	10	2.1	492	.....	14	516
4	do	1.15	10	2.2	535	.....	9	559
5	do	1.1	10	2	492	.....	9	511
6	do	1.1	12	.....	529	.....	3	544
7	do	1.1	12	.....	548	.....	4	565
8	do	1.1	10	.....	495	.....	3	508
10	do	1.1	10	.....	455	.....	3	468
11	do	1.1	10	.....	527	.....	3	540
12	do	1.1	10	.....	519	.....	3	532
13	do	1.1	10	.....	482	.....	3	496

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Henry, for 1913

	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1																									1
2														2,450	1,750		954		1,410		517				2
3														1,850	1,370		2,080		1,320		516				3
4														1,840	1,550		2,130		1,020		516				4
5												2,470		1,800	1,530		1,230		1,340		559				5
												2,110		1,750	1,620		1,240		1,380		511				6
6												2,090		1,850	1,390		1,270		1,430		544				6
7												2,070		1,670	1,670		1,330		1,480		560				7
8												2,060		1,800	1,720		1,150		1,490		508				8
9												2,050		1,750	1,680		1,180		1,580		488				9
10												2,030		1,550	1,650		1,070		1,410		468				10
																									11
11																									11
12																									12
13																									13
14																									14
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26																									26
27																									27
28																									28
29																									29
30																									30
																									31
31																									31
Mean												2,240		2,070	1,630		1,780		1,090		520				
Run-off in acre-ft.												120,000		127,000	100,000		106,000		67,000		13,400				
Maximum												2,680		4,140	2,110		2,830		1,580		560				
Minimum												1,950		1,040	986		954		599		468				

¹Interpolated.

Discharge Measurements of North Platte River at Henry—1914

Date	Hydrographer	Channel No. 1		Channel No. 2		Channel No. 3		Total
		Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Dis-charge
April 20	C. H. Aldrich, Jr.	Feet 1.1	Sec.-ft. 59	Feet 2.2	Sec.-ft. 1,357	Feet 1.3	Sec.-ft. 330	Sec.-ft. 1,446
22	do.	1.15	66	2.2	1,331	1.3	326	2,723
22	do.	1.1	61	2.3	1,461	1.3	292	1,814
24	do.	1.3	125	3.4	1,519	1.4	420	2,064
25	do.	1.25	118	3.45	1,534	1.35	416	2,068
27	do.	1.5	176	3.45	1,695	1.4	442	2,313
28	do.	1.45	168	3.5	1,745	1.45	455	2,368
29	do.	1.4	163	3.4	1,543	1.35	453	2,159
May 1	do.	1.7	255	3.7	2,098	1.3	289	2,642
2	do.	1.75	262	3.7	2,079	1.3	290	2,631
4	do.	2.4	575	4.4	3,317	1.6	396	4,288
5	do.	1.6	400	2.35	580	4.35	3,118	4,098
6	do.	1.2	494	4.3	2,801	1.6	421	3,616
7	do.	1.4	507	4.35	2,891	1.6	427	3,825
8	do.	2	339	3.7	2,014	1.5	414	2,767
11	do.	1.3	458	4.15	2,543	1.5	395	3,496
12	do.	1.65	190	3	1,485	1.6	349	2,024
13	do.	1.55	161	2.9	1,200	1.6	357	1,718
14	do.	2.2	437	4.05	2,783	1.85	483	3,703
15	do.	2.3	461	4.15	2,990	1.9	504	3,955
16	do.	2.3	470	4	2,556	1.85	501	3,527
18	do.	2.3	303	3.65	2,340	1.75	548	3,191
19	do.	2.2	417	3.7	2,423	1.75	462	3,302
20	do.	2.15	403	3.65	2,347	1.85	531	3,281
21	do.	2.45	449	4.05	2,823	1.8	506	3,778
22	do.	2.25	554	4.15	2,898	1.8	510	3,862
23	do.	2.45	539	4.1	2,750	1.8	548	3,837
25	do.	2.3	435	4	2,417	1.85	554	3,396
26	do.	2.2	416	4	2,444	1.85	550	3,410
27	do.	2.2	390	3.9	2,237	1.9	538	3,265
28	do.	2.1	369	3.85	2,282	1.8	518	3,169
29	do.	2.05	369	3.8	2,109	1.85	445	2,923
30	do.	2	357	3.85	2,139	1.95	527	3,023
June 1	do.	1.95	333	3.85	2,134	1.9	515	2,882
2	do.	2	296	3.6	1,905	1.85	561	2,662
3	do.	2	264	3.65	1,700	1.8	552	2,516
4	do.	2.1	277	3.75	1,808	1.8	552	2,637
6	do.	2.15	475	4.3	2,638	1.6	389	3,502
8	do.	2.6	554	4.45	2,855	1.5	442	3,856
9	do.	2.65	589	4.55	3,082	1.6	398	4,069
10	do.	2.6	668	4.55	3,149	1.6	438	4,255
11	do.	2.75	674	4.5	3,101	1.65	476	4,251
12	do.	2.7	668	4.45	2,998	1.65	442	4,108
13	do.	2.65	619	4.35	2,650	1.7	452	3,721
15	do.	2.35	553	4.2	2,422	1.9	562	3,537
16	do.	2.05	446	3.9	2,131	1.5	413	2,990
17	do.	2	426	3.8	2,067	1.5	361	2,854
29	do.	2	417	4.1	2,282	1.6	447	3,146
30	do.	2.3	416	4.15	2,314	1.6	444	3,174
July 1	do.	2.15	354	3.8	1,917	1.4	368	2,639
2	do.	2.1	335	3.85	1,947	1.45	371	2,653
3	do.	2.05	309	3.75	1,769	1.4	364	2,442
6	do.	1.85	264	3.8	1,787	1.35	351	2,402
7	do.	2.2	331	3.9	1,904	1.1	221	2,456
8	do.	2.15	350	3.9	1,885	1.1	226	2,461
9	do.	2.15	332	3.85	1,853	1.1	227	2,442
10	do.	2.15	297	3.9	1,779	.9	240	2,416
11	do.	2.05	275	3.85	1,791	.85	232	2,298
13	do.	2.25	385	4.1	2,191	.8	219	2,795
14	do.	2.35	394	4.2	2,116	.75	205	2,715
15	do.	2.35	412	4.25	2,172	.5	198	2,782
16	do.	2.35	409	4.25	2,215	.45	153	2,777
17	do.	2.35	401	4.2	2,120	.5	190	2,711
18	do.	2.45	375	4.2	2,075	.4	181	2,631
21	do.	2.6	501	4.6	2,401	.35	128	3,030
22	do.	2.2	443	4.4	2,311	.3	122	2,876

Discharge Measurements of North Platte River at Henry—1914

Date	Hydrographer	Channel No. 1		Channel No. 2		Channel No. 3		Total
		Gage height	Dis-charge	Gage height	Dis-charge	Gage height	Dis-charge	Dis-charge
		Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Sec.-ft.
July 23	C. H. Aldrich, Jr.	2.45	439	4.4	2,303	.3	120	2,862
24	do.	2.45	447	4.35	2,228	.35	123	2,798
25	do.	2.45	434	4.3	2,286	.35	112	2,782
27	do.	2.4	413	4.35	2,305	.3	105	2,823
28	do.	2.35	402	4.1	2,084	.35	109	2,595
29	do.	2.3	393	4.1	2,180	.35	105	2,678
30	do.	2.25	365	4.1	2,201	.3	107	2,676
31	do.	2.3	390	4.1	2,150	.3	103	2,643
Aug. 1	do.	2.6	542	4.55	3,125	.5	147	4,814
3	do.	2.4	492	4.3	2,442	.4	95	2,939
4	do.	2.55	482	4.3	2,382	.45	136	3,000
5	do.	2.5	446	4.3	2,457	.4	129	3,132
6	do.	2.5	434	4.2	2,247	.4	113	2,794
7	do.	2.4	439	4.2	2,400	.4	151	2,980
8	do.	2.5	447	4.2	2,384	.4	140	2,971
9	do.	2.4	432	4.2	2,375	.4	132	2,939
10	do.	2.4	427	4.1	2,141	.45	122	2,690
11	do.	2.4	420	4.1	2,044	.4	159	2,623
12	do.	2.4	418	4.1	2,060	.45	161	2,639
13	do.	2.4	402	4.15	2,151	.45	126	2,679
14	do.	2.4	403	3.1	2,186	.4	123	2,712
15	do.	2.35	378	3.1	2,225	.35	118	2,721
16	do.	2.35	401	4	2,057	.45	132	2,590
17	do.	2.45	429	4.15	2,143	.2	46	2,618
18	do.	2.35	495	4.25	2,408	.3	114	3,017
19	do.	2.3	488	4.25	2,494	.3	113	3,095
20	do.	2.3	537	4.4	2,499	.45	148	3,184
21	do.	2.6	559	4.45	2,605	.5	138	3,302
22	do.	2.6	560	4.5	2,627	.55	148	3,315
24	do.	2.5	556	4.25	2,136	.55	148	2,840
25	do.	2.5	515	4.3	2,317	.55	146	4,278
26	do.	2.5	517	4.35	2,389	.6	154	3,010
27	do.	2.7	463	4.13	2,420	.7	143	3,026
28	do.	2.5	510	4.3	2,375	.75	150	3,035
29	do.	2.5	478	4.3	2,280	.8	153	2,911
31	do.	2.5	515	4.35	2,334	.7	160	3,009
Sept. 1	do.	2.5	450	4.25	2,027	.65	165	2,642
2	do.	2.5	476	4.45	2,318	1	218	3,012
3	do.	2.5	479	4.45	2,476	1.1	214	3,169
4	do.	2.5	515	4.5	2,442	1.1	219	3,176
5	do.	2.6	596	4.55	2,450	1.1	166	3,152
7	do.	2.85	526	4.55	2,292	1.25	203	3,021
8	do.	2.8	543	4.55	2,315	1.3	219	3,077
9	do.	2.65	525	4.6	2,420	1.3	219	3,164
10	do.	2.65	537	4.7	2,465	1.3	219	3,221
11	do.	2.7	542	4.65	2,539	1.4	248	3,329
12	do.	2.7	551	4.7	2,615	1.55	270	3,436
14	do.	2.7	547	4.7	2,600	1.6	292	3,439
15	do.	2.85	532	4.55	2,332	1.3	223	3,087
16	do.	2.5	508	4.5	2,260	1.6	294	3,062
17	do.	2.5	495	4.5	2,145	1.6	302	2,942
18	do.	2.5	477	4.5	2,097	1.6	289	2,863
19	do.	2.5	477	4.55	2,413	1.5	276	3,166
21	do.	2.5	543	4.5	2,033	1.5	228	2,774
22	do.	2.5	543	4.55	2,114	1.6	261	2,918
23	do.	2.55	568	4.55	2,053	1.5	236	2,857
24	do.	2.5	534	4.5	2,012	1.8	306	2,852
25	do.	2.45	504	4.5	2,152	1.8	295	2,951
26	do.	2.4	518	4.5	2,045	1.8	294	2,857
28	do.	2.5	497	4.5	2,067	1.8	298	2,862
29	do.	2.5	521	4.5	2,441	1.8	317	3,279

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Henry, for 1914

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									3.7	2,640	3.85	2,980	3.8	2,640	4.55	3,810	4.25	2,640							1
2									3.7	2,630	3.6	2,760	3.85	2,650		3,390	4.45	3,010							2
3										3,460	3.65	2,520	3.75	2,440	4.3	2,970	4.45	3,170							3
4										4.4	4,280	3.75	2,640		2,420	4.3	3,000	4.5	3,180						4
5									4.35	4,100	4.15	3,280		2,400	4.3	3,030	4.55	3,150							5
6									4.3	3,720	4.3	3,500	3.8	2,380	4.2	2,790		3,080							6
7									4.35	3,820		3,680	3.9	2,460	4.2	2,990	4.55	3,020							7
8									3.7	2,770	4.45	3,850	3.9	2,460	4.2	2,970	4.55	3,080							8
9									3.7	2,750	4.55	4,070	3.85	2,410	4.2	2,940	4.6	3,160							9
10										3,080	4.55	4,260	3.9	2,320	4.1	2,690	4.7	3,220							10
11									4.15	3,400	4.5	4,250	3.85	2,300	4.1	2,620	4.65	3,330							11
12									3	2,020	4.45	4,110		2,550	4.1	2,640	4.7	3,440							12
13									2.9	1,720	4.35	3,720	4.1	2,800	4.15	2,680		3,440							13
14									4.05	3,700		3,630	4.2	2,720	3.1	2,710	4.7	3,440							14
15									4.15	3,960	4.2	3,540	4.25	2,780	3.1	2,720	4.55	3,090							15
16									4	3,530	3.9	2,990	4.25	2,780	4	2,590	4.5	3,060							16
17										3,360	3.8	2,860	4.2	2,710	4.15	2,620	4.5	2,940							17
18									3.65	3,190			4.2	2,630	4.25	3,020	4.5	2,860							18
19									3.7	3,300				2,760	4.25	3,100	4.55	3,170							19
20							2.2	1,750	3.65	3,330				2,900	4.4	3,180		2,980							20
21							2.2	1,720	4.05	3,830			4.6	3,030	4.45	3,300	4.5	2,800							21
22							2.3	1,810	4.15	3,960			4.4	2,880	4.5	3,340	4.55	2,920							22
23								1,940	4.1	3,840			4.4	2,860		3,090	4.55	2,860							23
24								3.4	2,060			4.35	2,800	4.25	2,840	4.5	2,850								24
25							3.45	2,070	4	3,410			4.3	2,780	4.3	2,980	4.5	2,950							25
26								2,190	4	3,410				2,800	4.35	3,010	4.5	2,860							26
27							3.45	2,310	3.9	3,160			4.35	2,820	4.3	3,030		2,860							27
28								2,370	3.85	3,170			4.1	2,600	4.3	3,040	4.5	2,860							28
29								2,160	3.8	2,920		4.1	3,150	4.1	2,680	4.3	2,910		2,860						29
30								2,400	3.85	3,020		4.15	3,170	4.1	2,680		2,960		2,860						30
31										3,000			4.1	2,640	4.35	3,010									31
Mean								2,070		3,290				2,650		2,970		3,040							
Run-off in acre-ft.								45,200		202,000				163,000		183,000		181,000							
Maximum								2,400		4,280				3,030		3,810		3,440							
Minimum								1,720		1,720				2,300		2,590		2,640							

NOTE—Measurements made on all days for which gage heights are given.

NORTH PLATTE RIVER AT MITCHELL

Location. At highway bridge one mile south of town in Section 27, Township 23 North, Range 56 West.

Records Available. From June 2, 1901 to July 10, 1913.

Drainage Area. 24,400 square miles.

Gage. A standard weight and chain fastened to the upstream handrail near the center of the bridge. The length of the chain from the index to the end of the weight is 10.60 feet. During 1901 the gage was maintained at a datum one foot higher than during the succeeding years. On May 3, 1902, the gage datum was lowered one foot. All gage heights so affected have been corrected to the new datum.

Bench Marks. No. 1. A cross cut in the floor of the bridge at the gage. Elevation, 9.74 feet. No. 2. A standard aluminum bench mark cap marked U. S. G. S., leading into the top of a two inch gas pipe four feet long located one hundred thirty-eight feet north and thirty feet east of the left end of the downstream handrail. Elevation, 8.64 feet. Bench mark datum is zero of gage.

Channel. At the gaging section the stream flows in three channels all of which are straight for some distance above and below the bridge. The bed is composed of shifting sand.

Accuracy. Affected by shallow water and shifting sand.

Actual Discharge Measurements of North Platte River, at Mitchell

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1901		Feet	Sec.-ft.	1905		Feet	Sec.-ft.
June 9	O. V. P. Stout.....	3.67	10,521	Sept. 21	F. S. Dobson.....	1.92	383
21	R. H. Willis.....	3.32	8,478	7	H. C. Gardner.....	1.95	507
July 2	do	2.27	4,114	1906			
11	do	1.37	1,768	April 12	F. S. Dobson.....	3.35	3,168
19	H. O. Smith.....	.66	1,048	May 8	do	3.45	3,991
Aug. 3	R. H. Willis.....	.72	1,038	do	do	3.45	4,261
12	do	.45	566	June 26	Arthur Dobson....	4.05	6,786
24	do	.28	351	July 24	do	3.12	2,630
Sept. 3	do	.23	227	do	do	2.45	852
11	do	.38	422	Oct. 16	Arthur Wilson.....	2.53	643
24	do	.25	341	Dec. 8	do	2.95	2,077
Oct. 11	do	.29	302	1907			
29	do	.39	438	April 5	Arthur Dobson....	3.5	3,680
Nov. 26	do	.45	576	May 23	A. R. Dobson.....	4.02	7,040
1902				June 14	Arthur Dobson....	5.25	13,800
April 4	Frank Dobson.....	1.56	917	July 17	do	3.9	6,000
May 3	do	2.22	2,649	Aug. 28	do	2.65	1,300
28	do	2.46	3,698	Sept. 19	do	2.42	726
June 12	do	3.15	6,426	Oct. 23	Adna Dobson.....	2.45	844
19	do	3	4,895	1908			
27	do	2.42	3,270	Feb. 27	Adna Dobson.....	2.53	904
July 16	do	1.58	1,014	Mar. 16	do	2.35	956
24	do	1.3	630	April 23	G. W. Bates.....	2.5	1,330
Aug. 8	do	1.05	349	June 1	Adna Dobson.....	5.35	16,800
19	do	.85	102	July 16	Arthur Dobson....	4.02	7,340
Sept. 2	do	.82	29	July 10	do	2.89	2,805
Oct. 25	R. H. Willis.....	.96	372	Aug. 28	do	2.35	866
1903				do	do	2.4	992
Mar. 31	J. C. Stevens.....	1.76	1,785	Sept. 17	Adna Dobson.....	1.6	61
May 12	do	2.6	3,580	Oct. 30	do	1.98	305
June 20	do	3.68	9,637	Nov. 19	G. W. Bates.....	2.27	766
July 7	do	2.72	4,230	19	do	2.25	732
30	do	1.5	1,067	Dec. 31	L. F. Flower.....	2.34	509
Aug. 12	do	1.2	456	1909			
21	do	.87	184	Mar. 25	G. W. Bates.....	2.9	1,950
22	do	.88	215	April 9	A. A. Dobson.....	2.85	2,530
Sept. 3	O. V. P. Stout.....	.82	158	do	do	4	7,220
1904				May 14	do	5.23	16,500
Mar. 29	M. D. McWilliams..	2.3	1,273	June 14	E. C. Simmons....	4.32	13,800
April 23	J. C. Stevens.....	2.58	1,890	July 11	A. A. Dobson.....	3.23	3,900
May 9	M. D. McWilliams..	3.4	5,070	Aug. 27	do	2.95	2,050
23	do	4.75	11,891	Sept. 6	D. D. Price.....	2.95	2,050
June 9	J. C. Stevens.....	3.15	4,540	1910			
Sept. 27	R. D. Hubbard....	1.75	209	Mar. 20	D. D. Price.....	3.1	2,640
29	A. J. Parshall....	1.72	214	April 29	do	2.8	1,530
30	do	1.8	266	June 1	R. H. Willis.....	1.9	215
1905				23	E. C. Simmons....	2.2	409
Mar. 29	H. C. Gardner....	2.4	1,186	July 23	R. H. Willis.....	1.65	120
May 12	do	4.15	8,619	Nov. 29	do	2.35	687
June 13	do	5.2	16,770	1911			
July 11	do	3.25	3,852	June 8	R. H. Willis.....	1.9	80
Aug. 20	do	2.5	1,622	18	do	2.6	1,000
3	do	2.75	2,014	Aug. 4	do	2.35	710
				Sept. 17	R. H. Fletcher....	2.38	710

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Mitchell, for 1901

	January		February		March		April		May		June		July		August		September		October		November		December				
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1												2.4	4,530			.18	210	.23	298							1	
2												2.27	4,114			.19	210	.23	287	.4	454						2
3												3.67	10,521	2.21	3,922	.72	1,038	.23	227	.23	287						3
4														2.09	3,555			.2	218	.24	298						4
5														2.01	3,350			.3	420	.24	287						5
6														2	3,288			.35	375	.25	298						6
7													1.94	3,102			.37	398	.25	287							7
8													1.82	2,818			.37	398	.24	276							8
9												3.5	9,400	1.65	2,406			.34	363	.23	266						9
10												3.3	8,405	1.57	2,126			.35	375	.25	276						10
11												3.15	7,695	1.48	1,768			.38	422	.29	302						11
12												3.15	7,695	1.31	1,650	.45	566	.34	375	.22	235						12
13												3	7,015	1.22	1,506	.3	455	.3	330	.33	352						13
14												3	7,015	1.22	1,506	.35	398	.28	320	.4	432						14
15												4	12,120	1.11	1,326	.35	398	.28	320	.45	520						15
16												3.3	8,405	1.08	1,294	.38	432	.27	308	.4	443						16
17												3.4	8,900	1.06	1,263	.35	398	.27	320	.4	443						17
18												3.6	9,920	1.05	1,263	.34	386	.25	298	.4	444						18
19												3.5	9,400	1.03	1,048	.35	409	.25	298	.4	445						19
20												3.4	8,850	1.01	1,217	.34	409	.28	340	.43	481						20
21												3.32	8,478			.35	420	.25	320	.4	455						21
22												3.22	7,987			.3	363	.25	330	.4	455						22
23												2.9	6,510			.3	375	.24	330	.4	455						23
24												2.75	5,838			.28	351	.25	341	.4	455						24
25												2.6	5,264			.25	319	.25	313	.4	454						25
26												2.55	5,075			.25	309	.23	308	.4	454	.45	576				26
27												2.42	4,629			.23	303	.25	330	.4	454						27
28												2.41	4,595			.2	245	.22	287	.4	454						28
29												2.4	4,562			.2	245	.22	287	.4	438						29
30												2.4	4,560			.28	320	.24	308	.4	454						30
31																.18	218			.38	432						31
Mean												7,514		2,353		398		322		384							
Run-off in acre-ft.												448,000		93,300		16,300		19,200		23,600							
Maximum												12,120		4,530		566		422		520							
Minimum												4,560		1,050		218		210		235							

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	1.76	1,710	2.95	5,070			2.5	3,250	2.95	5,310	1.47	900	.85	190	1.8	1,500	1.86	1,600	1.86	1,600	2.14	2.14			1
2	1.7	1,600	2.8	4,370			2.52	3,250	2.95	5,310	1.47	900	.82	180	1.72	1,300	1.86	1,600	1.86	1,600	2.14	2.14			2
3	1.8	1,820	2.83	4,600			2.51	3,250	2.95	5,310	1.4	800	.8	180	1.69	1,300	1.86	1,600	1.81	1,600	2.14	2.14			3
4	2.15	2,670	2.81	4,370			2.56	3,410	2.95	5,310	1.4	800	.8	180	1.71	1,300	1.85	1,600	1.97	1,600	2.14	2.14			4
5	2.44	3,580	2.71	3,950			2.65	3,950	2.8	4,600	1.4	800	.82	180	1.67	1,200	1.89	1,710	1.92	1,710	2.14	2.14			5
6							2.3	3,100	2.71	3,950	2.9	4,830	2.7	4,150	1.4	800	.72	165	1.61	1,100	1.87	1,600	2.3		6
7							2.21	2,810	2.68	3,950	3.05	5,550	2.72	4,150	1.3	650	.77	170	1.65	1,200	1.9	1,710	2.01		7
8							2.23	2,810	2.63	3,760	3.16	6,050	2.65	3,950	1.3	720	.77	170	1.7	1,300	1.86	1,600	1.91		8
9							2.15	2,540	2.59	3,580	3.36	7,150	2.6	3,760	1.25	520	.95	220	1.75	1,400	1.91	1,710	1.8		9
10							2.14	2,540	2.6	3,580	3.39	7,450	2.35	2,950	1.25	520	.95	220	1.8	1,500	1.89	1,710	1.67		10
11							2.14	2,540	2.58	3,580	3.4	7,450	2.32	2,810	1.35	650	.72	165	1.76	1,400	1.81	1,500	1.6		11
12							2.15	2,540	2.6	3,580	3.44	7,760	2.32	2,810	1.25	520	.82	180	1.77	1,400	2.02	1,930	1.45		12
13							2.25	2,670	2.65	3,760	3.6	8,740	2.25	2,670	1.25	520	.81	180	1.74	1,400	2.01	1,930	1.43		13
14							2.25	2,670	2.69	3,950	3.5	8,080	2.15	2,410	1.3	580	1.35	580	1.76	1,400	2.1	2,170	1.5		14
15							2.26	2,670	2.56	3,410	3.5	8,080	2.1	2,290	1.15	400	1.5	900	1.76	1,400	2.07	2,050	1.46		15
16							2.21	2,540	2.85	4,600	3.46	7,760	2.05	2,170	1.15	400	1.6	1,100	1.79	1,500	2.08	2,170	1.47		16
17							2.3	2,810	2.87	4,600	3.56	8,410	2.05	2,170	1.23	520	1.6	1,100	1.8	1,500	2.78	1,46	1.46		17
18							2.34	2,950	2.9	4,830	3.65	9,080	2	2,050	1.18	460	1.65	1,200	1.84	1,600	2.67	1,65	1.65		18
19							2.33	2,950	3.02	5,310	3.71	9,430	1.87	1,710	1.05	300	1.65	1,200	1.87	1,600	2.18	1.7	1.7		19
20							2.35	2,950	3.11	5,800	3.65	9,080	1.8	1,600	.95	220	1.66	1,200	1.82	1,500	1.65	1.66	1.66		20
21							2.34	2,950	3.2	6,310	3.78	10,150	1.7	1,400	.92	200	1.65	1,200	1.81	1,500	2		1.76		21
22							2.35	2,950	3.24	6,580	3.91	10,870	1.63	1,300	.9	200	1.65	1,200	1.85	1,600	2.3		1.85		22
23							2.36	2,810	3.17	6,050	3.8	10,150	1.67	1,300	.72	165	1.68	1,300	1.85	1,600	2		1.81		23
24							2.46	3,100	2.97	5,070	3.75	9,790	1.82	1,600	1.1	350	1.7	1,300	1.8	1,500	2.01		1.71		24
25							2.4	2,950	2.95	5,070	3.7	9,430	1.87	1,710	1.2	460	1.7	1,300	1.8	1,500	1.92		1.91		25
26							2.41	2,950	2.9	4,830	3.61	9,080	1.75	1,500	1.1	350	1.75	1,400	1.8	1,500	2.04		1.82		26
27							2.04	2,050	2.8	4,370	3.42	7,760	1.6	1,200	.87	190	1.74	1,400	1.81	1,500	2.08		2		27
28							2.7	3,950	2.84	4,600	3.3	7,150	1.55	1,100	.85	190	1.8	1,500	1.82	1,500	2.03		1.82		28
29							2.83	4,600	2.76	4,150	3.31	7,150	1.5	1,000	.85	190	1.77	1,400	1.82	1,500	2.07		1.79		29
30							2.93	5,070	2.6	3,580	3.25	6,860	1.5	1,000	.82	180	1.72	1,300	1.88	1,710	2.16		1.8		30
31					1.76								1.5	1,000	.87	190			1.89	1,710			2		31
Mean							2,862		4,471		7,340		2,632		472		765		1,449		1,762				
Run-off in acre-ft.							170,300		274,900		436,800		161,800		29,000		45,500		89,100		55,900				
Maximum							5,070		6,580		10,870		5,310		900		1,500		1,710		2,170				
Minimum							1,600		3,410		3,250		1,000		165		165		1,100		1,500				

(1100) Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	2.08						2.22	950	2.75	2,710	4.3	9,530	3.3	4,905	2.12	750	1.97	480	1.75	210	1.87	480	1.81	270	1
2			2.5	1,810			2.15	850	2.8	2,900	4.5	10,555	3.28	4,905	2.16	850	1.93	480	1.72	150	1.86	340	1.83	340	2
3	1.95		2.25	1,090			2.14	850	2.84	3,040	4.4	10,040	3.4	5,330	2.13	850	1.9	400	1.7	150	1.85	340	1.86	340	3
4	1.85		2.2	950			2.32	1,225	2.94	3,380	4.6	11,080	3.07	4,075	2.12	750	1.95	480	1.73	210	1.8	270	1.78	270	4
5	2.03		2.22	950			2.3	1,225	3.7	6,655	4.35	9,785	3	3,675	2.1	750	1.93	480	1.75	210	1.86	340	1.71	150	5
6	1.97		2.23	1,090	2.53	1,985	2.27	1,090	3.9	7,580	4.5	10,555	3.15	4,280	2.11	750	1.95	480	1.7	150	1.87	340	1.73	210	6
7	1.85		2.2	950	2.45	1,660	2.25	1,090	3.84	7,345	4.7	11,610	3.23	4,695	2.15	850	1.97	480	1.75	210	1.88	400	1.72	150	7
8	1.9		2.15	850	2.6	2,160	2.27	1,090	3.7	6,655	4.8	12,150	3.2	4,485	2.09	750	1.93	480	1.77	210	1.89	400	1.71	150	8
9	2.12		2.17	850	2.55	1,985	2.18	950	3.58	6,205	4.75	11,880	3.15	4,280	2.11	750	1.9	400	1.7	150	1.86	340	1.72	150	9
10	1.87		2.25	1,090	2.57	1,985	2.17	850	3.49	5,765	4.73	11,880	3.1	4,075	2.11	750	1.95	480	1.75	210	1.88	400	1.74	210	10
11	2.1		2.2	950	2.55	1,985	2.18	950	3.45	5,550	4.6	11,080	3.05	3,875	2.08	750	1.85	340	1.73	210	1.89	400	1.75	210	11
12	2.2		2.23	1,090	2.5	1,810	2.15	850	3.4	5,330	4.4	10,040	3	3,675	2.02	570	1.87	340	1.76	210	1.98	570	1.77	210	12
13	2.15		2.19	950	2.47	1,660	2.2	950	3.37	5,115	4.55	10,820	2.9	3,285	2	570	1.85	340	1.7	150	1.97	480	1.8	270	13
14	2.12				2.45	1,660	2.25	1,090	3.35	5,115	4	11,080	2.85	3,090	2.05	660	1.9	400	1.75	210	1.96	480	1.78	270	14
15	2.25				2.43	1,660	2.19	950	3.33	5,115	4.35	9,785	2.75	2,710	2.07	660	1.92	400	1.7	150	1.98	570	1.76	210	15
16	2.15				2.45	1,660	2.2	950	3.37	5,115	4.2	9,030	2.63	2,340	2	570	1.95	480	1.73	210	1.97	480	1.73	210	16
17	2.3				2.47	1,660	2.18	950	3.45	5,550	4.3	9,530	2.6	2,160	2.01	570	1.9	400	1.75	210	1.95	480	2.3	1,225	17
18	2.37				2.46	1,660	2.13	850	3.47	5,550	4.4	10,040	2.59	2,160	2.05	660	1.89	400	1.72	150	1.93	480	2.3	1,225	18
19	2.35				2.47	1,660	2.1	750	3.48	5,765	4.3	9,530	2.58	2,160	1.95	480	1.92	400	2.05	660	1.94	480	2.3	1,225	19
20	2.38				2.45	1,660	2.4	1,510	3.45	5,550	4.5	10,555	2.55	1,985	2	570	1.85	340	2	570	1.95	480	2	570	20
21	2.4				2.47	1,660	2.6	2,160	3.72	6,655	4.4	10,040	2.53	1,985	2.03	660	1.87	340	1.95	480	1.97	480	1.9	400	21
22	2.45				2.43	1,660	2.58	2,160	3.67	6,430	4.15	8,785	2.5	1,810	1.95	480	1.83	340	1.92	400	1.89	400	1.8	270	22
23	2.45				2.42	1,510	2.6	2,160	4.9	12,700	4.2	9,030	2.48	1,810	1.97	480	1.85	340	1.9	400	1.87	340	1.77	210	23
24					2.38	1,510	2.65	2,340	4.9	12,700	4.35		2.48	1,810	1.9	400	1.87	340	1.95	480	1.86	340	1.76	210	24
25					2.3	1,775	2.71	2,525	4	8,055	4.5		2.45	1,660	1.95	480	1.83	340	1.93	480	1.85	340			25
26					2.34	1,365	2.75	2,710	4.3	9,530	4.65	11,345	2.42	1,510	1.93	480	1.8	270	1.95	480	1.87	340			26
27					2.32	1,225	2.8	2,900	4.2	9,030	4.57	10,820	2.45	1,660	1.94	480	1.82	270	1.9	400	1.88	400			27
28					2.35	1,365	2.79	2,900	4.5	10,555	4.4	10,040	2.4	1,510	1.92	400	1.79	270	1.88	400	1.84	340			28
29					2.33	1,365	2.81	2,900	4.1	8,540	4.3	9,530	2.35	1,365	1.93	480	1.75	210	1.92	400	1.85	340			29
30					2.3	1,225	2.82	2,900	4.8	12,150	3.9	7,580	2.3	1,225	1.9	400	1.77	210	1.92	400	1.83	340			30
31					2.32	1,225			4.5	10,555			2.26	1,090	1.94	480			1.87	340					31
Mean					1,632		1,511		6,873		10,270		2,875		594		382		307		398				
Run-off																									
in acre-ft.					100,400		89,900		422,600		611,100		176,800		36,500		22,700		18,900		23,700				
Maximum					2,170		2,980		12,700		12,150		5,330		842		498		625		512				
Minimum					1,200		710		2,720		7,580		1,090		400		225		170		280				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	1.87		1.67		2.72	2,036	2.5	1,480	4.1	8,300	5	15,100	4.1	8,300	2.7	1,980	2.1	670	1.9	380					1
2	1.79				2.65	1,850	2.6	1,720	4.1	8,300	4.9	14,300	4.1	8,300	2.6	1,720	2	520	1.9	380					2
3	1.77				2.4	1,250	2.6	1,720	4.2	8,900	4.8	13,500	4.1	8,300	2.7	1,980	2	520	1.9	380					3
4	1.8				2.37	1,184	2.55	1,600	4.3	9,600	4.8	13,500	3.9	7,150	2.7	1,980	2	520	1.9	380					4
5	1.81				2.35	1,140	2.5	1,480	4.4	10,300	4.8	13,500	3.8	6,600	2.6	1,720	2	520	1.9	380					5
6	1.76				2.34	1,118	2.5	1,480	4.3	9,600	4.8	13,500	3.7	6,050	2.6	1,720	1.9	380	1.9	380					6
7	1.77				2.32	1,074	2.5	1,480	4.4	10,300	4.8	13,500	3.6	5,500	2.6	1,720	1.9	380	1.9	380					7
8	1.78				2.3	1,030	2.5	1,480	4.5	11,100	4.9	14,300	3.6	5,500	2.5	1,480	2	520	1.9	380					8
9	1.75				2.34	1,118	2.5	1,480	4.4	10,300	5.1	15,900	3.5	5,000	2.5	1,480	2	520	1.9	380					9
10	1.74				2.35	1,140	2.5	1,480	4.4	10,300	5	15,100	3.4	4,520	2.5	1,480	1.95	450	1.9	380					10
11	1.65				2.34	1,118	2.6	1,720	4.3	9,600	5	15,100	3.2	3,650	2.5	1,480	1.9	380	1.9	380					11
12	1.64				2.25	935	2.7	1,980	4.2	8,900	5	15,100	3.2	3,650	2.5	1,480	1.9	380	1.9	380					12
13	1.64				2.3	1,030	2.7	1,980	4.2	8,900	5.2	16,800	3.1	3,260	2.65	1,850	1.9	380	1.9	380					13
14	1.65				2.27	973	2.8	2,260	4.15	8,600	5.2	16,800	3	2,900	2.8	2,260	1.9	380	2	520					14
15	1.66				2.35	1,140	2.8	2,260	4.1	8,300	5	15,100	2.9	2,570	2.6	1,720	1.9	380	2	520					15
16	1.76				2.38	1,206	2.9	2,570	4.1	8,300	4.9	14,300	2.85	2,415	2.5	1,480	1.9	380	2	520					16
17	1.71				2.41	1,273	3	2,900	4.1	8,300	4.8	13,500	2.8	2,260	2.4	1,250	1.9	380	1.9	380					17
18	1.82				2.35	1,140	3.1	3,260	4	7,700	4.8	13,500	2.7	1,980	2.3	1,030	1.9	380	1.9	380					18
19	1.86				2.4	1,250	3.1	3,260	3.9	7,150	4.8	13,500	2.6	1,720	2.3	1,030	1.9	380	1.9	380					19
20	1.88				2.35	1,140	3.1	3,260	3.9	7,150	4.7	12,700	2.6	1,720	2.25	935	1.9	380	2	520					20
21	1.95				2.4	1,250	3.1	3,260	4	7,700	4.7	12,700	2.5	1,480	2.2	840	1.9	380	2	520					21
22	2		2.1		2.45	1,365	3.3	4,070	4.1	8,300	4.6	11,900	2.5	1,480	2.3	1,030	1.9	380	2	520					22
23	2.05		2.15		2.5	1,480	3.4	4,520	4.2	8,900	4.4	10,300	2.55	1,600	2.3	1,030	1.9	380	2	520					23
24	2.1		2.25		2.45	1,365	3.5	5,000	4.9	14,300	4.3	9,600	2.6	1,720	2.2	840	1.9	380	2	520					24
25	1.87		2.3		2.35	1,140	3.1	5,500	4.7	12,700	4.25	9,250	2.6	1,720	2.2	840	1.9	380	2	520					25
26	2.07		2.53		2.42	1,296	4.1	8,300	4.6	11,900	4.2	8,900	2.5	1,480	2.2	840	1.9	380	2	520					26
27	2.09		2.55		2.4	1,250	4.2	8,900	4.6	11,900	4.1	8,300	2.7	1,980	2.15	755	1.9	380	2	520					27
28	2.01		2.6		2.36	1,162	4.1	8,300	4.7	12,700	4	7,700	2.8	2,260	2.1	670	1.9	380	2	520					28
29	1.8				2.42	1,296	4.3	9,600	4.8	13,500	4	7,700	2.8	2,260	2	520	1.9	380	2.05	595					29
30	1.72				2.45	1,365	4.2	8,900	4.9	14,300	4	7,700	2.75	2,120	2	520	1.9	380	2.1	670					30
31	1.69				2.42	1,296			4.9	14,300			2.7	1,980	2	520			2.1	670					31
Mean					1,239		3,573		10,010		12,760		3,594		1,296		420		460						
Run-off in acre-ft.					76,200		212,600		615,500		759,300		221,000		79,700		25,000		28,300						
Maximum					2,040		9,600		14,300		16,800		8,300		2,260		670		670						
Minimum					935		1,480		7,150		7,700		1,480		520		380		380						

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1									3.8	5,580	5.1	14,100		6,110	2.8	1,640	2.5	940	2.5	680	2.7	1,160	2.7	1,160	1	
2									3.7	5,070	5.3	15,700	3.7	5,070	2.8	1,640		845	2.5	680	2.7	1,160	2.7	1,160	2	
3									3.6	4,580		14,500	3.6	4,580	2.8	1,640	2.4	750	2.5	680	2.8	1,400	2.8	1,400	3	
4									3.5	4,120	5	13,300	3.5	4,120	2.8	1,640	2.4	680	2.5	680	2.5	680	2.5	1,400	4	
5									3.6	4,580	4.8	11,800	3.4	3,680		1,510	2.4	680	2.5	680	2.8	1,400	2.8	1,400	5	
6							3.6	4,580		4,350	4.7	11,100	3.4	3,680	2.7	1,380	2.4	680	2.5	600	2.8	1,450	2.8	1,450	6	
7							3.5	4,120	3.5	4,120	4.6	10,400	3.3	3,270	2.7	1,380	2.4	680	2.5	600	2.8	1,450	2.8	1,450	7	
8									3.5	3,900	4.4	9,060		3,080	2.7	1,380	2.5	860	2.5	600	2.8	1,450	2.8	1,450	8	
9							3.4	3,680	3.5	4,120	4.4	9,060	3.2	2,890	2.9	1,920		770	2.5	600	2.7	1,200	2.7	1,200	9	
10							3.3	3,270	3.5	4,120		9,380	3.2	2,890	2.8	1,640	2.4	680	2.4	500	2.7	1,200	2.7	1,200	10	
11							3.3	3,270	3.6	4,580	4.5	9,710	3.2	2,890	2.7	1,380	2.4	680	2.4	500		1,220		1,220	11	
12							3.3	3,270	3.6	4,580	4.4	9,060	3.2	2,890		1,380	2.4	680	2.4	500	2.7	1,240	2.7	1,240	12	
13							3.4	3,680		4,820	4.2	7,820	3.3	3,270	2.7	1,380	2.5	770	2.4	500	2.7	1,240	2.7	1,240	13	
14							3.5	4,120		5,070	4	6,660	3.3	3,270	2.7	1,380	2.6	960	2.5	500	2.8	1,500	2.8	1,500	14	
15							3.8	4,820	3.8	5,800	8.9	6,110		3,270	2.6	1,150	2.6	960	2.4	500	2.9	1,750	2.9	1,750	15	
16							3.8	5,580	3.9	6,110	4	6,660	3.3	3,270	2.6	1,150		960	2.4	500	2.8	1,520	2.8	1,520	16	
17							3.8	5,580	4	6,660		8,120	3.4	3,680	2.5	940	2.6	960	2.4	510	2.8	1,520	2.8	1,520	17	
18							3.6	5,070	4	6,660	4.5	9,710	3.5	4,120	2.5	940	2.5	770	2.4	510		1,300		1,300	18	
19							3.6	4,580	3.9	6,110	4.5	9,710	3.4	3,680		845	2.5	770	2.5	650		1,300		1,300	19	
20							3.5	4,120		6,110	4.4	9,060	3.3	3,270	2.4	750	2.5	770	2.5	650		1,300		1,300	20	
21							3.5	4,120	3.9	6,110	4.4	9,060	3.2	2,890	2.4	750	2.5	770		675		1,300		1,300	21	
22							4	4,120	4	6,660	4.2	9,060		2,890	2.5	940	2.4	600	2.5	700		1,300		1,300	22	
23							3.5	4,120	4.1	7,230		7,820	3.2	2,890	2.7	1,380		640	2.5	700		1,300		1,300	23	
24							3.7	5,070	4.2	7,820	4.1	7,520	3.1	2,540	2.8	1,640	2.5	680	2.6	860		1,300		1,300	24	
25							3.6	4,580	4.2	7,820	4.2	7,230	3.1	2,540	2.9	1,920	2.6	850	3	1,820		1,300		1,300	25	
26							3.6	4,580	4.4	9,060		7,820	3	2,220		1,920	2.5	680	2.7	1,070	2.6	1,080		1,080	26	
27							3.6	4,580		10,000	4	6,660	3	2,220	2.9	1,920	2.4	530	2.6	900	2.6	1,080		1,080	27	
28							3.8	5,580	4.7	11,100	4	6,660	3	2,220	2.9	1,920	2.4	530		900	2.5	900		900	28	
29								5,840	5.2	14,900	4.2	7,820		2,070	2.8	1,640	2.4	530	2.6	900	2.4	720		720	29	
30							3.9	6,110	5.3	15,700	4.1	7,230	2.9	1,920	2.7	1,380		605	2.6	900	2.4	720		720	30	
31									5.2	14,900			2.8	1,640	2.6	1,150			2.6	900					31	
Mean							4,490		6,850		9,260		3,190		1,410		742		708		1,270					
Run-off																										
in acre-ft.							223,000		421,000		551,000		196,000		86,700		44,200		43,500		75,600					
Maximum							6,110		15,700		15,700		6,110		1,920		960		1,820		1,750					
Minimum							3,270		4,120		6,110		1,640		750		530		500		500					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1907

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2							3.7	4,600	3.3	3,300	5	12,300	4.8	11,100	3.3	3,310	2.6	1,360	2.6	1,130	2.4	760	2.4	600	2
3							3.6	4,100	3.4	3,700		12,300	4.7	10,500	3.3	3,310	2.7	1,360	2.5	930	2.4	760	2.3	600	3
4							3.6	4,100	3.4	3,700	5	12,300	4.7	10,500	3.3	3,310	2.6	1,130	2.5	930	2.4	760	2.3	600	4
5							3.5	3,700	3.4	3,800	4.9	11,700	4.7	10,500		3,120	2.6	1,130	2.4	760	2.4	760	2.3	600	5
6							3.5	3,750		3,800	5	12,300	4.6	9,880	3.2	2,930	2.6	1,130	2.4	760	2.4	760	2.3	600	6
7							3.5	3,800	3.3	3,400	5.1	12,900		9,580	3	2,230	2.6	1,130	2.4	760	2.4	760	2.4	760	7
8							3.5	3,800	3.3	3,400	5.2	13,500	4.5	9,290	3	2,230		1,130	2.4	760	2.4	760	2.4	760	8
9							3.5	3,800	3.3	3,400		13,800	4.6	9,880	3	2,230	2.6	1,130	2.4	760	2.4	760	2.4	760	9
10							3.4	3,400	3.3	3,400	5.3	14,100	4.6	9,880	3	2,230	2.6	1,130	2.4	760	2.4	760	2.4	760	10
11							3.4	3,400	3.3	3,400	5.5	15,400	4.5	9,290		2,230	2.6	1,130	2.4	760	2.4	760	2.4	760	11
12							3.4	3,450		3,400	5.5	15,400	4.4	8,720	3	2,230	2.6	1,130	2.4	760	2.4	760	2.4	760	12
13							3.4	3,450	3.3	3,450	5.5	15,400	4.3	8,160	2.9	1,910	2.5	930		930	2.4	760	2.4	760	13
14								3,250	3.3	3,450	5.2	13,500		8,160	2.9	1,910	2.5	930	2.4	760	2.4	760	2.4	760	14
15							3.3	3,050	3.3	3,450	5.1	12,900	4.3	8,160	2.8	1,620		930	2.4	760	2.4	760	2.4	760	15
16							3.4	3,500	3.4	3,900		12,600	4.1	7,070	2.8	1,620	2.5	930	2.4	760	2.4	760	2.4	760	16
17							3.5	3,950	3.5	4,300	5	12,300	3.9	6,010	2.8	1,620	2.5	930	2.4	760	2.4	760	2.4	760	17
18							3.6	4,400	3.8	5,750	4.9	11,700	3.8	5,510		1,490	2.4	760	2.4	760	2.4	760	2.4	760	18
19							3.6	4,400		6,000	4.9	11,700	3.9	6,010	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	19
20							3.7	4,900	3.9	6,300	4.8	11,100	3.9	6,010	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	20
21								5,200	3.9	6,350	4.8	11,100		5,510	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	21
22							3.8	5,400	3.9	6,350	4.8	11,100	3.7	5,030	2.7	1,360		760	2.4	760	2.4	760	2.4	760	22
23							3.8	5,400	4	6,850		11,100	3.7	5,030	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	23
24							3.7	4,900	4.4	9,000	4.8	11,100	3.5	4,120	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	24
25							3.5	4,000	4.5	9,600	4.8	11,100	3.5	4,120		1,360	2.4	760	2.4	760	2.4	760	2.4	760	25
26							3.4	3,600		10,200	4.8	11,100	3.5	4,120	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	26
27							3.4	3,600	5.1	12,900	4.9	11,700	3.5	4,120	2.7	1,360	2.4	760		760	2.4	760	2.4	760	27
28								3,500	5.2	13,500	4.9	11,700		3,910	2.7	1,360	2.4	760	2.4	760	2.4	760	2.4	760	28
29							3.3	3,300	5.1	12,900	4.8	11,100	3.4	3,700	2.7	1,360		845	2.4	760	2.3	600	2.3	600	29
30							3.3	3,300	5.1	12,900		11,100	3.3	3,310	2.6	1,130	2.5	930	2.4	760	2.3	600	2.3	600	30
31									5	12,300			3.3	3,310	2.7	1,360			2.4	760					31
Mean							3,960		6,190		12,400		7,110		1,920		960		783		749		703		
Run-off in acre-ft.							236,000		381,000		738,000		437,000		118,000		57,100		48,100		44,600		19,500		
Maximum							5,400		13,500		15,400		11,100		3,310		1,360		1,130		760		760		
Minimum							3,050		3,300		11,100		3,310		1,130		760		760		600		600		

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1908

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					720	2.5	1,260	2.7	1,780	5.1	14,700	3.4	4,250	2.3	810	2.2	630	1.5	40		330	2.4	1,020	1	
2					720	2.5	1,260	2.7	1,780	6	23,000	3	2,700		810	2.1	470	1.5	40	2.2	630	2.4	1,020	2	
3					720	2.5	1,260		1,780	5	13,900	2.9	2,380	2.4	1,020	2.1	470	1.5	40	2.3	810	2.5	1,020	3	
4					720	2.5	1,260	2.6	1,510	5.8	21,000	2.8	2,070	2.4	1,020	2.1	470		40	2.3	810	2.7	1,020	4	
5					915		1,260	2.7	1,780	4.4	9,570		2,700	2.4	1,020	2.1	470	1.5	40	2.3	810	2.8	1,020	5	
6					2.55	1,380	2.5	1,260	2.6	1,510	4.2	8,330	3.1	3,050	2.3	810		470	1.5	40	2.3	810		1,020	6
7					2.55	1,380	2.5	1,260	2.6	1,510		7,750	3.1	3,050	2.4	1,020	2.1	470	1.5	40	2.3	810	2.8	1,020	7
8						1,020	2.5	1,260	2.6	1,510	4	7,200	3	2,700	2.4	1,020	2.1	470	1.5	40		810	2.7	1,020	8
9					2.25	720	2.5	1,260	2.5		3.9	6,670	3	2,700		1,020	2	330	1.5	40	2.3	810	2.5	1,020	9
10					2.25	720	2.4	1,020		1,260	3.9	6,670	3	2,700	2.3	810	2	330	1.5	40	2.4	1,020	2.4	880	10
11					2.25	720	2.4	1,020	2.6	1,510	3.8	6,160	2.9	2,380	2.3	810	2	330		40	2.4	1,020	2.4	880	11
12					2.25	720		1,020	2.7	1,780	3.7	5,660		2,700	2.3	810	2	330	1.5	40	2.4	1,020	2.4	880	12
13					2.35	915	2.3	810	2.8	2,070	3.7	5,660	3.1	3,050	2.2	630		330	1.6	61	2.3	810		880	13
14					2.35	915	2.3	810	2.8	2,070	3.7	5,660	2.9	2,380	2.3	810	2	330	1.7	90	2.4	1,020	2.4	880	14
15						915	2.3	810	2.8	2,070	3.8	6,160	2.8	2,070	2.3	810	1.9	210	1.7	90		1,020	2.5	880	15
16					2.35	915	2.2	630	2.9	2,380	3.8	6,160	2.8	2,070		630	1.9	210	1.7	90	2.5	950	2.5	880	16
17					2.2	630	2.2	630		3.7	5,660	2.8	2,070	2.2	630	1.6	61	1.7	90	2.7	900	2.5	880	17	
18					2.3	810	2.2	630	3	2,700	3.8	6,160	2.7	1,780	2.2	630	1.6	61		90	2.8	850	2.4	750	18
19					2.3	810		630	2.9	2,380	3.9	6,670		1,510	2.3	810	1.5	40	1.7	90	2.3	810	2.4	750	19
20					2.3	810	2.3	810	2.8	2,070	3.9	6,670	2.6	1,510	2.3	810		40	1.8	130	2.3	810		750	20
21					2.4	1,020	2.3	810	2.7	1,780		6,670	2.5	1,260	2.3	810	1.5	40	1.9	210	2.4	1,020	2.4	750	21
22					1,020	2.4	1,020	2.7	1,780	3.8	6,160	2.7	1,780	2.3	810	1.5	40	1.9	210		210	1,020	2.4	750	22
23					2.4	1,020	2.4	1,020	2.7	1,780	3.8	6,160	2.6	1,510		810	1.5	40	2	330	2.5	1,260	2.5	800	23
24					2.4	1,020	2.5	1,260		2,220	3.9	6,670	2.5	1,260	2.3	810	1.5	40	2	330	2.5	1,260	2.5	800	24
25					2.5	1,260	2.6	1,510	3	2,700	3.8	6,160	2.5	1,260	2.3	810	1.4	25		330	2.5	1,260	2.5	800	25
26					2.4	1,020		1,510	3.5	4,700	3.7	5,660		1,260	2.3	810	1.4	25	2	330	2.4	1,020	2.6	850	26
27					2.4	1,020	2.7	1,780	3.4	4,250	3.7	5,660	2.5	1,260	2.3	810		25	1.9	210	2.3	810		850	27
28					2.4	1,020	2.9	2,380	3.4	4,250		5,660	2.4	1,020	2.3	810	1.4	25	1.9	210	2.3	810	2.6	850	28
29					1,020	3	2,700	4.05		7,470	3.6	5,170	2.3	810	2.4	1,020	1.5	40	1.8	130		810	2.5	680	29
30					2.4	1,020	2.8	2,070	4.7	11,650	3.6	5,170	2.3	810		1,020	1.5	40	1.8	130	2.3	810	2.4	510	30
31					2.5	1,260				12,700			2.3	810	2.3	810			1.8	130			2.4	510	31
Mean					931		1,210		2,980		7,950		2,030		815		229		121		898		859		
Run-off in acre-ft.					57,200		72,000		183,000		473,000		125,000		50,100		13,600		7,440		53,400		52,800		
Maximum					1,380		2,700		12,700		23,000		4,250		1,020		630		330		1,260		1,020		
Minimum					630		630		1,260		5,170		810		630		25		40		330		610		

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1						2.8	1,620	3.1	2,570	4.7	11,600	4.6	14,100	2.5	8,350	2.9	2,200	3	2,230	2.4	670	2.6	1,130	1	
2						2.8	1,620		2,750	4.9	13,100	4.6	14,300	3.8	8,280	2.9	2,150	3	2,230	2.4	760	2.6	1,130	2	
3						2.8	1,620	3.2	2,930	6	23,000	4.6	14,500	3.9	8,800	2.9	2,090	2.9	3,180	2.3	600	2.6	1,130	3	
4							1,490	3.2	2,930	6	23,000		14,700	3.9	8,700	2.9	2,020	3.5	4,120	2.3	600	2.5	930	4	
5							1,360	3.2	2,930	5.5	18,100	4.6	14,900	3.9	8,630		2,070	3.5	4,120	2.3	600		900	5	
6						2.8	1,620	3.3	3,310		17,200	4.4	13,500	3.9	8,540	3	2,230	3.6	4,570	2.3	600		800	6	
7						2.8	1,620	3.5	4,700	5.3	16,400	4.4	13,800	3.9	8,480	3	2,230	4	6,540		600		800	7	
8						2.9	1,910	3.7	5,660	5.4	17,200	4.3	12,300		8,700	2.9	1,910	3.7	5,030	2.3	600		800	8	
9					2.6	1,130	2.9	1,910	5,660	5.4	17,200	4.2	12,500	4	8,910	2.9	1,910	3.8	5,510	2.3	600		900	9	
10					2.5	930	2.9	1,620	3.7	5,660	5.6	19,000	4.5	15,100	3.9	8,220	2.9	1,910		5,270	2.3	600		1,000	10
11					2.5	930		1,760	3.8	6,160	5.2	15,500	4.3	13,700	3.9	8,140	2.9	1,910	3.7	5,030	2.3	600		1,200	11
12					2.5	930	2.9	1,910	3.8	6,160	5.4	17,200	4.3	13,800	3.9	8,080		1,760	3.7	5,030	2.3	600		1,600	12
13					2.6	1,130	2.8	1,620	4	7,200		17,200	4.4	14,300	3.8	7,410	2.8	1,620	3.6	4,570	2.4	760	2.9	1,910	13
14						1,030	2.8	1,620	4	7,200	5.4	17,200	4.5	15,200	3.8	7,340	2.8	1,620	3.5	4,120		760	3	2,230	14
15					2.5	930	2.8	1,620	3.9	6,670	5.4	17,600	4.5	14,900		8,100	2.8	1,620	3.5	4,120	2.4	760	3.1	2,570	15
16					2.4	760	2.8	1,620		6,670	5.4	17,800	4.5	14,900	4	8,300	2.9	1,910	3.5	4,120	3	2,230	3	2,230	16
17					2.4	760	2.8	1,620	3.9	6,670	5.2	16,300	4.2	12,300	4	8,200	2.9	1,910		3,910	3	2,230	3	2,230	17
18					2.6	1,130		1,620	3.9	6,670	4.8	13,200		12,300	4	8,110	2.9	1,910	3.4	3,700	3.4	3,700	3	2,230	18
19					2.5	930	2.8	1,620	4	7,200	4.8	13,400	4.2	12,200	3.9	7,460		1,910	3.4	3,700	3.2	2,930		2,230	19
20					2.5	930	2.9	1,910	4	7,200		13,200	4.1	11,400	3.8	6,830	2.9	1,910	3	2,300	3.3	3,310	3	2,230	20
21						1,280	2.9	1,910	4	7,200	4.7	13,000	4.1	11,300	3.8	6,760	3	2,230	2.8	1,620		2,340	2.9	1,910	21
22					2.8	1,620	3	2,230	4	7,200	4.7	13,100	4.1	11,200		6,150	2.9	1,910	2.7	1,360	2.7	1,360	2.9	1,910	22
23					2.8	1,620	3	2,230		7,760	4.7	13,300	4.1	11,100	3.6	5,590	2.9	1,910	2.8	1,620	2.7	1,360	2.9	1,910	23
24					2.9	1,910	3.1	2,570	4.2	8,330	4.7	13,500	4.1	11,100	3.6	5,510	2.9	1,910		1,620	2.6	1,130	2.8	1,620	24
25					2.9	1,910		2,400	4.3	8,940	4.7	13,700		10,900	3.5	4,970	2.9	1,910	2.8	1,620	2.6	1,130	2.8	1,620	25
26					2.9	1,910	3	2,230	4.85	12,700	4.7	13,900	4.1	10,800	3.5	4,880		2,070	2.7	1,360	2.4	760		1,620	26
27					2.8	1,620	2.9	1,910	5	13,900		14,100	4.1	10,700	3.5	4,820	3	2,230	2.7	1,360	2.4	760	2.8	1,620	27
28						1,760	2.9	1,910	4.8	12,400	4.7	14,300	3.9	9,300	3.5	4,700	3	2,230	2.7	1,360		945	2.8	1,620	28
29					2.9	1,910	2.9	1,910	4.8	12,400	4.7	14,500	3.9	9,250		3,660	3	2,230	2.6	1,130	2.6	1,130	2.9	1,910	29
30					2.9	1,910	3	2,230		12,000	4.7	14,700	3.9	9,120	3	2,620		2,230	2.6	1,130	2.6	1,130	2.9	1,910	30
31					2.8	1,620			4.7	11,600			3.8	8,450	2.9	2,250				945			3	2,230	31
Mean					1,330		1,830		1,140		15,200		12,500		6,950		1,990		3,180		1,210		1,610		
Run-off in acre-ft.					60,700		109,000		439,000		904,000		769,000		427,000		118,000		196,000		72,000		99,000		
Maximum					1,910		2,570		13,900		23,000		15,200		8,910		2,230		6,540		3,700		2,570		
Minimum					760		1,360		2,570		11,600		8,450		2,250		1,620		945		600		800		

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1910

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					3	2,230	3.2	2,930																	1
2					2.7	1,360	3.2	2,930	2.8	1,620	2.1	340	2.4	740	2.3	580	1.4	85	2.1	340					2
3					2.7	1,360	3.3	3,320	2.8	1,620	2.1	340		1,180	2	265	1.4	85	2.4	740					3
4					2.7	1,360	3.4	3,700	2.7	1,360	2.1	340	2.8	1,620	1.8	170		85	2.4	740					4
5					2.7	1,360	3.3	3,310	2.7	1,360		340	2.7	1,360	1.7	135	1.4	85	2.3	580					5
6							2,140	3.1	2,570	2.7	1,360	2.1	340	2.7	1,360	1.7	135	1.4							6
7					3.2	2,930	3.3	3,310	2.7	1,360	2.1	340	2.5	920		135	1.4								7
8					3	2,230	3.3	3,310		1,140	1.9	215	2.4	740	1.7	135	1.4								8
9					3	2,230	3.3	3,310	2.5	920	1.9	215	2.3	580	1.7	135	1.4								9
10					2.9	1,910		2,770	2.4	740	2	265		580	1.6	110	1.6								10
11					2.9	1,910	3	2,230	2.4	740	2.2	440	2.3	580	1.6	110									11
12					3	2,230	3	2,230	2.4	740		510	2.3	580	1.6	110	1.6								12
13						2,580	3.1	2,570	2.3	580	2.3	580	2.2	440	1.6	110	1.6								13
14					3.2	2,930	3.1	2,570	2.3	580	2.5	920	2	265		110	2								14
15					3.1	2,930	3.1	2,570		580	2.6	1,140	1.8	170	1.6	110	2								15
16					3	2,230	3.2	2,930	2.3	580	2.6	1,140	1.8	170	1.6	110	1.7								16
17					3	2,230		2,930	2.3	580	2.5	920		152	1.5	95	1.7								17
18					3.1	2,570	3.2	2,930	2.3	580	2.5	920	1.7	135	1.5	95									18
19					3.1	2,570	3.1	2,570	2.3	580		830	1.7	135	1.5	95	1.7								19
20						2,570	3.2	2,930	2.3	580	2.4	740	2	265	1.5	95	1.7								20
21					3.1	2,570	3.1	2,570	2.3	580	2.4	740	2.1	340		95	1.8								21
22					3.1	2,570	3	2,230		580	2.4	740	2.3	580	1.5	95	1.8								22
23					3.1	2,570	3	2,230	2.3	580	2.4	740	1.9	215	1.5	95	1.9								23
24					3.1	2,570		2,070	2.3	580	2.2	440		175	1.4	85	2								24
25					3	2,230	2.9	1,910	2.3	580	2.2	440	1.7	135	1.4	85									25
26					3.1	2,570	3	2,230	2.3	580		328	1.7	135	1.4	85	2								26
27						2,750	3	2,230	2.3	580	1.9	215	1.7	135	1.4	85	2								27
28					3.2	2,930	2.9	1,910	2.2	440	1.9	215	1.7	135		90	1.9								28
29					3.3	3,310	2.9	1,910		440	1.9	215	1.8	170	1.5	95	2								29
30					3.3	3,310	2.7	1,360	2.2	440	2.6	1,140	1.8	170	1.4	85	2								30
31					3.2	2,930			2.2	440				170	1.4	85									31
Mean						2,380		2,620		803		551		481		129		159							
Run-off in acre-ft.						146,000		156,000		49,400		32,800		29,600		7,930		9,460							
Maximum						3,310		3,700		1,620		1,140		1,620		580		265							
Minimum						1,360		1,360		440		215		135		80		80							

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Mitchell, for 1911

	January		February		March		April		May		June		July		August		September		October		November		December		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									2.6	990	1.8	50	2.2	360	2.4	730	2.2	440		1,380	2.5	920	2.6	1,140	1
2									2.7	1,230	2.1	210		840	2.4	730	2.1	340	2.7	1,380	2.5	920	2.6	1,140	2
3									2.9	1,830	2	130	2.7	1,320	2.4	730		340	2.5	920	2.4	730		1,380	3
4									2.9	1,830		290	2.7	1,320	2.4	730	2.1	340	2.6	1,140	2.4	730	2.8	1,640	4
5									2.9	1,830	2.3	450	2.7	1,320	2.4	730	2.1	340	2.5	920		825	2.7	1,380	5
6									3.1	2,560	2.1	210	2.5	850		730	2.1	340	2.5	920	2.5	920	2.7	1,380	6
7									2,200	2	130	2.4	750	2.4	730	2.1	340	2.4	730	2.5	920	2.7	1,380	7	
8									2.9	1,830	2	130	2.5	930	2.4	730	2.2	440		825	2.5	920	2.7	1,380	8
9									2.6	990	2	130		930	2.9	1,920	2.2	440	2.5	920	2.5	920	2.7	1,380	9
10									2.5	780	2	130	2.5	930	2.6	1,140		440	2.6	1,140	2.5	920		1,260	10
11									2.4	600		560	2.5	930	2.6	1,140	2.2	440	2.6	1,140	2.5	920	2.6	1,140	11
12									2.4	600	2.6	990	2.4	730	2.5	920	2.2	440	2.6	1,140		920	2.6	1,140	12
13									2.4	600	2.6	990	2.4	730		920	2.2	440	2.6	1,140	2.5	920	2.6	1,140	13
14									2.3	525	2.6	990	2.4	730	2.5	920	2.3	570	2.7	1,380	2.6	1,140	2.5	920	14
15									2.3	450	2.5	780	2.3	530	2.5	920	2.2	440		1,260	2.7	1,380	2.5	920	15
16									2.3	450	2.6	990		1,220	2.4	730	2.2	440	2.6	1,140	2.6	1,140	2.6	1,140	16
17									2.2	320	2.8	1,510	2.9	1,900	2.4	730	2.4	730	2.5	920	2.6	1,140		1,140	17
18									2.2	320		3,060	3	2,200	2.4	730	2.3	570	2.5	920	2.5	920	2.6	1,140	18
19									2.2	320	3.6	4,600	3	2,200	2.4	730	2.3	570	2.5	920		825	2.5	920	19
20									2.2	320	3.3	3,300	3	2,200		730	2.3	570	2.5	920	2.4	730	2.5	920	20
21										385	3.1	2,570	3	2,200	2.4	730	2.3	570	2.5	920	2.4	730	2.5	920	21
22									2.3	450	3.1	2,570	3	2,200	2.4	730	2.3	570		920	2.5	920	2.5	920	22
23									2.3	450	3.1	2,570	3	2,200	2.4	730	2.4	730	2.5	920	2.7	1,380	2.5	920	23
24									2.2	320	3	2,200	3	2,200	2.4	730		730	2.5	920	2.6	1,140			24
25									2.2	320		2,380	2.7	1,410	2.3	570	2.4	730	2.5	920	2.5	920			25
26									2.2	320	3.1	2,570	2.6	1,150	2.2	440	2.4	730	2.5	920		920			26
27									2.2	320	3.1	2,570	2.5	930		440	2.5	920	2.5	920	2.5	920			27
28										265	3.2	2,900	2.5	930	2.2	440	2.6	1,140		920	2.6	1,140			28
29									2.1	210	2.9	1,900	2.4	730	2.2	440	2.6	1,260		920	2.6	1,140			29
30									2	130	2.8	1,580		730	2.2	440	2.7	1,380	2.5	920	2.7	1,380			30
31									1.9	80			2.4	730	2.2	440			2.5	920					31
Mean										769		1,450		1,230		758		592		1,010		978		1,090	
Run-off in acre-ft.										47,300		86,300		75,600		46,600		35,200		62,100		58,200		67,000	
Maximum										2,560		4,600		2,200		1,920		1,380		1,380		1,380		1,640	
Minimum										80		50		360		440		340		730		730			

Daily Gage Height (in feet) of North Platte River, at Mitchell, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2																										2
3																										3
4																										4
5																										5
6																										6
7																										7
8																										8
9																										9
10																										10
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27																										27
28																										28
29																										29
30																										30
31																										31
Mean																										
Run-off in acre-ft.																										
Maximum																										
Minimum																										

Discontinued

NORTH PLATTE AT SCOTTSBLUFF

Location. About three-fourths of a mile south of town.

Record Available. From June 1 to September 16, 1912.

Channel. Shifting sand.

Accuracy. From the frequency of measurements very good results have been obtained in spite of the shifting nature of the bed.

Actual Discharge Measurements of North Platte River, at Scottsbluff

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1912		Feet	Sec.-ft.	1912		Feet	charge
June 3	C. H. Aldrich	1.4	792	July 16	C. H. Aldrich	2.25	4,504
4	do	1.35	780	18	do	2.2	4,377
5	do	1.4	829	20	do	2.25	4,532
6	do	1.4	797	23	do	2.5	6,278
7	do	1.35	407	25	do	2.45	4,934
8	do	1.45	743	27	do	2.4	5,267
13	do	1.8	2,124	Aug. 1	do	2.5	5,590
15	do	2.15	4,047	3	do	2.7	7,227
17	do	1.95	2,628	6	do	2.7	8,308
20	do	1.9	2,394	13	do	2.55	6,524
25	do	1.9	2,854	15	do	2.55	6,592
27	do	1.9	2,321	17	do	2.6	6,919
29	do	1.7	1,608	20	do	2.65	6,939
July 2	do	1.7	1,601	24	do	2.75	7,356
6	do	2	2,452	27	do	2.55	6,835
9	do	1.92	2,996	31	do	2.4	5,276
11	do	2.05	3,397	Sept. 3	do	2.3	5,212
13	do	2	2,802				

NORTH PLATTE AT GERING

Location. One mile north of town.

Records Available. From May 29, 1897 to November 14, 1900.

Drainage Area. 24,340 square miles.

Gage. Staff spiked to pile near the right bank on the upstream side of highway bridge.

Bench Mark. A spike in the top of the upstream end of the first cap from the right end of the bridge. Elevation, 6.61 feet above zero of the gage.

Channel. Straight at the section. Bed composed of shifting sand.

Accuracy. Affected by shifting nature of the bed.

Actual Discharge Measurements of North Platte River, at Gering

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
		Feet	Sec.-ft.			Feet	Sec.-ft.
1897				1900			
May 29	O. V. P. Stout	3.28	23,364	May 11	R. H. Willis	2.16	10,980
Sept. 11	do	.9	500	June 12	do	2.86	13,706
Nov. 2	do	1.02	661	June 21	do	2.24	9,230
1898				June 28	do	1.8	6,321
May 13	R. H. Willis	1.5	3,572	July 9	do	1.45	2,874
June 6	do	2.2	9,307	July 19	do	1.55	3,947
June 22	do	2.2	8,751	Aug. 1	do	1.15	1,152
July 2	do	1.7	5,237	Aug. 10	do	1.02	849
Nov. 7	A. B. McCoskey	1.06	593	Aug. 22	do	.93	529
1899				Sept. 30	do	.84	395
April 10	R. H. Willis	1.48	3,412	Sept. 11	do	.96	385
April 21	do	2.11	9,140	Sept. 20	do	.85	356
May 2	do	2.35	10,364	Sept. 26	A. B. McCoskey		333
May 16	do	2.1	8,543	Oct. 19	R. H. Willis	.32	486
May 26	do	2.9	12,325	Oct. 20	do	.35	399
June 6	do	2.7	13,393	Oct. 30	do	.45	522
June 14	A. B. McCoskey		16,105	Nov. 5	A. B. McCoskey		625
1900				1901			
April 18	R. H. Willis	1.67	5,251	June 1	O. V. P. Stout	3.45	10,630
April 27	do	1.9	7,138				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Gering, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1											3	18,700	1.8	4,269	1.2	1,084	1.1	815	.8	455					1
2											3	18,700	1.8	4,269	1.1	815	1.1	815	.8	455					2
3											3.12	20,400	1.8	4,269	1.1	815	1.1	815	.8	455					3
4											3.3	24,000	1.7	3,552	1.2	1,084	1	620	.8	455					4
5											3.35	25,900	1.7	3,552	1.1	815	1	620	.8	455					5
6												26,000	1.6	2,909	1.1	815	1	620	.8	455					6
7												24,000	1.5	2,340	1.1	815	1	620	.8	455					7
8												20,400	1.5	2,340	1.3	1,428	.9	500	.8	455					8
9												18,700	1.6	2,909	1.3	1,428	.9	500	.8	455					9
10												17,300	1.7	3,557	1.5	2,340	.9	500	.85	468					10
11												14,300	1.5	2,340	1.3	1,428	.9	500	.85	468					11
12												11,400	1.4	1,847	1.3	1,428	.9	500	.85	468					12
13												8,700	1.4	1,847	1.3	1,428	.9	500	.9	500					13
14												11,400	1.3	1,428	1.4	1,847	.9	500	.9	500					14
15												14,300	1.3	1,428	1.4	1,847	.9	550	.9	500					15
16												14,300	1.3	1,428	1.4	1,847	.9	500	.9	500					16
17												12,650	1.3	1,428	1.4	1,847	.9	500	.95	550					17
18												14,300	1.4	1,847	1.3	1,428	.9	500	.95	550					18
19												14,300	1.5	2,340	1.2	1,428	.9	500	.95	550					19
20												12,650	1.3	1,428	1.2	1,428	.9	500	.95	550					20
21												11,400	1.3	1,428	1.1	815	.9	500	.95	550					21
22												7,600	1.3	1,428	1.1	815	.85	468	.95	550					22
23												6,600	1.3	1,428	1	650	.85	468	.95	550					23
24												6,600	1.3	1,428	1	620	.85	468	1	620					24
25												5,650	1.3	1,428	1	620	.85	468	1	620					25
26												5,650	1.3	1,428	.9	500	.85	468	1	620					26
27												5,650	1.3	1,428	.9	500	.85	468	.95	550					27
28												6,600	1.3	1,428	.9	500	.85	468	.95	550					28
29												5,650	1.3	1,428	.9	500	.8	455	.95	550					29
30										3.5	23,360	27,900	4,850	1.2	1,084	.9	500	.8	455	.95	550				30
31										3.3	24,000			1.2	1,084	.9	500								31
Mean												13,622		2,140		1,071		537		514					
Run-off in acre-ft.												810,600		131,600		65,900		32,000		31,600					
Maximum												4,850		1,080		500		455		455					
Minimum																									

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Gering, for 1898

	January		February		March		April		May		June		July		August		September		October		November		December		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.1	1,000	1.7	4,900	2.5	12,150	1.8	5,750	.9	350	.7	100	.7	100					1
2							1.1	1,000	1.6	4,200	2.4	11,150	1.7	4,900	.9	350	.7	100	.7	100					2
3							1.1	1,000	1.7	4,900	2.4	11,150	1.6	4,200	.9	350	.7	100	.7	100					3
4							1.1	1,000	1.8	5,750	2.3	10,100	1.5	3,400	.8	200	.7	100	.7	100					4
5							1.1	1,000	1.9	6,500	2.3	10,100	1.45	3,000	.8	200	.6	50	.7	100					5
6							1.2	1,450	1.8	5,750	2.2	9,200	1.5	3,400	.8	200	.6	50	.75	150					6
7							1.2	1,450	1.7	4,900	2.2	9,200	1.4	2,700	.9	350	.7	100	.75	150					7
8							1.2	1,450	1.7	4,900	2.2	9,200	1.3	2,000	.8	200	.7	100	.75	150					8
9							1.2	1,450	1.7	4,900	2.2	9,200	1.3	2,000	.8	200	.8	200	.75	150					9
10							1.2	1,450	1.7	4,900	2.1	8,250	1.3	2,000	.8	200	.7	100	.75	150					10
11							1.2	1,450	1.6	4,200	2.1	8,250	1.3	2,000	.8	200	.7	100	.8	200					11
12							1.2	1,450	1.6	4,200	2.1	8,250	1.3	2,000	.7	100	.7	100	.8	200					12
13							1.3	2,000	1.5	3,400	2	7,400	1.3	2,000	.7	100	.7	100	.8	200					13
14							1.3	2,000	1.5	3,400	2.1	8,250	1.4	2,700	.7	100	.7	100	.8	200					14
15							1.3	2,000	1.5	3,400	2.1	8,250	1.3	2,000	.7	100	.7	100	.8	200					15
16							1.3	2,000	1.6	4,200	2.35	10,600	1.3	2,000	.7	100	.7	100	.8	200					16
17							1.4	2,700	1.7	4,900	2.4	11,150	1.3	2,000	.8	200	.7	100	.9	350					17
18							1.4	2,700	1.8	5,750	2.4	11,150	1.3	2,000	.8	200	.7	100	.9	350					18
19							1.4	2,700	1.9	6,500	2.3	10,100	1.3	2,000	.8	200	.7	100	.9	350					19
20							1.5	3,400	1.9	6,500	2.3	10,100	1.3	2,000	.7	100	.7	100	.9	350					20
21							1.7	4,900	2	7,400	2.2	9,200	1.2	1,650	.8	200	.7	100	.9	350					21
22							1.8	5,750	2	7,400	2.1	8,250	1.1	1,000	.8	200	.7	100	.9	350					22
23							1.8	5,750	2.1	8,250	2.1	8,250	1.1	1,000	.8	200	.7	100	.9	350					23
24							1.8	5,750	2.1	8,250	2.1	8,250	1.1	1,000	.8	200	.7	100	.9	350					24
25							1.8	5,750	2	7,400	2.1	8,250	1.1	1,000	.7	100	.7	100	.95	500					25
26							1.8	5,750	1.9	6,500	2	7,400	1.1	1,000	.7	100	.7	100	.95	500					26
27							1.8	5,750	3	18,500	2	7,400	1	650	.7	100	.7	100	.9	350					27
28							1.9	6,500	2.9	17,100	2	7,400	1	650	.7	100	.7	100	.9	350					28
29							1.9	6,500	3	18,500	1.9	6,500	1	650	.7	100	.7	100	.9	350					29
30							1.9	6,500	2.8	15,700	1.8	5,750	1	650	.7	100	.7	100	.9	350					30
31										2.7	14,600			.95		.7	100			.9	350				31
Mean								3,108		7,326		13,622		2,140		1,071		537		514					
Run-off in acre-ft.								184,900		450,500		810,600		131,600		65,900		32,000		31,600					
Maximum								6,500		18,500		26,000		4,270		2,340		815		620					
Minimum								1,000		3,400		4,850		1,080		500		455		455					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Gering, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									2.35	11,308	2.7	11,114	3.2	19,085	1.65	4,452	1.05	1,316	.93	893					1
2									2.37	11,308	2.71	11,209	3.15	17,250	1.7	4,785	1.02	1,146	.95	893					2
3									2.35	11,019	2.66	10,733	3.1	16,541	1.75	5,197	1	1,020	.95	893					3
4									2.1	8,728	2.61	10,352	3.07	16,085	1.7	4,854	1.02	1,062	.96	893					4
5									2	7,793	2.6	10,352	3.1	16,200	1.58	4,062	1.04	1,104	.95	935					5
6									1.95	6,880	2.72	11,605	3.05	15,514	1.55	3,936	1.01	935	.95	893					6
7									1.8	6,213	3.1	15,741	3	15,067	1.51	3,753	1.01	893	.96	893					7
8									1.75	5,843	3	14,625	2.95	14,625	1.47	3,507	1	851	.96	893					8
9									1.73	5,698	2.83	12,920	2.87	13,869	1.48	3,446	1	815	.96	893					9
10							1.48	3,446	1.7	5,408	2.73	12,000	2.7	12,200	1.53	3,997	1	815	.97	893					10
11							1.41	3,155	1.68	5,265	2.69	11,700	2.75	12,818	1.47	3,630	1	815	1.06	1,316					11
12							1.53	3,997	1.64	4,991	2.68	11,700	2.68	12,303	1.5	3,690	1	815	1.07	1,316					12
13							1.85	6,441	1.82	6,290	2.8	13,020	2.55	11,209	1.48	3,446	1	775	1.07	1,316					13
14							2.22	9,708	1.93	7,144	2.9	14,187	2.46	10,542	1.37	2,755	.95	584	1.06	1,316					14
15							2.42	11,900	2	7,709	3	15,513	2.45	10,733	1.35	2,543	.95	584	1.07	1,316					15
16							2.51	13,125	2.25	9,891	3.2	17,974	2.44	10,923	1.43	2,926	1	737	1.04	1,316					16
17							2.58	14,080	2.4	11,209	3.25	19,190	2.42	11,114	1.4	2,650	.98	622	1.1	1,316					17
18							2.38	12,200	2.6	12,921	3.15	18,686	2.37	11,114	1.37	2,489	1	700	1.02	900					18
19							2.43	12,818	2.6	14,406	3	17,490	2.3	10,352	1.36	2,489	1	653	1.16	1,777					19
20							2.2	10,638	2.8	14,295	2.95	17,600	2.25	9,708	1.32	2,329	1.06	893	1.2	1,770					20
21							2.21	10,828	2.85	14,295	3	17,843	2.13	8,552	1.26	2,077	1.06	893	1.23	2,000					21
22							2.08	9,525	2.87	13,655	3.05	18,208	2.05	7,709	1.23	2,026	.98	800	1.25	2,275					22
23							1.92	8,045	2.87	13,023	3.2	19,694	2	7,224	1.23	2,275	1.03	854	1.27	2,275					23
24							1.9	7,877	3.1	15,290	3.27	20,324	2	7,144	1.2	2,275	1.03	808	1.23	2,000					24
25							1.88	7,625	2.85	12,405	3.5	23,002	1.95	6,595	1.2	2,275	.98	737	1.23	2,000					25
26							1.93	7,961	2.65	10,447	3.55	23,500	1.9	6,213	1.1	1,730	.98	757	1.23	2,000					26
27							2.12	9,525	2.43	8,465	3.5	22,554	1.85	5,843	1.1	1,730	1	893	1.27	2,275					27
28							2.4	12,000	2.41	8,295	3.3	19,820	1.81	5,553	1.1	1,684	.98	893	1.3	2,275					28
29							2.39	11,900	2.43	8,550	3.27	19,190	1.77	5,266	1.13	1,777	.91	700	1.3	2,275					29
30							2.37	11,605	2.52	9,342	3.25	18,817	1.67	4,582	1.1	1,639	.9	787	1.3	2,275					30
31									2.7	11,019			1.67	4,582	1.07	1,454			1.3	2,275					31
Mean								9,448		9,649		16,025		10,823		2,964		844		1,501					
Run-off in acre-ft.								394,000		593,300		953,600		665,500		182,200		50,200		92,300					
Maximum								14,080		15,290		23,500		18,080		5,200		1,320		2,280					
Minimum								3,150		4,990		10,350		4,580		1,450		584		893					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Gering, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1									2.25	10,475	2.75	13,800	1.7	5,320	1	1,157	.78	400	.48	400	.35	400			1	
2									2.2	10,190	2.3	14,200	1.7	5,120	1	1,150	.77	400	.35	400	.36	400			2	
3									2.25	10,700	2.9	15,200	1.71	5,110	1.02	1,100	.78	400	.33	400	.36	400			3	
4									2.4	12,380	2.98	15,800	1.7	5,000	1	1,100	.79	400	.27	400	.37	400			4	
5									2.35	12,000	2.85	14,300	1.6	4,200	1.01	1,050	.76	400	.27	400	.39	400			5	
6									2.35	12,090	2.85	14,200	1.53	3,600	1	1,050	.77	400	.26	400	.4	400			6	
7									2.2	10,600	2.82	13,800	1.53	3,550	.97	1,000	.73	400	.27	400	.41	400			7	
8									2.15	10,260	2.8	13,400	1.44	2,960	.98	950	.76	400	.27	400	.4	400			8	
9									2.15	10,390	2.78	13,190	1.44	2,850	.95	900	.75	400	.27	400	.42	400			9	
10									2.05	9,480		13,000	1.4	2,720	.96	849	.8	400	.26	400	1.05	400			10	
11									2.15	10,400		12,500	1.3	2,200	.95	800	.85	385	.25	400	1.04	400			11	
12									2.16	10,400	2.71	12,180	1.21	1,750	.93	800	.87	375	.23	450	1.03	400			12	
13									2.3	11,680	2.71	12,380	1.1	1,300	.9	750	.9	375	.24	400	1.04	400			13	
14									2.36	12,200	2.86	14,200	1.12	1,400	.9	750	.9	360	.24	450	1.05	400			14	
15									2.53	13,800	2.76	13,210	1.29	2,275	.86	700	.9	360	.23	450					15	
16									2.62	14,600	2.56	11,400	1.21	1,900	.9	700	.85	360	.24	450					16	
17									2.65	14,600	2.46	10,600	1.3	2,390	.9	600	.8	360	.24	450					17	
18								1.67	5,300	2.56	13,800	2.29	9,205	1.3	2,430	.9	600	.8	360	.23	475				18	
19								1.6	4,750	2.5	12,990	2.23	8,900	1.56	4,000	.88	550	.77	360	.32	486				19	
20								1.55	4,400	2.45	12,380	2.26	9,310	1.42	3,190	.88	550	.75	356	.31	399				20	
21								1.55	4,465	2.46	12,200	2.19	8,400	1.25	2,200	.88	550	.75	360	.31	400				21	
22								1.6	4,770	2.49	12,390	2.01	7,450	1.3	2,390	.84	529	.75	360	.3	400				22	
23								1.85	6,600	2.4	11,310	1.89	6,650	1.22	1,950	.82	500	.75	360	.3	425				23	
24								1.9	7,000	2.35	10,700	1.89	6,690	1.3	2,280	.8	500	.75	360	.31	425				24	
25								1.83	6,510	2.31	10,250	1.91	6,930	1.4	2,790	.71	475	.6	375	.31	425				25	
26								1.8	6,390	2.29	9,870	1.87	6,710	1.21	1,700	.73	450	.62	375	.32	450				26	
27								1.9	7,190	2.35	10,390	1.81	6,380	1.21	1,690	.76	400	.6	375	.33	450				27	
28								2	8,100	2.5	11,680	1.8	6,380	1.19	1,500	.75	400	.61	375	.34	475				28	
29								2	8,190	2.53	11,800	1.76	5,950	1.01	1,200	.74	400	.55	375	.34	475				29	
30								2.4	11,900	2.6	12,400	1.7	5,400	1.05	1,200	.75	395	.53	375	.36	500				30	
31											2.69	13,210		1.05	1,200	.75				.37	522					31
Men								6,582		11,672		10,737		2,689		713		378		431						
Run-off in acre-ft.								169,700		717,700		638,900		165,300		43,800		22,500		26,500						
Maximum								11,900		14,300		15,800		5,320		1,160		400		522						
Minimum								4,400		9,480		5,400		1,200		395		356		399						

NORTH PLATTE RIVER AT CAMP CLARKE

Location. Section 22, Township 20 North, Range 51 West.

Records Available. From June 22, 1896 to October 31, 1900.

Gage. An inclined staff located on the right bank forty feet upstream from the bridge.

Bench Marks. No. 1. A spike in the northeast side of the downstream pile at the north end of the truss span at the right end of the bridge. Elevation, 7.55 feet. No. 2. A marked point on the southeast corner of the window sill at the front of the general store. Elevation, 9.47 feet. Bench mark datum zero off gage.

Channel. Wide at the section with shallow water. The bed is composed of shifting sand.

Accuracy. Affected by shifting bed.

Actual Discharge Measurements of North Platte River, at Camp Clarke

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1891		Feet	Sec.-ft.	1899		Feet	Sec.-ft.
May 29	U. S. G. S.	...	8,075	July 29	R. H. Willis	3.09	5,002
1892				Aug. 5	do	2.9	4,893
Oct. 8	do	...	333	1900			
1894				April 19	do	3.23	4,926
July 26	O. V. P. Stout	...	1,900	23	do	3.71	7,146
1896				May 14	do	4.1	11,838
June 27	O. V. P. Stout	3.18	3,600	June 13	do	4.27	11,334
Aug. 10	R. H. Willis	2.41	812	22	do	3.75	7,695
Nov. 21	do	2.7	931	29	do	3.35	4,049
1897				July 11	do	2.74	2,116
Sept. 12	O. V. P. Stout	2.11	551	20	do	3.08	3,654
1898				28	do	2.61	1,624
May 6	R. H. Willis	3.17	4,541	Aug. 11	do	2.2	501
27	do	2.43	6,170	24	do	2.05	421
June 8	do	3.54	7,553	Sept. 12	do	1.96	274
17	do	3.61	7,391	21	do	2.08	320
29	do	3.3	5,170	Oct. 3	do	2.08	246
Sept. 28	do	1.79	150	20	do	2.1	234
1899				31	do	2.18	377
April 11	R. H. Willis	2.57	2,484	31	do	2.26	6
22	do	3.45	8,462	1901			
May 3	do	3.41	7,825	June 27	R. H. Willis	...	5,800
17	do	3.41	7,825	July 10	do	...	2,900
17	do	3.52	9,953	1910			
27	do	3.9	14,335	Aug. 25	U. S. R. S.	...	7
June 8	R. H. Willis	4.42	15,807				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Camp Clarke, for 1896

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1													3.02	2,886	2.56	1,316	2.36	854	2.37	875	2.45	1,046	2.91		1
2													2.94	2,552	2.5	1,160	2.45	1,056	2.4	932	2.49	1,137	2.97		2
3													2.87	2,295	2.5	1,160	2.3	738	2.37	875	2.51	1,137	3.09		3
4													2.8	2,042	2.48	1,114	2.35	835	2.37	875	2.52	1,186	2.99		4
5													2.75	1,878	2.47	1,092	2.33	796	2.4	932	2.53	1,212	3.01		5
6													2.68	1,655	2.48	1,114	2.34	816	2.39	914	2.28	1,338	2.98		6
7													2.64	1,537	2.48	1,114	2.35	835	2.39	914	2.45	706	2.98		7
8													2.65	1,566	2.5	1,160	2.38	895	2.41	954	2.5	1,046	2.95		8
9													2.64	1,537	2.45	1,046	2.44	1,023	2.55	1,290	2.67	1,160	2.97		9
10													2.63	1,508	2.41	954	2.51	1,186	2.46	1,069	2.6		2.97		10
11													2.62	1,478	2.36	854	2.45	1,046	2.44	1,023	2.8		2.96		11
12													2.5	1,160	2.34	816	2.4	932	2.45	1,046	2.8		2.97		12
13													2.5	1,160	2.32	777	2.48	1,114	2.44	1,023	2.8		2.95		13
14													2.49	1,137	2.28	706	2.38	895	2.45	1,046	2.79		2.95		14
15													2.5	1,137	2.29	722	2.36	854	2.45	1,046	2.69		2.95		15
16													2.42	977	2.23	628	2.34	816	2.45	1,046	2.6		2.95		16
17													2.45	1,046	2.28	706	2.33	796	2.44	1,023	2.55		2.95		17
18													2.78	1,977	2.4	932	2.48	1,114	2.43	1,000	2.6		2.95		18
19													2.69	1,685	2.35	835	2.33	796	2.45	1,046	2.67		2.95		19
20													2.49	1,137	2.31	758	2.41	954	2.43	1,000	2.7		2.95		20
21													2.51	1,186	2.38	895	2.42	977	2.45	1,046	2.7	931	2.95		21
22													2.5	1,160	2.46	1,069	2.4	932	2.44	1,023	2.87		2.96		22
23													2.67	1,226			2.45	1,046	2.41	954	2.89		2.96		23
24													2.65	1,566			2.5	1,160	2.42	977	2.89		2.96		24
25													2.58	1,368	2.36	854	2.48	1,114	2.42	977	2.86		2.96		25
26													2.57	1,342	2.34	816	2.41	954	2.41	954	2.86		2.96		26
27												3.60	1,566	2.32	777	2.47	1,092	2.45	1,046	2.89		2.96		27	
28											3.28	4,100	2.48	1,114	2.32	777	2.37	875	2.45	1,046	2.89		2.96		28
29											3.12	3,324	2.59	1,394	2.43	1,000	2.35	835	2.44	1,023	2.89		2.96		29
30											3.07	3,102	2.8		2.35	835	2.35	835	2.54	1,264	2.89		2.96		30
31													2.75	1,960	2.33	796			2.44	1,023			2.94		31
Mean													1,554		924		939		1,008						
Run-off in acre-ft.													95,500		56,700		55,900		62,000						
Maximum													2,890		1,320		1,190		1,290						
Minimum													977		628		738		785						

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Camp Clarke, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
1	2.91	2.89	2.89	2.89	2.8	2.8	2.85	2.200	4.2	7,960	4.55	9,250	3.35	4,300	2.3	740	2.2	580	2.03	380					1	
2	2.9	2.89	2.89	2.89	2.76	2.76	2.82	2,110	4.26	8,390	4.5	9,250	3.3	4,195	2.35	835	2.19	565	2.02	370					2	
3	2.9	2.89	2.89	2.89	2.72	2.72	2.81	2,050	4.2	7,960	4.51	9,250	3.15	5,810	2.5	1,160	2.19	565	2.05	400					3	
4	2.85	2.89	2.89	2.89	2.74	2.74	2.78	1,950	4.25	7,960	4.68	10,100	3.1	3,250	2.52	1,210	2.2	580	2.04	400					4	
5	2.85	2.89	2.89	2.89	2.78	2.78	2.74	1,850	4.26	8,390	4.9	11,400	3.03	2,950	2.45	1,040	2.18	550	2.05	400					5	
6	2.8	2.89	2.89	2.89	2.78	2.78	2.68	1,650	4.25	7,960	5	12,000	2.99	2,760	2.5	1,160	2.14	500	2.06	410					6	
7	2.8	2.89	2.89	2.89	2.85	2.85	2.75	1,850	4.32	8,390	4.78	10,500	2.91	2,440	2.54	1,260	2.13	490	2.06	410					7	
8	2.8	2.89	2.89	2.89	2.79	2.79	2.84	2,150	4.25	7,960	4.5	9,250	2.91	2,440	2.5	1,260	2.12	475	2.08	430					8	
9	2.8	2.89	2.89	2.89	2.55	2.55	2.8	2,050	4.35	8,390	4.27	8,390	3.05	3,000	2.61	1,400	2.12	475	2.08	430					9	
10	2.8	2.89	2.89	2.89	2.46	2.46	2.65	1,550	4.3	8,390	4.1	7,530	3.05	3,000	2.79	2,000	2.1	450	2.06	410					10	
11	2.8	2.89	2.89	2.89	2.3	2.3	2.75	1,850	4.5	9,250	3.95	6,670	2.97	2,700	2.79	2,000	2.1	459	2.12	475					11	
12	2.84	2.89	2.89	2.89	2.2	2.2	2.8	2,050	4.46	9,250	3.87	6,670	2.9	2,400	2.65	1,560	2.1	450	2.1	475					12	
13	2.84	2.89	2.89	2.89	2.12	2.12	2.6	1,420	4.4	8,820	4	7,100	2.9	2,400	2.68	1,650	2.13	490	2.1	465					13	
14	2.84	2.83	2.83	2.83	2.75	2.75	2.75	1,850	4.35	8,390	4.03	7,100	2.8	2,040	2.67	1,620	2.12	475	2.1	450					14	
15	2.85	2.8	2.8	2.8	2.57	2.57	2.75	1,850	4.17	7,960	4.1	7,530	2.75	1,850	2.6	1,420	2.15	515	2.11	450					15	
16	2.87	2.75	2.75	2.75	2.59	2.59	2.77	1,900	4.07	7,530	4.03	7,100	2.65	1,560	2.54	1,270	2.15	515	2.11	465					16	
17	2.87	2.65	2.65	2.65	2.57	2.57	2.75	1,850	3.94	6,670	4.05	7,100	2.57	1,350	2.5	1,160	2.16	530	2.11	465					17	
18	2.89	2.75	2.75	2.75	2.52	2.52	2.79	2,000	4.05	7,100	4.1	7,530	2.92	1,710	2.49	1,135	2.14	500	2.12	475					18	
19	2.89	2.86	2.86	2.86	2.45	2.45	2.9	2,400	4.07	7,100	4.08	7,530	2.92	2,600	2.43	1,000	2.17	540	2.17	465					19	
20	2.89	2.9	2.9	2.9	2.4	2.4	3.3	4,195	4.25	7,960	4.08	7,530	2.68	1,650	2.35	835	2.15	515	2.15	515					20	
21	2.89	2.85	2.85	2.85	2.4	2.4	3.6	5,380	4.33	8,390	3.89	6,670	2.6	1,420	2.29	720	2.13	490	2.2	580					21	
22	2.89	2.85	2.85	2.85	2.42	2.42	3.68	5,810	4.26	7,960	3.89	6,670	2.62	1,480	2.3	740	2.1	450	2.2	600					22	
23	2.89	2.85	2.85	2.85	2.45	2.45	3.95	6,670	4.37	8,000	3.65	5,380	2.6	1,420	2.3	740	2.09	440	2.19	565					23	
24	2.89	2.85	2.85	2.85	2.43	2.43	4.28	8,390	4.56	9,000	3.62	5,380	2.65	1,560	2.24	645	2.1	450	2.18	555					24	
25	2.89	2.85	2.85	2.85	2.45	2.45	4.28	8,390	7.72	10,100	3.47	4,950	2.58	1,360	2.25	660	2.09	440	2.19	565					25	
26	2.89	2.85	2.85	2.85	2.42	2.42	3.95	6,670	4.78	10,500	3.5	4,950	2.52	1,210	2.22	610	2.1	450	2.21	600					26	
27	2.89	2.85	2.85	2.85	2.43	2.43	3.88	6,670	4.77	10,500	3.49	4,950	2.57	1,350	2.2	580	2.11	465	2.22	610					27	
28	2.89	2.8	2.8	2.8	2.41	2.41	3.8	6,240	4.72	10,100	3.51	4,950	2.52	1,210	2.22	610	2.1	450	2.2	580					28	
29	2.89	2.8	2.8	2.8	2.42	2.42	3.88	6,670	4.74	10,100	3.57	5,780	2.56	1,310	2.22	610	2.11	465	2.21	600					29	
30	2.89	2.8	2.8	2.8	2.45	2.45	4	7,100	4.7	10,100	3.4	4,520	2.45	1,440	2.18	550	2.06	410	2.21	600					30	
31	2.89	2.8	2.8	2.8	2.8	2.8	4.67	10,100	4.67	10,100	4.67	10,100	2.4	930	2.2	580	2.06	410	2.21	600					31	
Mean							3,649		8,688		7,491		2,147		1,066		492		484							
Run-off in acre-ft.							217,100		534,200		440,400		132,000		65,500		29,300		29,800							
Maximum							8,390		10,500		12,000		5,810		2,000		580		600							
Minimum							1,570		6,670		4,520		930		580		400		370							

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Camp Clarke, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.27	675	2.27	2.91	2,600	3.89	10,600	3.2	4,200	2.33	800	1.65	30	1.72	110				1
2							2.27	675	2.27	2.84	2,350	3.86	10,300	3.05	3,350	2.32	780	1.65	30	1.8	150				2
3							2.37	900	2.37	2,600	3.69	8,600	2.98	2,960	2.3	725	1.6	60	1.8	150					3
4							2.44	1,050	2.44	3,07	2,400	3.6	7,600	2.95	2,800	2.23	600	1.6	60	1.81	160				4
5							2.45	1,050	2.45	3.12	3,700	3.59	7,550	2.95	2,800	1.98	300	1.62	65	1.8	150				5
6							2.35	830	2.37	3.17	4,000	3.49	6,700	2.86	2,400	2.3	725	1.62	65	1.8	150				6
7							2.37	900	2.37	3.17	4,000	3.47	6,500	2.75	2,050	2.31	750	1.65	80	1.81	160				7
8							2.35	830	2.35	3.05	3,350	3.47	5,900	2.72	1,900	1.9	230	1.65	80	1.81	160				8
9							2.39	925	2.39	3.02	3,150	3.34	5,300	2.68	1,760	1.95	275	1.65	80	1.83	190				9
10							2.4	950	2.4	3	3,050	3.5	6,900	2.65	1,650	1.9	230	1.87	200	1.87	200				10
11							2.42	1,000	2.42	3.02	3,150	3.49	6,700	2.6	1,550	1.86	200	1.81	160	1.89	220				11
12							2.49	1,175	2.49	2.93	2,700	3.45	6,300	2.7	1,800	1.81	160	1.8	150	1.89	220				12
13							2.38	900	2.38	3.02	3,150	3.45	6,300	2.55	1,350	1.8	150	1.8	150	1.87	200				13
14							2.4	950	2.4	3.04	3,300	3.44	6,200	2.5	1,200	1.78	130	1.81	160	1.87	200				14
15							2.42	1,000	2.42	2.88	2,500	3.54	7,200	2.5	1,200	1.75	125	1.8	150	1.85	190				15
16							2.5	1,200	2.44	2.9	2,600	3.56	7,400	2.5	1,200	1.8	190	1.8	150	1.82	165				16
17							2.44	1,250	2.44	2.92	2,650	3.6	7,600	2.5	1,200	1.85	150	1.8	150	1.8	150				17
18							2.55	1,350	2.55	2.92	2,650	3.65	8,100	2.5	1,200	1.86	200	1.8	150	1.8	150				18
19							2.65	1,650	2.65	2.96	2,800	3.55	7,300	2.55	1,350	1.85	190	1.75	125	1.78	130				19
20							2.72	1,900	2.72	3.17	4,000	3.56	7,400	2.55	1,350	1.8	150	1.67	90	1.75	125				20
21							2.85	2,400	2.87	3.34	5,300	4.59	7,500	2.5	1,200	1.76	125	1.7	105	2.05	365				21
22							2.87	2,400	2.87	3.38	5,700	3.57	7,400	2.48	1,150	1.78	130	1.7	105	2.05	365				22
23							3	3,050	3	3.45	6,300	3.6	7,900	2.52	1,260	1.78	130	1.68	95	2.06	375				23
24							3.06	3,400	2.97	2.93	6,100	3.59	7,550	2.47	1,100	1.75	125	1.65	90	2.04	350				24
25							2.97	2,900	2.97	3.4	5,900	3.55	7,300	2.46	1,075	1.75	125	1.72	110	2.05	365				25
26							2.97	2,900	2.97	3.44	6,200	3.47	6,500	2.45	1,050	1.72	110	1.73	115	2.07	390				26
27							2.97	2,900	2.97	4.1	13,300	3.4	5,900	2.35	850	1.6	60	1.73	115	2.1	425				27
28							2.87	2,450	2.87	4.4	17,000	2.34	5,300	2.33	800	1.68	95	1.79	140	2.09	420				28
29							2.93	2,700	2.93	4.35	17,000	3.29	4,800	2.33	800	1.68	95	1.65	80	2.08	410				29
30							2.96	2,800	2.96	4.11	13,400	3.25	4,550	2.35	850	1.68	95	1.65	80	2.07	390				30
31										3.94	11,300			2.32	780	1.66	90		2.1	425					31
Mean								1,630		5,403		7,390		1,617		265		110		245					
Run-off in acre-ft.								97,100		332,200		439,700		99,400		16,400		6,500		15,100					
Maximum								3,400		17,000		10,600		4,200		800		200		425					
Minimum								675		2,350		4,550		780		60		60		110					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Camp Clarke, for 1899

	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2										3.68	10,150	4.12	14,713	4.81	20,125	2.88	3,841	2.28	1,077	2.28	1,329	Feet	Sec.-ft.	Feet	Sec.-ft.	2
3										3.73	10,588	4.18	14,925	4.83	20,125	2.98	4,500	2.22	1,025	2.27	1,300					3
4										3.3	7,145	4.12	13,895	4.85	20,250	3.1	5,335	2.06	725	2.23	1,217					4
5										3.13	6,037	4.1	13,400	4.88	20,500	3.03	4,903	2.03	725	2.22	1,189					5
6										2.55	2,648	3.34	7,505	4.09	12,805	4.8	19,410	2.88	4,057	2.11	927	2.21	1,161			6
7										2.6	2,866	3.3	7,290	4.22	13,793	4.87	20,125	2.88	3,950	2.16	1,049	2.19	1,105			7
8										2.62	3,005	2.8	4,111	4.4	15,455	4.83	19,350	2.9	3,841	2	682	2.3	1,456			8
9										2.67	3,235	2.8	4,165	4.35	14,820	4.82	19,169	2.84	3,435	2.1	903	2.2	1,161			9
10										2.68	3,335	2.74	3,841	4.25	13,793	4.7	17,773	2.75	2,775	2.12	952	2.28	1,392			10
11										2.58	2,866	2.8	4,215	4.21	13,591	4.5	15,350	2.85	3,100	2.16	1,025	2.25	1,329			11
12										2.55	2,784	2.73	3,841	4.02	11,950	4.45	14,610	2.95	3,485	2.11	903	2.28	1,424			12
13										2.54	2,734	2.87	4,675	3.97	11,575	4.4	13,790	2.91	3,235	2.02	703	2.22	1,245			13
14										2.86	4,384	2.99	5,455	4.02	12,330	4.25	12,235	3.08	4,111	2.03	725	2.29	1,487			14
15										3.26	7,000	3.02	5,645	4.08	13,200	4.14	10,850	2.81	2,819	2.15	1,000	2.28	1,456			15
16										3.76	11,030	3.19	6,855	4.22	15,030	4.2	11,760	2.74	2,519	2.13	952	2.34	1,646			16
17										3.7	10,500	3.4	8,500	4.45	17,885			2.84	3,005	2.15	1,000	2.25	1,392			17
18										3.58	9,560	3.61	10,413	4.48	18,585			2.82	2,960	2.17	1,077	2.3	1,550			18
19										3.58	9,560	3.74	11,668	4.25	15,665			2.77	2,775	2.18	1,105	2.25	1,392			19
20										3.6	9,810	3.87	12,914	4.1	13,591	4	10,065	2.7	2,476	2.21	1,217	2.22	1,300			20
21										3.65	10,040	4.06	19,050			3.93	9,560	2.68	2,391	2.23	1,273	2.25	1,392			21
22										3.5	9,060	4.19	16,220			3.8	8,582	2.6	2,027	2.21	1,245	2.4	1,894			22
23										3.43	8,265	4.32	17,773	4.8	18,234	3.75	8,342	2.62	2,110	2.19	1,189					23
24										3.15	6,443	4.23	16,867	4.95	18,117	3.65	7,730	2.58	1,930	2.22	1,300					24
25										3.08	5,907	4.19	16,430	5.08	18,585	3.5	6,715	2.55	1,823	2.4	1,858					25
26										3.05	5,712	4.3	17,207	5.3	21,619	3.48	6,650	2.58	1,930	2.3	1,487					26
27										3.05	5,647	4.03	14,818	5.35	23,560	3.32	5,712	2.48	1,551	2.23	1,245					27
28										3.2	6,650	3.85	13,000	5.2	23,560	3.2	5,148	2.47	1,519	2.2	1,133					28
29										3.55	9,225	3.75	12,044	5	22,900	3.2	5,271	2.48	1,551	2.3	1,392					29
30										3.65	10,065	3.8	12,330	4.85	20,875	3.07	4,500	2.47	1,519	2.22	1,133					30
31										3.75	10,850	3.92	13,200	4.85	20,750	2.93	3,950	2.35	1,189	2.25	1,245					31
Mean										4.03	14,000					3.04	4,615	2.34	1,189							
Run-off in acre-ft.										6,659		10,257		16,400		12,230		2,834		1,076		1,372				
Maximum										396,000		630,700		975,900		752,000		174,300		64,000		84,300				
Minimum										11,030		23,560		23,560		20,500		5,340		1,860		1,890				
										2,650		3,840		11,580		3,950		1,190		682		1,100				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at Camp Clarke, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									4.1	10,305	4.29	12,110	3.31	4,000	2.25	625	1.98	425	2.1	260	2.23				1
2									3.85	8,370	3.27	3,960	2.33	771	1.92	210	2.05	200	2.05	200	2.23				2
3									3.85	8,450	4.45	13,700	3.21	3,700	2.3	725	1.95	260	2.09	270	2.22				3
4									4.05	10,200	4.49	14,050	2.15	3,420	2.38	900	1.96	260	2.08	270	2.24				4
5										9,855		14,275		3,550		600		250		230					5
6									3.98	9,820	4.52	14,200	2.95	2,700	2.24	620	1.97	270	2.15	310	2.25				6
7									3.89	9,100	4.48	13,700	2.91	2,550	2.26	630	1.98	260	2.11	290	2.26				7
8								2.9	2,910	3.92	9,410	4.43	13,200	2.71	1,850	2.2	550	1.93	190	2.1	290	2.28			8
9								3.03	3,500	3.84	8,800	4.48	13,650	2.7	1,875	2.2	550	2.03	425	2.1	290	2.3			9
10								3.23	4,650	3.94	9,850	4.42	12,845	2.73	2,050	2.2	575	2.08	350	2.08	270	2.31			10
11								3.2	4,450	3.92	9,850	4.34	12,010	2.71	2,000	2.16	450	2.1	890	2.09	260				11
12								3.27	4,900	3.99	10,500	4.38	12,350	2.62	1,700	2.15	450	2.09	340	2.11	290				12
13								3.16	4,300	4.02	10,900	4.27	11,260	2.62	1,700	2.15	450	1.96	425	2.14	300				13
14								3.28	4,950	4.1	11,740	4.25	11,250	2.62	1,700	2.15	480	1.98	210	2.16	340				14
15								3.42	5,810	4.19	12,680	4.28	11,640	2.74	2,120	2.11	400	2.05	290	2.18	380				15
16								3.25	5,400	4.27	13,600	4.17	10,550	2.72	2,050	2.11	420	2.02	230	2.15	340				16
17								3.2	4,450	4.34	14,000	4.1	10,050	2.62	1,700	2.1	420	2.05	290	2.15	340				17
18								3.3	5,010	4.23	12,800	3.9	8,410	2.73	2,100	2.07	400	2.07	290	2.16	340				18
19								3.24	4,650	4.12	11,700	3.89	8,510	2.68	1,875	2.05	390	2.04	230	2.18	380				19
20								3.22	4,525	4.05	10,900	3.84	8,210	3.05	3,350	2.07	420	2.01	190	2.19	390				20
21								3.21	4,310	4.07	11,000	3.81	8,120	2.83	2,470	2.05	400	2.03	210	2.2	410				21
22								3.26	4,525	4.09	11,150	3.75	7,675	2.77	2,200	2.03	400	2.02	200	2.21	450				22
23								3.57	6,400	4.05	10,700	3.51	5,900	2.78	2,250	2.06	450	2.01	180	2.2	450				23
24								3.57	6,300	3.91	9,400	3.52	5,820	2.83	2,470	2.03	400	2.15	330	2.2	450				24
25								3.59	6,400	3.9	9,225	3.48	5,400	2.62	1,675	2.01	390	2.19	390	2.21	450				25
26								3.48	5,600	3.82	8,550	3.43	4,990	2.7	1,940	2	380	2.2	390	2.21	440				26
27								3.57	6,200	3.78	8,195	3.39	4,510	2.59	1,600	1.9	230	2.15	310	2.22	500				27
28								3.71	7,025	3.91	9,100	3.42	4,510	2.59	1,600	1.9	230	2.15	310	2.21	500				28
29								3.89	8,400	4.01	10,040	3.33	3,960	2.5	1,290	1.93	260	2.14	300	2.23	520				29
30								3.79	7,700	4.11	10,755	3.31	3,960	2.4	1,000	1.95	290	2.1	260	2.25	600				30
31										4.15	11,700			2.32	775	1.99	310		2.25	520					31
Mean									5,328		10,379		9,771		2,227		471		289		369				
Run-off in acre-ft.									317,000		638,200		581,400		136,900		29,000		17,200		22,700				
Maximum									8,400		14,000		14,280		4,000		900		425		600				
Minimum									2,910		8,190		3,960		770		230		180		200				

NORTH PLATTE RIVER AT BRIDGEPORT

Location. One-half mile north of town on the public road in Section 28, Township 20 North, Range 50 West.

Records Available. From May 4, 1902 to November 10, 1906.

Drainage Area.

Gage. Wire and weight located at south end of bridge on upstream side. Distance from end of weight to index or marker on wire is 12.80 feet.

Bench Marks. No. 1. A six inch by six inch stone marked U. S. C. & G. S. located in the northeast quarter of Section 32, Township 20 North, Range 50 West of 6th P. M., thirty feet east of east gate of stock yards and three hundred feet northwest of northwest corner of public school building. Elevation, 9.94 feet. No. 2. The regular aluminum U. S. G. S. B. M. cap set in a 28 inch by 12 inch by 6 inch stone, top of which is filled with concrete to form a truncated pyramid, located about fifty feet south and a little east of the north east corner of lot four, block two, Riverside addition to Bridgeport. Elevation, 11.32 feet.

Channel. Straight for about a mile above and about a half mile below the gaging section. Somewhat wider at the section.

Accuracy. Affected by shifting sand and shallow water at low stages.

Actual Discharge Measurements of North Platte River, at Bridgeport

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1901		Feet	Sec.-ft.	1903		Feet	Sec.-ft.
July 27	R. H. Willis	800	800	Aug. 13	J. C. Stevens	4.9	331
Aug. 28	do	125	125	18	R. H. Willis	5.12	364
1902				29	do	5.05	183
May 20	R. H. Willis	6	5,414	Sept. 7	O. V. P. Stout	5.1	284
June 3	Frank Dobson	5.8	4,515	Oct. 19	R. H. Willis	5.1	592
10	do	5.17	2,049	1904			
14	do	5.97	5,433	April 23	J. C. Stevens	5.28	1,236
21	do	5.71	5,120	May 26	do	6.17	7,878
July 10	R. H. Willis	5.16	2,084	June 9	do	6.56	11,189
19	Frank Dobson	5	787	July 9	do	5.76	4,486
26	do	4.87	615	Sept. 26	R. D. Hubbard	4.69	59
Aug. 9	do	4.68	190	1905			
28	R. H. Willis	4.49	37	Mar. 29	H. C. Gardner	5.1	1,417
Sept. 22	do	5.08	634	May 12	do	6.3	11,040
1903				June 14	do	7	17,550
Mar. 31	J. C. Stevens	5.32	1,953	July 12	do	5.65	4,608
June 5	R. H. Willis	5.67	3,783	July 21	do	5.4	2,367
16	do	6.06	6,174	Aug. 4	do	5.45	2,504
19	do	6.41	8,441	Sept. 13	A. Dobson	4.91	366
July 4	J. C. Stevens	6.4	10,462	1906			
7	R. H. Willis	5.77	5,547	April 11	F. S. Dobson	5.75	3,448
13	J. C. Stevens	5.65	4,239	June 27	Arthur Dobson	6.05	6,511
27	R. H. Willis	5.37	2,492	July 25	do	5.51	2,308
30	do	5.1	918	Sept. 2	do	4.74	1,142
Aug. 4	J. C. Stevens	4.98	824	Oct. 17	A. R. Wilson	4.81	822
	R. H. Willis	4.95	699	Dec. 7	do	5.55	2,191

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Bridgeport, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1																									1
2										5.41	2,170			4.85	480	4.5	50	4.79	360	5.02	800				2
3										5.61	3,180	5.56	3,010	4.75	290	4.46	30	4.75	290	4.95	680				3
4										5.79	4,170	5.76	4,000	4.8	380	4.45	30	4.8	380	4.98	760				4
5									5.5	2,610	5.93	5,000	5.4	2,120	4.78	340	4.44	20	4.8	380	4.88	520			5
6									5.7	3,660	6.04	5,750	5.43	2,270	4.8	380	4.4	10	4.84	460	4.96	710			6
7										5.6	3,120	5.99	5,390	5.32	1,790	4.79	360	4.4	10	4.82	420	5			7
8										5.56	3,010	6.1	6,230	5.33	1,830	4.8	380	4.4	10	4.8	380				8
9										5.6	3,120	5.93	5,000	5.35	1,920		4.4	10	4.82	420					9
10										5.68	3,550	5.89	4,730	5.27	1,610	4.75	290	4.48	40	4.85	480				10
11											5.9	4,790	5.16	1,250	4.72	250	4.4	10	4.85	480					11
12											5.93	5,000	5.19	1,350	4.72	250	4.4	10	4.91	590					12
13									5.76	4,000	5.92	4,850	5.1	1,060	4.7	210	4.4	10	4.95	680					13
14											5.89	4,730	5.02	840	4.67	180	4.4	10	4.9	560					14
15									5.8	4,230	6	5,450	5.04	890	5.05	930	4.38		4.91	590					15
16									5.89	4,730	6.04	5,750	5	790	4.75	290	4.41	10	4.94	660					16
17										5.86	4,550	6	5,450	5.2	1,380	4.68	190	4.4	10	4.95	680				17
18										5.91	4,860	6	5,450	5.04	890	4.7	210	4.4	10	4.92	620				18
19										5.99	5,390	5.85	4,510	5.01	810	4.65	160	4.4	10	4.95	680				19
20										5.95	5,120	5.82	4,350	5	790	4.62	130		4.91	590					20
21										6	5,450	5.82	4,350	4.89	540	4.61	120	4.46	30	4.92	620				21
22										6.04	5,750	5.75	3,945	4.86	520	4.6	110								22
23										6.1	6,200	5.68	3,550	4.8	380	4.59	100	4.95	680	4.94	660				23
24										6.04	5,750	5.58	3,020	4.75	290	4.6	110	4.88	520	4.95	680				24
25										6.04	5,750	5.48	2,540	4.17	320	4.62	130	4.78	340	4.95	680				25
26										5.96	5,190	5.47	2,460	4.86	520	4.52	60	4.77	310	4.94	660				26
27										5.86	4,550	5.26	1,580	4.9	560	4.52	60	4.95	680	4.95	680				27
28										5.85	3,390	5.46	2,410	4.94	640	4.56	90	4.85	480	4.9	560				28
29										5.56	3,010	5.6	3,120	4.79	360	4.6	110	4.82	420	4.91	590	5	790		29
30										5.41	2,170	5.87	4,640	4.76	300		4.82	420	4.95	680					30
31										5.45	2,390	5.85	4,510	4.85	480		4.79	360	4.94	660					31
Mean										4.149			4.267		1,200		244		162		559				
Run-off in acre-ft.										255,000		153,900		73,800		15,000		9,600		34,400					
Maximum										6,200		6,200		4,000		930		680		680					
Minimum										2,170		1,580		240		60				290					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Bridgeport, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							5.38	2,565	6	6,700	5.7	4,450	5.93	6,700	5.13	1,365	5.1	225	5	150	5.07	675	5.32	5.3	1
2							5.36	2,295	5.98	6,700	5.65	4,110	5.86	5,910	5	425	5.1	225	5	150	5.07	675	5.32	5.3	2
3							5.22	1,575	5.95	6,300	5.73	4,800	5.83	6,300	5.08	1,170	5.08	225	5.05	225	5.08	825	5.3	5.3	3
4							5.32	2,040	5.9	5,910	5.85	5,530	5.81	5,910	5.14	1,365	5.1	225	5.07	225	5.05	825	5.3	5.3	4
5							5.58	3,780	5.95	6,300	5.67	3,780	5.85	6,300	5.13	1,365	5.05	200	4.95	90	5.01	825	5.3	5.3	5
6							5.73	4,800	5.93	6,300	5.73	4,450	5.72	4,800	5.09	1,170	5.08	225	5.1	315	5.1	990	5.32	5.32	6
7							5.6	3,780	5.75	4,800	5.92	5,530	5.68	4,450	5.1	1,170	5.1	225	5.2	540	5.08	1,170	5.5	5.5	7
8							5.6	3,780	5.65	4,110	6	6,300	5.63	4,110	4.9	540	5	200	5.15	420	5.05	990	5.58	5.58	8
9							5.6	3,780	5.77	4,800	6.06	6,300	5.41	2,565	4.95	675	5	200	5.1	420	5.05	990	5.48	5.48	9
10							5.55	3,460	5.78	5,160	6.2	7,510	5.45	2,850	5.05	825	4.98	200	5.1	420	5	825	5.4	5.4	10
11							5.52	3,150	5.67	4,110	6.21	7,510	5.54	3,460	5	540	4.85	200	5.22	675	5	825	5.42	5.42	11
12							5.42	2,565	5.6	3,780	6.23	7,920	5.46	2,850	4.95	420	4.95	200	5.1	420	5.02	825	5.4	5.4	12
13							5.43	2,850	5.63	4,110	6.3	8,340	5.35	2,295	5.98	825	4.9	200	5.1	420	5.3	5.38	5.38	5.38	13
14							6.41	2,565	5.57	3,460	6.38	8,760	5.29	2,040	4.05	420	5	200	5.15	540	5.35	5.35	5.35	5.35	14
15							5.46	2,850	5.7	4,450	6.38	8,760	5.31	2,040	4.9	315	5.15	315	5.1	540	5.3	5.3	5.3	5.3	15
16							5.47	2,850	5.65	4,110	6.41	8,760	5.37	2,295	5.08	675	5.12	225	5.08	540	5.4	5.4	5.4	5.4	16
17							5.5	3,150	5.8	5,160	6.35	8,760	5.45	2,850	5	315	4.93	200	5.05	420	5.4	5.4	5.4	5.4	17
18							5.5	3,150	5.83	5,530	6.34	9,190	5.22	1,575	5.1	420	4.96	200	5.08	540	5.4	5.4	5.4	5.4	18
19							5.83	5,530	5.75	4,800	6.39	10,060	5.17	1,365	5.15	540	5	200	5.08	675	5.4	5.4	5.4	5.4	19
20							5.53	3,460	5.92	5,910	6.4	10,060	5.3	2,040	5.1	315	5	200	5.05	540	5.4	5.4	5.4	5.4	20
21							5.55	3,460	6.05	7,100	6.36	9,620	5.17	1,365	5.08	315	5	200	5.05	540	5.35	5.35	5.35	5.35	21
22							5.6	3,780	6.05	7,100	6.33	9,620	5.13	1,365	5	150	5.1	225	5.1	675	5.3	5.3	5.3	5.3	22
23							5.58	3,780	6.1	7,510	6.45	10,500	5.12	1,170	4.98	150	5.2	420	5.12	675	5.35	5.35	5.35	5.35	23
24							5.57	3,460	6.15	7,920	6.37	9,620	4.99	825	5.3	825	5.18	420	5.1	675	5.37	5.37	5.37	5.37	24
25							5.6	3,780	5.95	6,300	6.37	9,620	5.06	990	5.1	225	5.18	420	5.08	675	5.3	5.3	5.3	5.3	25
26							5.8	5,160	5.87	5,530	6.31	9,190	5.27	1,800	5.1	225	5.1	225	5.05	540	5.37	5.37	5.37	5.37	26
27							5.97	6,300	5.85	5,530	6.27	8,760	5.22	1,365	5.2	420	5.15	315	5.05	540	5.35	5.35	5.35	5.35	27
28							5.85	5,530	5.8	5,160	6.16	7,920	5.22	1,365	5	90	5.07	225	5.07	540	5.37	5.37	5.37	5.37	28
29							5.85	5,530	5.93	6,300	6.1	7,510	5.11	990	5.05	150	5.07	225	5.08	675	5.37	5.37	5.37	5.37	29
30							5.8	5,160	5.9	5,910	5.97	6,700	5.19	2,850	5.08	225	5.05	225	5.07	540	5.37	5.37	5.37	5.37	30
31									5.72	4,450			5.12	1,170	5.1	225			5.08	675			5.65	5.65	31
Mean								3,664		5,526		7,665		2,837		589		240		487		883			
Run-off																									
in acre-ft.								218,000		339,800		456,100		174,400		36,200		14,300		29,900		21,000			
Maximum								6,300		7,920		10,500		6,700		1,360		420		675		1,170			
Minimum								1,570		3,460		3,780		825		90		200		90		675			

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Bridgeport, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2	5.6								5.45	2,200	6.46	10,260	6.05	6,900	4.9	350	4.82	200	4.92	350	5.02	500			2
3	5.55								5.43	2,200	6.46	10,260	5.92	5,640	4.82	275	4.75	150	4.85	275	5	500			3
4	5.9								5.52	2,500	6.46	10,260	6.04	6,900	4.75	150	4.73	150	4.82	200	5.02	500			4
5	5.8								5.6	3,200	6.55	11,100	5.92	5,640	4.74	150	4.72	100	4.72	100	5	500			5
6	5.35								5.65	3,600	6.32	9,000	5.74	4,400	4.73	150	4.72	100	4.75	150	5	500			6
7	5.4								6.05	6,900	6.29	9,000	5.76	4,400	4.79	200	4.7	100	4.75	150	4.95	425			7
8	5.45								6.31	9,000	6.48	10,680	5.88	5,640	4.84	275	4.7	100	4.75	150	4.95	425			8
9	5.42								6.25	8,580	6.66	11,940	5.76	4,400	4.75	150	4.67	75	4.75	150	5.15	850			9
10	5.4						5.2	1,000	5.88	5,640	6.68	12,360	5.79	4,800	4.75	150	4.6	50	4.7	100	5.2	1,000			10
11	5.42						5.82	4,800	6.56	11,000	6.56	11,000	5.88	5,220	4.72	100	4.62	50	4.75	150	5	500			11
12	5.4						5.1	700	6.01	6,480	6.56	11,000	5.8	4,800	4.7	100	4.63	75	4.72	100	4.9	350			12
13	5.4						5.05	600	5.74	4,400	6.59	11,520	5.56	2,850	4.68	100	4.63	75	4.75	150	4.92	350			13
14	5.42						5.03	600	5.72	4,000	6.38	9,840	5.55	2,850	4.64	75	4.64	75	4.78	200	5.05	350			14
15	5.48						5.03	600	5.72	4,000	6.42	9,840	5.48	2,500	4.64	75	4.65	75	4.8	200	5.2	600			15
16	5.5						5.25	1,200	5.82	4,800	6.34	9,420	5.49	2,500	4.65	75	4.65	75	4.78	200	5.17	850			16
17	5.42						4.98	500	5.74	4,400	6.34	9,420	5.4	1,900	4.75	150	4.65	75	4.8	200	5.15	850			17
18	5.4						5.15	850	5.75	4,400	6.31	9,000	5.32	1,400	4.85	275	4.67	75	4.75	150	5.1	700			18
19	5.42						5.05	600	5.8	4,800	6.38	9,840	5.31	1,400	4.95	425	4.67	75	4.8	200	5.12	700			19
20	5.43						5.03	600	5.8	4,800	6.28	9,000	5.3	1,400	4.88	350	4.7	100	5.35	1,650	5.1	700			20
21	5.5						5.05	600	5.86	5,220	6.38	9,840	5.25	1,200	4.72	100	4.68	100	5.3	1,400	5.12	700			21
22	5.55						5.07	600	5.92	5,640	6.36	9,420	5.22	1,000	4.72	100	4.68	100	5.1	700	5.15	850			22
23	5.42						5.35	1,650	5.95	6,060	6.26	8,580	5.21	1,000	4.75	150	4.7	100	5.05	600	5.08	700			23
24	5.42						5.2	1,000	6.36	9,420	6.3	9,000	5.25	1,200	4.7	100	4.7	100	5	600	5.17	850			24
25							5.75	4,400	6.58	11,520	6.31	9,000	5.24	1,200	4.72	100	4.72	100	5.25	1,200	5.13	850			25
26							5.25	1,200	6.22	8,160	6.29	9,000	5.25	1,200	4.72	100	4.7	100	5.08	700	5.07	700			26
27							5.32	1,400	6.2	8,160	6.31	9,000	5.25	1,200	4.7	100	4.7	100	5	500	5	500			27
28							5.2	1,000	6.22	8,160	6.22	8,160	5.25	1,000	4.75	150	4.7	100	4.95	425	5.35	1,650			28
29							5.5	2,500	6.35	9,420	6.12	7,320	5.22	600	4.6	50	4.72	100	4.98	500	5.32	1,400			29
30							5.48	2,500	6.38	9,840	6.04	6,900	5.05	425	4.65	75	4.78	200	5	500	5	500			30
31							5.45	4,900	6.57	11,100	6.02	6,480	4.95	600	4.7	100	4.87	275	4.98	500					31
31									6.5	10,680			5.04		4.75	100			5	500					31
Mean								1,393		6,313		9,630		2,940		157		108		464		846			
Run-off in acre-ft.								58,000		388,200		573,000		180,800		9,600		6,400		28,600		48,700			
Maximum								4,400		11,350		12,190		6,900		470		312		1,850		1,850			
Minimum								536		2,250		6,650		470		50		50		100		360			

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, near Bridgeport, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1									6.42	9,400	7.1	16,600	6.2	7,800	5.18	1,120	4.65	800	4.76	850	4.75	560			1	
2									6.32	8,400	7.15	17,100	6.1	6,900	5.15	1,050	4.6	760	4.76	850	4.72	530			2	
3									6.22	7,500	7.2	17,600	6	6,000	5.15	1,100	4.62	800	4.72	760	4.72	530			3	
4									6.18	7,250	7.1	16,600	5.9	5,200	5.18	1,210	4.62	800	4.72	760	4.72	530			4	
5									6.1	6,550	7.05	16,100	5.8	4,400	5.15	1,150	4.6	750	4.7	720	4.7	500			5	
6									6.05	6,100	7	15,700	5.75	4,000	5.15	1,150	4.6	750	4.74	810	4.72	530			6	
7									6.08	6,400	6.9	14,600	5.7	3,650	5.12	1,180	4.6	750	4.73	780	4.7	400			7	
8								6.08	6,000	6.85	14,200	5.6	3,000	5.15	1,260	4.62	800	4.75	830	4.7	400				8	
9								5.98	5,200	6	5,700	6.7	12,600	5.5	2,400	5.16	1,400	4.62	840	4.76	750	4.7	400			9
10								5.88	4,400	6.1	6,500	6.65	12,100	5.9	5,200	5.18	1,500	4.64	800	4.75	740	4.72	400			10
11								5.85	4,150	6.15	7,000	5.65	12,100	5.8	4,400	5.15	1,450	4.62	800	4.77	790				11	
12								6	5,450	6.12	6,700	6.6	11,600	5.7	3,650	5.15	1,450	4.62	660	4.75	740				12	
13								6.95	14,500	6.08	6,400	6.6	11,600	5.75	4,050	5.15	1,500	4.6	660	4.75	740				13	
14								6.9	14,000	6.05	6,100	6.5	10,600	5.6	3,000	5.15	1,500	4.6	720	4.73	690				14	
15								6	5,450	6	5,820	6.4	9,600	5.75	4,050	5.1	1,430	4.62	760	4.72	680				15	
16								6.1	6,300	6.45	9,900	6.4	9,600	5.8	4,400	5	1,070	4.64	660	4.73	690				16	
17								6.12	6,450	6.48	10,200	6.45	10,200	5.9	5,200	4.95	1,000	4.6	720	4.73	690				17	
18								6.15	6,750	6.42	9,600	6.5	10,700	6	6,000	4.87	800	4.62	760	4.75	640				18	
19								6.12	6,450	6.45	9,900	6.55	11,200	5.95	5,600	4.85	810	4.64	850	4.75	640				19	
20								6.08	6,100	6.4	9,450	6.6	11,700	5.95	5,600	4.8	700	4.68	900	4.73	600				20	
21								6	5,450	6.55	10,900	6.75	13,200	5.9	5,200	4.86	900	4.7	800	4.75	640				21	
22								5.95	5,050	6.58	11,200	6.7	12,700	5.85	4,800	4.85	860	4.7	800	4.78	700				22	
23								5.9	4,750	6.6	11,400	6.6	11,700	5.8	4,400	4.9	1,090	4.7	740	4.8	750				23	
24								5.98	5,400	6.65	11,900	6.5	10,700	5.78	4,250	4.9	1,090	4.68	680	4.84	850				24	
25								6.08	6,300	6.7	12,400	6.4	9,800	5.6	3,000	4.85	1,030	4.65	680	4.82	780				25	
26								6.1	6,440	6.7	12,600	6.3	8,800	5.5	2,300	4.9	1,190	4.65	680	4.82	780				26	
27								6.15	6,900	6.75	13,000	6.28	8,600	5.5	2,300	4.85	1,120	4.68	740	4.82	780				27	
28								6.18	7,150	6.95	15,100	6.25	8,250	5.45	2,150	4.82	1,040	4.7	800	4.8	660				28	
29								6.22	7,500	7.2	17,300	6.2	7,800	5.3	2,450	4.8	1,060	4.7	800	4.78	660				29	
30								6.3	8,220	7.4	19,700	6.15	7,300	5.2	1,140	4.75	950	4.7	730	4.76	640				30	
31								7.1	16,600					5.2	1,140	4.7	920				560				31	
Mean								6,710		9,790		12,000		4,120		1,130		760		727		478				
Run-off in acre-ft.								399,300		602,000		714,000		253,000		69,500		45,200		44,700		9,500				
Maximum								14,500		19,700		17,600		7,800		1,500		900		850		560				
Minimum								4,150		5,700		7,300		1,140		700		660		560		400				

NORTH PLATTE RIVER AT NORTH PLATTE

Location. At highway bridge one-half mile north of North Platte at Section 28, Township 14 North, Range 30 West, one mile below mouth of Scout Creek and four and one-half miles above the junction with the South Platte.

Record Available. From February 25, 1895 to Sept. 30, 1914.

Drainage Area. 28,500 square miles.

Gage. A staff gage installed October 15, 1910. From October 5, 1894 to May 31, 1910 the gage was a vertical staff at the railroad bridge two miles east of North Platte. On March 25, 1910 the station was moved two miles upstream to its present site and a chain gage reading to this datum was installed. This gage was stolen July 1, 1910, and the records interrupted until October 15, 1910 when the present staff gage was placed in position.

Bench Mark. No. 1. The top of the south west corner of the east concrete abutment of the U. P. bridge. Elevation, 8.20 feet above zero of the gage at that section. No. 2. Two square wrought iron nails in the east side of a telephone pole on the west side of the road at the south end of the bridge. Elevation, 10.00 feet above zero of the chain gage at the highway bridge. No. 3. Two nails in each side of a telephone pole on the west side of the road at the south end of the bridge one foot above the ground. Elevation, 7.55 feet above zero of the staff gage at the highway bridge.

Channel. Straight for about five hundred feet above and below the section at the highway bridge. Very shifting.

Accuracy. Only fair because of the shifting nature of the river bed.

Actual Discharge Measurements of North Platte River, at North Platte

Date	Hydrographer	Gage height	Discharge	Date	Hydrographer	Gage height	Discharge
1892		Feet	Sec.-ft.	1898		Feet	Sec.-ft.
Sept. 14	Cyrus C. Babb	.....	770	April 15	C. P. Ross	2.1	1,844
Nov. 2	do	.....	1,070	May 2	do	2.6	4,429
22	do	.....	1,370	14	do	2.5	4,288
1894				23	do	2.9	5,296
Oct. 5	C. P. Ross	.....	620	31	do	2.6	10,074
Nov. 6	do	.....	1,227	June 4	do	3.25	8,270
1895				23	do	3	5,848
Mar. 27	do	2.25	2,329	July 22	do	1.7	697
April 29	do	2.85	5,695	30	do	1.2	324
May 28	do	2.9	6,320	Aug. 15	do	.8	241
June 8	do	4	16,261	23	do	1	197
Sept. 14	O. V. P. Stout	1.3	200	Sept. 2	A. B. McCoskey	.45	12
1896				9	C. P. Ross	.9	219
June 13	do	3.35	9,000	27	do	1.2	364
29	do	2.9	4,000	Oct. 11	do	1.3	306
July 25	do	2.05	1,260	26	do	1.65	801
Sept. 8	do	1.5	547	Nov. 7	do	1.8	1,014
1897				1899			
April 5	C. P. Ross	2.7	4,038	April 19	Glen E. Smith	3.3	9,111
12	do	2.8	2,961	May 6	do	3.0	8,239
26	do	3.45	10,328	22	do	3.8	12,962
May 17	do	3.5	13,486	June 6	do	3.6	13,310
29	do	4.05	20,796	15	C. P. Ross	3.6	11,390
June 10	do	3.95	17,172	19	Glen E. Smith	4.2	16,257
19	do	3.35	11,393	July 17	C. P. Ross	3.3	10,351
29	do	3.05	6,518	Aug. 8	do	2.5	4,637
July 10	do	2.25	4,112	28	do	1.85	2,013
24	do	2.05	2,940	Sept. 15	do	1.55	976
Aug. 7	do	2.4	3,118	Oct. 4	do	1.7	713
21	do	2.15	2,306	1900			
Sept. 4	do	1.65	679	Dec. 20	Adna Dobson	2.3	1,223
18	do	1.7	744	1901			
Oct. 6	do	1.5	486	July 17	O. V. P. Stout	1.8	943
18	do	1.9	1,343	Aug. 29	H. O. Smith	1.4	198
Nov. 11	do	1.9	1,511	Dec. 27	F. Dobson	Ice	1,536
				1902			
				April 3	B. E. Forbes	2.2	1,840

Actual Discharge Measurements of North Platte River, at North Platte

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1902		Feet	Sec.-ft.	1909		Feet	Sec.-ft.
May 6	H. O. Smith	2.65	3,723	Mar 23	G. W. Bates	2.4	2,040
20	do	3.15	7,136	April 10	A. A. Dobson	2.7	3,140
June 3	do	2.5	3,029	May 15	do	3	6,350
19	do	3	6,615	June 11	E. C. Simmons	5	29,600
July 3	do	2.7	4,997	July 12	A. A. Dobson	3.25	9,670
17	do	1.65	1,343	Aug. 18	do	3.12	6,220
28	do	1.7	677	1910			
Aug. 9	do	1	55	Mar 25	D. D. Price	2.1	*3,010
18	do	1	49	April 26	do	2.45	*2,600
23	do	1	94	May 26	R. H. Willis	2.25	* 749
Sept. 6	J. C. Stevens	1	20	1911			
24	H. O. Smith	2.3	1,818	Mar 24	A. A. Dobson	3.85	3,400
Nov. 29	do	2.4	822	April 22	A. B. Price	2	89
1903				May 30	do	2.9	547
April 2	J. C. Stevens	2.3	2,143	June 25	do	2.4	416
May 8	do	2.85	5,004	June 21	do	3	891
June 13	do	2.9	6,490	Aug. 11	do	3.2	969
29	do	3.25	9,114	do	do	2.8	610
July 8	do	2.3	4,768	Sept. 24	do	2.5	222
31	do	1.85	737	Oct. 6	R. H. Fletcher	4	3,500
Aug. 14	do	1.8	791	Oct. 28	A. B. Price	3.4	1,420
Sept. 17	W. C. Sturdevant	1.6	492	Nov. 6	do	3.1	1,200
Oct. 31	J. C. Stevens	2	1,145	1912			
1904				April 5	A. B. Price	4.8	9,330
Mar. 26	J. C. Stevens	2.2	1,086	25	C. G. Hrubesky	3.5	2,800
May 13	do	2.8	4,995	June 1	C. T. Graham	4.5	2,866
27	R. D. Hubbard	3.4	9,445	July 24	Weeks & Cochran	3.8	3,924
June 13	J. C. Stevens	3.85	14,619	Aug. 28	C. J. McNamara	4.3	5,771
July 26	do	2.05	1,488	Sept. 16	do	4.6	9,327
Sept. 28	R. D. Hubbard	1.57	422	do	do	4.6	7,325
1905				Oct. 14	do	4.7	9,039
Mar. 31	G. W. Bates	2.4	2,157	31	R. L. Cochran	4.7	7,173
May 16	do	3.35	9,677	Nov. 16	do	3.6	5,416
June 12	H. C. Gardner	3.95	17,570	30	C. J. McNamara	3	2,224
20	do	3.75	16,010	1913			
July 13	do	2.75	5,878	Mar 31	C. J. McNamara	3.8	5,041
22	do	2.4	3,513	April 15	do	3.7	4,607
Aug. 5	do	2.2	2,564	30	do	3.7	3,914
Sept. 26	F. S. Dobson	1.8	703	May 16	do	3.9	4,389
Oct. 24	Dobson & Bates	1.98	1,056	June 1	do	2.9	1,351
Sept. 9	H. C. Gardner	1.7	735	June 15	do	3.3	2,216
1906				29	do	2.8	982
Feb. 22	F. S. Dobson	2.65	5,095	July 14	do	2.4	300
April 10	do	2.8	5,929	Aug. 2	do	2.8	1,243
May 9	do	2.6	5,502	17	do	2.5	526
July 2	Arthur Dobson	2.85	6,334	31	do	2.4	350
Aug. 1	do	2	1,530	Sept. 14	do	2.7	681
Sept. 7	do	1.75	1,035	28	do	3.6	3,066
Nov. 3	do	2.52	3,134	Oct. 18	do	3.3	1,962
13	A. R. Wilson	2.35	2,566	Nov. 2	do	3	1,333
1907				16	do	3.2	1,616
April 4	Arthur Dobson	2.65	5,830	30	do	3.2	1,732
May 24	do	2.88	7,910	Dec. 15	do	2.8	988
June 16	do	3.7	16,000	1914			
July 16	do	3.35	9,270	Mar 29	C. J. McNamara	3.3	1,816
Sept. 1	do	1.8	1,500	April 15	do	3.25	1,670
21	do	1.65	1,020	May 2	do	3.9	4,256
Nov. 8	Adna Dobson	2	1,400	17	do	3.4	2,856
1908				31	do	3.5	2,945
Mar. 5	G. W. Bates	2.25	1,860	June 14	do	3.65	1,358
April 24	do	2.1	1,580	28	do	2.95	1,298
June 2	Adna Dobson	3.85	14,000	July 13	do	2.29	184
June 17	Arthur Dobson	3.2	7,330	18	do	2.4	265
July 12	do	2.6	2,960	19	do	2.75	733
29	do	1.8	1,050	Aug. 3	do	3.05	1,080
Aug. 30	do	1.85	553	16	do	3.15	1,294
Sept. 16	Adna Dobson	1.42	206	Sept. 2	do	3.5	2,821
Oct. 31	A. A. Dobson	2.05	1,150	13	do	3.6	3,156
Nov. 21	G. W. Bates	2.3	2,590				

*NOTE These measurements were taken at the highway bridge 2 miles above R. R. bridge.

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1895

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					3.4	10,180	2.05	1,723	2.75	5,191	3.35	9,735	2.75	5,191	1.65	628	1.45	323	1.4	272	1.85	1,095	2.1	Feet	1
2					3.15	8,060	2.25	2,512	2.85	5,848	3.2	8,464	2.65	4,575	1.6	537	1.45	323	1.3	200	1.8	963	2	"	2
3					2.7	4,878	2	1,551	2.85	5,848	3.15	8,060	2.5	3,725	1.85	963	1.45	323	1.35	231	1.85	1,095	1.9	"	3
4					2.7	4,878	2	1,551	3.2	8,464	3.65	12,553	2.6	4,282	1.7	730	1.3	200	1.5	384	1.95	1,389	2.1	"	4
5					2.7	4,878	2.1	1,905	3.35	9,735	3.65	12,553	2.65	4,575	1.6	537	1.3	200	1.5	384	2	1,551	2.35	"	5
6					2.55	4,283	2.35	2,968	3.45	10,635	3.6	12,058	2.55	3,998	1.65	628	1.3	200	1.5	384	1.95	1,389	2.3	"	6
7					2.4	3,210	2.45	3,463	3.45	10,635	4.05	16,875	2.55	3,998	1.75	842	1.2	150	1.5	384	1.85	1,095	2.4	"	7
8					2.65	4,575	2.4	3,210	3.25	8,878	3.95	15,732	2.65	4,575	1.75	842	1.2	150	1.6	537	1.85	1,095	2.45	"	8
9					2.35	2,968	2.2	2,300	3	6,908	3.95	15,732	2.75	5,191	1.65	628	1.25	175	1.7	730	1.95	1,389	2.5	"	9
10					2.05	1,723	2	1,551	3.05	7,282	3.9	15,177	2.85	5,848	1.65	628	1.25	175	1.7	730	1.8	963	2.45	"	10
11					2.45	3,463	2.3	2,735	3.05	7,282	3.85	14,632	2.75	5,191	1.65	628	1.25	175	1.6	537	1.85	1,095	2.45	"	11
12					2.35	2,968	2.3	2,735	2.9	6,191	3.65	12,553	2.65	4,575	1.65	628	1.25	175	1.75	842	1.9	1,237	2.45	"	12
13					1.8	963	2.35	2,968	2.8	5,541	3.55	11,573	2.55	3,998	1.6	537	1.3	230	1.7	730	2.1	1,905	2.5	"	13
14					1.6	537	2.25	2,512	2.7	4,878	3.65	12,553	2.55	3,998	1.5	384	1.3	200	1.75	842	2	1,551	2.65	"	14
15					1.55	455	2.05	1,723	2.85	5,848	3.55	11,573	2.45	3,463	1.55	455	1.25	175	1.75	842	2	1,551	2.45	"	15
16					1.95	1,389	2.25	2,512	2.85	5,848	3.55	11,573	2.35	2,968	1.65	628	1.4	272	1.85	1,095	2	1,551	2.45	"	16
17					2.05	1,725	2.4	3,210	3	6,908	3.65	12,550	2.15	2,098	1.55	455	1.4	272	1.85	1,095	1.9	1,237	2.45	"	17
18					2.2	2,300	2.5	3,210	3.15	8,060	3.45	10,635	2	1,551	1.5	384	1.3	200	1.85	1,095	1.95	1,389	2.45	"	18
19					2.25	2,512	2.45	3,463	2.95	6,544	3.45	10,635	2	1,551	1.45	323	1.3	200	1.8	963	1.9	1,237	2.45	"	19
20					2.35	2,968	2.55	2,968	3	6,908	3.35	9,735	2.1	1,905	1.5	384	1.2	150	1.75	842	1.95	1,389	2.5	"	20
21					2.2	2,300	2.6	4,282	2.95	6,544	3.25	8,878	2	1,551	1.4	272	1.3	200	1.75	842	1.8	963	2.6	"	21
22					2.15	2,098	2.75	5,191	3	6,908	3.4	10,180	2.05	1,723	1.35	231	1.35	231	1.75	842	1.85	1,095	2.55	"	22
23					2.15	2,098	2.75	5,191	3	6,908	3.25	8,878	2.15	2,098	1.4	272	1.55	455	1.85	1,095	1.9	1,237	2.6	"	23
24					2.2	2,300	2.7	4,878	3.05	7,282	3.25	8,878	2.35	2,968	1.35	231	1.5	384	1.85	1,095	2	1,551	2.65	"	24
25			3.25		2.2	2,300	2.7	4,878	2.95	6,544	3.2	8,464	2.35	2,968	1.4	272	1.45	323	1.9	1,237	2.1	1,905	2.65	"	25
26			3.4		2.45	3,463	2.6	4,281	2.9	6,191	3.1	7,665	2.15	2,098	1.3	230	1.4	272	1.9	1,237	2.1	1,905	2.55	"	26
27			3.3		2.25	2,512	2.75	5,191	2.9	6,191	3.1	7,665	2	1,551	1.25	175	1.4	272	1.95	1,389	2	1,551	2.5	"	27
28			3.2		2.2	2,300	2.85	5,848	2.85	5,848	3.05	7,282	2	1,551	1.6	537	1.3	200	1.85	1,095	2	1,551	2.45	"	28
29					2.15	2,098	2.95	6,544	2.75	5,191	2.9	6,191	1.95	1,389	1.55	455	1.35	231	1.85	1,095	1.9	1,237	.....	"	29
30					2.05	1,723	2.95	6,544	3.05	7,280	2.85	5,848	1.9	1,237	1.5	384	1.45	323	1.75	842	2	1,551	.....	"	30
31					1.95	1,389	.....	.....	3.35	9,735	.....	.....	1.75	842	1.45	323	.....	.....	1.9	1,237	.....	.....	.....	"	31
Mean					3,005	.....	.....	3,470	7,033	.....	.....	10,991	3,137	492	.....	.....	241	.....	810	.....	1,357	.....	.....	.....
Run-off					
in acre-ft.					184,800	.....	.....	206,500	432,400	.....	.....	654,000	192,900	30,200	.....	.....	14,300	.....	49,800	.....	80,700	.....	.....	.....
Maximum					10,180	.....	.....	6,540	10,630	.....	.....	16,870	5,850	963	.....	.....	455	.....	1,390	.....	1,900	.....	.....	.....
Minimum					455	.....	.....	1,550	4,880	.....	.....	6,190	842	231	.....	.....	150	.....	200	.....	963	.....	.....	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1896

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.5		2.85						2.7	3,225	2.75	3,392	2.55	2,680	2.2	1,600	1.5	550	1.9	1,240	2.45	3,460	2.4		1
2	2.5		2.9						2.75	3,392	2.9	4,000	2.55	2,680	2.15	1,475	1.75	738	1.8	960	2.5	3,720	2.4		2
3	2.5		2.8						2.65	3,048	2.75	3,392	2.45	2,335	2.25	1,730	1.65	637	1.75	840	2.35	2,960	2.4		3
4	2.5		2.8						2.85	3,780	2.55	2,680	2.35	2,020	2.3	1,860	1.65	637	1.7	730	2.2	2,300	2.3		4
5	2.6		2.65						2.95	4,555	3.85	14,613	2.25	1,730	2.05	1,240	1.6	600	1.75	840	2.15	2,090	2.3		5
6	2.6		2.5						3.15	6,777	4	16,300	2.2	1,600	2.15	1,475	1.6	600	1.75	730	1.9	1,240	2.3		6
7	2.6		2.45						3.05	5,655	3.85	14,613	2.15	1,475	2.25	1,730	1.5	550	1.85	1,090	1.8	960	2.4		7
8	2.6		2.05						3.15	6,777	3.7	12,927	2	1,130	2.05	1,240	1.5	550	1.9	1,240	1.7	730	2.45		8
9	2.65		2						3	5,111	3.55	11,241	2	1,130	1.8	800	1.6	600	1.85	1,090	1.85	1,090	2.55		9
10	2.75		2.05				2.3	1,860	2.9	4,000	3.45	10,117	1.9	950	1.9	950	1.7	675	1.9	1,090	1.95	1,390	2.65		10
11	2.8		1.95				2.45	2,335	2.9	4,000	3.35	9,000	1.8	800	1.7	675	1.8	800	1.8	960	2.05	1,720	2.65		11
12	2.7		2.45				2.65	3,048	2.85	3,780	3.35	9,000	1.6	600	1.6	600	1.8	800	1.85	1,090	2.1	1,900	2.75		12
13	2.7		2.75				2.8	3,560	2.95	4,555	3.35	9,000	1.5	550	1.6	600	1.9	950	1.85	1,090	2.2	2,300	2.75		13
14	2.7		2.6				2.65	3,048	3.05	5,655	3.2	7,333	1.35	460	1.5	550	2	1,130	1.85	1,090	2.1	1,900	2.75		14
15	2.7		2.35				2.55	2,680	3.25	7,888	3.05	5,655	1.1	320	1.45	520	2	1,130	1.85	1,090	2.15	2,090	2.75		15
16	2.7		2.35				2.5	2,490	3.05	5,655	2.9	4,000	1.15	350	1.35	460	1.9	950	1.9	1,240	2.05	1,720	2.65		16
17	2.75		2.25				2.6	2,870	3.05	5,655	2.85	3,780	1.05	280	1.45	520	1.8	800	1.9	1,240	2.25	2,510	2.7		17
18	2.7		2.15				2.6	2,870	3.1	6,222	2.85	3,780	1	250	1.65	637	1.85	875	1.8	960	2.25	2,510	2.5		18
19	2.75		2.25				2.5	2,490	3	5,111	3	5,111	1.15	350	1.8	800	1.9	950	1.8	960	2.35	2,960	2.55		19
20	2.75		2.45				2.55	2,680	3.05	5,655	2.9	4,000	1.25	405	1.85	875	1.85	875	1.8	960	1.9	1,240	2.55		20
21	2.8		2.35				2.7	3,225	3.05	5,655	2.85	3,780	1.5	575	2	1,130	1.85	875	1.8	960	2	1,550	2.55		21
22	2.8		2.4				2.55	2,680	3	5,111	2.8	3,560	1.85	875	1.9	950	1.9	950	1.9	1,240	1.85	1,090	2.5		22
23	2.8		2.4				2.65	3,048	2.9	4,000	2.7	3,225	2.2	1,600	1.8	800	1.8	800	2	1,550	1.95	1,390	2.6		23
24	2.8		2.45				2.55	2,680	2.9	4,000	2.8	3,560	2.45	2,335	1.9	950	1.85	875	1.9	1,240	2.15	2,090	2.65		24
25	2.85		2.35				2.7	3,225	2.85	3,780	2.95	4,555	2.05	1,240	1.75	738	1.9	950	1.9	1,240	2.25	2,510	2.75		25
26	2.9		2.3				2.65	3,048	2.8	3,560	2.85	3,780	1.95	1,040	1.6	600	2	1,130	1.9	1,240	2.3	2,730	2.75		26
27	2.9		2.35				2.55	2,680	2.7	3,225	2.8	3,560	1.85	875	1.5	550	2	1,130	1.9	1,240	2.4	3,200	2.7		27
28	2.9		2.3				2.55	2,683	2.7	3,225	2.8	3,560	1.7	675	1.6	600	2.05	1,200	1.8	960	2.4	3,200	2.75		28
29	2.9		2.4				2.65	3,048	2.55	2,680	2.9	4,000	2	1,350	1.55	575	2.05	1,200	1.95	1,390	2.4	3,200	2.85		29
30	2.9		2.65				2.65	3,048	2.55	2,680	2.55	2,680	1.95	1,040	1.5	550	2	1,130	1.95	1,390	2.4	3,200	2.85		30
31	2.85							2.6	2,870				2.15	1,475	1.6	600				2.25	2,510		2.85		31
Mean								2,823		4,558		6,334		1,134		919		857		1,150		2,166			
Run-off in acre-ft.								117,600		280,300		376,900		69,700		56,500		51,000		70,700		123,900			
Maximum								3,560		7,890		16,300		2,680		1,860		1,130		2,510		3,720			
Minimum								1,860		2,680		2,680		250		460		550		730		730			

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	2.9	.....	2.8	.....	2.5	2,341	2.3	2,645	3.2	8,231	4.1	21,527	2.95	6,197	1.85	1,090	1.75	850	1.6	615	2	2,624	2.3	.....	1
2	2.85	.....	2.8	.....	2.6	3,689	2.55	3,515	3.2	7,812	4.05	20,296	2.8	5,716	1.85	1,090	1.75	850	1.5	486	1.9	1,510	2.2	.....	2
3	3	.....	2.8	.....	2.75	4,457	2.75	4,457	3.25	8,650	4.05	20,796	2.75	5,556	1.85	1,090	1.7	743	1.5	486	1.8	963	2.3	.....	3
4	2.95	.....	2.9	.....	2.85	5,296	2.75	4,457	3.5	11,854	3.9	18,603	2.65	5,235	1.9	1,510	1.65	679	1.5	486	1.7	743	2.3	.....	4
5	3	.....	2.85	.....	2.9	5,712	2.85	5,294	3.5	11,854	3.9	18,603	2.55	4,914	1.95	2,306	1.6	615	1.5	486	1.7	743	2.3	.....	5
6	3.05	.....	2.85	.....	3	6,554	2.7	4,038	3.45	10,328	3.9	18,603	2.5	4,754	2.45	4,593	1.65	679	1.5	486	1.8	963	2.3	.....	6
7	3.1	.....	2.85	.....	3.05	6,973	2.75	4,457	3.5	11,854	4.1	21,527	2.4	4,432	2.4	4,432	1.55	550	1.5	486	1.9	1,510	2.3	.....	7
8	3.15	.....	2.85	.....	3.1	7,392	2.85	5,296	3.5	11,854	4.25	23,720	2.35	4,272	2.5	4,754	1.45	422	1.5	486	1.9	1,510	2.3	.....	8
9	3.2	.....	2.95	.....	3.15	7,812	2.75	4,457	3.65	12,849	4.15	21,849	2.45	4,593	2.4	432	1.45	422	1.5	486	2	2,624	2.4	.....	9
10	3.15	.....	3.05	.....	3.25	8,650	2.65	3,863	3.6	14,217	3.9	17,172	2.25	4,112	2.45	593	1.5	486	1.65	679	2	2,624	2.45	.....	10
11	3.15	.....	3.15	.....	3.35	9,489	2.65	3,863	3.6	14,217	3.85	16,637	2.1	3,174	2.5	754	1.65	679	1.55	550	1.9	1,510	2.5	.....	11
12	3.15	.....	3.15	.....	2.45	3,167	2.8	4,896	3.65	14,948	3.85	16,637	2.15	3,409	2.35	272	1.7	743	1.65	679	1.9	1,510	2.55	.....	12
13	3.25	.....	3.2	.....	2.5	3,341	2.65	3,863	3.65	14,948	3.55	13,490	2.35	4,272	2.2	3,643	1.6	615	1.7	743	1.9	1,510	2.7	.....	13
14	3.25	.....	3.25	.....	2.4	2,993	2.55	3,515	3.6	14,217	3.4	11,916	2.1	3,174	2.3	4,112	1.65	679	1.65	679	1.9	1,510	2.7	.....	14
15	3.15	.....	3.25	.....	2.3	2,645	2.45	3,167	3.65	14,948	3.25	9,768	2.05	2,940	2.45	4,593	1.6	615	1.7	473	1.9	1,510	2.8	.....	15
16	3.2	.....	3.35	.....	2.25	2,471	2.25	2,471	3.45	10,328	3.35	11,393	2.05	3,409	2.35	4,272	1.65	679	1.8	963	1.9	1,510	2.8	.....	16
17	3.2	.....	3.35	.....	2.4	2,993	2.25	2,411	3.55	13,486	3.35	11,393	2.15	3,409	2.35	4,272	1.65	679	1.85	1,090	2	2,624	2.9	.....	17
18	3.2	.....	3.35	.....	2.55	3,515	2.3	2,645	3.45	10,328	3.45	12,442	2.2	3,643	2.35	4,272	1.65	743	1.9	1,343	2	2,624	2.9	.....	18
19	3.2	.....	3.35	.....	2.25	2,471	2.3	2,654	3.45	10,328	3.35	11,393	2.15	3,409	2.3	4,112	1.6	615	1.9	1,510	2	2,624	2.9	.....	19
20	3.2	.....	3.35	.....	2.2	2,296	2.35	2,819	3.55	13,486	3.35	11,390	2.35	4,272	2.2	3,643	1.6	615	1.8	963	2	2,624	2.9	.....	20
21	3.15	.....	3.35	.....	2.45	3,167	2.55	3,515	3.5	11,854	3.35	11,393	2.15	3,409	2.15	3,643	1.6	615	1.8	963	2	2,624	2.9	.....	21
22	3.05	.....	3.25	.....	2.4	3,167	2.65	3,863	3.55	13,486	3.35	11,393	2.25	3,878	2.15	4,309	1.6	615	1.7	743	1.95	2,306	2.9	.....	22
23	2.9	.....	3.15	.....	2.4	2,993	2.85	5,296	3.55	13,486	3.35	11,393	2.4	4,432	1.95	2,306	1.55	550	1.7	743	2	2,624	2.8	.....	23
24	2.8	.....	3.05	.....	2.3	2,645	3.05	6,973	3.6	14,217	3.25	9,768	2.05	2,940	1.9	1,510	1.5	486	1.7	743	2	2,624	2.8	.....	24
25	2.8	.....	2.25	.....	2.05	2,122	3.25	8,650	3.7	15,679	3.25	9,768	2	2,940	1.85	1,090	1.55	550	1.7	743	1.8	963	2.7	.....	25
26	2.9	.....	2.3	.....	2.05	1,774	3.45	10,328	3.85	17,872	3.1	7,331	1.95	2,306	1.85	1,090	1.55	550	1.85	1,090	1.95	2,306	2.7	.....	26
27	2.9	.....	2.3	.....	2.2	2,296	3.55	13,486	4	20,063	3.05	6,518	1.95	2,306	1.8	963	1.5	486	1.9	1,510	2.15	3,409	2.7	.....	27
28	2.9	.....	2.3	.....	2.1	1,948	3.35	9,489	4.05	20,796	3.1	7,331	1.95	2,306	1.8	963	1.5	486	2.2	3,643	2.3	4,112	2.6	.....	28
29	2.9	.....	.....	.....	2.05	1,774	3.25	8,650	4.05	20,796	3.05	6,518	1.95	2,306	1.75	850	1.5	486	2.25	3,878	2.3	4,112	2.7	.....	29
30	2.9	.....	.....	.....	2.15	2,112	3.2	8,231	4.1	21,527	3.05	6,518	1.9	1,510	1.7	743	1.5	486	2.2	3,643	2.3	4,112	2.8	.....	30
31	2.9	.....	.....	.....	2.2	2,296	.....	.....	4.05	20,796	.....	.....	1.85	1,090	1.7	743	.....	.....	2.05	2,940	.....	.....	2.8	.....	31
Mean	.....	.....	.....	.....	3,921	.....	5,110	.....	13,981	.....	13,920	.....	3,688	.....	2,876	.....	609	.....	1,132	.....	2,152	.....	.....	.....	.....
Run-off in acre-ft.	.....	.....	.....	.....	241,100	.....	304,100	.....	859,700	.....	828,300	.....	226,800	.....	176,800	.....	36,200	.....	69,600	.....	128,000	.....	.....	.....	.....
Maximum	.....	.....	.....	.....	9,490	.....	13,490	.....	21,530	.....	23,720	.....	6,200	.....	4,750	.....	850	.....	3,880	.....	4,110	.....	.....	.....	.....
Minimum	.....	.....	.....	.....	1,770	.....	2,470	.....	7,810	.....	6,520	.....	1,090	.....	743	.....	422	.....	486	.....	743	.....	.....	.....	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.8	2.9	2.4	2.3	3.138	2.4	3.133	2.55	3.785	3.75	12.084	2.65	4.217	1.5	548	.35	150	1.2	324	1.7	697	2.2	2,275	1	
2	2.9	2.9	2.9	2.4	2,707	2.6	4,001	3.5	9,559	2.6	4,001	1.9	1,270	.45	70	1.1	289	1.7	697	2.2	2,275	2			
3	2.9	2.8	2.8	2.15	2,064	2.25	2,491	2.7	4,433	3.35	8,785	2.6	4,001	1.95	1,413	.55	90	1	254	1.7	697	2.2	2,275	3	
4	2.8	2.9	2.9	2.15	2,064	2.15	2,064	2.7	4,433	3.3	8,528	2.7	4,433	1.75	840	.55	90	1.1	289	1.7	697	2.3	2,707	4	
5	2.9	2.9	2.9	2.1	1,844	2.3	2,707	2.7	4,433	3.25	8,270	2.55	3,785	1.45	510	.65	120	1.1	289	1.8	984	2.3	2,707	5	
6	2.9	2.9	2.9	2.05	1,700	2.4	4,433	2.7	4,433	3.2	7,786	2.5	3,570	1.4	473	.5	80	1.2	324	1.8	984	2.3	2,707	6	
7	2.9	2.9	2.9	2.05	1,700	2.3	2,707	2.75	4,648	3.2	7,786	2.45	3,354	1.5	548	.6	100	1.2	324	1.8	984	2.3	2,707	7	
8	3	3	3	2.15	2,064	2.35	2,922	2.7	4,433	3.1	6,817	2.25	2,491	1.4	473	.75	160	1.2	324	1.7	697	2.3	2,707	8	
9	3	3.05	3	2.25	2,491	2.25	2,491	2.7	4,433	3.1	6,817	2.2	2,275	1.3	399	.9	219	1.35	436	1.8	984	2.3	2,707	9	
10	2.9	3	3	2.25	2,491	2.05	1,700	2.7	4,433	3.1	6,817	2.5	3,570	1.2	324	1.2	324	1.3	399	1.65	660	2.3	2,707	10	
11	2.9	3.05	3.05	2.25	2,491	2.15	2,064	2.6	4,001	3.1	6,817	2.3	2,707	1.15	306	1.35	436	1.3	399	1.7	697	2.5	3,570	11	
12	2.8	3.2	3.2	2.25	2,491	2.25	2,491	2.6	4,001	3.1	6,817	3.4	3,138	1.1	289	1.65	660	1.35	436	1.8	984	2.5	3,570	12	
13	2.85	3.2	3.2	2.2	2,275	2.3	2,707	2.55	3,785	3.05	6,333	2.1	1,844	1	254	1.5	548	1.3	399	1.8	984	2.5	3,570	13	
14	2.9	3.25	3.25	2.15	2,064	2.2	2,275	2.5	3,570	3.25	8,270	2	1,557	.9	219	1.7	697	1.3	399	1.8	984	2.5	3,570	14	
15	2.8	3.2	3.2	2.25	2,491	2.1	1,844	2.55	3,785	3.15	7,302	1.9	1,270	.8	178	1.8	984	1.3	399	1.7	697	2.5	3,570	15	
16	2.85	3.05	3.05	2.15	2,064	2.2	2,275	2.65	4,217	3.05	6,333	1.8	984	.8	179	1.7	697	1.3	399	1.85	1,127	2.5	3,570	16	
17	2.8	2.9	2.9	2.2	2,275	2	1,557	3.1	6,817	3	5,848	1.85	1,127	.8	179	1.65	660	1.3	399	1.8	984	2.5	3,570	17	
18	2.9	2.85	2.85	2.1	1,844	2.05	1,700	2.9	5,296	3.05	6,333	1.8	984	.8	179	1.5	548	1.3	399	1.9	2,270	2.5	3,570	18	
19	2.85	2.8	2.8	2.25	2,491	2.05	1,700	2.8	4,864	3.1	6,817	1.8	984	.75	160	1.4	473	1.4	473	2.1	1,844	2.5	3,570	19	
20	2.8	2.8	2.8	2.25	2,491	2.15	2,064	2.8	4,864	3.15	7,302	1.7	697	.6	100	1.3	399	1.5	548	2	1,557	2.5	3,570	20	
21	2.8	2.8	2.8	2.3	2,707	2.15	2,064	2.9	5,296	3.1	6,817	1.7	697	.6	100	1.25	362	1.5	548	1.85	1,127	2.6	3,570	21	
22	2.8	2.7	2.7	2.15	2,064	2.15	2,064	2.85	5,080	3	5,848	1.7	697	.6	100	1.2	324	1.5	548	1.8	984	2.6	3,570	22	
23	2.85	2.65	2.65	2	1,557	2.25	2,491	2.9	5,296	3	5,848	1.6	715	1	254	1.2	324	1.6	622	1.8	984	2.6	3,570	23	
24	2.9	2.55	2.55	2	1,551	2.2	2,275	2.8	4,864	3	5,848	1.6	622	1.05	271	1.2	324	1.6	622	1.8	984	2.6	3,570	24	
25	2.8	2.5	2.5	1.95	1,413	2.25	2,491	2.8	4,864	3	5,848	1.65	660	.85	199	1.2	324	1.6	622	1.8	984	2.6	3,570	25	
26	2.9	2.45	2.45	1.9	1,270	2.35	2,922	2.9	5,296	2.9	5,296	1.6	622	.75	160	1.2	324	1.65	660	1.8	984	2.6	3,570	26	
27	2.9	2.45	2.45	2.05	1,700	2.55	3,785	3.1	6,817	2.9	5,296	1.6	622	.7	140	1.2	324	1.7	697	1.8	984	2.7	3,570	27	
28	2.9	2.35	2.35	2.25	2,491	2.55	3,785	3.1	6,817	2.85	5,080	1.45	510	.55	90	1.1	289	1.7	697	2.1	1,844	2.7	3,570	28	
29	2.9	2.45	2.45	2.35	3,354	2.55	3,785	3	5,848	2.7	4,433	1.3	399	.65	120	1.1	289	1.7	697	2.2	1,557	2.7	3,570	29	
30	2.9	2.45	2.45	2.35	2,922	2.55	3,785	3.95	14,646	2.75	4,648	1.2	324	.55	90	1.15	306	1.7	697	2.2	1,557	2.7	3,570	30	
31	2.9	2.45	2.45	2.3	2,707	2.45	3,785	3.6	10,074	2.75	4,648	1.2	324	.55	90	1.15	306	1.7	697	2.2	1,557	2.7	3,570	31	
Mean					2,226		2,540		5,276		6,878		1,846		353		352		471		1,088				
Run-off in acre-ft.					136,900		151,100		324,400		409,300		113,500		21,700		20,900		29,000		64,700				
Maximum					3,350		3,780		14,650		12,030		4,430		1,410		984		697		2,270				
Minimum					1,270		1,550		3,570		4,430		324		80		70		254		660				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1	
2	2.7	3	3		3	7,440	2.3	3,831	3.5	10,591	3.55	10,961	4.1	15,428	2.6	5,197	1.9	2,215	1.55	976	1.9	1,270	2.1	2.1	2	
3	2.7	3	3		3	7,440	2.1	3,023	3.5	10,591	3.7	12,146	4.2	16,257	2.7	5,757	1.8	1,845	1.5	850	2	1,557	2.1	2.1	3	
4	2.7	3	3		3	7,440	2.8	6,317	3.4	9,851	3.8	12,962	4.15	15,839	2.7	5,757	1.8	1,845	1.6	875	2	1,557	2.05	2.05	4	
5	2.7	3	3		3	7,440	2.7	5,757	3.25	8,837	3.8	12,962	4.1	15,428	2.8	6,317	1.8	1,845	1.7	713	2.05	1,700	2.05	2.05	5	
	2.7	3	3		3	7,440	2.6	5,197	3.15	8,277	3.7	12,146	4.1	15,428	2.8	6,317	1.65	1,322	1.7	713	2.1	1,844	2.3	2.3	6	
6	2.7	3	3		3	7,440	2.8	6,317	3	7,437	3.6	11,738	4.1	15,428	2.7	8,557	1.65	1,322	1.7	713	2.15	2,059	2.5	2.5	7	
7	2.7	3	3		3	7,440	2.85	6,597	3	7,437	3.65	11,738	4	14,606	2.65	5,477	1.7	1,495	1.7	713	2.1	1,844	2.5	2.5	8	
8	2.7	3	3		3	7,440	2.55	4,917	3.25	8,837	3.8	12,962	4	14,606	2.5	4,637	1.7	1,495	1.6	622	2.1	1,844	2.5	2.5	9	
9	2.7	3	3		3	7,440	2.5	4,637	3.15	8,277	3.9	13,782	4	14,606	2.5	4,637	1.6	1,149	1.6	622	2.1	1,844	2.4	2.4	10	
10	2.7	3	3		3.1	8,000	2.5	4,637	2.8	6,317	3.9	13,782	4	14,606	2.4	4,235	1.55	1,019	1.6	622	2.1	1,844	2.4	2.4	11	
11	2.7	3	3		3.1	8,000	2.5	4,637	2.75	6,037	3.85	13,373	3.9	13,784	2.3	3,831	1.6	1,149	1.6	622	2.1	1,844	2.4	2.4	12	
12	2.7	3	3		3.1	8,000	2.6	5,197	2.6	5,197	3.75	12,554	3.65	11,738	2.3	3,831	1.6	1,149	1.7	713	2.1	1,844	2.4	2.4	13	
13	2.7	3	3		3.1	8,000	2.65	5,477	2.6	5,197	3.65	11,738	3.6	11,330	2.35	4,033	1.6	1,149	1.7	713	2	1,557	2.4	2.4	14	
14	2.7	3	3		3.1	8,000	2.5	4,637	2.5	4,637	3.55	10,961	3.6	11,330	2.5	4,637	1.6	1,149	1.65	667	2	1,557	2.4	2.4	15	
15	2.7	3	3		3.1	8,000	2.45	4,437	2.6	5,197	3.6	11,330	3.55	10,961	2.5	4,637	1.55	1,019	1.8	984	2.05	1,700	2.4	2.4	16	
16	2.7	3	3		3.1	8,000	2.5	4,637	2.65	5,477	3.7	12,146	3.4	9,851	2.4	4,235	1.5	889	1.8	984	2.1	1,844	2.4	2.4	17	
17	2.7	3	3		3	7,420	3.25	8,837	2.85	6,397	3.95	14,195	3.3	9,111	2.35	4,033	1.5	889	1.8	984	2.05	1,700	2.4	2.4	18	
18	2.7	3	3		2.8	6,320	3.3	9,111	3.05	7,717	4	14,606	3.2	8,557	2.5	4,235	1.5	889	1.8	984	2	1,557	2.4	2.4	19	
19	2.8	3	3		2.8	6,320	3.35	9,481	3.05	7,717	4.2	16,257	3.25	8,837	2.3	3,831	1.5	889	1.8	984	2.1	1,844	2.4	2.4	20	
20	2.8	3	3		2.8	6,320	3.4	9,851	3.4	9,851	4.15	15,838	3.3	9,111	2.3	3,831	1.5	889	1.8	984	2.1	1,844	2.4	2.4	21	
21	2.8	3	3		2.5	4,640	3.3	9,111	3.6	11,350	3.95	14,195	3.3	9,111	2.3	3,831	1.6	875	1.8	984	2.2	2,275	2.4	2.4	22	
22	2.8	3	3		2.8	6,320	3.1	7,997	3.75	12,554	3.85	13,373	3.2	8,557	2	2,619	1.6	875	1.8	984	2.2	2,275	2.4	2.4	23	
23	2.8	3	3		2.8	6,320	3.1	7,997	3.75	12,554	3.9	13,784	3.15	8,277	2	2,619	1.5	850	1.8	984	2.1	1,844	2.4	2.4	24	
24	2.8	3	3		3.05	7,720	3.1	7,997	3.8	12,967	3.85	13,373	3	7,437	1.9	2,215	1.5	850	1.8	984	2.1	1,844	2.45	2.45	25	
25	3	3	3		2.9	6,880	3	7,437	3.7	12,146	4.15	15,839	2.95	7,157	1.9	2,215	1.5	850	1.8	984	2.1	1,844	2.55	2.55	26	
26	3	3	3		2.6	5,200	2.9	6,877	3.8	12,962	4.3	17,072	2.8	6,317	1.9	2,215	1.6	875	1.9	1,270	2.1	1,844	2.7	2.7	27	
27	3	3	3		2.6	5,200	3	7,437	3.85	13,373	4.45	18,305	2.8	6,317	1.9	2,215	1.6	875	2	1,557	2.1	1,844	2.7	2.7	28	
28	3	3	3		2.55	4,920	3	7,437	3.85	13,373	4.4	17,894	2.85	6,597	1.85	2,030	1.55	976	2	1,557	2.2	2,275	2.7	2.7	29	
29	3	3	3		2.5	4,640	3	7,437	3.75	12,554	4.3	17,072	2.7	5,757	1.75	1,668	1.6	875	2	1,557	2.1	1,844	2.7	2.7	30	
30	3	3	3		2.55	4,920	3.1	7,997	3.5	10,591	4.25	16,661	2.7	5,757	1.65	1,322	1.6	875	2	1,557	2.1	1,844	2.7	2.7	31	
31	3	3	3		2.6	5,200	3	7,437	3.5	10,591	4.25	16,661	2.55	4,917	1.75	1,668	1.6	875	2	1,557	1.95	413	2.65	2.65	31	
Mean						6,814				6,509				10,743						1,148						
Run-off																					964					
in acre-ft.						419,000				387,300				823,800						68,300						
Maximum						8,000				9,850				18,300						59,300						
Minimum						4,640				3,020				10,960						1,270						

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.4		2.4		2.7	4,050	2.3	2,150	3.2	7,800	3.45	10,500	2.85	5,025	1.85	1,035	.8	70	1.4	465	1.8	950	2.1		1
2	2.35		2.05		2.85	5,025	2.3	2,150	3.15	7,350	3.5	11,100	2.6	3,400	1.75	875	.8	70	1.4	465	1.8	950	2.2		2
3	2.2		2.2		3	6,100	2.2	1,800	3.35	9,350	3.5	11,100	2.6	3,440	1.6	670	.8	70	1.4	465	1.8	950	2.2		3
4	2.35		2.2		3.1	6,900	2.25	1,975	3.3	8,800	3.65	13,500	2.6	3,440	1.45	515	.8	70	1.4	465	1.8	950	2.25		4
5	2.4		2.25		3.1	6,900	2.3	2,150	3.35	9,350	3.8	16,000	2.9	5,350	1.5	565	.8	70	1.3	370	1.7	800	2.1		5
6	2.5		2.35		3.1	6,900	2.4	2,520	3.5	11,100	3.85	16,850	2.8	4,700	1.8	950	.8	70	1.3	370	1.7	800	2.3		6
7	2.6		2.35		2.8	4,700	2.5	2,950	3.5	11,100	3.85	16,850	2.8	4,700	2.3	2,150	.8	70	1.3	370	1.75	875	2.35		7
8	2.7		2.25		2.8	4,700	2.6	3,440	3.4	9,900	3.4	17,700	2.65	3,745	1.95	1,220	.8	70	1.3	370	1.8	950	2.3		8
9	2.8		2.2		2.8	4,700	2.5	2,950	3.25	8,300	3.8	16,000	2.45	2,735	1.95	1,220	.8	70	1.3	370	1.8	950	2.3		9
10	2.8		2.3		2.8	4,375	2.5	2,950	3.2	7,800	3.75	15,150	2.2	1,800	1.65	735	.95	125	1.3	370	1.7	800	2.2		10
11	2.8		2.4		2.75	2,950	2.55	3,195	3.2	7,800	3.7	14,300	2.15	1,680	1.6	670	.9	100	1.3	370	1.75	875	2.25		11
12	2.9		2.4		2.5	2,150	2.6	3,440	3.2	7,800	3.6	12,700	2.1	1,560	1.6	670	.9	100	1.4	370	1.85	1,035	2.3		12
13	2.9		2.3		2.3	1,680	2.65	3,745	3.25	8,300	3.5	11,100	2.2	1,800	1.5	565	.9	100	1.4	465	1.8	950	2.3		13
14	2.9		2.3		2.15	1,320	2.6	3,440	3.3	8,800	3.5	11,100	2.1	1,560	1.45	515	.8	70	1.4	465	1.85	1,035	2.3		14
15	2.95		2.6		2	2,520	2.7	4,050	3.3	8,800	3.55	11,900	2.1	1,560	1.3	370	.8	70	1.4	465	1.9	1,120	2.2		15
16	3		2.4		2.4	4,700	2.9	5,350	3.3	8,800	3.6	12,700	2.15	1,680	1.3	370	.9	100	1.4	465	1.85	1,035	2.2		16
17	3		2.3		2.8	2,150	2.9	5,350	3.3	8,800	3.6	12,700	2.1	1,560	1.25	325	.9	100	1.5	465	1.8	950	2.2		17
18	3		2.35		2.3	1,560	2.9	5,350	3.45	10,500	3.6	12,700	2.05	1,440	1.15	245	.95	125	1.5	565	1.75	875	2.2		18
19	2.85		2.4		2.1	1,320	2.7	4,700	3.6	14,300	3.45	10,500	1.9	1,120	1.1	210	.95	125	1.5	565	1.6	670	2.2		19
20	2.85		2.5		2	2,520	2.65	4,050	3.6	14,300	3.3	8,800	2	1,320	.95	125	.95	125	1.5	565	1.7	800	2.3		20
21	2.75		2.5		2.4	2,950	2.7	3,745	3.5	11,100	3.3	8,800	2	1,320	1.45	515	.9	100	1.5	565	1.95	1,220	2.3		21
22	2.6		2.65		2.5	2,520	2.8	4,050	3.5	11,100	3.2	7,800	2	1,320	1.5	565	.9	100	1.5	565	1.95	1,220	2.4		22
23	2.65		2.7		2.4	2,950	2.9	4,700	3.45	10,500	3.1	6,900	2.1	1,560	1.35	415	.9	100	1.5	670	2	1,320	2		23
24	2.7		2.8		2.5	2,735	3	5,350	3.4	9,900	3.1	6,900	2.35	2,335	1.5	565	.9	100	1.6	800	1.95	1,220	2		24
25	2.5		2.8		2.45	2,520	3.1	6,100	3.4	9,900	3.1	6,900	2.35	2,335	1.45	515	.9	100	1.7	670	2.2	1,800	2.4		25
26	2.55		2.7		2.4	2,520	3.1	6,900	3.35	9,350	3	6,100	2.5	2,950	1.4	465	.9	100	1.6	670	2.25	1,975	2.45		26
27	2		2.6		2.4	2,150	3.1	6,900	3.3	8,800	2.9	5,350	2.35	2,335	1.2	280	1	150	1.6	670	2.3	2,150	1.85		27
28	1.7		2.6		2.3	2,150	3.05	6,500	3.25	8,300	2.9	5,350	2	1,320	1.2	280	1.1	210	1.6	670	2.15	1,680	1.8		28
29	1.9		2.3		2.3	1,975	2.9	5,350	3.2	7,800	2.8	4,700	2	1,320	1	150	1.1	210	1.65	735	2	1,320	1.6		29
30	2		2.25		2.25	2,150	2.95	5,725	3.2	7,800	2.8	4,700	2	1,320	1	150	1.25	325	1.7	800	2	1,320			30
31	2				2.3				3.4	9,900			1.9	1,120	.9	100			1.75	875					31
Mean						3,082		4,108		9,468		10,858		2,255		581		111		533		1,114			
Run-off in acre-ft.						189,500		244,000		582,200		548,100		138,600		35,700		66,000		32,800		66,500			
Maximum						6,900		6,900		14,300		17,700		5,350		2,150		325		875		2,150			
Minimum						1,320		1,800		7,350		4,700		1,120		100		70		370		670			

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1901

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1	2.1		2.6		3.15		2.6		2.3		2.7		2.7		1.1		2.10		1.95		1.6		670		1		
2	2.1		2.6		3.4		2.6		2.9		2.6		2.6		1.1		2.10		1.95		1.6		670		2		
3	2.2		2.5		3.15		2.6		3.05		2.6		2.6		1		1.50		1.85		1.6		670		3		
4	2.2		2.45		3.2		2.4		3		2.4		2.4		.9		1.00		1.95		1.65		670		4		
5	2.5		2.4		3.2		2.25		1,800		3.1		6,900		3.4		9,900		2.5		2,950		.8		75	5	
6	2.5		2.5		2.7		4,050		2.3		2,150		3.1		6,900		3.5		11,100		2.5		2,950		.8	75	6
7	2.5		2.55		2.3		2,150		2.25		2,150		3.05		6,900		3.5		11,100		2.45		2,950		.75	50	7
8	2.5		2.6		2.5		2,950		2.1		1,560		3		6,100		3.6		12,700		2.4		2,520		.8	75	8
9	2.5		2.6		2.5		2,950		2.1		1,560		3		6,100		3.6		12,700		2.35		2,520		.95	100	9
10	2.5		2.6		2.4		2,520		2.3		2,150		3		6,100		3.6		12,700		2.25		2,150		.85	100	10
11	2.5		2.6		2.5		2,950		2.65		3,440		3.1		6,900		3.6		12,700		2.2		1,800		1.1	210	11
12	2.5		2.5		2.3		2,150		2.8		4,700		3		6,100		3.9		17,700		2.2		1,800		1.4	465	12
13	2.5		2.5		2.2		1,800		2.65		4,050		3		6,100		3.4		9,900		2.15		1,800		1.4	465	13
14	2.5		2.45		2.15		1,800		2.5		2,950		3		6,100		3.45		11,100		2		1,320		1.25	370	14
15	2.55		2.55		2.3		2,150		2.5		2,950		3		6,100		3.5		11,100		1.95		1,320		1.2	280	15
16	2.6		2.8		2.2		1,800		2.4		2,520		3		6,100		3.5		11,100		1.8		950		1.3	370	16
17	2.6		2.9		2.2		1,800		2.4		2,520		2.9		5,450		3.45		11,100		1.8		943		1.3	370	17
18	2.6		2.9		2.2		1,800		2.35		2,520		2.9		5,450		3.35		9,900		1.8		950		1.3	370	18
19	2.7		2.9		2.5		2,950		2.3		2,150		2.9		5,450		3.3		8,800		1.8		950		1.25	370	19
20	2.7		2.85		2.15		1,800		2.3		2,150		2.95		5,450		3.6		12,700		1.8		950		1.2	230	20
21	2.7		2.8		2.2		1,800		2.3		2,150		3		6,100		3.35		9,900		1.6		670		1.65	670	21
22	2.85		2.9		2.2		1,800		2.2		1,560		3.05		6,100		3.2		7,800		1.35		800		1.7	800	22
23	2.9		3		2.2		1,800		2.2		1,800		3.4		9,900		3.45		9,900		1.2		230		1.45	565	23
24	3		3		2.2		1,800		2.15		1,800		3.45		11,100		3.25		8,800		1.1		210		1.4	465	24
25	3		3		2.1		1,560		2.1		1,560		3.5		11,100		3.2		7,800		1		150		1.3	370	25
26	3		2.9		2.1		1,560		2.1		1,560		3.6		12,700		3.05		6,900		1.5		565		1.25	370	26
27	3		2.95		2.2		1,800		2.1		1,560		3.6		12,700		3		6,100		1.4		465		1.3	370	27
28	2.95		3		2		1,320		2.15		1,560		3.7		14,300		2.9		5,450		1.25		370		1.35	370	28
29	2.9		3		2		1,320		2.3		2,150		3.65		14,300		2.8		4,700		.9		100		1.4	465	29
30	2.8		3		2		1,800		2.3		2,150		3.5		11,100		2.7		4,050		.8		75		1.4	800	30
31	2.75		3		3.2		7,800						3.4		9,900						1.15		210		1.7	800	31
Mean							3,260				2,408				7,680				9,733				1,508			346	
Run-off in acre-ft.							200,400				143,300				472,200				579,100				92,700			21,300	
Maximum							9,900				4,700				14,300				17,700				4,050			800	
Minimum							1,320				1,560				2,150				4,050				75			50	

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.7				2.8	1,000	2.4	2,070	2.6	3,870	3.5	10,600	2.83	5,320	1.73	810	1.32	75	2.12	1,720	2.02	1,415	2.22	2,070	1
2	2.5				2.5	1,000	2.3	1,720	2.6	3,870	3.55	11,350	2.85	5,320	1.75	810	1.78	925	2.08	1,720	1.98	1,415	2.25	2,260	2
3	2.45				1.5	1,000	2.3	2,460	2.58	3,870	3.65	12,900	2.98	6,310	1.9	1,150	1.48	250	1.98	1,415	1.95	1,280	2.25	2,260	3
4	2.5				1.6	1,000	2.3	2,460	2.75	4,720	3.57	11,350	2.88	5,640	1.95	1,230	1.62	475	1.92	1,150	1.95	1,280	2.08	1,720	4
5	2.65				1.6	1,000	2.3	2,460	2.85	5,320	3.43	10,000	2.8	5,010	1.77	810	1.48	250	1.75	810	1.98	1,415	2.05	1,560	5
6	2.7				2.2	1,000	2.3	2,460	2.78	4,720	3.33	8,980	2.95	5,980	2.2	2,070	1.35	85	1.75	810	2	1,415	2.1	1,720	6
7	2.7				2.35	1,500	2	1,415	2.63	4,140	3.3	8,560	3.13	7,400	1.85	1,040	1.3	75	1.78	925	2	1,415	2.12	1,720	7
8	2.65				2.4	1,500	2.5	1,500	2.63	4,140	3.28	8,160	2.97	5,980	1.8	925	1.18	50	1.7	700	1.98	1,415	2.2	2,070	8
9	2.75				2.6	1,500	2.1	1,720	3.03	6,310	3.45	10,000	3	6,310	1.67	590	1.12	40	1.82	925	1.9	1,150	2.22	2,070	9
10	2.8				2.55	2,000	2.25	2,260	3.03	6,310	3.57	10,600	2.8	5,320	1.6	475	1.05	35	1.8	925	1.9	1,150	2.3	2,460	10
11	2.8				2.45	2,000	2.1	1,720	2.93	5,640	3.6	12,100	2.92	5,640	1.55	370	1.05	35	1.78	925	1.92	1,150	2.3	2,460	11
12	2.8				2.3	1,500	1.95	1,280	2.83	5,320	3.55	11,350	2.8	5,010	1.43	175	1.08	40	1.78	925	2	1,415	2.3	2,460	12
13	2.8				2.35	1,500	2.1	1,720	2.8	5,010	3.85	16,500	2.73	4,720	1.44	175	1.05	35	1.62	475	2.15	1,890	2.55		13
14	2.8				2.5	1,500	2.15	1,890	2.78	5,010	3.92	17,500	2.7	4,420	1.35	85	1.05	35	1.62	475	2.08	1,720	2.6		14
15	2.8				2.5	1,500	2.1	1,720	2.73	4,720	3.75	14,600	2.68	4,420	1.3	75	1.08	40	1.62	475	1.98	1,415			15
16	2.9				2.4	1,500	1.95	1,280	2.68	4,420	3.75	14,600	2.5	3,360	1.27	65	1.05	35	1.65	590	2.02	1,415			16
17	2.9				2.4	1,500	2.05	1,560	2.75	4,720	3.6	12,100	2.4	2,890	1.23	65	1.05	35	1.65	590	2.15	1,890			17
18	2.9				2.35	1,500	2	1,415	2.75	4,720	3.5	10,600	2.35	2,680	1.25	65	1.05	35	1.85	1,040	2.1	1,720			18
19	2.85				2.25	1,200	1.85	1,000	2.68	4,420	3.5	10,600	2.25	2,260	1.25	65	1	25	2.08	1,720	2.1	1,720			19
20	2.7				2.3	1,200	1.9	1,150	2.68	4,420	3.45	10,000	2.4	2,890	1.2	50	.95	20	2.02	1,415	2.02	1,415			20
21	2.7				2.3	1,200	1.95	1,280	2.73	4,720	3.45	10,000	2.27	2,260	1.15	45	1.08	40	1.98	1,415	2	1,415			21
22	2.8				2.35	1,200	2.05	1,560	2.8	5,010	3.4	9,400	2.2	2,070	1.12	40	1.08	40	1.9	1,150	2	1,415			22
23	2.8				2.5	1,200	1.95	1,280	2.8	5,010	3.45	10,000	2.22	2,070	1.1	40	1.15	45	1.82	925	2.05	1,560			23
24	2.8				2.4	1,200	1.95	1,280	2.85	5,320	3.38	9,400	2.25	2,260	1.05	35	1.08	40	1.92	1,150	2.12	1,720			24
25	2.8				2.2	1,100	1.9	1,150	2.85	5,320	3.33	8,980	2.1	1,720	1.1	40	1.08	40	2.1	1,720	2.15	1,890			25
26	2.75				2.2	1,150	2.2	2,070	3.58	11,350	3.25	8,160	2.05	1,560	1.1	40	1.08	40	2.1	1,720	2.1	1,720			26
27	2.65				2.3	1,415	2.3	2,460	3.35	8,980	3.15	7,400	2	1,410	1.1	40	1.15	45	2.08	1,720	2.08	1,720			27
28	2.6		3.75		2.4	1,720	2.3	2,460	3.25	8,160	3.05	6,660	1.95	1,280	1.1	40	1.4	100	2.08	1,720	2.05	1,560			28
29	2.7		3.3		2.2	1,415	2.35	2,680	3.25	8,160	3.05	6,660	2.02	1,415	1.2	50	1.48	250	2.08	1,720	2	1,415			29
30	2.55				2.25	1,415	2.45	3,130	3.3	8,560	3.05	6,660	1.8	925	1.18	50	1.8	925	2.1	1,720	2.05	1,560			30
31					2.4	2,070			3.3	8,560			1.75	810	1.2	50			2.05	1,560					31
Mean					1.370		1.938		5,644		10,260		3,681		399		159		1,167		1,517				
Run-off in acre-ft.					84,200		115,300		347,000		610,500		226,300		24,500		9,500		71,800		80,300				
Maximum					2,070		3,360		11,370		15,480		7,260		2,070		910		1,790		1,900				
Minimum					1,000		1,030		3,770		6,670		800		32		20		538		1,150				

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.58	3.17	3.18	7,848	3.65	13,355	3.4	11,870	2.52	4,330	1.6	530	1.48	200					1
2							2.62	3,418	3.32	9,304	3.88	16,608	3.65	14,815	2.48	4,080	1.55	445	1.5	220					2
3							2.65	3,610	3.45	10,800	3.88	16,608	3.68	15,184	2.45	3,900	1.5	360	1.55	250					3
4							2.75	4,275	3.38	9,976	3.88	16,608	3.38	11,654	2.3	3,050	1.52	394	1.55	250					4
5					2.85	4,995	2.7	3,930	3.38	9,976	3.68	13,760	3.28	10,586	2.22	2,642	1.62	572	1.58	280					5
6					2.75	4,275	2.62	3,418	3.4	10,200	3.58	12,424	3.38	11,654	2.22	2,642	1.7	740	1.65	370					6
7					2.02	3,418	2.48	2,590	3.45	10,800	3.5	11,400	3.18	9,578	2.18	2,448	1.72	792	1.65	370					7
8					2.5	2,700	2.38	2,046	3.48	11,160	3.48	11,160	3.1	8,810	2.15	2,310	1.7	740	1.65	370					8
9					2.4	2,150	2.25	1,390	3.5	11,400	3.52	11,656	3	7,910	2.18	2,448	1.7	740	1.6	300					9
10					2.45	2,425	2.28	1,534	3.4	10,200	3.72	14,312	2.9	7,070	2.1	2,080	1.72	792	1.65	370					10
11					2.5	2,700	2.38	2,046	3.48	11,160	3.88	16,608	2.82	6,438	2.05	1,875	1.7	700	1.72	500					11
12					2.4	2,150	2.35	1,890	3.5	11,900	4.02	18,706	2.8	6,280	2	1,670	1.65	600	1.72	500					12
13					2.4	2,150	2.42	2,260	3.5	11,900	3.95	17,650	2.75	5,910	2.2	2,540	1.65	600	1.65	370					13
14					2.5	2,700	2.45	2,425	3.55	12,040	3.9	16,900	2.62	4,988	2.2	2,540	1.75	700	1.65	370					14
15					2.42	2,260	2.5	2,700	3.4	10,200	4.08	19,624	2.52	4,330	2.18	2,448	1.85	1,000	1.82	670					15
16					2.68	3,802	2.45	2,425	3.35	9,640	3.28	23,010	2.42	3,720	2.02	1,752	1.68	600	1.78	600					16
17					2.82	4,770	2.45	2,425	3.2	8,040	4.08	20,326	2.32	3,160	2	1,670	1.58	370	1.72	470					17
18					2.7	3,930	2.48	2,590	3.18	7,848	3.9	17,970	2.2	2,540	1.92	1,382	1.68	530	1.78	580					18
19					2.82	4,770	2.45	2,425	3.18	7,848	3.8	16,690	2.28	2,948	1.95	1,490	1.82	800	1.8	620					19
20					2.65	3,610	2.42	2,260	3.23	8,872	3.75	16,060	2.42	3,720	2.02	1,752	1.9	950	1.9	850					20
21					2.5	2,700	2.8	9,620	3.2	8,040	3.6	14,200	2.5	4,200	1.85	1,155	1.8	700	1.9	850					21
22					2.4	2,150	2.8	4,620	3.1	7,080	3.6	14,200	2.42	3,720	1.8	1,000	1.75	600	1.9	850					22
23					2.32	1,734	2.72	4,068	3.05	6,635	3.62	14,446	2.28	2,948	1.75	870	1.8	700	1.85	700					23
24					2.28	1,534	2.9	5,370	3.1	7,080	3.62	14,446	2.28	2,948	1.68	698	1.72	530	1.9	850					24
25					2.28	1,534	3.12	7,272	3.23	8,872	3.92	12,098	2.3	3,050	1.68	698	1.68	470	1.98	1,060					25
26					2.25	1,390	3.1	7,080	3.23	8,872	3.32	11,006	2.18	2,448	1.7	740	1.62	360	1.9	830					26
27					2.25	1,390	3	6,190	3.82	15,732	3.28	10,586	2.2	2,540	1.68	698	1.58	320	1.9	830					27
28					2.38	2,046	2.9	5,370	3.65	13,355	3.18	9,578	2.18	2,448	1.65	635	1.55	260	2	1,100					28
29					2.4	2,150	3.05	6,635	3.78	15,158	3.12	9,002	2.38	3,490	1.6	530	1.6	330	2.05	1,270					29
30					2.38	2,046	3.22	8,248	3.7	14,030	3.22	9,974	2.1	2,080	1.75	870	1.6	330	2.02	1,160					30
31					2.4	2,150				3.65	13,355		2.18	2,448	1.72	792		2	1,100						31
Mean					2,727		3,743		10,270		14,700		5,983		1,862		585		616						
Run-off																									
in acre-ft.						167,800		222,700		631,500		874,700		367,900		114,500		34,800		37,900					
Maximum						4,990		8,250		15,730		23,010		15,180		4,330		1,000		1,270					
Minimum						1,390		1,890		6,630		9,000		2,080		530		260		200					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1907

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1								2.38	4,200	3.4	12,800	3.32	10,600	2.3	2,900	1.95	2,100	2.25	3,600	1.8	800	1.8	800		1
2							2.4	4,350	3.4	12,800	3.3	10,300	2.4	3,500	2.1	2,800	2.1	2,800	1.8	800	1.8	800		2	
3							2.6	5,500	2.48	4,900	3.4	12,800	3.3	10,200	2.45	3,800	2	2,350	2.1	2,800	1.8	800	1.8	800	3
4							2.6	5,500	2.5	5,000	3.4	12,800	3.3	10,100	2.4	3,600	2	2,350	2.1	2,800	1.8	800	1.8	800	4
5							2.6	5,500	2.42	4,500	3.4	12,800	3.3	10,000	2.3	3,100	1.9	1,900	2	2,300	1.82	850	1.9	1,100	5
6							2.6	5,500	2.38	4,300	3.3	11,800	3.3	9,900	2.2	2,600	1.85	1,700	1.9	1,600	1.88	1,000	1.9	1,100	6
7							2.58	5,350	2.3	3,800	3.3	11,800	3.3	9,800	2.1	2,200	1.8	1,500	1.9	1,600	1.88	1,000	1.9	1,100	7
8							2.55	5,150	2.35	4,100	3.3	11,800	3.25	9,200	2.1	2,200	1.8	1,500	1.85	1,450	1.9	1,100	1.95	1,100	8
9							2.5	4,800	2.4	4,400	3.4	12,800	3.25	9,100	2.1	2,250	1.78	1,450	1.82	1,400	2	1,400	1.95	1,100	9
10							2.45	4,500	2.4	4,400	3.5	13,800	3.22	8,800	2	1,900	1.75	1,300	1.8	1,300	2	1,400	2	1,100	10
11							2.45	4,500	2.38	4,300	3.4	12,800	3.18	8,350	1.9	1,500	1.75	1,300	1.8	1,300	2	1,400	2	1,100	11
12							2.9	4,200	2.3	3,800	3.4	12,800	3.15	8,000	1.88	1,450	1.72	1,250	1.8	1,300	2	1,400	2	1,100	12
13							2.35	4,000	2.2	3,350	3.6	14,900	3	6,700	1.86	1,350	1.7	1,200	1.8	1,300	2.05	1,400	2	1,100	13
14							2.4	4,300	2.2	3,350	3.6	14,900	3	6,650	1.85	1,400	1.7	1,200	1.8	1,100	2.15	1,400	2	1,100	14
15							2.35	4,000	2.2	3,350	3.6	14,900	3	6,500	1.85	1,400	1.7	1,200	1.8	1,100	2.2	1,400	2	1,100	15
16							2.35	4,000	2.2	3,350	3.6	14,900	3	6,400	1.85	1,400	1.7	1,200	1.8	1,100	2.2	1,400	2	1,100	16
17							2.38	4,150	2.2	3,350	3.4	12,800	3	6,500	1.85	1,500	1.7	1,200	1.8	1,100	2.3	1,400	2	1,100	17
18							2.35	4,000	2.2	3,350	3.35	12,300	2.95	6,200	1.85	1,500	1.7	1,200	1.8	1,100	2.3	1,400	2	1,100	18
19							2.35	4,000	2.2	3,350	3.25	11,200	2.9	5,900	1.85	1,500	1.7	1,200	1.8	1,100	2.25	1,400	2	1,100	19
20							2.35	4,000	2.25	3,600	3.15	10,100	2.88	5,800	1.85	1,500	1.7	1,200	1.8	1,100	2.2	1,400	2	1,100	20
21							2.52	5,000	2.58	5,600	3.1	9,650	2.8	5,300	1.85	1,500	1.7	1,200	1.8	1,100	2.15	1,400	2	1,100	21
22							2.55	5,200	2.78	7,100	3.15	10,000	2.7	4,800	1.85	1,500	1.65	1,000	1.8	1,000	2.05	1,400	2	1,100	22
23							2.6	5,600	2.82	7,400	3.25	10,600	2.65	4,500	1.85	1,600	1.65	1,000	1.85	1,100	2	1,400	2	1,100	23
24							2.6	5,600	2.9	8,100	3.3	11,100	2.62	4,300	1.85	1,600	1.6	900	1.85	1,100	2	1,400	2	1,100	24
25							2.6	5,600	2.95	8,500	3.32	11,200	2.6	4,300	1.85	1,600	1.6	900	1.9	1,300	2	1,400	2	1,100	25
26							2.62	5,800	2.9	8,100	3.55	13,500	2.48	3,600	1.85	1,600	1.65	1,000	1.85	1,100	2	1,400	2	1,100	26
27							2.58	5,500	2.9	8,100	3.6	13,900	2.45	3,500	1.85	1,650	1.8	1,500	1.85	1,100	2	1,400	2	1,100	27
28							2.52	5,100	2.95	8,500	3.6	13,800	2.42	3,400	1.88	1,750	1.85	1,700	1.85	1,100	1.9	1,100	2	1,100	28
29							2.42	4,500	3.2	10,800	3.55	13,200	2.4	3,350	2.02	2,400	1.95	2,100	1.82	1,050	1.9	1,100	2	1,100	29
30							2.4	4,350	3.42	13,000	3.38	11,300	2.35	3,100	2.05	2,600	2.1	2,800	1.8	800	1.9	1,100	2	1,100	30
31									3.4	12,800			2.3	2,900	2	2,300			1.8	800					31
Mean								4,830		5,710		12,500		6,710		2,020		1,510		1,450		1,240		1,010	
Run-off in acre-ft.								268,000		351,000		744,000		413,000		124,000		89,800		89,200		73,800		28,000	
Maximum								5,800		13,000		14,900		10,600		3,800		2,800		3,600		1,400		1,100	
Minimum								4,000		3,350		9,650		2,900		1,350		900		800		800		800	

[145] Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1908

6 Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					2.2	1,670	2.2	1,820	2.1	1,440	4.1	17,100	2.9	4,900	1.7	780	1.7	320	1.45	220	1.9	740	1.8	780	1
2					2.2	1,670	2.2	1,820	2.25	2,000	4.1	17,100	2.9	4,900	1.7	780	1.7	320	1.4	180	1.95	850	1.8	780	2
3					2.25	1,860	2.1	1,450	2.3	2,240	4	15,900	2.85	4,500	1.6	460	1.7	380	1.4	160	2	990	1.8	780	3
4					2.3	2,080	2.1	1,450	2.4	2,700	4.7	25,500	2	750	1.5	310	1.6	270	1.35	130	2	1,100	1.8	780	4
5					2.3	2,080	2.1	1,450	2.5	3,270	4.5	22,600	2	750	1.5	310	1.6	270	1.35	130	2	1,100	1.8	780	5
6					2.3	2,080	2.1	1,450	2.6	3,850	4.55	23,300	2.3	1,650	1.5	310	1.4	140	1.35	130	2	1,100	1.8	670	6
7					2.3	2,080	2.2	1,820	2.5	3,270	3.6	11,200	2.2	1,200	1.5	310	1.35	140	1.4	160	2	1,100	1.8	670	7
8					2.25	1,860	2.2	1,820	2.5	3,270	3.2	7,300	2	700	1.7	630	1.3	120	1.45	180	2	1,100	1.8	670	8
9					2.2	1,670	2.1	1,450	2.45	3,000	3.1	6,550	2	700	1.6	460	1.2	70	1.55	250	2	1,160	1.8	670	9
10					2.05	1,150	2.1	1,450	2.4	2,700	3	5,800	2	700	1.6	460	1.2	70	1.6	300	2	1,160	1.8	670	10
11					2.25	1,860	2.1	1,580	2.4	2,450	3	5,800	2	700	1.6	360	1.3	130	1.6	300	2	1,160	1.9		11
12					2.4	2,550	2.1	1,580	2.5	3,100	3	5,800	2.4	2,000	1.6	360	1.3	130	1.6	300	2.6	4,000	1.9		12
13					2.3	2,080	2.1	1,580	2.6	3,700	3.25	7,800	2.5	2,450	1.6	360	1.3	130	1.6	300	2.3	2,300	2		13
14					2.3	2,080	2.1	1,580	2.7	4,300	3	5,800	2.5	2,450	1.6	360	1.4	190	1.6	300	2.1	1,600	2		14
15					2.1	1,300	2.1	1,580	2.6	3,700	3	5,800	2.2	1,530	1.6	360	1.4	200	1.6	270	2	270	2		15
16					1.9	750	2.1	1,580	2.4	2,450	3	5,800	2.2	1,530	1.6	360	1.4	200	1.6	270	2	1,250	2.1		16
17					1.9	750	2.1	1,580	b		3.05	6,200	2.1	1,180	1.6	360	1.4	200	1.55	240	2	1,250	2.1		17
18					1.9	850	2.1	1,580	b		3.35	8,700	2	1,120	1.6	360	1.4	200	1.55	240	2.1	1,600	2.2		18
19					2.1	1,450	2.1	1,580	b		3	5,800	2	1,120	1.6	270	1.4	200	2.5	3,200	2.3	2,600	2.3		19
20					2.25	2,030	2.1	1,580	b		3	5,800	2	1,120	1.9	780	1.5	270	2.6	3,800	2.4	3,150	2.3		20
21					2.2	1,830	2.1	1,580	3.4	9,400	3	5,800	2	1,120	1.9	780	1.4	200	2.6	3,800	2.5	3,750	2.4		21
22					2.05	1,280	2.1	1,580	3.4	9,400	2.85	4,550	2	1,120	1.8	570	1.4	180	2.35	2,350	2.6	4,400	2.4		22
23					2.1	1,450	2.1	1,580	3.65	12,000	3.15	7,000	1.9	1,070	1.8	570	1.4	180	2.15	1,520	2.5	3,750	2.4		23
24					2.1	1,450	1.9	940	3.6	11,500	3	5,600	1.9	1,070	1.8	570	1.4	180	2.1	1,350	2.4	3,150	2.4		24
25					2.1	1,450	1.9	940	3.6	11,500	3.35	8,450	1.9	1,070	1.8	570	1.4	180	1.95	900	2.3	2,600	2.4		25
26					2.1	1,450	2	1,230	3.6	11,500	3	5,600	1.8	800	2	1,050	1.4	180	1.9	740	2.2	2,130	2.4		26
27					2.15	1,630	2.1	1,580	3.6	11,500	3	5,600	1.75	900	2	860	1.3	150	1.8	530	2.1	1,720	2.4		27
28					2.2	1,820	2.1	1,580	3.6	11,500	3.2	7,200	1.8	1,050	2	860	1.3	150	1.8	530	2	1,370	2.4		28
29					2.2	1,820	2.1	1,580	3.6	11,500	3	5,600	1.8	1,050	2	860	1.4	180	1.9	740	1.9	1,050	2.4		29
30					2.2	1,820	2.2	1,960	3.6	11,200	3	5,600	1.8	1,050	1.8	460	1.4	180	1.9	740	1.85	900	2.4		30
31					2.2	1,820			3.7	12,300			1.8	1,050	1.8	460			1.85	630			2.4		31
Mean					1,670		1,540		6,320	9,220		1,530		527		190		803		1,850		725			
Run-off in acre-ft.					103,000		91,600		338,000	549,000		94,100		32,400		11,300		49,400		110,000		14,400			
Maximum					2,550		1,960		12,300	25,500		4,900		1,050		380		3,800		4,400		780			
Minimum					750		940		1,440	4,550		700		270		70		130		740		670			

[a] Gage heights for August and September, uncertain. [b] High water May 17-20, no readings.

Daily Gage Height (in feet) and Discharge (in second-feet) of North Platte River, at North Platte, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1					3.1	1,200	2.9	850	2.8	600	2.5	480	2.7	480	2.7	400	2.5	320	2.5	562	3.15	900	3.45	2,050	1	
2					3.2	1,400	2.7	850	2.9	650	2.5	480	2.6	565	2.7	400	2.5	320	2.9	625	3.15	900	3.55	2,350	2	
3					3.35	1,780	2.9	850	3.1	925	2.45	440	2.85	650	2.65	370		360	3.05	925	3.65	1,950		2,420	3	
4					3.2	1,400	2.8	750	3.3	1,300		370	2.85	650	2.55	300	2.65	400	3.25	1,300	4	3,080	3.6	2,500	4	
5						1,650	2.8	750	3.4	1,750	2.3	300	2.8	590	2.5	270	2.6	350	3.55	1,850		2,390	3.6	2,500	5	
6			4.45		3.4	1,900	2.7	650	3.5	2,000	2.1	200	2.7	480		1,110	2.6	350	3.85	3,000	3.55	1,700	3.65	2,680	6	
7			4.4		3.4	1,900	2.7	650		2,320	1.95	150	2.6	370	3.65	1,950	2.5	300	3.65	2,300	3.4	1,550	3.7	2,850	7	
8			4.35		3.5	2,200	2.6	550	3.8	2,650	1.95	150	2.25	160	3.55	1,700	2.5	300		2,080	3.55	1,900	3.6	2,500	8	
9			4.3		3.3	1,650		525	3.65	2,150	2	175		305	3.5	1,570	2.5	300	3.5	1,850	3.6	2,050	3.65	2,680	9	
10			4.2		3.2	1,400	2.6	500	3.5	1,750	1.95	150	2.7	450	3.35	1,240		300	3.35	1,500	3.55	1,900		2,680	10	
11			4.0		3.2	1,400	2.4	375	3.7	2,150		175	2.6	370	3.05	740	2.5	300	3.3	1,400	3.45	1,650	3.65	2,680	11	
12						1,400	2.25	275	3.7	2,150	2.05	200	2.5	300	3	670	2.5	300	3.35	1,500		1,480	3.6	2,500	12	
13			3.9	3,550	3.2	1,400	2.1	225	3.3	1,200	1.75	110	2.7	450		860	2.5	300	3.3	1,400	3.3	1,300	3.55	2,350	13	
14			3.8	3,200	3.2	1,400	2	175		988	1.7	100	2.7	450	3.25	1,050	2.5	250	3.35	1,400	3.2	1,100	3.45	2,050	14	
15			3.8	3,200	3.3	1,650	1.95	165	3.05	775	1.7	100	2.7	450	3.45	1,600	2.65	350		1,720	3.35	1,300	3.45	2,050	15	
16			3.8	3,200	3.3	1,650		170	3	700	1.7	100		410	3.3	1,250	2.6	325	3.6	2,030	3.45	1,650	3.4	1,900	16	
17			3.7	2,850	3.1	1,200		175	3.1	850	2.55	495	2.6	370	3.1	900		325	3.6	2,030	3.6	2,250		1,900	17	
18			3.7	2,850	2.95	975	2.25	275	2.8	475		338	2.6	370	3.1	900	2.6	325	3.6	2,030	3.6	2,250	3.4	1,900	18	
19				2,680		988	2.4	375	2.55	275	2.05	180	2.5	300	3.05	825	2.55	300	3.55	1,900		2,250	3.4	1,900	19	
20			3.6	2,500	3	1,050	2.3	300	2.4	200	2	160	2.5	300		938	2.5	250	3.45	1,620	3.6	2,250	3.45	2,050	20	
21			3.55	2,350	3.1	1,200	2.2	250		185	2.95	825	2.4	225	3.15	1,050	2.4	200	3.4	1,400	3.6	2,250	3.5	2,200	21	
22			3.4	1,900	3.2	1,400	2	175	2.4	170	2.7	260	2.55	300	2.95	750	2.45	230		1,520	3.5	2,000	3.6	2,500	22	
23			3.5	2,200	3.2	1,900		182	2.4	225	3.6	3,150		975	2.9	675	2.5	250	3.5	1,650	3.35	1,600	3.7	2,850	23	
24			3.45	2,050	3.75	3,020	2	90	2.5	300	3.6	2,150	3.5	1,650	2.8	550	2.5	250	3.45	1,530	3.2	1,250		2,4	24	
25			3.5	2,200	2.85	3,250	2	90	2.5	375		2,080	3.45	1,530	2.75	540	2.6	280	3.45	1,530	3	900		25	25	
26				1,920		3,080	2	90	2.3	350	3.55	2,000	3.3	1,200	2.7	480	2.6	280	3.45	1,330	3.1	1,050		26	26	
27			3.3	1,650	3.75	2,900	2	90	2.45	450	3.4	1,600	3.35	1,300		480	2.7	360	3.4	1,430	3	1,050		27	27	
28			3.4	1,900	3.5	2,050	2.2	160		610	3.3	1,380	3.2	1,130	2.7	480	2.75	400	3.4	1,430	3.1	1,200		28	28	
29				3,35	1,650	2.3	200	2.8	770	3.05	925	3.15		950	2.6	400	2.8	500		1,290	3.25	1,520		29	29	
30				3.1	1,050		400	2.65	600	2.75	540			750	2.6	400	2.8	500	3.3	1,150	3.35	1,780		30	30	
31					2.95	900			2.6	560			2.85	550	2.6	400			3.25	1,050					31	31
Mean				2,510		1,680		370		982		629		614		814		3,190		1,560		1,680		2,390		
Run-off in acre-ft.				79,600		103,000		22,000		60,400		37,400		37,800		50,100		19,000		95,900		100,000		147,000		
Maximum				3,550		3,250		850		2,650		2,150		1,650		1,950		500		3,000		3,080		2,850		
Minimum				1,650		900		90		170		100		160		400		200		562		900		1,900		

BIRDWOOD CREEK NEAR SUTHERLAND

Location. Section 2 Township 14 North, Range 33 West of Sixth P. M.

Record Available. From August 31, 1913 to September 30, 1914.

Drainage Area. Not measured.

Gage. The gage is a $\frac{3}{4}$ inch board 4 inch wide and 6 feet long graduated to feet and tenths. It is located about 15 feet east of the west end of the bridge and 3 feet north on a wooden wall built to protect the west bank of the creek.

Bench Mark. One Bench mark has been established at the north west corner of the bridge on the floor of the bridge. Elevation, 8.41 feet above zero of the gage.

Channel. The bed of the creek is covered with fine sand. There is one channel at low water and two at high water. Most of the stream flows under the bridge near the west bank.

Discharge Measurements. Made from highway bridge.

Actual Discharge Measurements of Birdwood Creek River, at Sutherland

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1913		Feet	Sec.-ft.	1914		Feet	Sec.-ft.
Aug. 26	C. J. McNamara . .	1.3	135	Jan. 31	C. J. McNamara . .	2.95	166
31	do	1.	174	Mar. 1	do	2.97	177
Sept. 13	do	3.	171	April 5	do	2.95	174
26	do	3.05	172	May 7	do	2.88	162
Oct. 19	do	3.05	172	June 12	do	3.1	206
Nov. 2	do	3.05	171	22	do	3.25	233
Dec. 12	do	3.	174	July 14	do	2.89	150
				Sept. 5	do	3.	152

NOTE—The difference between the gage heights of the first two readings and the following is accounted for by the moving of the gage up stream where more accurate readings were found possible.

PLATTE RIVER AT LEXINGTON

Location. At highway bridge three miles south of town, in Section 20, Township 9 North, Range 21 West.

Records Available. From April 2, 1902 to November 30, 1906.

Gage. Two gages of the standard chain and weight type with their zero at the same elevation have been maintained, one near each bank of the river. The wind sometimes created a difference of more than a foot between the two gages. The mean of the two was used in computation of daily discharges.

Bench Marks. No. 1. The top of the east end of the first cap at the north end of the bridge. Elevation, 7.66 feet above zero of the gage and 2,392 feet above sea level. No. 2. The top of the up stream end of the cap of the third pier from the north end of the bridge marked with a cross. Elevation 9.22 feet above zero of the gage.

Channel. Straight at the gaging section. The bed is of shifting sand. There are two channels at this section.

Accuracy. Affected by shifting sand and shallow water at low stages.

Actual Discharge Measurements of Platte River, at Lexington

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1902		Feet	Sec.-ft.	1904		Feet	Sec.-ft.
April 8	B. E. Forbes	...	2,293	May 27	do	4.1	10,606
May 2	H. O. Smith	2.85	2,693	June 14	do	4.48	19,100
May 22	do	3.37	7,764	July 27	do	3.32	1,690
June 3	do	3	3,037	Sept. 1	do	2.99	125
June 18	do	3.25	6,555	1905			
July 5	do	2.98	4,993	April 11	G. W. Bates	3.5	2,473
July 19	do	2.3	1,002	May 16	do	4.25	13,320
July 29	do	2.25	185	June 12	H. C. Gardner	4.93	25,330
Aug. 22	do	2	...	July 10	do	3.93	11,010
Aug. 23	do	1.2	...	July 18	do	3.38	2,882
Sept. 25	do	2	2,829	Aug. 2	do	3.48	2,877
Nov. 8	do	2.7	1,127	Aug. 23	H. O. Smith	...	...
1903				Sept. 6	H. C. Gardner	3.25	990
May 8	J. C. Stevens	3.35	7,437	Sept. 20	F. S. Dobson	3.1	760
June 12	do	3.36	4,749	1906			
June 28	do	3.62	9,645	April 10	F. S. Dobson	3.83	6,568
July 9	do	3.25	5,188	May 10	do	3.93	6,558
July 23	do	2.77	2,075	July 8	Arthur Dobson	3.83	4,913
Aug. 15	do	2.88	1,340	July 31	do	3.52	2,038
Aug. 23	do	2.52	250	Sept. 8	A. R. Wilson	3.38	780
Sept. 30	do	2.6	296	Oct. 19	Arthur Dobson	3.4	1,541
Sept. 30	W. C. Sturdevant	2.52	250	Nov. 10	do	3.78	4,925
Nov. 1	J. C. Stevens	2.8	1,218	1910			
1904				Aug. 10	U. S. R. S.	Est.	30
Mar. 1	J. C. Stevens	3.34	3,070	25	do	...	5
May 14	do	3.54	4,731				

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, near Lexington, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.95	3,895	3.25	5,232			2.35	565	1.7	2.45	836	2.7	1,226	2.8	2.8			1	
2							2.85	2,693	2.95	2,760			2		1.6	2.55	1,158	2.6	892	2.7	2.7			2	
3							2.8	2,400	2.9	2,400			1.95		1.5	2.55	1,124	2.65	1,022	2.3	2.3			3	
4							2.75	2,112	3	3,092			1.8		1.45	2.5	954	2.45	465	2.35	2.35			4	
5							2.85	2,760	2.9	3,160	3	5,140	1.8		1.4	2.5	920	2.6	836	2.25	2.25			5	
6							2.8	2,460	2.9	2,580	3	5,140	1.7		1.4		2.4	640	2.6	836	2.25	2.25		6	
7							2.9	3,092	2.55	2,340	2.9	4,290	1.65		1.35		2.45	780	2.75	1,302	2.25	2.25		7	
8							2,293	2.9	3,160	2.75	1,842	3.05	5,600	1.6	1.3		2.55	1,056	2.7	1,108	2.15	2.15		8	
9							2.7	1,950	3.15	3,432	2.7	2,820	1.85		1.2		2.5	892			2.25	2.25		9	
10							2.75	2,220			3	5,140	1.65		1.15		2.45	724			2.3	2.3		10	
11							2.75	2,280	3	3,500	2.9	4,373	1.6		1.1		2.7	1,596			2.3	2.3		11	
12							2.75	2,280	3.05	3,816	3	5,232	1.5		1.1		2.75	1,842			2.35	2.35		12	
13							2.9	3,228	3.4	7,204	3.05	5,692	1.45		1.1		2.75	1,788			2.3	2.3		13	
14							3.1	4,885	3.35	6,906	2.65	2,580	1.4		1.05		2.7	1,554			2.45	2.45		14	
15						2.7	2,220	3.4	7,714	3.15	5,232	2.8	3,579	1.4	1		2.65	1,302			2.5	2.5		15	
16						2.65	1,950	3.4	7,714	3.3	6,812	2.5	1,788	1.35	1		2.65	1,302			2.4	2.4		16	
17						2.65	1,950	3.95	14,672	3	4,211	2.5	1,788	1.3	1		2.6	1,056			2.5	2.5		17	
18						2.6	1,680	3.7	11,264	3.25	6,555	2.35	1,158	1.3	.95		2.65	1,260			2.5	2.5		18	
19						2.7	2,220	3.6	10,004	3.25	6,624	2.3	1,002	1.25	.95		2.65	1,260			2.6	2.6		19	
20						2.75	2,520	3.4	7,918	3.25	6,718	2.25	780	1.2	.9		2.8	1,896			2.7	2.7		20	
21						2.7	2,220	3.2	5,968	3.1	5,416	2.25	696	1.2	1.6		2.7	1,428			2.65	2.65		21	
22						2.6	1,680	3.35	7,408	3.35	7,918	2.15	367	1.2	2.1		2.6	1,056			2.6	2.6		22	
23						2.6	1,680	3.4	7,918	3.2	6,530	2.1	160	1.25	2.05		2.6	1,022			2.7	2.7		23	
24						2.75	2,520	3.3	6,812	3.4	8,644	2.05	32	1.3	2.25		367	2.6	1,022			2.7	2.7	24	
25						2.65	1,950	3.2	5,784	3.4	8,748	2		1.4	2.85	2,780	2.6	988			2.8	2.8		25	
26						2.6	1,680	3.2	5,692	3.1	5,876	2.4	696	1.45	2.35	615	2.6	988			2.7	2.7		26	
27						2.9	3,500	3.25	5,968	3.1	5,968	2.4	640	1.35	2.7	1,896	2.65	1,124			2.8	2.8		27	
28						2.7	2,220	3.3	6,342			2.35	465	1.3	2.7	1,842	2.8	1,734			2.85	2.85		28	
29						2.75	2,520	3.4	7,204			2.15	184	1.25	2.4	724	2.65	1,090			2.85	2.85		29	
30						2.8	2,820	3.35	6,530			2.4	590	2.15	275	2.45	836	2.7	1,260			3	3	30	
31								3.3	5,876			2.3	390	2			2.7	1,260			3	3		31	
Mean							2,208		5,490		5,135		2,234		27		302		1,191		961				
Run-off in acre-ft.							70,000		337,500		305,500		137,400		1,700		18,000		73,200		15,300				
Maximum							3,500		14,670		3,750		5,690		565		2,780		1,900		1,230				
Minimum							1,680		19,50		1,840						640		465						

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, near Lexington, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	3.05		3.8		4	2.9	3,500	3.35	7,510	3.2	4,715	3.45	8,020	2.95	2,220	2.8	920	2.55	390	2.85	1,470	2.45		1	
2	3		3.8		4	2.75	2,520	2.8	2,820	3.2	4,715	3.55	9,060	2.85	1,680	2.9	1,260	2.7	780	2.8	1,260	2.35		2	
3	3.15		3.75		4	2.7	2,220	3.35	7,510	3.2	4,290	3.55	8,540	2.9	1,950	2.8	920	2.75	920	2.85	1,470	3.2		3	
4	3.2		3.65		4.05	3	4,290	3.05	4,715	3.25	4,715	3.4	7,000	2.8	1,470	2.65	515	2.75	1,920	2.8	1,260	2.85		4	
5	3.2		3.75		4.05	2.9	3,500	3.1	5,140	3.2	4,290	3.5	8,020	2.65	920	2.5	160	2.8	1,260	2.75	1,090	3		5	
6	3.25		3.75		4.05	2.75	2,520	3.05	4,715	3.15	3,500	3.4	7,000	2.6	640	2.45	80	2.85	1,470	2.9	1,680	2.95		6	
7	3.15		3.7		4.1	2.75	2,520	3.35	7,510	3.1	3,160	3.35	6,530	2.55	515	2.5	160	2.75	1,090	2.95	1,950	3		7	
8	3.25		3.65		4.15	2.75	2,520	3.35	7,510	3.1	3,160	3.25	5,600	2.6	640	2.4		2.75	1,090	3	2,220	2.95		8	
9	3.35		3.65		4.3	2.8	2,820	3.35	7,510	3.1	3,160	3.1	3,895	2.6	640	2.5	160	2.75	1,090	2.75	1,090	3		9	
10	3.35		3.65		4.55	2.9	3,500	3.1	5,140	3	2,520	2.9	2,520	2.55	515	2.4		2.9	1,680	2.85	1,470	3		10	
11	3.4		3.7		4.65	3	4,290	3.05	4,715	3.15	3,500	2.9	2,520	2.7	920	2.55	275	2.8	1,260	2.9	1,680	3.1		11	
12	3.4		3.75		4.65	2.7	2,220	2.75	2,520	3.35	4,715	3	3,160	2.75	1,090	2.5	160	2.7	920	2.85	1,470	3.15		12	
13	3.5		3.75		4.75	2.75	2,520	3.05	4,715	3.25	3,895	3	3,160	2.8	1,260	2.35		2.6	640	2.9	1,680			13	
14	3.5		3.8		4.8	2.9	3,500	3.15	5,140	3.2	3,500	3.05	3,500	2.85	1,470	2.4		2.6	640	2.85	1,470			14	
15	3.45		3.8		4.9	2.9	3,500	3.1	4,715	3.3	4,290	3.1	3,895	2.9	1,470	2.4		2.75	1,090	2.8	1,260			15	
16	3.5		3.8		4.8	2.9	3,500	3.1	4,715	3.25	4,290	3	3,160	2.95	1,680	2.45	80	2.75	1,090	2.75	1,470			16	
17	3.5		3.8		4.2	3	4,290	3.35	7,000	3.5	6,530	3.05	3,500	2.9	1,470	2.45		2.75	1,090	2.55				17	
18	3.55		3.85		4.5	3.05	4,715	3.15	5,140	3.4	5,600	2.9	2,520	2.85	1,260	2.5	80	2.85	1,470	2.5				18	
19	3.6		3.8		4.1	2.8	2,820	3.15	4,715	3.45	6,530	2.85	1,950	2.8	1,090	2.55	160	2.8	1,260	2.6				19	
20	3.6		3.8		3.5	9,060	2.85	3,160	3	3,500	3.55	7,510	2.95	2,520	2.8	1,090	2.55	160	2.8	1,260	2.55				20
21	3.65		3.8		3.65	10,880	2.95	3,895	3.4	7,000	3.65	8,540	2.85	1,950	2.75	920	2.6	275	2.7	920	2.5				21
22	3.65		3.8		3.5	9,060	2.95	3,895	3.35	6,530	3.6	9,060	2.85	1,950	2.7	780	2.6	275	2.75	1,090	2.5				22
23	3.7		3.85		3.1	5,140	3.05	4,715	3.15	4,715	3.65	9,650	2.8	1,680	2.6	515	2.55	160	2.8	1,260	2.7				23
24	3.65		3.85		3.15	5,600	2.95	3,895	3.1	4,290	3.85	12,190	2.8	1,680	2.55	390	2.55	160	2.8	1,260	2.75				24
25	3.65		3.9		3	4,290	2.9	3,500	3.05	3,895	3.8	11,520	2.75	1,470	2.5	275	2.5	160	2.75	1,090	2.6				25
26	3.6		3.95		3	4,290	3.4	8,020	3.25	5,140	3.8	12,190	2.75	1,470	2.7	780	2.35	80	2.8	1,260	2.65				26
27	3.65		3.9		3.4	8,020	3.4	8,020	3.3	5,600	3.85	12,860	2.95	2,520	2.7	780	2.3		2.75	1,090	2.7				27
28	3.7		3.95		3.2	6,060	2.7	2,220	3.4	6,530	3.65	10,240	2.7	1,090	2.6	515	2.4	80	2.8	1,260	3.05				28
29	3.75				3.35	7,510	3.1	5,140	2.8	1,950	3.55	9,060	2.8	1,470	2.65	640	2.55	390	2.95	1,950	2.9				29
30	3.75				3.1	5,140	3.5	9,060	3.15	4,290	3.65	10,240	2.85	1,680	2.7	780	2.6	515	2.85	1,470	2.6				30
31	3.7				3	4,290			3.15	4,290			2.9	1,950	2.75	920			2.8	1,260					31
Mean						6,612			3,893		3,749		6,471		3,709		1,009		237		1,140		1,499		
Run-off in acre-ft.						157,400			231,600		230,500		385,000		228,000		62,000		14,100		70,100		17,600		
Maximum						10,880			9,060		7,500		12,860		9,060		2,220		1,260		1,950		2,220		
Minimum						4,290			2,220		1,950		2,520		1,090		275				390		1,090		

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, near Lexington, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									3.97	8,100	4.27	12,500	3.85	5,100	3.45	1,400	3.3	200	3.37	1,000	3.81	5,600			1
2									3.97	8,100	4.42	15,500	3.72	3,600	3.4	1,000	3.35	600	3.35	900	3.92	7,100			2
3									4	8,500	4.4	15,800	3.8	4,500	3.45	1,400	3.35	600	3.35	900	3.92	7,000			3
4									4	8,500	4.47	16,400	3.81	4,600	3.57	2,400	3.4	900	3.45	1,600	3.94	7,200			4
5							3.82	6,500	3.95	7,700	4.47	16,400	3.82	4,700	3.61	2,800	3.4	900	3.4	1,200	3.95	7,400			5
6							3.82	6,500	3.98	8,200	4.5	17,000	3.87	5,400	3.65	3,000	3.4	900	3.42	1,600	3.9	6,700			6
7							3.77	5,800	4.02	8,800	4.5	17,000	3.8	4,500	3.6	2,700	3.35	600	3.44	1,700	3.77	5,000			7
8							3.8	6,100	3.97	7,500	4.42	15,400	3.83	4,900	3.5	1,800	3.37	700	3.45	1,800	3.8	5,200			8
9							3.82	6,500	3.92	6,800	4.17	10,500	3.72	3,600	3.47	1,600	3.33	500	3.45	1,800	3.8	5,200			9
10							3.87	7,200	3.95	7,200	4.11	9,400	3.67	3,100	3.4	1,000	3.3	250	3.42	1,600	3.81	5,300			10
11							3.95	8,500	3.95	7,200	4.05	8,400	3.57	2,100	3.4	1,000	3.25	100	3.42	1,600	3.86	6,000			11
12							3.87	7,100	3.85	5,900	3.97	7,100	3.6	2,600	3.34	600	3.42	1,100	3.42	1,600	3.9	6,500			12
13							3.8	6,200	3.82	5,400	3.95	6,800	3.6	2,600	3.27	100	3.45	1,300	3.45	1,800	3.85	5,800			13
14							3.82	6,400	3.8	5,200	4	7,500	3.55	2,100	3.22	3.52	1,900	3.46	1,900	3.8	5,200			14	
15							3.87	6,800	3.82	5,400	4.05	8,400	3.56	2,200	3.2	3.5	1,800	3.47	2,000	3.8	5,200			15	
16							3.92	7,600	3.85	5,800	4.02	7,900	3.59	2,300	3.17	3.44	1,400	3.37	1,300	3.66	3,600			16	
17							3.85	6,600	3.75	4,500	3.97	7,000	3.55	2,100	3.2	3.37	900	3.5	2,400	3.8	5,200			17	
18							3.8	6,000	3.77	4,800	3.92	6,300	3.55	2,200	3.2	3.37	900	3.45	2,000	3.75	4,600			18	
19							3.8	6,000	3.72	4,000	3.87	5,500	3.55	2,200	3.15	3.4	1,100	3.5	2,400	3.7	4,000			19	
20							3.8	6,000	3.8	4,900	3.9	6,000	3.6	2,600	3.1	3.42	1,300	3.52	2,700	3.6	2,900			20	
21							3.85	6,600	3.87	5,900	3.85	5,300	3.62	2,800	3.07	3.45	1,500	3.52	2,700	3.6	2,900			21	
22							3.84	6,500	4	7,700	4.05	8,100	3.6	2,600	3.02	3.47	1,700	3.52	2,700	3.48	1,800			22	
23							3.82	6,100	4	7,700	4.07	8,500	3.57	2,400	3	3.46	1,600	3.57	2,900	3.32	600			23	
24							3.75	5,000	4.02	8,000	4.1	9,000	3.55	2,200	3.1	3.45	1,500	3.55	2,700	3.32	600			24	
25							3.72	4,600	4.07	8,100	4.12	9,300	3.55	2,200	3.25	100	3.4	1,100	3.52	2,400	3.46	1,700			25
26							3.7	4,400	4.2	11,100	4.15	9,900	3.65	3,200	3.3	200	3.42	1,400	3.55	2,700	3.6	3,000			26
27							3.8	5,600	4.16	10,400	4.1	9,000	3.6	2,700	3.35	600	3.4	1,200	3.55	2,700	3.65	3,400			27
28							3.87	6,600	4.12	9,700	4.07	8,500	3.55	2,300	3.42	1,100	3.42	1,400	3.75	4,800	3.6	3,000			28
29							3.95	7,700	4.55	18,000	4.02	7,800	3.52	2,000	3.27	100	3.4	1,200	3.95	7,600	3.42	1,300			29
30							3.96	8,000	4.15	10,200	3.97	7,000	3.5	1,900	3.27	100	3.38	1,100	3.77	5,000	3.25	200			30
31									4.2	11,000			3.52	2,000	3.25	100			3.9	6,800					31
Mean							6.420		7.770		9.970		3.010		7.45		1.060		2.482		4.210				
Run-off in acre-ft.							38,200		478,000		593,000		185,000		45,800		63,100		152,000		251,000				
Maximum							8,500		18,000		17,000		5,400		3,000		1,900		7,600		7,400				
Minimum							4,400		4,000		5,300		1,900				100		900		200				

PLATTE RIVER AT ELMCREEK

Location. About two miles south of town, on the west line of Section 4, Township 8 North, Range 18 West.

Records Available. During the open season of 1914.

Gage. Staff nailed to piling.

Bench Marks. No. 1. Southeast corner of iron frame of southeast steel piling of north span of bridge. Elevation, 100. No. 2. Top of south gate post of concrete, south of cement block house on north bank of river. Elevation, 102.47.

Gage datum assumed. Elevation of zero on gage 93.07.

Channel. Straight at gaging section.

Accuracy. Affected by shifting bed.

Actual Discharge Measurements of Platte River, at Elm Creek, During Year Ending September 30, 1914

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1914		Feet	Sec.-ft.	1914		Feet	Sec.-ft.
July 12	C. J. McNamara . .	.93	247	July 24	C. J. McNamara . .	1.5	1,181
15	do	.13	19	Aug. 19	do	1.36	555
27	C. P. Mason	1.4	664	Sept. 27	do	2	2,358



Platte River Gaging Station at Columbus

PLATTE RIVER AT COLUMBUS

Location. At Meridian Bridge three miles south of town on the line between Section 36, Township 17 North, Range 1 West and Section 31, Township 17 North, Range 1 East, about ten miles below the mouth of Prairie Creek and five miles above the mouth of Loup River.

Records Available. From June 4, 1895 to September 30, 1914.

Drainage Area. 56,900 square miles.

Gage. A chain gage was installed July 25, 1910. The bridge and the original gage previously used were washed out early in 1910. The new gage is at the same point as the old one, but its datum is slightly different. The datum of the original gage was unchanged up to the time of its destruction.

Bench Marks. A regulation iron post of the U. S. G. S., located forty-four and five-tenths feet east of the original gage, sixty feet north of the north end of the old bridge site and ten feet west of a cotton wood tree. Elevation, 7.06 feet above zero of the original gage and 6.48 feet above the chain gage on the new bridge.

Channel. Extremely shifting. One channel at high stages and several at low.

Straight for some considerable distance above and below the section.

Accuracy. Affected by shifting sand. However the frequency of gagings has made it possible to make fair estimates of discharge.

Discharge Measurements of Platte River, at Columbus

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1894		Feet	Sec.-ft.	1899		Feet	Sec.-ft.
Sept. 17	O. V. P. Stout	.....	Dry	April 9	Glen E. Smith	3.5	6,736
Oct. 6	do	.....	Dry	23	do	3.94	8,210
1896				May 7	do	4.14	10,121
June 5	O. V. P. Stout	3.19	4,320	23	do	3.81	7,878
14	do	4.11	10,307	4	do	4.01	9,294
30	do	3.35	4,450	18	do	4	9,279
July 22	E. T. Youngfelt	.....	14	29	do	4.82	18,631
Aug. 26	O. V. P. Stout	1.06	1	July 9	do	4.61	17,032
28	E. T. Youngfelt	.....	1	23	do	3.84	8,693
Sept. 6	O. V. P. Stout	.....	188	Aug. 6	do	4	9,430
25	E. T. Youngfelt	1.7	188	20	do	2.8	3,338
1897				Sept. 3	do	.9	93
Mar. 20	Adna Dobson	2.9	4,963	17	do	.....	15
April 29	do	3.93	8,608	Oct. 5	do	.....	8
May 5	do	3.79	7,322	15	do	.....	8
26	do	4.31	10,694	1900			
June 17	O. V. P. Stout	4.37	12,685	April 8	Adna Dobson	2.68	1,907
July 11	do	3.05	4,001	29	do	4.58	15,673
28	do	2.43	994	May 13	do	5.05	21,826
Aug. 17	do	3.18	3,343	27	do	4	18,557
29	do	2.5	1,649	June 10	do	4.95	15,696
Oct. 7	Adna Dobson	.....	2	24	do	4.3	12,519
Nov. 20	do	2.88	2,645	July 15	do	2.06	1,456
1898				29	do	.86	394
April 17	Glen E. Smith	2.37	1,994	Aug. 26	do	.86	149
May 9	do	3.65	5,612	Sept. 16	do	1.07	403
19	do	3.33	3,619	Oct. 31	do	1.72	998
29	do	3.82	7,104	Nov. 30	do	1.17	317
June 8	do	4.69	16,543	Dec. 19	do	1.33	569
19	O. V. P. Stout	3.95	9,123	1901			
July 10	Glen E. Smith	3	3,006	Mar. 31	do	2.5	1,816
29	do	.....	285	April 21	do	3.25	4,824
31	do	.....	45	May 10	do	3.44	6,799
Aug. 21	Adna Dobson	.....	2	June 7	B. E. Forbes	3.9	8,241
Sept. 4	do	.....	2	18	do	4.35	11,949
18	do	.....	10	July 14	O. V. P. Stout	.....	379
Oct. 16	do	.....	14	Aug. 11	do	.....	20
30	do	.....	13	Oct. 6	F. Dobson	.....	20
Nov. 11	Glen E. Smith	.....	16	Nov. 2	do	.....	978
20	do	.....	25	Dec. 1	do	.....	922

Actual Discharge Measurements of Platte River, at Columbus

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1902		Feet	Sec.-ft.	1910		Feet	Sec.-ft.
Mar. 8	F. Dobson	3.34	5,664	Oct. 1	A. A. Dobson	.....	110
April 13	do	2.22	996	Nov. 25	do	.....	28
May 11	do	2.37	1,695	1911			
May 22	J. C. Stevens	2.75	8,447	Mar. 23	do	1.45	803
June 1	do	3.38	5,852	April 25	A. B. Price	.....	73
July 11	do	3.55	6,992	May 18	do	1.15	1,090
Aug. 10	do	1.31	350	do 26	do	.8	387
do 26	do	1.6	546	Aug. 25	do	.9	761
Sept. 11	do	.5	5	Sept. 11	do	.1	98
Oct. 5	do	2.5	1,989	do 24	do	.3	30
1903				Oct. 4	do	1.8	37
April 3	J. C. Stevens	3.28	5,912	Nov. 10	do	3.15	1,400
May 7	do	3.54	5,420	1912			
June 11	do	3.55	4,934	April 26	C. G. Hrubesky	3.75	4,796
do 27	do	4.64	13,133	May 31	C. T. Graham	3.2	3,455
July 10	do	3.96	7,198	June 19	D. P. Weeks, Jr.	2.6	790
do 17	do	4.1	7,524	do 27	do	2.75	1,172
Aug. 1	do	3.87	5,864	July 3	do	2.55	579
do 18	do	3.62	2,898	do 10	do	1.9	170
Sept. 29	do	2	126	do 20	do	2.2	1,172
Oct. 31	do	2.82	878	do 23	do	2.65	815
1904				Aug. 3	do	3.5	3,227
May 8	do	3.85	5,747	Aug. 9	D. P. Weeks, Jr.	4.15	6,428
June 18	do	4.52	15,194	do 14	do	4.45	8,517
do 25	do	4.13	12,024	do 21	do	4	6,013
July 28	do	2.96	2,549	do 29	do	4	5,715
Sept. 2	O. H. Timmerman	1.91	60	Sept. 5	do	3.6	3,455
1905				do 22	do	4.15	7,006
Mar. 16	Adna Dobson	3.08	3,978	do 29	do	4	6,182
April 27	H. C. Gardner	4.45	13,630	Oct. 6	do	4.1	6,481
May 16	do	5.6	33,410	do 13	do	4.4	8,880
June 21	do	5.1	27,570	do 20	do	4.15	7,204
July 8	do	4.45	19,760	do 27	do	4.05	8,775
July 14	do	3.5	8,514	Nov. 2	do	4.05	6,220
Aug. 12	do	2.25	2,341	do 10	do	4.1	7,226
Sept. 27	F. S. Dobson	2.1	1,739	do 17	do	3.8	5,445
Oct. 13	do	1.8	891	do 29	do	3.25	2,787
1906				1913			
April 30	Geo. W. Bates	4.51	16,814	Mar. 19	D. P. Weeks, Jr.	3.6	5,113
May 3	do	5.12	19,770	April 6	do	3.9	5,115
June 8	Arthur Dobson	4.52	13,795	do 13	do	4.15	6,707
July 13	do	2.9	2,877	do 20	do	3.6	3,929
Aug. 28	do	1.24	51	do 27	do	3.85	5,155
Sept. 29	do	1.88	594	May 4	do	3.75	4,070
Oct. 27	do	2.98	3,157	do 11	do	3.4	3,003
Nov. 24	do	2.65	2,147	do 18	do	3.3	2,869
1907				do 25	do	3.6	3,066
April 3	Arthur Dobson	3.4	6,360	June 8	do	3.1	1,614
May 14	F. S. Dobson	2.6	1,880	do 18	do	1.6	14
June 20	Arthur Dobson	4.6	14,600	do 25	do	2.2	326
July 24	do	3.74	8,420	July 2	do	1.8	140
Aug. 23	do	1.75	758	July 10	do	.....	Dry
Sept. 14	do	1.6	514	Dry until	October		
Oct. 12	do	2.35	1,760	Nov. 23	Weeks-Jefferys	2.29	311
Nov. 26	G. W. Bates	2.8	2,890	do 29	W. M. Jefferys	2.55	844
1908				Dec. 12	do	3.4	2,742
Mar. 3	Dobson & Bates	3.66	6,660	do 20	do	.....	Frozen
April 20	Arthur Dobson	2.66	1,520	1914			
May 5	G. W. Bates	2.23	845	Mar. 17	D. P. Weeks, Jr.	3.15	3,397
June 10	Arthur Dobson	4.48	13,900	do 29	do	3.66	4,036
July 1	do	3.73	6,970	April 5	do	3.14	1,869
do 22	do	2.97	3,210	do 19	do	2.28	677
Aug. 22	G. W. Bates	2.7	2,130	April 25	D. P. Weeks, Jr.	2.7	1,192
Sept. 12	Arthur Dobson	.....	33	May 3	do	4.25	5,955
Oct. 10	do	1.65	465	do 9	do	4.4	8,078
Nov. 6	do	2.3	861	do 31	do	4.2	6,779
1909				June 9	do	4.1	6,642
Mar. 20	A. A. Dobson	3.85	5,870	do 23	do	3.8	5,105
April 13	do	3.55	4,270	July 13	do	1.85	264
May 8	do	3.38	2,690	do 25	do	1.2	120
July 8	do	4.53	11,800	Sept. 1	do	2.9	1,986
Aug. 31	do	3.3	3,690	do 8	do	2.51	943
Oct. 22	do	3.9	6,240	do 20	do	3.05	1,790
Nov. 5	do	3.63	3,560				

¹ Estimated.² Partially estimated.

NOTE—July 25, 1910—river dry—A. A. Dobson.

NOTE—November 19, 1910—river dry—A. A. Dobson.

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1											4.9	21,600	3.9	8,200	(a)		(a)		(a)						1
2											4.88	22,600	3.9	8,200	(a)		(a)		(a)						2
3											4.88	21,400	3.82	7,600	(a)		(a)		(a)						3
4										3.7	6,700	5.15	27,400	3.65	6,400	(a)		(a)		(a)					4
5										3.75	7,000	4.95	22,600	3.35	4,700	(a)		(a)		(a)					5
6											3.82	7,350	4.8	19,700	3.18	3,900	(a)		(a)		(a)				6
7											3.95	8,200	4.8	19,700	3.1	3,500	(a)		(a)		(a)				7
8											4.1	10,300	4.85	20,600	3.1	3,500	(a)		(a)		(a)				8
9											4.05	12,250	4.9	21,600	3.1	3,500	(a)		(a)		(a)				9
10											4.2	11,250	4.95	22,600	3	3,100	(a)		(a)		(a)				10
11											4.15	10,800	5	23,750	2.85	2,550	(a)		(a)		(a)				11
12											4.2	11,250	5.2	31,100	2.7	2,000	(a)		(a)		(a)				12
13											4.2	11,250	5.2	28,575	2.7	2,000	(a)		(a)		(a)				13
14											4.2	11,250	4.82	20,300	2.7	2,000	(a)		(a)		(a)				14
15											4.3	12,700	4.68	17,750	2.7	2,000	(a)		(a)		(a)				15
16											4.3	12,250	4.58	16,000	2.7	2,000	(a)		(a)		(a)				16
17											4.3	12,250	4.42	13,900	2.7	2,000	2.7	3,300	(a)		(a)				17
18											4.4	13,400	4.05	9,800	2.7		2.8	4,400	(a)		(a)				18
19											4.4	13,400	3.3	8,200	(a)		2.8	4,400	(a)		(a)				19
20											4.28	12,100	3.95	5,500	(a)		2.9	4,900	(a)		(a)				20
21											4.2	11,250	4.2	11,250	(a)		2.9	4,900	(a)		(a)				21
22											4.2	11,250	4.32	12,500	(a)		2.9	4,900	(a)		(a)				22
23											4.1	10,300	4.22	11,500	(a)		2.8	4,400	(a)		(a)				23
24											4	9,250	4.18	11,100	(a)		2.7	3,800	(a)		(a)				24
25											4.15	10,800	4.25	11,750	(a)		2.6	3,400	(a)		(a)				25
26											4.3	12,250	4.3	12,200	(a)		2.6	3,400	(a)		(a)				26
27											4.28	12,100	4.3	12,250	(a)		2.6	3,400	(a)		2.2	1,400			27
28											4.48	14,675	4.25	11,750	(a)	994	2.6	3,400	(a)		2.2	1,400			28
29											4.52	15,250	4.15	10,750	(a)		2.2	1,400	(a)		2.25	1,600			29
30											4.75	18,000	3.95	8,700	(a)		2.2	1,400	(a)		2.25	1,600			30
31											4.9	21,600			(a)		2.2	1,400			(a)				31
Mean											11,801		16,904		2,771										
Run-off in acre-ft.											725,600		1,005,800		170,400										
Maximum											21,600		31,100		8,200										
Minimum											6,700		5,500		990										

(a) Sand at gage, water in pools.

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River at Columbus, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2										2.5	1,500	3.9	7,800	3.6	6,100										2	
3										2.8	2,400	5.1	24,600	3.4	5,000										3	
4										3.22	4,000	4.5	13,900	3.42	5,050										4	
5										3.4	4,800	5	22,200	3.45	5,200			2							5	
6										3.7	6,400	4.9	20,200	3.4	4,900										6	
7										3.75	6,600	4.72	17,100	3.38	4,800										7	
8										3.8	6,800	4.85	19,000	3.2	3,900										8	
9										3.7	6,000	4.65	15,800	3.15	3,650										9	
10										3.56	5,100	4.45	13,100	3.2	3,800										10	
11										3.55	4,950	4.52	14,100	3	3,000										11	
12										3.35	3,900	4.48	13,900	2.9	2,770							16			12	
13										3.45	4,400	4.35	12,400	2.8	2,350										13	
14										3.34	3,800	4.28	11,900	2.6	1,700										14	
15										3.27	3,500	4.22	11,400	2.55	1,550										15	
16										3.24	3,300	4.15	10,900	2.5	1,400										16	
17										3.27	3,175	4.35	13,200	2.55	1,550										17	
18								2.36		3.34	3,650	4.2	11,700	2.5	1,400										18	
19								2.42		3.5	4,500	4.05	10,300	2.45	1,300			10							19	
20								2.55		3.28	3,500	3.96	9,300	2.2	750										20	
21								2.6		3.9	6,850	3.78	7,600	2	500										21	
22								2.65		4.3	10,700	3.56	6,200	(a)											22	
23								2.4		4.1	8,900	3.58	6,350	(a)											23	
24								2.25		3.98	7,950	3.5	5,750	(a)											24	
25								2.1		4.12	9,600	3.6	6,400	(a)											25	
26								2		3.98	8,300	3.6	6,350	(a)											26	
27								2.06		3.85	6,600	3.5	5,700	(a)											27	
28								1.97		4.04	9,100	3.4	5,100	(a)											28	
29								1.95		3.93	8,100	3.42	5,200	(a)											29	
30								1.95		3.75	6,700	3.45	5,300	(a)	285										30	
31								2.6		3.85	7,350	3.5	5,600	(a)							13				31	
								4.03		9,000				(a)												
Mean								1,477		5,851			11,278		3,029											
Run-off in acre-ft.								87,900		359,800			671,100		186,200											
Maximum								2,700		10,700			24,600		6,100											
Minimum								500		1,500			5,100		500											

(a) Sand at gage, water in pools.

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							2.4	1,483	2.6	2,361	3.9	9,100	3.4	4,500							1.2	375			1
2							2.35	1,300	2.6	2,394	3.9	9,000	3.22	3,600							1.9	978			2
3							2.35	1,300	2.55	2,228	3.9	8,900	3.06	2,938							1.9	978			3
4							2.4	1,455	2.5	2,054	3.85	8,300	2.9	2,324							1.9	978			4
5							3.5	6,180	2.5	2,088	3.8	7,720	2.85	2,154							1.8	850			5
6							3.4	5,555	2.6	2,435	3.8	7,560	2.8	1,984					20	1.75	800			6	
7							3.4	5,555	2.7	2,857	3.85	8,241	2.79	1,946							1.7	750			7
8							3.4	5,555	2.8	3,260	3.85	7,800	2.5	1,270							1.6	700			8
9							3.45	5,775	2.9	3,750	3.85	7,720	2.4	1,150							1.6	700			9
10							3.5	6,050	3.1	6,799	3.85	7,640	2.22	920							1.6	700			10
11							3.6	6,700	3.2	5,250	3.9	7,960	2	725							1.6	700			11
12							3.8	8,200	3.2	5,250	3.95	8,300	(c)								1.55	590			12
13							4.6	18,000	3.2	5,200	4	8,700									1.5	570			13
14							4.8	21,600	3.25	5,450	4.1	9,640		379							1.5	570			14
15							4.8	21,600	3.3	5,665	4.2	10,600									1.45	550			15
16							5.1	28,400	3.3	5,665	4.3	11,500									1.4	500			16
17							5	26,000	3.3	5,610	4.3	11,400									1.4	500			17
18							4.9	21,810	3.4	6,115	4.31	11,949									1.4	500			18
19							4.7	19,790	3.45	6,375	4.35	11,821									1.4	500			19
20							4.4	14,960	3.45	6,310	4.4	12,300									1.4	500			20
21							3.25	4,824	3.5	6,635	4.45	12,875									1.4	500			21
22							3.25	4,850	3.5	6,570	4.45	12,875									1.4	500			22
23							3.2	4,600	3.6	7,190	4.45	12,875									1.4	500			23
24					2.6	2,054	3.2	4,650	3.5	6,440	4.3	11,300									1.5	600			24
25					2.6	2,054	3.1	4,150	3.5	6,375	4.1	9,200									1.6	680			25
26					2.7	2,398	3	3,700	3.5	6,110	4	8,200									1.65	720			26
27					2.7	2,436	2.8	2,898	3.5	6,245	3.95	7,800									1.7	770			27
28					2.6	2,123	2.75	2,736	3.6	6,840	3.9	7,400									1.75	820			28
29					2.5	1,799	2.75	2,816	3.7	7,480	3.8	6,700									1.8	870			29
30					2.5	1,800	2.6	2,324	3.8	8,200	3.6	5,500									1.85	922			30
31					2.5	1,816			3.9	9,200															31
Mean Run-off in acre-ft.					2,060		8,827		5,300		9,363		1,991								672				
Maximum					32,700		525,200		325,900		857,100		47,400								40,600				
Minimum					2,440		28,400		2,000		12,880		4,500								978				
					1,800		1,300		2,050		5,500		725								375				

(c) Sand around gage, water in pools. July 12 to November 1.

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							3.55	7,800	3.7	6,700															1
2							3.4	6,700	3.45	5,250	4.75	21,600	3.75	5,250	3.94	6,375	4	4,500		190	3.1	1,680	3.1		2
3							3.3	6,050	4	9,150	4.65	17,200	3.7	5,000	3.95	6,375	4.1	4,750	2.1	220	3.2	1,980	3.1		3
4							3.25	5,775	3.9	7,800	4.45	15,600	3.7	5,000	3.95	6,375	4	4,250	2.1	220	3.3	2,320	3.2		4
5							3.2	5,500	3.9	7,800	4.25	12,960	4	7,050	3.95	6,050	3.9	3,750	2.1	220	3.3	2,320	3.2		5
6							2.85					9,150	4.65	18,550	3.7	4,750	3.4	1,830	2.1	220	3.35	2,900			6
7							2.9	4,000	2.55	5,500	3.9	7,050	4.4	10,700	3.5	3,500	3	1,040	2.15	235	3.4	3,100			7
8							3	4,250	3.75	5,700	3.7	5,775	4.1	7,800	3.4	3,100	2.95	985	2.15	235	3.4	3,100			8
9					4.11	10,150	3.1	4,750	4.1	9,650	3.6	5,250	4	7,050	3.41	3,100	2.9	930	2.2	250	3.3	2,700			9
10							3.2	5,250	4.1	9,650	3.55	5,000	3.96	7,050	3.1	1,830	2.8	820	2.2	250	3.3	2,700			10
11							3	4,250	3.35	12,390	3.55	5,000	3.96	7,050	3	1,540	2.8	820	2.3	285	3.25	2,510			11
12							2.65	2,510	4.6	15,600	3.45	4,500	3.7	5,500	3.1	1,830	2.8	770	2.3	285	3.2	2,320			12
13							2.55	2,150	4.62	15,600	3.4	4,250	3.65	5,000	3.35	2,510	2.9	875	2.35	310	3	1,980			13
14							2.5	1,980	4.4	12,960	3.35	4,000	3.65	5,000	3.4	2,700	3	985	2.4	400	2.9	1,680			14
15					3.8	7,400	2.9	3,500	4.35	12,390	3.6	5,250	3.6	4,750	3.8	4,500	2.9	875	2.5	475	2.9	1,680			15
16					3.85	10,700	3.1	4,250	4.15	10,150	3.6	5,000	3.6	4,750	3.45	2,700	2.8	770	2.7	635	2.9	1,680			16
17					3.85	10,700	3.1	4,250	4.1	9,650	3.7	5,500	4.13	7,800	3.65	3,500	2.75	680	2.75	680	2.8	1,415			17
18					3.95	11,820	3.05	4,000	3.85	7,400	3.75	5,775	4.1	7,400	3.6	3,100	2.75	680	2.85	875	2.7	1,285			18
19					3.9	11,250	3.2	4,750	3.55	5,500	3.8	6,050	4.05	7,050	3.6	3,100	2.72	635	2.8	820	2.6	1,155			19
20					4	12,390	3.2	4,500	3.25	4,000	3.85	6,375	4	6,700	3.55	2,900	2.5	475	2.8	820	2.55	1,095			20
21					4.1	13,550	3.25	4,750	3.1	3,300	4.05	7,400	3.85	5,775	3.4	2,320	2.3	340	2.85	985	2.55	1,095			21
22					3.8	10,150	3.25	4,750	3.2	3,750	4.2	8,675	3.7	5,000	3.2	1,680	2.2	285	2.85	985	2.6	1,155			22
23					3.85	10,700	3.35	5,250	3.35	4,000	4.15	8,200	3.65	4,750	3.1	1,350	2.1	250	2.85	985	2.6	1,155			23
24					3.7	9,150	3.05	3,500	3.3	4,250	4.15	8,200	3.5	4,000	3.1	1,350	2.1	235	2.85	985	2.7	1,285			24
25					3.65	8,675	3.05	3,500	3.8	6,700	4.3	9,650	3.3	3,100	3.2	1,540	2	205	2.82	930	2.85	1,540			25
26					3.55	7,800	3.05	3,500	4	8,200	4.5	11,820	3.2	2,700	3.4	2,150	2	205	2.8	1,040	2.9	1,680			26
27					3.5	7,400	3.1	3,750	4.1	9,150	4.66	12,960	3.2	2,700	3.8	3,750	2	205	2.8	1,040	2.95	1,830			27
28					3.45	7,050	3	3,100	4.25	10,700	4.45	10,700	3.2	2,700	3.9	4,000	2	205	2.8	1,040	3	1,980			28
29					3.5	7,400	3	3,100	4.55	14,175	4.2	8,200	3.1	2,320	4.2	5,500	2	190	2.8	1,040	3	1,980			29
30					3.8	10,150	3.4	5,000	4.75	17,200	4	6,700	3.2	2,700	4.2	5,500	2	190	2.83	1,095	3.05	2,150			30
31					3.55	7,800			5	21,600			3.3	3,100	4	4,500			2.8	1,040					31
Mean					9,652		4,339		9,159		8,816		5,847		3,507		1,175		613		1,926				
Run-off																									
in acre-ft.					325,500		258,200		563,200		524,600		359,500		215,600		69,900		37,700		114,600				
Maximum					13,550		7,800		21,600		21,600		13,550		6,380		4,750		1,100		3,100				
Minimum					7,050		1,980		3,300		4,000		2,320		1,350		190		190		1,090				

[174] Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							3.2		2.6		4.15	8,550	3.91	10,130	2.52	1,000	1.87	50	2.05	150	2.4	1,000			1
2							3.2		2.6		4.2	8,945	3.81	9,340	2.35	600	1.8	50	2	100	2.35	1,000			2
3							3.15		2.6		4.65	13,290	3.76	8,945	2.4	700	1.65	(a)	1.8	50	2.3	1,000			3
4							3.2		2.65		4.75	14,080	3.75	8,945	2.42	700	1.65	(a)	1.8	50	2.35	1,000			4
5							3.2		2.65		4.85	15,265	3.75	8,945	2.32	500	1.7	(a)	1.25		2.35	1,000			5
6							3.1		3		4.65	13,290	3.8	9,340	2.29	500	1.8	(a)	1.2		2.35	1,000			6
7							3.1		4.55		12,105	3.95	10,525	2.26	425	1.7	(a)	1.3			2.4	1,000			7
8							3.3		3.8	5,390	4.45	11,315	4.02	10,920	2.21	350	1.65	(a)	2	100	2.4	1,000			8
9							3.2		3.75	4,995	4.35	10,525	4	10,920	2.4	700	1.53	(a)	2.25	425	2.3	1,000			9
10							3.05		3.75	4,995	4.1	7,760	3.85	9,735	2.85	2,075	1.46	(a)	2.45	800	2.2	1,000			10
11							3.05		3.8	5,390	4.18	8,550	4.2	12,500	2.85	2,075	1.3	(a)	2.25	425	2.1	1,000			11
12							3		3.85	5,785	4.35	10,130	3.97	10,525	2.7	1,400	1.12	(a)	2.15	275	2	1,000			12
13					3.2		2.9		3.85	5,785	4.9	15,660	3.8	9,340	2.52	900	1.55	(a)	2.2	350	2.2	1,000			13
14					3.1		2.9		3.9	6,180	5	16,450	3.5	6,970	2.4	700	1.55	(a)	2.3	500	2.3	1,000			14
15					3.1		2.8		3.6	3,430	4.6	15,660	3.42	6,180	2.25	425	1.35	(a)	2.4	700	2.3	1,000			15
16					3		2.8		3.7	4,600	4.92	18,030	3.35	5,785	2.15	275	1.35	(a)	2.35	600	2.4	1,000			16
17					3		2.75		3.6	3,430	4.8	17,240	3.7	8,550	1.95	50	1.35	(a)	2.35	600	2.55	1,000			17
18					3		2.75		3.66	3,810	4.5	14,870	3.31	5,390	2.12	200	1.3	(a)	2.4	700	2.55	1,000			18
19					3		2.7		3.65	3,810	4.52	14,870	3.2	4,600	2.15	275	1.3	(a)	2.45	800	2.45	1,000			19
20					3.25		2.7		3.65	3,810	4.25	12,895	3.26	4,995	2.17	275	1.25	(a)	2.83	2,075	2.42	1,000			20
21					3.3		2.65		3.6	3,430	4.2	12,500	3.27	4,995	2.08	200	1.5	(a)	3.1	3,810	2.4	1,000			21
22					3.3		2.6		3.5	2,700	4.2	12,500	3.25	4,995	1.92	(a)	1.55	(a)	3.1	3,810	2.4	1,000			22
23					3.3		2.6		3.38	1,800	4.1	11,710	3.17	4,205	1.65	(a)	1.4	(a)	3.25	4,995	2.4	1,000			23
24					3.2		2.6		3.35	1,400	4.1	11,710	3.2	4,600	1.55	(a)	1.4	(a)	2.95	2,700	2.35	1,000			24
25					3.1		3		4.2	12,500	3.15	4,205	1.45	1.45	1.4	(a)	2.9	2,350	2.4	1,000					25
26					3		3.25		3.3	1,250	4.55	15,265	3.1	3,810	1.35		1.45	(a)	2.7	1,400	2.4	1,000			26
27					3.1		3.45		3.4	1,800	4.5	14,870	3.03	3,430	1.3		1.45	(a)	2.6	1,100					27
28					3.1		3.2		3.6	3,430	4.25	12,895	2.95	2,700	1.35		1.5	(a)	2.4	1,000					28
29					3.1		2.9		3.7	4,205	4.12	11,710	3	3,050	1.4		1.6	(a)	2.35	1,000					29
30					3.1		2.75		4.2	8,550	4	10,525	2.91	2,350	1.45		1.75	(a)	2.3	1,000					30
31					3.1				4.1	7,760			2.73	1,600	2	100			2.35	1,000					31
Mean									4,128		12,880		6,888		451				1,037		1,000				
Run-off									253,800		766,400		423,500		27,700		200		63,800		59,500				
in acre-ft.									8,550		18,190		12,500		2,080		41		4,990						
Maximum									1,250		7,760		1,520												
Minimum																									

(a) Pools.

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							5.1	22,300	3.9	8,090	4.15	10,100	2.75	2,440	.85	8	1.9	630	2.7	2,290					1
2							5.1	22,300	4.1	9,690	3.75	7,040	2.7	2,290	1.45	155	1.9	630	3.45	4,240					2
3							5.15	23,200	4.1	9,690	3.7	6,700	2.65	2,160	1.55	235	1.85	565	3.45	4,240					3
4							4.7	16,100	4.55	14,200	3.55	5,790	3.2	4,040	1.35	95	1.7	380	3.4	4,970					4
5							4.4	12,500	4.55	14,200	3.45	4,240	3	3,240	1.35	95	1.65	330	3.55	5,790					5
6								4.3	11,500	4.5	13,600	3.3	4,490	2.75	2,440	1.35	95	1.7	380	3.55	5,790				6
7								4.1	9,690	4.45	13,100	3.2	4,040	3.25	4,260	1.35	95	1.7	380	3.6	6,080				7
8							3.75	7,040	3.8	7,370	4.65	15,400	3.15	3,830	3.05	3,430	1.4	120	1.65	330	3.6	6,080			8
9							3.65	6,390	3.8	7,370	4.45	13,100	3.05	3,430	3	3,240	1.65	330	1.65	330	3.5	5,500			9
10							3.6	6,080	3.75	7,040	4.4	12,500	2.95	3,070	3.15	3,830	1.7	380	1.75	430	3.5	5,500			10
11							3.8	6,080	3.7	6,700	4.1	9,690	2.9	2,900	2.95	3,070	1.6	280	1.9	630	3.3	4,490			11
12							3.65	6,390	3.65	6,390	3.9	8,090	2.8	2,580	3	3,240	1.65	330	1.9	630	3.3	4,490			12
13							3.8	7,370	3.55	5,790	3.75	7,040	2.9	2,900	2.8	2,580	1.65	330	1.85	565	3.45	4,240			13
14							4.2	10,600	3.5	5,500	3.6	6,080	2.85	2,740	2.6	2,020	2.05	850	1.9	630	3.3	4,490			14
15							3.95	8,480	3.35	4,730	3.55	5,790	2.75	2,440	2.6	2,020	2.75	2,440	1.95	700	3.3	4,490			15
16							3.65	6,390	3.35	4,730	3.5	5,500	2.7	2,290	2.25	1,210	2.35	1,420	2.1	930	3.3	4,490			16
17							3.7	6,700	3.25	4,260	3.65	6,390	2.65	2,160	2.5	1,770	2.6	2,020	2.25	1,210	3.15	3,830			17
18							3.6	6,080	3.2	4,040	4	8,860	3.2	4,040	1.95	700	2.7	2,290	2.4	1,530	3.1	3,620			18
19							3.45	4,240	3.2	4,040	3.75	7,040	2.8	2,580	1.65	330	2.75	2,440	2.45	1,650	3.1	3,620			19
20							3.35	4,730	3.2	4,040	3.85	7,730	2.8	2,580	1.35	95	2.5	1,770	2.45	1,650	3	3,240			20
21							3	3,240	3.15	3,830	3.55	5,790	2.65	2,160	1.35	95	2.4	1,530	2.4	1,530		3,160			21
22							3.25	4,260	3.15	3,830	3.35	4,730	2.6	2,020	1.35	95	2.2	1,110	2.95	3,070		3,070			22
23							3.4	4,970	3.05	3,430	3.3	4,490	2.6	2,020	1.35	95	2.2	1,110	3.4	4,970		2,980			23
24							3.5	5,500	3.55	5,790	3.35	4,910	2.85	2,740	1.2	40	2.15	1,020	3.2	4,040	2.9	2,900			24
25							3.5	4,490	4.1	9,690	4	8,860	2.8	2,580	1.15	32	2.05	850	3.35	4,730	2.95	3,070			25
26							3.3	4,490	3.7	6,770		11,100	2.75	2,440	1.35	95	2.05	850	3.35	4,730	2.95	3,070			26
27							3.45	4,240	3.8	7,370	4.5	13,600	2.15	1,020	1.25	55	2.15	1,020	3	3,240	2.9	2,900			27
28							3.8	7,370	3.1	3,620	4.15	10,100	2.95	3,070	1.05	20	2.05	850	3	3,240	2.9	2,900			28
29							4.5	13,600	3.05	3,430	3.95	8,480	3.05	3,430	1.03	18	1.9	630	2.7	2,290	2.9	2,900			29
30							4.3	11,500	3.85	7,730	4	8,860	3	3,240	1	15	1.9	630	2.55	1,900	3.2	4,040			30
31									3.95	8,480			3	3,240	.9	10			2.8	2,580					31
Mean							6.530		8.180		9.220		3.480		1.580		846		1,640		4,080				
Run-off in acre-ft.							388,600		503,000		549,000		214,000		97,200		50,300		101,000		243,000				
Maximum							13,600		23,200		15,400		10,100		4,260		2,440		4,970		6,080				
Minimum							3.240		3.430		4.490		1.020		10		.8		330		2,290				

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1907

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		Feet	Sec.-ft.
1																									1		
2							2.85	2,980	3.2	4,850	4.25	12,300	4.25	12,300	3	3,700	2.6	2,310	2.3	2,900	2.5	2,080	2.65	2,440	2		
3							3.35	2,980	3	3,700	4.35	13,000	4.3	12,600	2.95	3,490	2.35	1,760	2.8	2,900	2.4	1,860	2.6	2,310	3		
4							3.15	4,550	3.35	5,820	4.5	13,800	4.15	11,500	2.9	3,280	2.45	1,970	2.85	3,090	2.4	1,860	2.6	2,310	4		
5							3.4	4,550	3.35	5,820	4.5	14,200	4.1	11,200	3	3,700	2.4	1,860	3	3,700	2.45	1,970	2.75	2,740	5		
6								3.55	7,200	3.3	5,500	4.8	16,500	4.05	10,800	3.1	4,250	2.35	1,760	2.7	2,570	2.3	1,650	2.7	2,570	6	
7								3.45	6,500	3.2	4,850	4.95	17,700	4.2	11,900	3.25	5,180	2.1	1,270	2.4	1,860	2.3	1,650	2.65	2,440	7	
8								3.25	5,180	3	3,700	4.55	14,500	4.1	11,200	3.35	5,820	2.05	1,180	2.25	1,560	2.35	1,760	2.65	2,440	8	
9								3.1	4,250	3	3,700	4.35	13,000	4.2	11,900	3.15	4,550	1.9	950	2.35	1,760	2.25	1,560	2.55	2,200	9	
10								3.15	4,550	2.85	2,980	4.75	16,100	4	10,400	2.9	3,280	1.85	975	2.35	1,760	2.15	1,360	3.5	2,250	10	
11								2.75	2,520	3	3,700	5.5	22,100	4	10,400	3.05	3,980	1.75	725	2.3	1,650	2.5	2,080		2,300	11	
12								2.65	2,100	3.05	3,980	4.45	13,800	4.05	10,800	2.85	3,090	1.7	650	2.3	1,650	2.45	1,970		2,350	12	
13								2.65	2,100	2.65	2,100	4.7	15,700	4.1	11,200	3.05	3,980	1.55	455	2.2	1,460		1,660		2,400	13	
14								2.7	2,300	2.65	2,100	4.75	16,100	4.15	11,500	3	3,700	1.35	272	2.15	1,360	2.15	1,360		2,570	14	
15								2.5	1,600	2.7	2,300	4.6	14,900	4.1	11,200	2.6	2,310	1.3	235	2.15	1,360	2.05	1,680			15	
16								2.5	1,600	2.7	2,300	4.65	15,300	4.25	12,300	2.6	2,310	1.3	235	2.1	1,270	2.1	1,270			16	
17								2.5	1,600	2.65	2,100		16,100	4.4	13,400	2.55	2,200	1.2	175	2.2	1,460	2.2	1,460			17	
18								2.65	2,100	2.5	1,600	4.85	16,900	4.45	13,800	2.4	1,860	1.25	205	2.3	1,650	2.4	1,860			18	
19								2.7	2,300	2.55	1,750	4.85	16,900	4	10,400	2.25	1,560	1.25	205	2.45	1,970	2.5	2,080			19	
20								2.85	2,980	2.6	1,900	4.55	14,500	3.85	9,300	2.05	1,180	1.1	125	2.35	1,760	2.6	2,310			20	
21								2.9	3,200	2.65	2,100	4.35	13,000	3.65	7,900	2	1,100	1.1	125	2.3	1,650	2.65	2,440			21	
22								2.85	2,980	2.65	2,100	4.2	11,900	3.55	7,200	1.95	1,020	1.1	125	2.35	1,760	2.7	2,570			22	
23								2.44	2.6	1,900	4.15	11,500	3.9	9,650	1.85	875	1.1	125	2.4	1,860	2.65	2,440			23		
24								2.6	1,900	3.25	5,180	4	10,400	3.85	9,300	1.85	875	1.05	102	2.35	1,760	2.7	2,570			24	
25								2.9	3,200	3.25	5,180	4.05	10,800	3.65	7,900	1.9	950	.95	65	2.4	1,860	2.9	3,280			25	
26								3.35	5,820	3.7	8,250	4.05	10,800	3.5	6,850	1.95	1,020	.95	65	2.45	1,970		3,090			26	
27								3.25	5,180	3.9	9,650	4.05	10,800	3.6	7,550	1.5	400	1.4	310	2.45	1,970	2.8	2,900			27	
28								3.25	5,180	3.65	7,900	4	10,400	3.65	7,900	1.65	580	1.6	510	2.5	2,080	2.7	2,570			28	
29								3.4	5,820	3.8	8,950	4.2	11,900	3.55	7,200	2.3	1,650	1.65	580	2.5	2,080	2.6	2,310			29	
30								6,150	3.85	9,300	4.25	12,300	3.4	6,150	2	1,100		1,800		2,080	2.55	2,200			30		
31										3.9	9,650				3.15	4,550	1.95	1,020								31	
Mean								3,770		4,450		14,000		10,000		2,500		756		1,990		2,030		2,430			
Run-off																											
in acre-ft.																											
Maximum								224,000		274,000		833,000		615,000		154,000		45,000		122,000		121,000		67,500			
Minimum								7,200		9,650		22,100		13,800		5,820		2,310		3,700		3,280		2,740			
								1,600		1,600		10,400		4,550		400		65		1,270		1,180		2,200			

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	2.2						3.55	4,160	3.7	4,630	4.6	11,200	4.95	14,700	3.6	5,300	3.2	3,150	3.3	3,130	3.45	3,020			1
2							3.5	3,870	3.65	4,430	4.6	11,200	5.1	15,700	3.45	4,370	4	8,180	3.35	3,470	3.75	4,450	4.1		2
3	3.2						3.5	3,880	3.5	3,480	4.6	11,800	4.8	13,600	3.9	7,300	3.85	7,100	3.25	2,800	3.65	3,800	5		3
4			4		4.25	8,600	3.55	4,200	3.4	2,860	4.55	10,900	4.8	13,700	3.85	6,950	3.55	5,130	3.15	3,400	3.45	2,750	6.8		4
5			4		4	6,900	3.4	3,280	3.35	2,630	4.65	11,800	4.8	13,800	3.4	4,150	3.55	5,050	3.2	2,600	3.35	4,200	6.8		5
6					3.5	3,200		3,750	3.4	2,870	4.85	13,200	4.75	13,500	3.4	4,150	3.65	5,700	3.1	2,200	3.35	2,250			6
7	4.5				4.75	12,300	3.55	4,220	3.45	3,090	4.6	11,300	4.65	12,700	3.45	4,450	3.7	6,020	3.25	2,750	3.25	1,900			7
8					4	6,900	3.55	4,230	3.35	2,670		14,000	4.55	11,800	3.45	4,450	3.6	5,380	3.35	3,250	3.2	1,730			8
9					3.95	6,500	3.65	4,820	3.3	2,360	5.3	16,700		12,100	3.25	3,320	3.35	3,800	3.4	3,500	3.3	2,070			9
10						5,200	3.65	4,850	3.4	2,800	5.2	16,000	4.6	12,400	3.65	5,700	3.35	3,800	3.55	4,350	3.25	1,900			10
11					3.55	4,000	3.55	4,260	3.6	3,800	5.1	15,200	4.9	14,700	3.35	3,860	3.15	2,750	3.6	4,550	2.95	1,030			11
12					3.25	2,500	3.55	4,270	3.4	2,800	5.55	18,600	4.85	14,200	3.35	3,860	3.05	2,350	3.75	5,600	2.95	1,030			12
13	5.2				4.2	8,300	3.5	3,880	3.5	3,260	5.7	19,800	4.9	14,700	3.35	3,860	2.85	1,600	3.75	5,600	3.1	1,430			13
14					3.6	4,300	3.5	3,920		4,310	5.55	18,700	4.55	12,000	3.4	4,200	2.85	1,600	3.6	4,580	3.25	1,900			14
15					3.35	2,950	3.45	3,660	3.85	5,360	5.6	19,100	4.55	12,000	3.55	5,080	2.85	1,600	3.7	5,050		1,400			15
16	5.3				3.7	4,900	3.45	3,660	4.05	6,780	5.3	16,900	4.7	14,700	3.75	6,400	2.6	920	3.8	5,700	2.9	900			16
17					3.6	4,300	3.4	3,410	4.15	7,490	5.25	16,500	4.5	11,700	3.45	4,460	2.7	1,120	3.85	6,050	3	1,150			17
18					3.55	4,000	3.3	2,300	3.95	6,110	5.35	17,400	4.4	10,900	3.45	4,460	2.7	1,120	3.85	6,050		1,290			18
19						4,760	3.55	4,210	3.8	5,260	5.35	17,400	4.3	10,100	3.5	4,760	2.65	1,000	3.95	6,650	3.1	1,430			19
20					3.8	5,330	3.8	5,780	4	6,470	5.3	17,000	4.2	9,400	3.45	4,460	2.6	890	4	6,950	2.9	900			20
21					3.5	3,720	3.4	3,390	3.9	5,900	5.2	16,300	4.15	9,050	3.45	4,460	2.8	1,370	3.9	6,300	3.25	1,900			21
22					3.45	3,460	3.35	3,140	4	6,470	5.1	15,700	3.85	6,940	3.4	4,200	2.85	1,500	3.75	5,250	3	1,150			22
23					3.6	4,350	3.45	3,650	4.1	7,260	5.05	15,300	3.7	5,930	3.5	4,850	2.9	1,650	3.75	5,180		2,550			23
24	3				3.45	3,500	3.45	3,450	4.1	7,400		16,000	3.6	5,300	3.45	4,550	2.95	1,820	3.85	5,750	3.7	3,950			24
25	3.1				3.6	4,360	3.3	2,660	4.05	7,070	5.25	16,800	3.9	7,200	3.45	4,550	3.1	2,300	3.85	5,780		5,550			25
26	3.3				3.6	4,370	3.2	2,250	4.7	11,800	5.1	15,700	3.9	7,300	3.45	4,550	3.25	2,950	3.7	4,620	4.2	7,150			26
27	3.85				3.5	3,800	3.25	2,460	4.25	8,460	5	14,900	3.9	7,300	3.35	3,950	3.25	2,950	3.65	4,250	4.45	8,900			27
28					3.4	3,280	3.35	2,900	4.25	8,460	4.95	14,700	3.7	6,000	3.3	3,700	3.35	3,450	3.65	4,200	4.2	7,150			28
29					3.5	3,830		2,720	4.55	11,500	5	15,100	3.45	4,400	3.35	3,950	3.35	3,470	3.65	4,150		6,300			29
30					3.55	4,110	3.3	2,540	4.15	7,900	5	15,100	3.45	4,350	3.3	3,700	3.3	3,130	3.65	4,100	3.95	5,450			30
31					3.55	4,120			4.25	8,600			3.6	5,320	3.25	3,450			3.35	2,500					31
Mean					4,930		3,680		5,620		15,300		10,600		4,560		3,100		4,530		3,020				
Run-off																									
in acre-ft.					274,000		219,000		346,000		910,000		65,200		280,000		184,000		279,000		180,000				
Maximum					12,300		5,780		11,800		19,800		15,700		7,300		8,180		6,950		8,900				
Minimum					2,500		2,250		2,360		10,900		4,350		3,320		890		2,200		900				

[181] Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							1.8	996	.5	365	(a)		(a)		(a)		(a)		+3	43			3.05	63	1	
2							1.8	996	.3	219	(a)		(a)		(a)		(a)		+15	40	2.55	52			2	
3							1.85	1,024	.2	146	(a)		(a)		(a)		(a)								3	
4							1.7	942	.5	365	(a)		(a)		(a)		(a)		1.8	37	2.8	58	3.35	69	4	
5							1.6	886	.65	474	(a)		(a)		(a)		(a)		2.15	43	2.75	57	3.1	64	5	
6							1.65	913	.7	510	(a)		(a)		(a)		(a)		3	62	2.95	61			6	
7							1.65	913	.7	510	(a)		(a)		(a)		(a)		2.85	59	3	63			7	
8							1.65	913	.7	510	(a)		(a)		(a)		(a)		2.7	56	3.3	68			8	
9							1.6	886	.8	583	(a)		(a)		(a)		(a)		3.4	70	2.65	55			9	
10									.9	356	(a)		(a)		(a)		(a)		3.5	72	2.45	50	3.3	68	10	
11							1.55	858	.7	510	(a)		(a)		(a)		(a)		+1	3.65	75		3.1	64	11	
12					2.1	1,162			.5	365	(a)		(a)		(a)		(a)		+35	3.5	72		3.15	65	12	
13							1.2	864		1,200	(a)		(a)		(a)		(a)		-.05	3.45	71		3.05	63	13	
14					1.8	996	(a)		1.65	1,200	(a)		(a)		(a)		(a)		-.25	3.35	69		3	62	14	
15					1.55	858	(a)		1.3	947	(a)		(a)		(a)		(a)		+95	3.2	66		2.95	61	15	
16					1.5	831	(a)				(a)		(a)		(a)		(a)		+8	3.1	64		3.1	64	16	
17					1.35	947	(a)		1.3	947	(a)		(a)		(a)		(a)		+7	3	62		3	62	17	
18					1.3	720	(a)		1.15	1,094	(a)		(a)		(a)		(a)		+45	2.9	60				18	
19					1.3	720	(a)				(a)		(a)		(a)		(a)		.35	3.05	63		2.35	59	19	
20					1.3	720	(a)				(a)		(a)		(a)		(a)		.25	3	62	3.15	65		20	
21					1.2	665	(a)	1		729	(a)		(a)		(a)		(a)		.15	3.15	64	3.3	68	2.9	60	21
22					1.2	665	(a)	.9		356	(a)		(a)		(a)		(a)		-.05	3.05	63	3.2	68	2.75	57	22
23					1.45	803	(a)		.8	583	(a)		(a)		(a)		(a)			2.8	58		2.65	55	23	
24					1.65	913	(a)		.75	547	(a)		(a)		(a)		(a)			3	62				24	
25					1.65	913			.73	.65	474	(a)		(a)		(a)		.9	3	62	3.35	69	2.95	61	25	
26					1.4	775	.2	140	.8	387	(a)		(a)		(a)		(a)			2.95	61				26	
27					1.5	831	.2	140	.75	547	(a)		(a)		(a)		(a)			3.05	63				27	
28					1.65	913			.5	365	(a)		(a)		(a)		(a)			3.2	66				28	
29					1.8	996	.75	545	.45	328	(a)		(a)		(a)		(a)			3.1	64				29	
30					2.05	1,134	.4	280	.2	146	(a)		(a)		(a)		(a)		.05	3.2	66				30	
31					1.85	1,024							(a)		1.15					3.15	65				31	
Mean						877		447		503										61		61		62		
Run-off in acre-ft.						33,000		22,160		26,900										3,650		1,450		1,980		
Maximum						1,162		1,024		1,200										75		69		69		
Minimum						665														37		52		55		

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1912

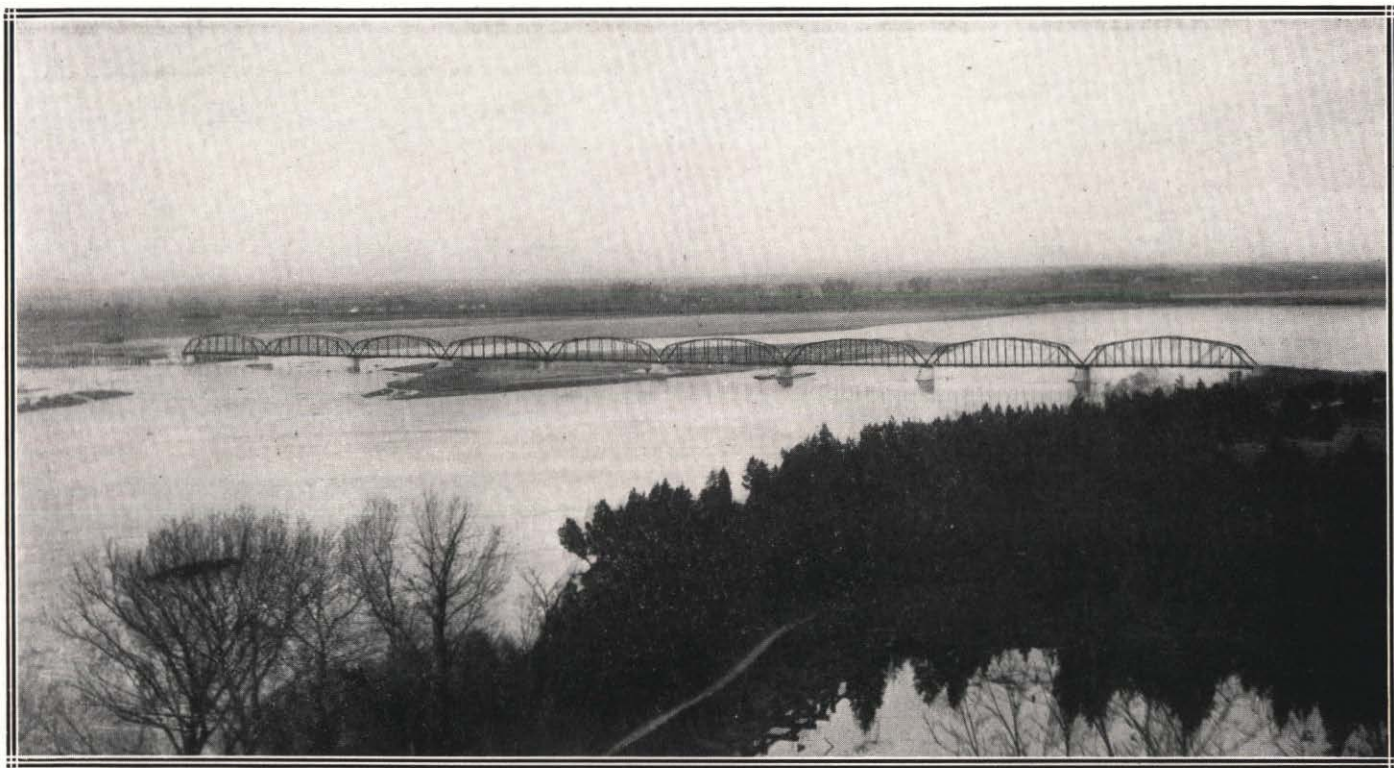
Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									3.6	3,650	3.05	1,700	2.5	575	3.7	4,150	3.8	4,700							1
2									3.75	4,420	3.25	2,250	2.4	415	3.4	2,750	3.75	4,420							2
3										3,800	2.95	1,460	2.6	750	3.5	3,180	3.85	4,980							3
4										3,190	3	1,580	2.5	575	3.6	3,650		4,320							4
5									3.35	2,580	2.8	1,120	2.55	662	3.7	4,150	3.6	3,650							5
6									3	1,580	2.65	838		471	3.75	4,420	3.55	3,410							6
7									2.95	1,460	2.5	575	2.3	280	4	5,800	3.45	2,960							7
8									3.05	1,700		908		185	4.05	6,080	3.4	2,750							8
9									3.15	1,960	2.85	1,240	2	90	4.15	6,620	3.4	2,750							9
10									3.35	2,580	2.95	1,460	1.9	60	4.15	6,620	3.7	4,150							10
11									3.4	2,750	3.1	1,820	1.7	20	4.2	6,900	3.6	3,650							11
12									3.25	2,250	3.2	2,100	1.75	30	4.1	6,350	3.65	3,900							12
13									3.45	2,960	3.15	1,960	2.5	575	4.45	8,280	3.6	3,650							13
14									3.1	1,820	2.95	1,460	2.15	160	4.45	8,280		3,420							14
15									3.35	2,580	2.9	1,350	1.85	50	4.25	7,180	3.5	3,180							15
16									3.5	3,180	2.7	925		161	4.3	7,450	3.75	4,380							16
17									3.65	3,900	2.5	575		272	4.2	6,900	3.7	4,150							17
18									3.4	2,750	2.55	663		383	4.1	6,350	3.8	4,700							18
19									3.35	2,580	2.4	415	2.45	495	3.95	5,525	4	5,800							19
20									3.5	3,180	2.5	575	2	90	3.85	4,980	4.15	6,620							20
21								3.55	3,410		3,940	2.25	235	2.2	190	3.95	5,520	4.15	6,620						21
22									3.6	3,650	3.8	4,700	2.15	160	2.6	750	4.1	6,350	4.2	6,900					22
23									3.6	3,650	3.75	4,380	2.1	130		838	4.1	6,350	4.1	6,350					23
24									3.8	4,700	3.7	4,150	2.25	235	2.7	925	4.15	6,620	4	5,800					24
25									4	5,800	3.4	2,750	2.75	1,020	2.65	838	4.05	6,080	3.95	5,520					25
26								3.6	3,650	3.35	2,580	2.8	1,120	3.1	1,820	4.1	6,350	4.2	6,900						26
27								3.5	3,180	2.9	1,350	2.8	1,120		2,040	4.1	6,350	4.05	6,080						27
28								3.3	2,400		1,580	3.6	3,650	3.25	2,250	3.9	5,250	4	5,800						28
29									2,820	3.1	1,820	2.8	1,120	3.2	2,100	4	5,800	3.9	5,250						29
30									3,240	3.35	2,580	2.45	495	3.2	2,100	3.85	4,980	4.2	6,900						30
31									3.1	1,820				4	5,800	3.85	4,980								31
Mean									3,650		2,780		1,140		837		5,810		4,790						
Run-off in acre-ft.									72,300		171,000		67,800		51,500		357,000		285,000						
Maximum									5,800		4,700		3,650		5,800				8,280						
Minimum									2,400		1,350		130		20		2,750		2,750						

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1							4	5,800		3,000	2.95	1,320									2.7	850	2.85	1,800	1		
2							4	5,800		4,000	2.75	925									2.55	638	2.85	1,800	2		
3							4.15	6,720	4.75	10,600	2.65	775									2.6	700	3	2,300	3		
4							4.2	7,050	3.95	5,500	2.65	775									2.75	925			4		
5							4	5,800	3.9	5,200	2.7	850									2.85	1,100			5		
6							3.85	4,920		4,290	2.9	1,200									2.9	1,200	3.8		6		
7							3.55	3,380	3.55	3,380	3	1,450										810	3.8		7		
8							3.4	2,750	3.4	2,750	3.1	1,750							2.2	300	2.35	420	3.65		8		
9							3.5	3,150	3.6	3,600	2.75	925							3.22	2,120	1.95	146	3.25		9		
10							4.05	6,100	3.5	3,150	2.55	638							2.4	465	2.15	262	3		10		
11							4.05	6,100	3.4	2,750	2.25	338							2.3	375	2	170	3.35		11		
12							4	5,800	3.3	2,400	2	170									325	1.85	98	3.45		12	
13							4.1	6,400	3.35	2,580	2	170									270	1.85	98	3.2		13	
14							3.9	5,200	3.35	2,580	1.75	58									215	2.1	225	3.4		14	
15							3.8	4,650	3.25	2,220	1.6	20									160	2.25	338	3.35		15	
16							3.8	4,650	3.3	2,400	1.8	75									105	2.4	465	3.2		16	
17							3.8	4,650	3.35	2,580	1.7	40									50	2.4	465	2.65		17	
18							3.7	4,100	3.3	2,400	1.5	10									2.4	465	2.7			18	
19					3.6	5,110	3.6	3,600		2,490	1.25										2.35	420				19	
20					4,450	3.55	3,380	3.35	2,580		388										155	2.45	520	2.45		20	
21						3,800	3.4	2,750	3.5	3,150	2.65	775									310	2.5	575			21	
22						3,150	3.3	2,400	3.7	4,100	2.6	700								2.4	465		498			22	
23					3.15	2,500		3,520	3.6	3,600	2.3	375								2.4	465	2.35	420			23	
24					3.1	2,260	3.8	4,650	3.55	3,380	2.5	575								2.5	575	2.5	640			24	
25					3.3	2,910	4	5,800	3.6	3,600	2	170								2.5	575		685			25	
26					3.15	2,300	3.85	4,920	3.4	2,750	2	170								2.5	575	2.45	730			26	
27					3	1,750	3.7	4,100	3.3	2,400		170								2.7	850	2.45	820			27	
28					2.85	1,280	3.65	3,850	3.15	1,900	2	170									612		872			28	
29					4.05	6,460	3.45	2,950	3	1,450		184								2.3	375	2.4	900			29	
30					3.45	3,110	3.45	2,950	2.8	1,000	1.85	98									538	2.8	1,650			30	
31					4.2	7,180			2.75	925										2.6	700					31	
Mean						3,560		4,600		3,180		507									341		603		500		
Run-off																											
in acre-ft.																											
Maximum						91,800		274,000		196,000		30,200									21,000		35,900		30,700		
Minimum						7,180		7,050		10,600		1,750									2,120		1,650				
						1,280		2,400		925													98				

Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Columbus, for 1914

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							3.3	2,500	3.9	4,400	4.2	6,780	3.65	4,300			3.1	2,500							1
2							3.2	2,100	4.1	5,350	4.55	8,900	3.6	4,050			3	2,200							2
3							3.2	2,050	4.25	5,960	4.7	10,200	3.35	3,000			2.9	1,940							3
4							3.2	2,000	4.4	7,200	4.4	8,250	3.45	3,440			2.75	1,600							4
5							3.1	1,750	4.4	7,200	4.3	7,650	3.5	3,650				1,440							5
6							2.9	1,350	4.5	7,950	4.2	7,200	2.95	1,720				1,270							6
7							2.9	1,350	4.55	8,400	4.5	9,050	2.9	1,600				1,100							7
8							2.75	1,150	4.5	8,640	4	6,000	2.7	1,230			2.5	940							8
9							2.8	1,250	4.5	8,640	4.05	6,300	2.6	1,070			2.7	1,220							9
10							2.7	1,070	4.35	7,750	3.95	5,700		820			2.7	1,220							10
11							2.6	950	4.3	7,430	3.85	5,120		565			3.15	2,140							11
12							2.7	1,130	4.55	8,940	4.5	9,050	1.9	315			3	1,750							12
13							2.7	1,130	4.8	10,700	5.5	16,500	1.85	264			2.95	1,600							13
14							2.65	1,030	4.6	9,250	5.15	14,200	1.7	165			2.95	1,600							14
15							2.5	860	4.55	8,940	5.5	16,500	1.5	80			3.2	2,200							15
16							2.55	970	4.55	8,940	4.95	12,700	1.45	50			3.3	2,500							16
17							2.4	770	4.4	8,030	4.9	12,400	1.3	40			3.35	2,650							17
18							2.35	745	4.5	8,640	4.8	11,500	1.15	20			3.15	2,020							18
19							2.35	745	4.55	8,940	4.7	10,700	1.15	20			3.05	1,790							19
20							2.4	800	4.55	8,940	4.5	9,350	1.15	20			3.05	1,790							20
21							2.4	800	4.5	8,640	4.2	7,500					3	1,650							21
22							2.4	800	4.45	8,340	3.95	5,980					2.95	1,550							22
23							2.5	910	4.95	11,800	3.8	5,100				1.05	30	2.95	1,550						23
24							2.6	1,050	4.7	9,950	3.7	4,550	1.3	60	1.05	30	2.95	1,550							24
25							2.65	1,100	4.6	9,250	3.6	4,050	1.2	20	1.15	60	2.9	1,450							25
26							2.75	1,260	4.45	8,340	3.75	4,840			1.1	40	2.85	1,350							26
27							3.15	2,080	4.5	8,640	3.85	5,360			1.1	40	2.8	1,260							27
28							3.4	2,850	4.3	7,430	3.9	5,650			1.1	40	2.8	1,260							28
29							4.1	5,650	4.3	7,430	3.65	4,300			1.05	30	2.75	1,170							29
30							4	5,100	4.2	6,780	3.6	4,050			1.15	60	2.8	1,260							30
31									4.2	6,780					2.75	1,600									31
Mean								1,580		8,180		8,180		855		62.3		1,650							
Run-off in acre-ft.								94,000		503,000		487,000		52,600		3,830		98,200							
Maximum								5,650		11,800		16,500		4,300		1,600		2,650							
Minimum								745		4,400		4,050						940							



Platte River Gaging Station at Fremont

PLATTE RIVER AT FREMONT

Location. About two miles south of town at State Aid highway bridge.

Records Available. From July 10, 1913 to September 30, 1914.

Gage. A vertical staff on the south bank about ten feet above the upstream side of the bridge.

Bench Marks. No. 1. The southeast corner of the west wing of the south concrete abutment. Elevation, 17.86 feet above zero of the gage.
No. 2. South edge of six inch pipe imbedded in concrete of first pier north of south abutment. Elevation, 16.55 feet above zero of the gage.

Channel. Narrowed at this point by the construction of a shorter bridge. The original width of the river was 2,250 feet, being reduced to about 1,600 feet by the fill. River bed of extremely shifting sand.

Accuracy. The shifting nature of the bed has rendered daily estimates of the discharge very difficult.

Actual Discharge Measurements of Platte River, at Fremont

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1894		Feet	Sec.-ft.	1914		Feet	Sec.-ft.
Aug. 14 . . .	O. V. P. Stout	1,420	1,420	April 24 . . .	D. P. Weeks, Jr. . . .	2.3	3,512
Late Aug. . .	A. Rosewater	1,209	1,209	Mar. 20	do	2.85	5,498
1900				May 9	do	3.62	10,688
Aug. 13 . . .	O. V. P. Stout	2,300	2,300	June 11	do	3.45	8,624
1901				July 13	do	1.35	2,381
Aug. 11 . . .	H. O. Smith	1,152	1,152				

PLATTE RIVER AT LESHARA

Location. At highway bridge two miles south east of Leshara about Section 34, Township 16 North, Range 9 East, nine miles above the entrance of Elkhorn River.

Records Available. From May 19, 1911 to July 19, 1913.

Gage. Gage heights were obtained by measuring from a point on the hand-rail of the bridge to the surface of the water and subtracting the distance from 20.00 feet.

Bench Marks. No. 1. Two wire spikes in telephone pole thirty-five feet south of the south end of the bridge. Elevation assumed 100.00 feet. No. 2. Cross on west tubular pier at south end of bridge. Elevation, 104.74 feet. No. 3. Handrail of bridge at gage, this being twenty feet above the zero of the gage. Elevation, 109.09 feet. Zero of the gage, elevation 89.09 feet.

Channel. Extremely shifting.

Accuracy. Daily records can be considered only approximately correct.

After the bridge at Leshara was washed out in the spring of 1912, gagings were made from a railroad bridge two and a quarter miles below the established station. Observers gage heights were taken for the gage heights corresponding to the measurements. This being unsatisfactory the station was discontinued and the one at Fremont established in its place.

Discharge Measurements of Platte River, at Leshara

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1911		Feet	charge	1912		Feet	Sec.-ft.
May 19	A. B. Price	2.85	4,070	21	D. P. Weeks, Jr.	3.88	9,679
30	do	2.7	2,880	28	do	4.1	9,589
June 12	do	2.2	1,510	Oct. 5	do	3.8	8,628
23	do	2.3	1,170	12	do	4.13	11,601
July 8	do	2.05	1,110	22	do	3.5	9,981
31	do	2.2	1,320	26	do	3.75	8,806
Aug. 10	do	2.6	2,250	Nov. 2	do	3.73	8,803
27	do	2.8	2,730	9	do	3.5	10,899
Sept. 11	do	4	7,710	16	do	3.5	10,291
Oct. 3	do	2.9	2,950	26	do	3.45	6,262
Nov. 9	do	3	4,220	Dec. 1	do	3.35	6,805
1912				Mar. 17	do	3.96	6,384
April 29	C. G. Hrubesky	3.7	9,304	1913			
May 30	C. T. Graham	2.75	4,962	April 12	do	2.77	11,664
June 21	D. P. Weeks, Jr.	2.88	4,678	19	do	3.88	8,746
28	do	12.3	3,331	26	do	4.17	12,081
July 5	do	12.5	2,308	May 3	do	3.9	12,023
11	do	12.6	1,982	10	do	3.8	7,626
19	do	2.55	1,588	17	do	3.8	8,280
26	do	3	2,864	24	do	3.72	7,888
Aug. 2	do	11.6	7,127	June 7	do	3.42	5,902
8	do	11.65	7,425	17	do	2.75	2,215
28	do	3.75	8,556	28	do	2.65	2,302
Sept. 6	do	3.65	6,047	July 3	do	2.45	2,125
15	do	2.43	8,005				

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Daily Gage Height (in feet) and Discharge (in second-feet) of Platte River, at Leshara, for 1912

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					5.55	18,000	5.65	18,600	3.6	8,800	3	5,800	2.7	2,700	3.4	5,800	3.5	6,800	3.95	8,950	3.7	8,600	3.35	6,800	1
2					5.15	15,600	5.6	18,300	3.5	8,300	2.95	5,600	2.65	2,550	3.6	7,250	3.45	6,580	3.9	8,700	3.75	8,810	3.3	6,600	2
3					4.95	14,400	4.3	11,200	3.6	8,800	2.7	4,600	2.7	2,700	3.35	5,120	3.5	6,800	3.85	8,450	3.8	9,700	3.5	7,500	3
4					5.15	15,600	4.2	10,600	3.6	8,800	3	5,800	2.6	2,400	3.4	6,350	3.4	6,350	3.9	9,000	4	10,500	3.3	6,600	4
5					5.05	15,000	4	9,500	3.55	8,550	2.85	5,200	2.55	2,300	3.65	7,480	3.35	6,120	3.8	8,500	3.2	6,600	3.4	7,050	5
6					4.95	14,400	3.85	8,750	3.35	7,550	2.8	5,000	2.75	2,850	3.4	6,350	3.35	6,120	3.85	9,200	3.9	10,200	2.8	4,500	6
7					4.7	12,900	3.85	8,750	3.3	7,300	2.85	5,200	2.7	2,700	3.55	7,020	3.3	5,900	3.8	8,900	3.95	10,800	2.3	3,000	7
8					4.5	11,700	3.8	8,500	3.15	6,550	2.85	5,200	2.7	2,700	3.6	7,250	3.25	5,680	3.75	8,550	3.75	9,600	2.2	2,800	8
9					4.4	11,200	4.2	10,600	3.2	6,800	2.8	5,000	2.6	2,000	3.65	7,750	3.2	5,450	3.85	9,700	3.95	10,900	2.35	3,150	9
10					4.45	11,400	4	9,500	3.05	6,050	2.95	5,600	2.55	1,880	3.7	8,000	3.25	5,680	3.95	10,200	4	11,000	2.1	2,650	10
11					4.5	11,700	3.8	8,500	3.1	6,300	3.1	5,500	2.6	2,000	3.8	8,500	3.3	5,900	3.85	9,700	3.6	8,800	2	2,500	11
12					4.5	11,700	3.7	8,000	3.25	7,050	3.25	6,150	2.5	1,750	4.1	10,000	3.25	5,680	4.15	11,400	4	10,800	2	2,500	12
13					4.7	12,900	3.65	7,750	3.55	8,550	3.55	7,650	2.45	1,650	3.85	8,750	3.4	7,800	3.95	10,300	4.35	12,800	2.5	3,500	13
14					4.6	12,300	3.6	7,500	3.45	8,050	3.4	6,900	2.4	1,550	4.15	10,300	3.45	8,050	4.1	11,100	3.45	7,600	3.2	2,500	14
15					4.65	12,600	3.45	6,750	3.4	7,800	3.35	6,650	2.45	1,650	4.1	10,000	3.45	8,050	4.05	10,800	4.25	12,000	3.35	2,500	15
16					4.6	12,300	3.4	6,500	3.2	6,800	3.3	6,400	2.6	1,750	4.15	10,300	3.65	9,050	4.1	11,100	3.95	10,300	3	2,500	16
17					4.5	11,700	3.35	6,300	3.4	7,800	3.25	6,150	2.45	1,400	4.1	10,000	3.7	9,300	4.15	11,100	3.7	8,600	2.85	2,500	17
18					4.65	12,600	3.3	6,100	3.35	7,550	3	5,100	2.5	1,500	4.1	10,000	3.65	9,050	4.05	10,600	3.7	8,600	2.65	2,500	18
19					4.7	12,900	3.25	5,900	3.2	6,800	3	5,100	2.55	1,620	3.95	9,700	3.75	8,650	3.95	10,000	3.75	8,600	2.6	2,500	19
20					5	14,700	3.3	6,100	2.9	5,400	2.3	2,800	2.6	1,750	3.85	9,150	3.9	9,400	3.9	9,700	3.8	8,900	3.85	2,500	20
21					4.9	14,100	3.55	7,020	2.95	5,600	2.9	4,200	2.6	1,750	3.85	9,150	3.9	9,400	4.1	10,600	3.75	8,300	3.8	2,500	21
22					5.3	16,500	3.65	7,480	3.1	6,300	2.85	4,000	2.6	1,750	3.8	8,900	3.85	9,150	3.95	9,980	3.7	8,000	3.75	2,500	22
23					6	20,700	3.8	8,200	3.45	8,050	2.7	3,600	2.65	1,880	3.85	9,150	3.95	9,700	3.9	10,000	3.7	7,700	3.85	2,500	23
24					6.2	22,100	3.8	8,800	3.4	7,800	2.65	3,000	2.8	2,250	3.75	8,650	3.9	9,400	3.9	10,000	3.6	7,200	3.75	2,500	24
25					6.1	21,400	3.7	8,200	3.3	7,300	2.65	3,000	2.95	2,650	3.8	8,900	3.95	9,700	3.85	9,400	3.5	6,500	3.8	2,500	25
26					6.25	22,400	3.6	7,800	3.25	7,050	2.6	2,800	3	2,800	3.75	8,650	3.8	8,900	3.75	8,810	3.45	6,260	3.7	2,500	26
27					6.65	25,200	3.75	9,100	3.1	6,300	2.8	3,400	2.45	2,650	3.75	8,650	3.9	9,400	3.75	8,810	3.5	6,500	3.75	2,500	27
28					6.9	27,000	3.95	10,200	3.05	6,050	2.9	3,300	3.15	3,300	3.75	8,650	4.1	10,600	3.75	8,810	3.4	6,300	3.75	2,500	28
29					6.95	27,400	3.8	9,400	2.9	5,400	2.85	3,150	3.35	4,100	3.7	8,400	3.95	9,700	3.7	8,600	3.45	6,800	3.7	2,500	29
30					6.55	24,600	3.65	9,050	2.75	4,800	2.8	3,000	3.25	3,700	3.6	7,900	3.9	9,400	3.65	8,400	3.3	6,400	3.6	2,500	30
31					6.6	24,900			2.8	5,000			3.2	4,000		7,350			3.75	8,810			3.65	2,500	31
Mean					16,500		8,960		7,070		4,830		2,330		8,400		7,930		9,620		8,790		3,360		
Run-off in acre-ft.					1,010,000		533,000		435,000		287,000		143,000		516,000		472,000		592,000		523,000		207,000		
Maximum					27,400		18,600		8,800		7,650		4,100		10,300		10,600		11,400		12,800		7,500		
Minimum					11,200		5,900		4,800		2,800		1,400		5,800		5,450		8,400		6,260		2,500		

PLATTE RIVER AT SOUTH BEND

Location. A quarter of a mile north of the B. & M. Railroad depot in the northeast quarter of Section 13, Township 12 North, Range 10 East.

Records Available. From March 25 to September 20, 1903.

Oage. An inclined yellow pine staff set at an angle of 30° 26' to horizontal.

Bench Marks. No. 1. A 6 inch by 6 inch by 24 inch stone set on end at a point just inside of fence on east side of the road leading to the bridge, one hundred thirty feet south of south end of bridge, twenty feet north of a clump of six willow trees and thirty-nine feet west of second telephone pole south of bridge in pasture to the east of road. Elevation, 6.59 feet. No. 2. Sill of north window of B. & M. railroad depot. Elevation, 10.46 feet. No. 3. Southeast corner of south east cornerstone of stone masonry abutment of old bridge. Elevation, 13.78 feet. Bench mark datum is zero of gage.

Channel. Straight at gaging section. Bed of shifting sand.

Accuracy. The gagings have been made from the B. & M. railroad bridge ten miles up stream, adding the discharges of Clark, Salt and Wahoo Creeks, which flow into the river between the two bridges. This and the shifting nature of the bed has rendered the results of questionable accuracy.

The station was abandoned September 26, 1903 because the foot bridge from which it was expected to gage had not been repaired.

Actual Discharge Measurements of Platte River, at South Bend, During Year Ending September 30, 1903

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1903		Feet	charge	1903		Feet	Sec.-ft.
May 5.....	T. C. Stevens.....	3.8	13,178	Sept. 14.....	T. C. Stevens.....	2.3	11,986
Aug. 31.....	do	4.9	38,846				

MIDDLE LOUP AT ST. PAUL

Location. The station at the combination railroad and highway bridge one mile south of St. Paul in Section 10, Township 15 North, Range 10 West. The location is shown on the St. Paul Topographic Atlas sheet.

Records Available. During the open season of the years 1895 to 1897 inclusive and for the years 1899 and 1903.

Gage. During the period from 1895 to 1897 the gage was an inclined staff on the right bank just below the bridge with its datum 7.35 feet below a standard U. S. G. S. bench mark fifty feet southeast of the right approach. On April 18, 1899 a second inclined staff was installed on the right bank one hundred thirty feet down stream from the bridge and on June 7, 1899, a third inclined gage was installed, on the right bank two hundred feet down stream. The two later gages have the same datum, 7.54 feet below the standard bench mark above described. During 1903 a vertical staff gage was spiked to the downstream pile near the center of the bridge. Its datum was maintained the same as that of the two gages used during 1899, i. e., 7.54 feet below the bench mark described. As the gages were located at different sections of the channel no attempt has been made to refer the readings during the several periods to the same datum.

Channel. Shifting sand.

Accuracy. Affected by shallow water at low stages and by shifting bed.

Actural Discharge Measurements of Middle Loup River, at St. Paul

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1895		Feet	Sec.-ft.	1899		Feet	Sec.-ft.
June 28....	O. V. P. Stout....	1.77	1,046	May 4....	Glen E. Smith....	1.84	969
Sept. 7....	do	1.62	868	May 18....	do	1.7	1,186
1896				June 7....	do	2.3	920
May 8....	E. N. Carbin....	1.86	940	June 27....	do	4.2	14,681
June 11....	O. V. P. Stout....	1.24	1,400	July 20....	do	2.18	888
July 9....	E. F. Youngfelt....	1.42	1,332	Aug. 7....	do	2.68	1,612
Aug. 21....	do	1.42	984	Aug. 23....	do	2.2	1,113
Sept. 23....	do	1.53	1,015	Sept. 7....	do	2.25	983
1897				Sept. 19....	do	2.4	1,112
April 21....	Adna Dobson....	1.74	1,792	Sept. 20....	do	2.25	988
May 11....	do	1.77	1,441	1902			
May 27....	do	1.84	1,256	May 23....	Glen E. Smith....	....	1,538
June 13....	O. V. P. Stout....	1.87	979	1903			
July 16....	do	1.58	816	April 7....	J. C. Stevens....	....	2,184
Aug. 27....	do	1.56	666	May 16....	do	2.43	1,864
Aug. 18....	do	1.55	661	May 14....	do	2.3	1,764
Oct. 9....	Adna Dobson....	1.7	814	June 2....	do	2.75	2,772
Oct. 30....	do	1.68	1,671	Aug. 11....	do	2.68	1,761
1899				Sept. 21....	E. C. Murphy....	2.41	1,170
April 18....	Glen E. Smith....	2.1	988	1904			
				June 10....	R. D. Hubbard....	....	12,800

Daily Gage Height (in feet) and Discharge (in second-feet) of Middle Loup River, near St. Paul, for 1896

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.73	1,490	1.64	1,440	1.9	1,720	1.35	1,315	1.62	1,685	1.3	806	1.5	970	1.47	1,47			1
2							1.63	1,360	1.53	1,300	1.78	1,550	1.3	1,240	1.58	1,550	1.31	806	1.55	1,022	1.22	1,22			2
3							1.43	1,060	1.44	1,150	1.7	1,430	1.32	1,270	1.45	1,450	1.35	854	1.45	914	1.25	1,25			3
4							1.42	1,020	1.52	1,230	1.72	1,460	1.33	1,270	1.4	1,200	1.4	914	1.42	880	1.22	1,22			4
5							1.43	1,030	1.43	1,050	1.59	1,290	1.34	1,270	1.43	1,210	1.32	818	1.5	985	1.15	1,15			5
6							1.33	900	1.33	900	1.54	1,215	1.31	1,195	1.39	1,125	1.45	962	1.52	1,010	1.3	1,3			6
7							1.42	1,020	1.41	1,015	3.35	1.26	1,080	1.3	955	1.3	782	1.45	980	1.52	2.84				7
8							1.51	1,170	1.31	870	1.85	2,250	1.2	960	1.31	942	1.31	794	1.5	1,000	1.68	3			8
9							1.61	1,310	1.64	1,360	1.53	1,775	1.34	1,332	1.3	900	1.32	806	1.42	914	1.52	3			9
10							1.53	1,200	1.41	1,015	1.35	1,515	1.67	1,770	1.35	955	1.47	974	1.53	1,046	1.18	2.98			10
11							1.43	1,050	1.32	890	1.27	1,400	1.47	1,420	1.38	980	1.54	1,058	1.55	1,082	1.2	2.9			11
12							1.32	1,800	1.42	1,030	1.27	1,465	1.38	1,270	1.36	942	1.5	1,010	1.5	1,010	1.24	2.88			12
13							1.94	1,700	1.44	1,060	1.2	1,300	1.34	1,300	1.3	840	1.52	1,034	1.45	974	1.35	2.87			13
14							1.33	1,230	1.5	1,150	1.2	1,300	1.29	1,100	1.34	885	1.65	1,190	1.5	1,034	1.48	2.87			14
15							1.54	1,310	1.45	1,080	1.35	1,560	1.26	1,040	1.34	870	1.61	1,142	1.55	1,110	1.52	2.83			15
16							1.62	1,330	1.69	1,440	1.38	1,590	1.27	1,050	1.35	890	1.55	1,070	1.43	962	1.57	2.83			16
17							1.64	1,060	1.6	1,300	1.36	1,540	1.3	1,100	1.29	810	1.54	1,058	1.43	1,25	1.25	2.8			17
18							2.11	2,000	1.57	1,260	1.34	1,485	1.33	1,170	1.35	890	1.5	1,000	1.45	1,000	1.55				18
19							2.4	2,430	1.51	1,165	1.39	1,560	1.32	1,160	1.34	870	1.55	1,058	1.5	1,070	1.62				19
20							1.84	1,730	1.54	1,210	1.35	1,470	1.33	1,170	1.4	955	1.6	1,118	1.53	1,106	1.15	1.95			20
21							1.42	1,070	1.61	1,310	1.47	1,660	1.38	1,260	1.43	984	1.62	1,130	1.45	1,010	1.2	1.98			21
22							1.32	910	1.44	1,080	1.45	1,650	1.36	1,220	1.44	1,000	1.55	1,046	1.51	1,082	1.35	2			22
23							1.51	1,170	1.51	1,170	1.43	1,580	1.35	1,210	1.34	880	1.53	1,015	1.44	1,000	1.68				23
24							1.54	1,210	1.45	1,080	1.56	1,795	1.4	1,300	1.31	840	1.45	926	1.5	1,070	2.05				24
25							1.63	1,340	1.51	1,170	1.6	1,820	1.4	1,300	1.35	880	1.5	985	1.43	985	2.21	1.76			25
26							1.34	1,000	1.54	1,210	1.48	1,645	1.48	1,450	1.3	820	1.55	1,034	1.52	1,094	2.75	1.72			26
27							1.53	1,190	1.53	1,200	1.41	1,505	1.53	1,540	1.25	760	1.55	1,034	1.5	1,070	2.3				27
28							1.6	1,300	1.4	1,000	1.4	1,417	1.5	1,480	1.3	820	1.61	1,106	1.45	1,010	2.6	1.57			28
29							1.9	1,860	1.54	1,215	1.33	1,315	1.42	1,320	1.34	855	1.65	1,154	1.76	1,370	1.6	1.6			29
30							1.94	1,860	1.44	1,070	1.4	1,455	1.39	1,280	1.25	746	1.6	1,094	1.84	1,478	2.75	1.74			30
31							1.63		1.63	1,345				1.62	1,670	1.23	720		1.53	1,106		1.74			31
Mean							1.364		1.154		1.542		1.271		975		993		1,041						
Run-off in acre-ft.							81,200		71,000		88,700		78,100		59,900		59,100		64,000						
Maximum							2,430		1,440		2,250		1,770		1,680		1,190		1,480						
Minimum							900		870		1,220		960		722		782		880						

Daily Gage Height (in feet) and Discharge (in second-feet) of Middle Loup River, near St. Paul, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	1.5		2.4		2.26		1.78	1.970	1.43	1.210	1.66	1.030	2.64	1,800	1.42	605	1.67	670	1.6	710					1
2	1.2				3.59		1.95	2,500	1.5	1,270	1.69	1,040	2.6	1,740	1.48	625	1.6	650	1.58	705					2
3			2.35		3.2		2.4	3,920	1.54	1,290	1.94	1,240	2.17	1,220	1.5	625	1.55	602	1.65	735					3
4							2.35	3,600	1.6	1,350	1.86	1,140	1.85	955	1.49	620	1.48	615	1.72	765					4
5							1.8	1,970	1.65	1,380	1.86	1,130	1.75	895	1.67	685	1.5	620	1.76	785					5
6	2						1.95	2,000	1.68	1,410	1.67	960	1.68	866	1.75	700	1.62	855	1.68	770					6
7	2.2				3.61		1.89	2,300	1.65	1,360	1.76	1,015	1.65	845	1.71	685	1.44	600	1.65	770					7
8	2.45		2.31				1.78	1,970	1.7	1,410	1.75	1,000	1.58	815	1.95	755	1.38	585	1.67	790					8
9	2.57						1.63	1,330	1.78	1,490	1.74	990	1.55	800	1.92	745	1.43	600	1.64	795					9
10					3		1.66	1,600	1.75	1,440	1.79	1,005	1.69	865	2.25	885	1.74	690	1.78	870					10
11	2.89				2.26		1.8	1,970	1.77	1,440	1.9	1,080	1.7	870	1.78	707	1.7	685	1.82	900					11
12			2.33		1.45		2.25	3,270	1.72	1,360	1.85	1,020	1.78	915	1.85	720	1.73	700	1.8	900					12
13	2.88						2.03	2,700	1.78	1,410	1.77	960	1.72	880	1.77	700	1.76	705	1.68	870					13
14	2.37						2.25	3,400	1.76	1,360	1.8	960	1.55	800	1.75	690	1.71	695	1.8	960					14
15	2.7				1.5		2.05	2,850	1.63	1,200	1.86	1,000	1.5	780	1.73	685	1.74	705	1.72	965					15
16			2.3				1.9	2,300	1.65	1,200	1.84	970	1.47	815	1.68	670	1.72	700	1.83	1,040					16
17					2.1		1.9	2,300	1.67	1,200	1.89	990	1.53	780	1.64	655	1.65	680	1.9	1,140					17
18			2.38		2.1		1.65	1,500	1.77	1,300	1.87	970	1.6	790	1.6	645	1.63	675	1.9	1,170					18
19	2.47				1.85		1.6	1,330	1.73	1,240	1.83	945	1.61	780	1.66	660	1.68	690	1.86	1,170					19
20			2.74		1.86		1.63	1,800	1.68	1,180	1.68	860	1.72	805	1.63	650	1.65	685	1.8	1,150					20
21							1.75	1,780	1.86	1,350	1.7	870	1.67	770	1.65	660	1.67	695	1.73	1,140					21
22					1.91		1.7	1,780	1.68	1,150	1.75	895	1.64	745	1.64	655	1.69	705	1.75	1,200					22
23					1.9		1.58	1,540	1.8	1,260	1.77	905	1.71	755	1.67	670	1.7	710	1.78	1,290					23
24			2.15				1.77	1,760	1.73	1,180	1.68	860	1.68	735	1.65	660	1.68	705	1.76	1,340					24
25					1.7		1.86	1,880	1.77	1,210	1.7	870	1.68	720	1.51	620	1.65	700	1.73	1,370					25
26	2.4		2		1.7		1.78	1,720	1.73	1,160	1.87	970	1.7	715	1.48	610	1.71	720	2.2	2,130					26
27							1.8	1,730	1.83	1,250	1.92	1,005	1.58	670	1.5	615	1.64	705	2.55	2,800					27
28							1.75	1,620	1.78	1,190	1.79	920	1.55	660	1.56	605	1.68	720	1.98	1,960					28
29							1.88	1,800	1.75	1,140	1.77	905	1.67	690	1.64	660	1.5	670	1.8	1,760					29
30							1.6	1,420	1.67	1,060	3.11	2,600	1.65	685	1.72	685	1.56	695	1.5	1,440					30
31					1.69					1.68	1,055			1.58	660	1.75	690		1.77	1,840					31
Mean								2,000		1,274		1,037		865		673		675		1,169					
Run-off in acre-ft.								119,000		78,300		61,700		53,200		41,400		40,200		71,900					
Maximum								3,600		1,490		2,600		1,800		885		855		2,800					
Minimum								1,330		1,055		860		660		605		585		705					

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Daily Gage Height (in feet) and Discharge (in second-feet) of Middle Loup River, near St. Paul, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									1.76	877	1.59	706	2	855	2.24	1,035	2.29	1,074	2.24	983					1
2									1.8	907	1.41	628	1.87	780	2.12	964	2.29	1,057	2.2	958					2
3									1.79	818	1.4	610	1.9	785	2.16	1,005	2.33	1,074	2.35	1,070					3
4									1.81	945	1.62	667	1.9	820	3.1	2,133	2.19	964	2.34	1,057					4
5									1.95	1,050	1.53	684	2.12	1,420	2.74	1,659	2.16	938	2.37	1,083					5
6									1.82	970	1.44	616	2.78	1,920	2.7	1,619	2.21	964	2.4	1,110					6
7									1.9	1,043	1.54	634	3.17	1,300	2.65	1,568	2.18	938	2.37	1,083					7
8									2.08	1,240	1.29	579	2.71	1,035	2.57	1,468	2.28	1,005	2.34	1,057					8
9									1.93	1,119	1.32	568	2.42	861	2.66	1,593	2.32	1,035	2.36	1,074					9
10									1.87	1,110	1.25	547	2.16	843	2.25	1,137	2.34	1,050	2.36	1,074					10
11									1.81	1,092	1.24	883	2.12	835	2.2	1,092	2.34	1,050	2.34	1,057					11
12									1.78	1,101	1.2	860	2.09	883	2.18	1,074	2.32	1,035	2.37	1,083					12
13									1.75	1,110	1.33	938	2.18	1,800	2.13	1,043	2.28	1,013	2.36	1,074					13
14									1.75	1,101	1.32	931	3.1	1,250	2.25	1,146	2.25	990	2.4	1,110					14
15									1.6	1,035	1.31	925	2.65	1,155	2.39	1,294	2.3	1,028	2.39	1,101					15
16									1.62	1,083	1.32	931	2.55	998	2.36	1,261	2.3	1,028	2.49	1,193					16
17									1.62	1,101	1.3	919	2.36	895	2.31	1,212	2.4	1,110	2.47	1,174					17
18									2.1	990	1.72	1,203	1.28	913	2.2	856	2.3	1,203	2.38	1,092	2.49	1,193			18
19									2.09	990	1.66	1,137	1.19	860	2.12	856	2.27	1,174	2.36	1,074	2.42	1,128			19
20									2.12	1,020	1.7	1,137	1.15	843	2.12	843	2.21	1,119	2.3	1,028	2.4	1,110			20
21									2.09	1,005	1.8	1,183	1.32	938	2.09	856	2.2	1,110	2.3	1,028	2.41	1,119			21
22									2.1	1,020	2.15	1,518	1.34	951	2.11	865	2.15	1,065	2.3	1,028	2.42	1,128			22
23									2	958	2.05	1,327	1.29	919	2.12	895	2.2	1,110	2.3	1,028	2.41	1,119			23
24									2	971	1.7	958	1.29	919	2.15	847	2.2	1,119	2.27	1,005	2.4	1,110			24
25									2.03	998	1.68	907	2.34	951	2.06	833	2.15	1,058	2.26	998	2.45	1,155			25
26									2.6	976	1.6	834	4.17	1,400	2.02	856	2.19	1,083	2.24	983	2.42	1,128			26
27									2.12	1,083	1.83	877	3.51	3,900	2.06	1,020	2.16	1,050	2.27	1,005	2.45	1,155			27
28									2.39	1,372	1.92	938	3.3	2,610	2.3	958	2.12	1,013	2.26	998	2.44	1,146			28
29									2	1,013	1.66	784	2.84	1,800	2.2	.....	2.1	983	2.24	983	2.47	1,174			29
30									1.74	856	1.49	706	2.35	1,155	2.1	925	2.13	990	2.22	971	2.49	1,193			30
31									1.84	796	.....	.....	.....	2.42	1,184	2.21	1,035	.....	2.49	1,193					31
Mean									1,019	1,036		1,444		1,007		1,207		1,019		1,109					
Run-off in acre-ft.									60,600	63,700		85,900		61,900		74,200		60,600		68,200					
Maximum									1,370	1,520		3,900		1,920		2,130		1,110		1,190					
Minimum									856	706		547		780		964		938		958					

Daily Gage Height (in feet) and Discharge (in second-feet) of Middle Loup River, near St. Paul, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									2.56	1,970	2.85	3,500	2.55	1,550	3.5	8,300	2.5	1,430	2.4	1,250	2.35	1,160			1
2									2.55	2,300	2.8	3,100	2.55	1,550	3.5	8,300	2.4	1,250	2.53	1,550	2.55	1,550			2
3									2.55	2,300	2.7	2,300	2.9	3,500	3	4,300	2.4	1,250	2.45	1,340	2.55	1,550			3
4									2.48	1,970	2.6	1,820	3.88	12,000	2.65	1,820	2.4	1,250	2.5	1,430	2.3	1,100			4
5									2.48	1,970	2.7	2,300	3.05	4,700	2.45	1,340	2.4	1,250	2.55	1,550	2.25	1,050			5
6									2.5	1,970	2.6	1,820	2.7	1,970	2.3	1,100	2.5	1,430	2.6	1,670	2.2	1,000			6
7									2.5	2,300	2.65	1,820	2.55	1,550	2.2	1,000	2.4	1,250	2.6	1,670	2.2	1,000			7
8									2.55	2,700	2.62	1,670	2.45	1,340	2.2	1,000	2.5	1,430	2.6	1,670	2.2	1,000			8
9									2.48	2,300	2.6	1,670	2.4	1,250	2.45	1,340	2.5	1,430	2.5	1,430	2.2	1,000			9
10									2.45	1,970	2.55	1,550	2.45	1,340	2.4	1,250	2.55	1,550	2.4	1,250	2.2	1,000			10
11									2.8	5,100	2.55	1,550	2.45	1,340	2.65	1,820	2.5	1,430	2.25	1,050	2.2	1,000			11
12									2.74	4,700	2.55	1,550	2.35	1,160	2.82	2,700	2.4	1,250	2.25	1,050	2.2	1,000			12
13									2.64	3,500	2.5	1,430	2.35	1,160	3.15	5,500	2.55	1,550	2.65	1,820	2.25	1,050			13
14									2.3	1,670	2.5	1,430	2.72	1,970	2.87	3,100	2.6	1,670	2.5	1,430	2.25	1,050			14
15									2.15	1,250	2.5	1,430	2.77	2,300	2.7	1,970	2.55	1,550	2.45	1,340	2.25	1,000			15
16								2.55	1,550	2.35	1,670	2.55	1,550	2.65	1,820	2.75	2,300	2.5	1,430	2.4	1,250	2.3	1,100		16
17								2.37	1,160	2.35	1,670	2.5	1,430	2.65	1,820	2.6	1,670	2.5	1,430	2.25	1,050	1.7	845		17
18								2.4	1,250	2.5	1,970	2.5	1,430	2.55	1,550	2.7	1,970	2.45	1,340	2.25	1,050	1.9	870		18
19								2.58	1,820	2.4	1,670	2.5	1,430	2.55	1,550	2.5	1,430	2.4	1,250	2.2	1,000	2	890		19
20																									20
21								2.7	2,300	2.55	2,300	2.45	1,340	2.45	1,340	2.4	1,250	2.4	1,160	2.2	1,000	2.1	930		21
22								2.51	1,550	2.4	1,550	2.58	1,670	2.4	1,250	2.4	1,250	2.4	1,160	2.2	1,000				22
23								2.5	1,550	2.9	4,700	2.5	1,430	2.4	1,250	2.4	1,250	2.45	1,250	2.2	1,000				23
24								2.5	1,670	2.87	4,300	2.72	1,970	2.4	1,250	2.4	1,250	2.45	1,250	2.2	1,000				24
25								2.5	1,670	2.75	3,500	2.98	4,950	2.35	1,160	3.35	1,160	2.4	1,160	2.25	1,050				25
26								2.5	1,670	2.85	3,900	2.8	2,700	2.3	1,100	3.75	10,500	2.4	1,160	2.25	1,050				26
27								2.4	1,430	2.97	4,700	2.75	2,300	2.3	1,100	3.85	11,500	2.45	1,250	2.3	1,100				27
28								2.42	1,550	2.7	2,700	2.65	1,820	2.3	1,100	3.6	9,100	2.4	1,160	2.2	1,000				28
29								2.69	3,150	3.04	5,600	2.65	1,820	2.45	1,340	3.2	5,900	2.45	1,250	2.2	1,000				29
30								2.58	2,300	3.93	12,400	2.65	1,820	2.77	2,300	2.9	3,500	2.45	1,250	2.25	1,050				30
31										3.3	7,200			2.7	1,970	2.55	1,550			2.25	1,050				31
Mean										1,719		3,209		1,938		2,023		3,365		1,330		1,234			
Run-off																									
in acre-ft.										51,100		197,300		115,300		124,700		206,900		79,100		75,900			
Maximum										3,150		12,400		4,950		12,000		11,500		1,670		1,820			
Minimum										1,160		1,250		1,340		1,100		1,000		1,160		1,000			

NORTH LOUP RIVER NEAR ST. PAUL

Location. Four miles north of town in Section 22, Township 15 North, Range 10 West.

Records Available. During the open seasons of the years, 1895 to 1897, inclusive, and 1899 and 1903.

Gage. During the first period the gage was an inclined staff on the left bank at the lower side of an old wagon bridge. During 1899 an inclined staff gage was used which was located on the left bank about two hundred feet below the first one. During 1903 a gage was used which was located on the right bank two miles below a new steel bridge which had replaced the old one.

Bench Marks. No. 1. A standard U. S. G. S. bench mark on the left bank one hundred seventy feet north of the first gage. Elevation, 6.54 above the zero of the original gage, and 5.57 feet above the second gage. No. 2. A notch in an ash tree thirty feet south of the third gage. Elevation 6.47 feet above its zero.

Channel. Straight above the bridge for about five hundred feet and below for about one thousand feet. Bed of shifting sand.

Accuracy. Affected by shifting sand and varying angle of the stream with the bridge.

Actual Discharge Measurements of North Loup River, at St. Paul

Date	Hydrographer	Gage height	Discharge	Date	Hydrographer	Gage height	Discharge
1895		Feet	Sec.-ft.	1899		Feet	Sec.-ft.
May 4	O. V. P. Stout	3.27	1,520	May 5	Glen E. Smith	1.77	11,380
June 28	do	3.21	1,127	May 18	do	1.65	8,770
Sept. 6	do	3.04	816	June 7	do	1.58	10,240
1896				June 27	do	3.9	76,900
May 9	E. M. Carbin	3.4	1,138	July 20	do	1.35	811
June 11	O. V. P. Stout	2.3	1,337	Aug. 8	do	1.7	10,260
July 9	E. T. Youngfelt	2.1	1,120	Aug. 23	do	1.47	320
April 21	do	2.05	880	Sept. 7	do	1.7	917
Sept. 23	do	2.15	935	Sept. 19	do	1.5	796
1897				Sept. 30	do	1.47	776
April 20	Adna Dobson	2.89	1,281	1902			
May 11	do	2.85	1,080	May 23	B. E. Forbes . . . . .	....	1,186
May 28	do	2.76	1,064	1903			
June 19	O. V. P. Stout	2.94	933	April 15	J. C. Stevens	1.44	1,042
July 17	do	2.66	615	May 14	do	1.7	1,223
July 28	do	2.85	708	June 2	do	1.94	1,845
Aug. 18	do	2.82	659	July 16	do	1.65	1,017
Oct. 10	Adna Dobson	2.92	819	Aug. 11	do	1.44	961
Oct. 31	do	3.17	1,525	Sept. 19	E. C. Murphy	1.49	807
1899				Nov. 28	J. C. Stevens	1.6	1,785
April 18	Glen E. Smith	1.81	16,780	1904			
				June 10	R. D. Hubbard . . . . .	....	2,150

Daily Gage Height (in feet) and Discharge (in second-feet) of North Loup River, near St. Paul, for 1895

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1											3.25	1,453	3.11	1,017	3	702	3.1	987	3.15	1,137	3.1	987	3.15	1,137	1	
2												4	958	3.09	842	3.1	987	3.15	1,137	3.15	1,137	3.15	1,137	3.15	1,137	2
3											3.85	3,766	3.14	1,107	3.07	900	3.05	842	3.18	1,293	3.2	1,293	3.2	1,293	3	
4											3.4	1,952	3.09	958	3.2	1,293	2.98	648	3.2	1,293	3.2	1,293	3.2	1,293	4	
5									3.27	1,520	3.35	1,787	3.07	900	3.12	1,047	3	702	3.2	1,293	3.2	1,293	3.2	1,293	5	
6									3.26	1,486	3.22	1,357	3.05	842	3.1	987	3	758	3.25	1,453	3.17	1,200	3.17	1,200	6	
7									3.24	1,421	3.25	1,453	3.12	1,047	3.07	900	3.02	702	3.2	1,293	3.19	1,262	3.19	1,262	7	
8									3.2	1,293	3.25	1,453	3.09	958	3	702	3.1	987	3.19	1,262	3.17	1,200	3.17	1,200	8	
9									3.15	1,137	3.3	1,618	3.1	987	3.3	1,618	3.1	702	3.18	1,262	3.15	1,137	3.15	1,137	9	
10									3.2	1,293	3.25	1,453	3.1	987	3.25	1,453	3.07	900	3.2	1,293	3.12	1,047	3.12	1,047	10	
11									3.3	1,618	3.25	1,618	3.1	987	3.07	900	3.07	871	3.2	1,293	3.1	987	3.1	987	11	
12									3.24	1,421	3.25	1,618	3.09	958	3	702	3.06	702	3.2	1,293	3.1	987	3.1	987	12	
13									3.2	1,293	3.22	1,357	3.13	1,077	3.3	1,618	3	702	3.2	1,293	3.07	900	3.07	900	13	
14									3.2	1,293	3.23	1,337	3.14	1,107	3.15	1,137	3	648	3.21	1,325	3.02	758	3.02	758	14	
15									3.2	1,293	3.2	1,293	3.14	1,107	3.1	987	3.12	1,077	3.2	1,293	3.05	842	3.05	842	15	
16									3.15	1,137	3.22	1,357	3.1	987	3.13	1,077	3.21	1,351	3.22	1,351	3.05	842	3.05	842	16	
17									3.15	1,137	3.35	1,787	3.07	900	3.1	987	3.12	1,047	3.23	1,389	3	702	3	702	17	
18									3.16	1,168	3.3	1,618	3.05	842	3.02	758	3.14	1,107	3.2	1,293	3.02	758	3.02	758	18	
19									3.1	987	3.1	987	3.04	814	3	702	3.07	929	3.2	1,293	3	702	3	702	19	
20									3.12	1,047	3.15	1,137	3.05	842	2.99	675	3.15	1,137	3.02	1,040	3	702	3	702	20	
21									3.1	987	3.1	987	3	702	3	702	3.12	1,047	3.09	958	2.95	566	2.95	566	21	
22									3.05	842	3.1	987	3.05	842	3	702	3.9	3,991	3.1	987	2.66				22	
23									3.06	871	3.12	1,047	3.05	842	3.35	1,787	3.35	1,787	3.1	987	2.5				23	
24									3.05	842	3.13	1,077	3.05	842	3.23	1,389	3.2	1,293	3.07	900	2.45				24	
25									3.08	929	3.1	987	3	702	3	702	3.2	1,293	3.08	928	2.45				25	
26									3.08	842	3.12	1,047	2.99	675	2.98	648	3.19	1,262	3.08	928	3.7				26	
27									3.06	871	3.18	1,230	2.97	620	2.96	593	3.17	1,200	3.05	842	3.85				27	
28									3.08	929	3.21	1,325	2.9	437	3.05	842	3.15	1,137	3.07	900	3.85				28	
29									3.06	871	3.15	1,137	2.95	566	3	702	3.11	1,017	3.05	842	3.85				29	
30									3.4	1,962	3.17	1,200	2.95	566	3.25	1,453	3.1	987	3.07	900	3.85				30	
31									3.3	1,618			2.97	620	3.1	987			3.05	842					31	
Mean									1,189		1,531			864		984		1,094		1,146		1,015				
Run-off																										
in acre-ft.									73,100		91,100		53,100		60,500		65,100		70,500		64,400					
Maximum									1,960		4,460		1,110		1,790		3,990		1,450		1,860					
Minimum									842		987		437		593		648		842		566					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Loup River, near St. Paul, for 1896

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							3.38	1,076	3.52	1,521	3.57	1,698	2.1	1,138	2.2	1,072	2.04	860	2.18	949	2.19				1
2							3.4	1,139	3.5	1,455	3.5	1,455	2.07	1,110	2.1	992	2.02	843	2.2	965	2.2				2
3							3.33	930	3.43	1,233	3.4	1,189	2.09	1,120	2.07	957	2.01	835	2.14	915	2.7			3.08	3
4							3.38	1,078	3.44	1,263	3.4	1,189	2.05	1,080	2.12	992	2.07	883	2.16	932	2.2				4
5							3.3	844	3.44	1,263	3.41	1,170	2.05	1,080	2.1	974	2.08	890	2.16	932	2.17			3.12	5
6							3.35	987	3.4	1,139	4.65	4,100	2.04	1,072	2.08	949	2.1	908	2.15	923	2.15				6
7							3.4	1,139	3.38	1,047	3.35	2,825	2.07	1,100	2.05	915	2.14	932	2.15	923	2.18			3.15	7
8							3.35	987	3.35	987	2.5	1,540	2.1	1,128	2.07	932	2.08	883	2.17	940	2.16				8
9							3.32	909	3.4	1,139	2.3	1,340	2.45	1,460	2.11	957	2.04	851	2.17	940	2.2				9
10							3.3	844	3.35	987	2.22	1,260	2.35	1,350	2	860	2.08	883	2.17	940	2.23			3.65	10
11							3.3	844	3.32	901	2.3	1,337	2.2	1,200	1.99	850	2.05	860	2.17	940	2.21				11
12							3.8	2,519	3.34	953	2.25	1,290	2.12	1,128	2.05	890	2.12	908	2.2	965	2.2			3.72	12
13							3.65	1,962	3.32	901	2.23	1,270	2.12	1,120	2.06	900	2.15	932	2.22	983	2.22				13
14							3.5	1,455	3.33	930	2.18	1,230	2.14	1,128	2.05	883	2.25	1,016	2.18	949	2.2			3.72	14
15							3.53	1,553	3.32	901	2.15	1,200	2.1	1,090	2.07	900	2.23	1,000	2.18	949	2.18			3.75	15
16							3.44	1,263	3.38	1,078	2.11	1,165	2.06	1,048	2.04	867	2.09	883	2.18	949	2.11				16
17							3.5	1,455	3.42	1,203	2.1	1,155	2.05	1,032	2.05	875	2.12	908	2.15	923	2.2			3.82	17
18							4.1	3,767	3.35	987	2.09	1,147	2.08	1,056	2.08	900	2.18	987	2.14	915	2.17				18
19							3.65	1,962	3.31	873	2.22	1,257	2.11	1,072	2.01	843	2.25	1,016	2.2	965	2.2			3.8	19
20							3.45	1,293	3.35	987	2.3	1,330	2.11	1,064	2	835	2.22	983	2.2	965	2.2				20
21							3.34	958	3.3	844	2.51	1,540	2.07	1,032	2.04	867	2.17	940	2.18	949	2.15			3.07	21
22							3.34	958	3.32	901	2.8	1,980	2.05	1,008	2.07	890	2.11	890	2.15	923	2.3				22
23							3.37	1,048	3.34	958	2.56	1,590	2.07	1,016	2.05	875	2.08	867	2.17	940	2.09			3.18	23
24							3.34	958	3.33	930	2.5	1,530	2.12	1,056	2.07	890	2.16	932	2.15	923	2.07				24
25							3.32	901	3.32	901	2.53	1,560	2.05	991	2.04	867	2.15	923	2.11	888	2.11				25
26							3.3	844	3.25	702	2.35	1,370	2.3	1,184	2.04	867	2.18	949	2.05	837	2.15			3.2	26
27							3.28	779	3.75	2,327	2.35	1,370	2.07	983	2.04	867	2.15	923	2.1	880	2.17				27
28							3.4	1,139	3.27	759	2.28	1,300	2.15	1,056	2.07	890	2.15	923	2.17	940	2.14			3.2	28
29						3.4	3.65	1,962	3.2	570	2.18	1,212	2	923	2.08	900	2.11	890	2.5	1,220	2.12				29
30						3.41	3.65	1,618	3.25	702	2.15	1,184	2.3	1,184	2.06	883	2.15	923	2.5	1,220	2.17				30
31						3.4			3.31	873			2.28	1,155	2.07	890			2.38	1,120				3.75	31
Mean								1,305		1,040		1,494		1,102		904		913		958					
Run-off																									
In acre-ft.								77,600		63,900		88,900		67,800		55,600		54,300		58,900					
Maximum								3,770		2,330		4,100		1,460		1,070		1,020		1,220					
Minimum								779		570		1,139		923		835		835		837					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Loup River, near St. Paul, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	3.85		3.7		3.7		2.86	1,150	2.95	1,250	2.65	880	3.8	1,680	2.78	640	2.75	610	2.91	740					1
2							3.04	1,460	2.93	1,220	2.7	905	3.48	1,360	2.75	620	2.75	610	2.9	740					2
3							3.82	3,300	2.9	1,180	2.76	940	4.02	1,890	2.75	620	2.85	690	2.92	760					3
4			3.72		3.78		3.9	3,530	2.94	1,210	2.84	990	3.12	1,030	2.75	620	2.79	650	2.85	720					4
5	3.8						2.8	920	2.92	1,180	2.82	960	3.13	1,030	2.81	670	2.8	650	2.85	720					5
6			3.72		3.79		2.78	920	2.93	1,180	2.81	930	2.97	890	2.76	630	2.83	680	2.88	740					6
7							2.7	690	2.95	1,190	2.79	900	2.95	860	3.12	900	2.84	690	2.88	770					7
8	4		3.75				2.63	460	2.9	1,140	2.83	920	2.97	800	2.98	790	2.85	690	2.87	770					8
9					3.8		2.68	690	2.92	1,160	2.8	890	2.74	690	2.95	770	2.73	600	2.91	800					9
10	4.4		3.85		3.86		2.64	460	2.87	1,100	2.78	860	2.81	740	2.96	780	3.35	1,100	2.91	820					10
11					4.08		3.11	1,690	2.87	1,100	2.78	850	2.83	750	2.87	740	3	800	2.9	820					11
12			3.88		4.22		3.12	1,690	2.85	1,080	2.77	840	2.81	740	2.84	690	2.97	780	2.88	820					12
13	4.7				2.84		3.1	1,690	2.82	1,060	2.78	840	2.87	780	2.82	670	2.95	770	2.93	860					13
14			3.9		2.82		3.07	1,690	2.88	1,110	2.9	930	2.83	740	2.85	690	2.92	740	2.95	900					14
15	4.5				2.8		3.05	1,460	2.85	1,080	2.95	970	2.75	690	2.82	670	2.89	720	2.97	920					15
16			3.92		2.83		2.96	1,460	2.85	1,080	2.95	960	2.67	620	2.82	570	2.89	720	3.04	1,000					16
17					2.85		2.95	1,460	2.81	1,050	2.9	905	2.8	720	2.9	720	2.85	690	3.32	1,260					17
18	4.2		3.93		2.8		2.95	1,150	2.79	1,030	3	990	2.76	680	2.91	730	2.84	690	3.25	1,210					18
19					2.8		3.04	1,460	2.76	1,020	2.94	930	2.89	780	2.85	690	2.84	690	3.01	1,020					19
20			3.95		2.86		2.88	1,280	2.77	1,030	2.9	900	2.79	700	2.82	670	2.86	700	3.12	1,130					20
21							2.93	1,320	2.76	1,020	3.7	740	2.77	680	2.83	670	2.86	700	3.05	1,080					21
22			4		2.85		2.98	1,360	2.75	1,020	3.5	1,430	2.75	650	2.8	650	2.83	680	3.02	1,080					22
23					2.85		2.92	1,400	2.77	1,030	3.3	1,230	2.78	670	2.85	690	2.85	690	3.02	1,100					23
24			3.62				2.87	1,230	2.76	1,030	3.1	1,050	2.8	680	2.79	640	2.85	690	3	1,100					24
25					2.9		2.85	1,210	2.75	1,030	2.98	940	2.83	690	2.77	630	2.84	690	3.08	1,200					25
26	3.78		3.62				2.77	1,180	2.75	1,040	2.71	720	2.8	670	2.75	610	2.87	710	3.05	1,210					26
27					3.12		2.79	1,140	2.75	1,040			2.94	770	2.73	590	2.82	670	3.03	1,230					27
28	3.82		3.62				2.83	1,170	2.7	1,010	3.89	1,770	2.81	670	2.75	610	2.83	680	3	1,230					28
29							2.89	1,210	2.68	970	3.3	1,200	2.79	650	2.8	650	2.82	670	3.02	1,290					29
30	3.8						2.9	1,210	2.68	940	4.64	2,550	2.75	610	2.77	630	2.85	700	3.01	1,320					30
31									2.67	915			2.74	620	2.73	590									31
Mean							1,329		1,080		1,032		824		675		705		979						
Run-off in acre-ft.							79,100		66,400		61,400		50,700		41,500		41,900		62,200						
Maximum							3,530		1,260		2,550		1,890		900		1,100		1,320						
Minimum							575		915		720		610		610		610		720						

204] Daily Gage Height (in feet) and Discharge (in second-feet) of North Loup River, near St. Paul, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									1.85	1,310	1.68	1,056	1.95	2,250	1.34	743	1.61	949	1.52	818					1
2									1.85	1,270	1.65	1,040	1.83	1,600	1.37	767	1.68	940	1.53	867					2
3									1.83	1,226	1.66	1,056	1.75	1,116	1.38	776	1.73	966	1.55	843					3
4									1.8	1,184	1.62	1,040	1.68	1,090	1.89	1,201	1.57	818	1.55	843					4
5									1.8	1,166	1.61	1,040	1.68	1,900	2.2	1,500	1.62	851	1.57	859					5
6									1.75	1,099	1.6	1,040	1.59	1,016	2.08	1,380	1.7	915	1.52	818					6
7									2.3	1,610	1.55	1,000	1.55	983	2.05	1,340	1.95	1,128	1.5	801					7
8									2.32	1,590	1.57	1,016	1.55	983	2.01	1,300	1.98	1,156	1.5	801					8
9									2.07	1,330	1.56	1,008	1.56	992	1.88	1,184	1.85	1,048	1.6	883					9
10									2	1,251	1.52	975	1.57	1,000	1.8	1,109	1.8	1,008	1.63	907					10
11									1.95	1,192	1.55	1,000	1.63	1,048	1.92	1,218	1.72	949	1.58	867					11
12									1.83	1,064	1.53	983	1.53	966	1.74	1,072	1.68	915	1.53	827					12
13									1.72	966	1.47	932	1.49	932	1.92	1,243	1.65	899	1.57	859					13
14									1.72	957	1.42	891	1.45	899	1.86	1,201	1.62	875	1.55	843					14
15									1.68	915	1.41	883	2.12	1,510	1.65	1,024	1.6	867	2.08	1,300					15
16									1.71	932	1.45	915	2.27	1,660	1.65	1,032	1.63	891	2.03	1,251					16
17									1.73	940	1.48	940	2.03	1,410	1.57	975	1.53	818	1.97	1,201					17
18								1.81	1,680	1.7	915	1.5	957	1.92	1,300	1.48	907	1.55	835	1.69	958				18
19								1.77	1,610	1.64	867	1.5	957	1.75	1,147	1.55	975	1.5	793	1.65	924				19
20								1.82	1,630	1.68	907	1.5	949	1.35	810	1.57	1,000	1.5	793	1.65	924				20
21									1.73	1,500	2.3	1,490	1.47	924	1.37	827	1.62	1,040	1.5	798	1.6	888			21
22									1.75	1,490	2.08	1,280	1.5	949	1.28	750	1.58	1,003	1.51	801	1.58	867			22
23									1.72	1,430	1.93	1,156	1.53	974	1.3	759	1.57	1,000	1.5	793	1.6	888			23
24									1.8	1,470	1.9	1,146	2.3	1,700	1.28	736	1.54	975	1.55	835	1.6	883			24
25									1.83	1,470	1.87	1,127	2	1,400	1.28	736	1.54	966	1.52	818	1.62	899			25
26									1.78	1,380	1.85	1,127	1.8	1,200	1.33	767	1.55	958	1.58	801	1.6	883			26
27									3.2	2,925	1.78	1,064	3.3	7,500	1.32	759	1.57	966	1.52	818	1.65	924			27
28									2.78	2,356	1.75	1,064	2.54	5,050	1.25	701	1.53	915	1.55	843	1.63	907			28
29									2.43	1,940	1.77	1,090	2.12	3,700	1.22	672	1.54	907	1.55	843	1.58	867			29
30									1.87	1,350	1.73	1,071	2.03	2,900	1.33	742	1.57	915	1.58	867	1.57	859			30
31									1.73	1,080	.....	.....	.....	1.35	759	1.59	915	.....	.....	1.58	867				31
Mean ...									1,711	1,141		1,533		1,034		1,049		888		907					
Run-off in acre-ft.									44,100	70,200		91,200		63,600		64,500		52,800		55,800					
Maximum									2,920	1,610		7,500		2,250		1,500		1,160		1,300					
Minimum									1,350	867		883		672		743		793		801					

Daily Gage Height (in feet) and Discharge (in second-feet) of North Loup River, near St. Paul, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1									1.6	1,180	1.85	1,560	1.5	810	2.55	4,070	1.45	890	1.4	700	1.6	1,290	1.3	1,290	1	
2									1.7	1,420	1.9	1,700	1.45	750	2	2,270	1.4	810	1.45	810	1.65	1,420	1.25	1,420	2	
3									1.65	1,290	1.85	1,560	2.5	3,560	(a)	.....	1.3	700	1.6	1,070	1.6	1,290	1.4	1,290	3
4									1.65	1,290	1.8	1,420	1.9	1,700	(a)	.....	1.35	750	1.4	750	1.6	1,290	1.3	1,290	4
5									1.6	1,180	1.8	1,420	1.75	1,290	(a)	.....	1.4	810	1.45	810	1.55	1,180	1.5	1,180	5
6									1.65	1,180	1.75	1,290	1.55	890	(a)	.....	1.6	1,180	1.45	810	1.5	1,070	.....	1,070	6
7									1.65	1,180	1.75	1,290	1.45	750	(a)	.....	1.5	980	1.8	1,560	1.45	1,070	.....	1,070	7
8									1.65	1,180	1.7	1,180	1.4	700	(a)	.....	1.6	1,180	1.55	980	1.6	1,420	.....	1,420	8
9									1.65	1,180	1.7	1,180	1.35	650	(a)	.....	1.55	1,070	1.5	890	1.65	1,560	.....	1,560	9
10									2.43	1.7	1,180	1.35	650	(a)	1.5	980	1.4	750	1.65	1,560	1,560	10
11									1.95	1,980	2.7	1,180	1.4	700	1.45	980	1.5	980	1.5	890	1.6	1,420	.....	1,420	11
12									1.9	1,840	1.65	1,070	1.45	750	1.5	1,070	1.6	1,180	1.5	890	1.6	1,420	.....	1,420	12
13									1.8	1,420	1.65	1,070	1.4	700	1.85	1,980	1.5	810	1.55	980	1.55	1,290	.....	1,290	13
14									1.7	1,180	1.65	1,070	1.85	1,560	1.65	1,420	1.5	810	1.65	1,290	1.55	1,290	.....	1,290	14
15								1.45	1,070	1.7	1,180	1.65	980	1.65	1,070	1.5	1,070	1.55	890	1.6	1,180	1.6	1,420	1,420	15
16								1.45	1,070	1.7	1,180	1.55	890	1.65	1,070	1.45	980	1.55	890	1.55	1,070	1.55	1,290	1,290	16
17								1.45	1,070	1.7	1,180	1.55	890	1.65	1,070	1.45	980	1.45	750	1.45	890	.7	400	400	17
18								1.5	1,180	1.65	1,070	1.5	810	1.6	980	1.5	1,070	1.5	810	1.4	810	.8	480	480	18
19								1.55	1,290	1.65	1,070	1.55	890	1.75	1,290	1.4	890	1.5	810	1.45	890	1.05	610	610	19
20								1.55	1,290	1.6	980	1.5	810	1.6	980	1.5	1,070	1.55	890	1.45	890	1.3	810	810	20
21								1.55	1,290	1.55	890	1.55	890	1.7	1,180	1.4	890	1.45	750	1.45	890	1.7	1,840	1,840	21
22								1.6	1,290	1.55	890	1.6	980	1.6	1,070	1.35	810	1.4	700	1.5	980	1.3	2,120	2,120	22
23								1.6	1,290	1.85	1,560	1.6	980	1.55	980	1.35	810	1.4	700	1.5	980	1.85	2,270	2,270	23
24								1.6	1,290	1.6	980	1.6	980	1.5	890	2.5	4,070	1.35	650	1.5	980	1.6	1,560	1,560	24
25								1.65	1,420	1.6	980	1.65	1,070	1.5	890	2.1	2,570	1.35	650	1.55	1,070	1.55	1,420	1,420	25
26								1.55	1,180	1.8	1,420	1.65	1,070	1.45	810	2.65	4,410	1.35	650	1.5	1,070	1.55	1,420	1,420	26
27								1.5	1,070	1.7	1,180	1.55	890	1.45	890	1.9	1,980	1.3	610	1.55	1,180	1.5	1,420	1,420	27
28								1.6	1,290	1.6	980	1.5	810	1.4	810	1.6	1,180	1.35	650	1.6	1,290	1.6	1,700	1,700	28
29								1.9	1,980	1.8	1,420	1.5	810	2.68	4,500	1.5	980	1.4	700	1.55	1,180	1.35	1,070	1,070	29
30								1.65	1,290	2	1,980	1.45	750	1.5	980	1.5	810	1.55	1,180	1.85	1,070	1,070	30
31								1.95	1,840	.....	.....	.....	.....	.....	1.48	980	.....	.....	1.6	1,290	.....	.....	.....	.....	31
Mean								1,273	1,276		1,089		1,170		1,631		835		997		1,316					
Run-off in acre-ft.								40,400	75,900		64,800		72,000		100,300		49,700		61,300		78,300					
Maximum								1,980	1,980		1,700		4,500		4,410		1,180		1,560		2,270					
Minimum								1,070	890		750		650		810		610		700		900					

[a] Sand on gage rod.

LOUP RIVER AT COLUMBUS

Location. The original location of this station was a little over two hundred feet above the Union Pacific Railroad Bridge which is about a mile west of town. Measurements were made from a car and cable at this place. In 1904 the cable station was abandoned and measurements were made at the highway bridge, which is a little more than a mile below the railroad bridge, until the fall of 1913. Conditions for measuring the flow here, which have never been the best, were made still worse by certain improvements on the south bank and thereupon the station was moved to the railroad bridge where gagings are made at present from the lower chord of the bridge. Passing trains in no way interfere with the work.

Records Available. From October 13, 1894 to September 30, 1914.

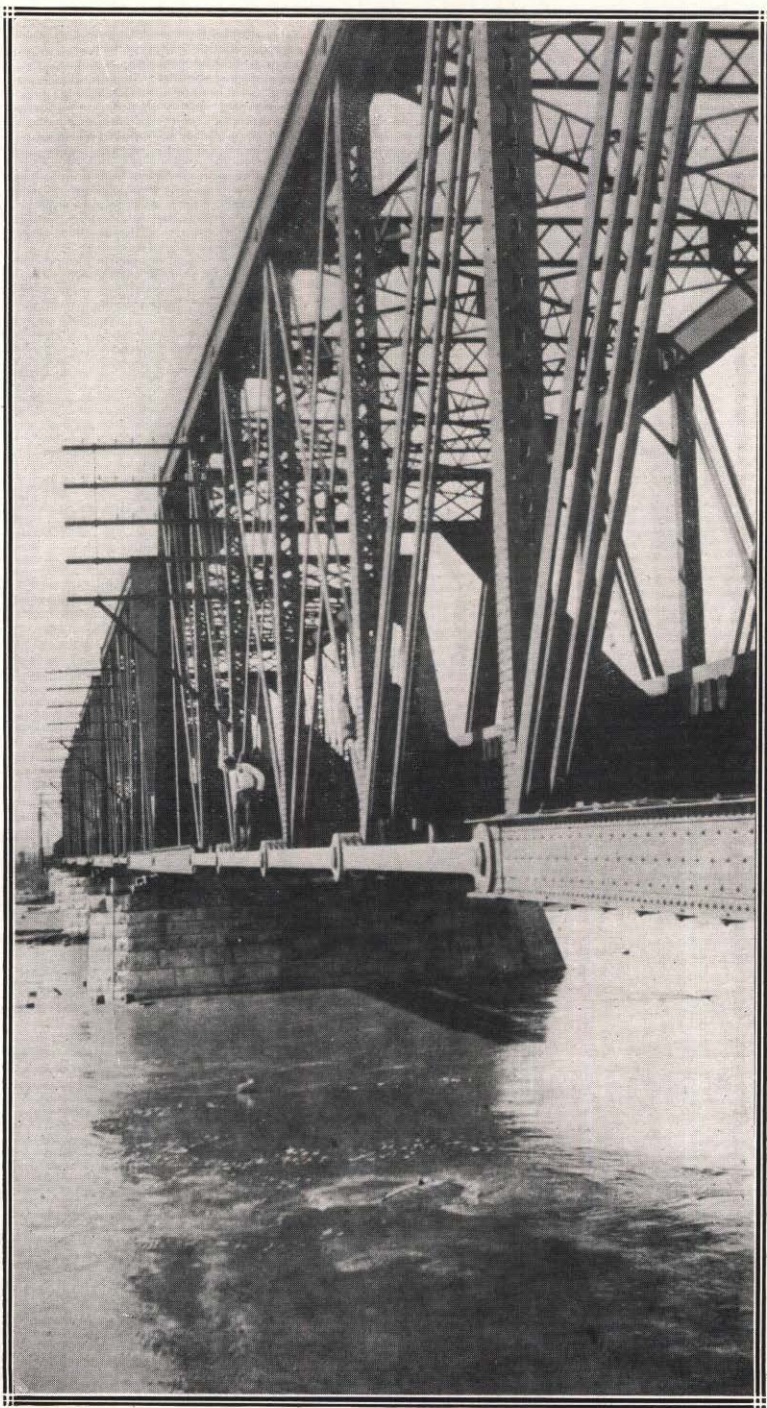
Drainage Area. 13,540 square miles.

Gage. The original gage was a staff spiked to a pile at the cable station. When the station was moved to the highway bridge a standard weight and chain was installed, set to read the same height as the first, but this relation was not permanent. The gage used at present is a staff nailed to a pile near the original staff gage but with an entirely different datum.

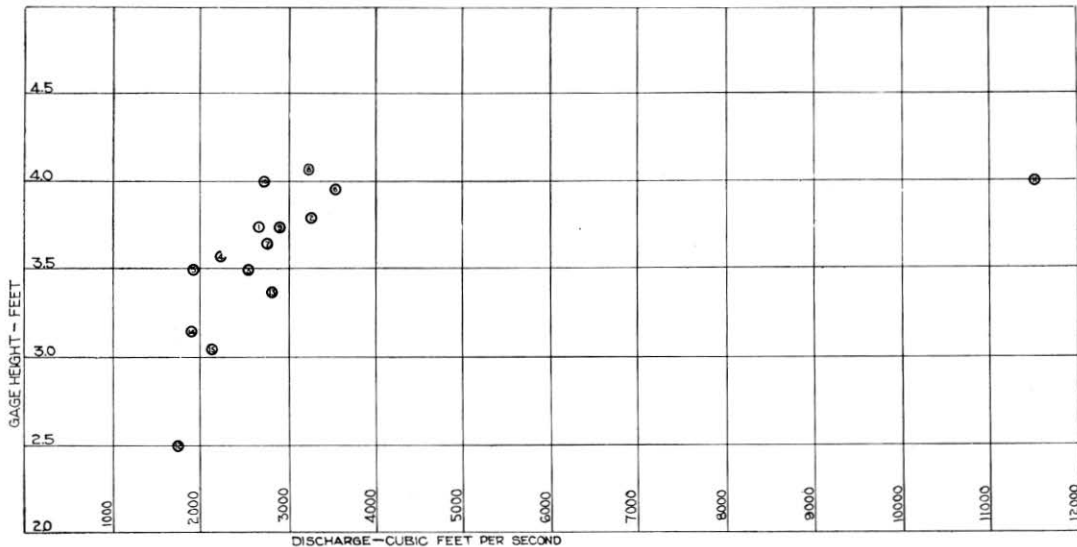
Bench Marks. No. 1. A standard U. S. G. S., bench mark, seventy-two feet east of the east bank of the river and a little more than two hundred feet north from the Union Pacific tracks. Elevation, 13.27 feet above zero of the original gage; 21.83 feet above zero of the chain gage at the highway bridge; and 12.69 feet over zero of the staff gage in present use. No. 2. A cross cut on the upstream end of the cap of the first pier from the north end of the highway bridge approach. Elevation, 10.91 feet above zero of the chain gage. No. 3. A spot of red paint on the south corner of east abutment on ledge on which the girder of the railroad bridge rests. Elevation 14.07 feet above zero of the staff gage in present use. (September, 1914).

Channel. The channel is comparatively straight at the point where measurements are made but curves at a short distance above and below the bridge. It is probably the best example of a shifting, sandy river bed in the state.

Accuracy. So variable is the bed of the river at this point that no permanent relation exists between gage height and discharge and ordinary methods cannot be used in making estimates of daily discharge. A chart showing the change which took place in the cross section in less than fourteen days is printed herewith. Also a chart showing the futility of applying ordinary methods of computation. Frequent actual measurements of discharge together with special methods described in various United States Geological Survey Water Supply Papers have made it possible to make daily estimates which are fair.



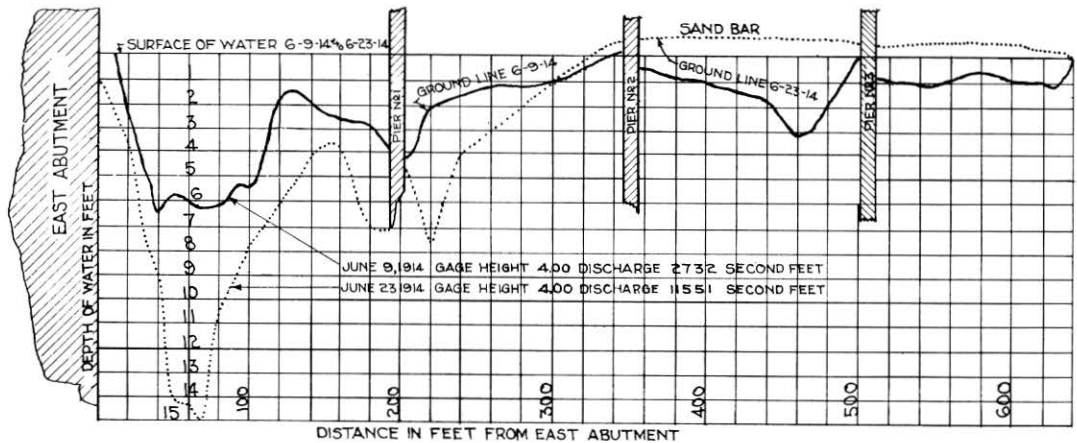
Loup River Gaging Station on U. P. R. R. Bridge West of Columbus



RECORD OF SAUINGNS

NO	DATE	G.H.	DISCH	NO	DATE	G.H.	DISCH	NO	DATE	G.H.	DISCH
1	MCH 17	3.75	2467	6	MAY 3	3.96	3554	11	JUNE 20	4.00	11551
2	MCH 28	3.80	3257	7	MAY 5	3.65	2785	12	JUL 15	2.50	1745
3	APR 5	3.50	2546	8	MAY 24	4.07	3222	13	JUL 25	3.37	2808
4	APR 19	3.58	2218	9	MAY 31	3.75	2913	14	AUG 6	3.15	1915
5	APR 25	3.50	1932	10	JUNE 8	4.00	2732	15	AUG 17	3.05	2162

STATE OF NEBRASKA
 VARYING RELATION OF DISCHARGE TO GAUGE HEIGHT
 ON
 LOUP RIVER AT COLUMBUS, NEBR.
 OFFICE OF STATE ENGINEER LINCOLN, NEB. DEPT. 1914
 DR. PRICE STATE ENGR. DR. WEEKS HYDROGRAPHER



STATE OF NEBRASKA
 CROSS SECTION SHOWING
 VARIATION IN BED OF LOUP RIVER AT COLUMBUS, NEBR.
 WITH
 IDENTICAL GAGE HEIGHT

OFFICE OF STATE ENGINEER LINCOLN, NEB. SEPT. 1914
 D.D. PRICE STATE ENGR. D.P. WEEKS JR. HYDROGRAPHER

Actual Discharge Measurements of Loup River, at Columbus

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1895		Feet	Sec.-ft.	1900		Feet	Sec.-ft.
Mar. 29	O. V. P. Stout	4.77	2,790	Aug. 12	Adna Dobson	4.44	1,985
April 21	do	4.65	2,303	26	do	4.4	2,582
June 12	do	4.55	2,835	Sept. 16	do	5	3,077
29	do	4.5	2,715	Oct. 7	do	4.55	2,294
Sept. 7	do	4.17	1,896	Nov. 31	do	4.86	3,246
1896				Dec. 19	do	4.53	3,542
Mar. 15	do	3.88	1,550	Dec. 30	do	4.44	2,674
May 3	Wm. Grant	5.12	4,256	1901			
June 4	O. V. P. Stout	4.76	3,222	Mar. 31	do	4.65	3,184
24	do	4.1	3,206	April 21	do	4.85	3,242
July 22	E. T. Youngfelt	3.91	2,420	May 10	do	4.85	2,615
Aug. 23	do	3.75	2,234	June 7	B. E. Forbes	4.7	2,023
Sept. 25	do	4.09	2,370	18	do	5.8	4,061
1897				July 14	O. V. P. Stout	3.97	1,211
Mar. 19	Adna Dobson	5.22	6,307	Aug. 11	do	4.52	1,710
23	do	4.85	3,869	Oct. 6	Frank Dobson	4.65	2,354
April 27	do	4.53	2,972	Nov. 2	do	5.3	3,294
April 27	do	4.53	3,103	Dec. 1	do	4.55	2,579
May 25	do	4.77	2,572	1902			
25	do	4.77	2,410	Mar. 8	do	5.79	6,826
June 17	O. V. P. Stout	4.72	2,318	April 13	do	4.76	2,532
July 16	do	4.01	2,513	May 11	do	4.31	2,206
29	do	3.87	1,660	22	J. C. Stevens	5.56	4,089
Aug. 17	do	4.27	1,783	June 1	do	4.85	2,585
29	do	4.21	1,436	July 11	do	5.59	6,586
Oct. 7	Adna Dobson	4.19	1,926	Aug. 10	do	6.1	7,685
30	do	4.7	4,580	Aug. 26	do	5.55	6,901
Nov. 21	do	4.4	3,006	Sept. 11	do	4.48	2,514
1898				Oct. 5	do	5.05	3,156
April 17	Glen E. Smith	4.8	2,730	1903			
May 8	do	5.15	3,231	Mar. 20	do	5.1	6,074
19	do	5.2	3,542	April 3	do	5	3,905
29	do	5.05	3,337	May 7	do	5.1	3,409
June 8	do	5.5	5,181	June 11	do	5.12	3,432
19	O. V. P. Stout	5.03	3,284	July 27	do	5.05	2,799
July 10	Glen E. Smith	4.6	1,900	July 10	do	4.67	3,022
22	do	4.4	1,691	17	do	5.56	5,022
31	do	4.15	1,560	Aug. 1	do	6.78	14,580
Aug. 21	Adna Dobson	4.65	2,542	Sept. 18	do	5.13	4,177
Sept. 4	do	4.2	1,389	Sept. 19	do	4.49	2,544
17	do	4.31	2,448	29	do	4.4	2,323
25	do	4.59	2,117	Oct. 30	do	4.61	2,607
Oct. 16	do	4.76	2,380	Dec. 20	do	6.5	2,280
30	do	4.8	2,519	1904			
Nov. 11	Glenn E. Smith	4.94	Ice	Mar. 25	do	4.75	3,099
20	do	4.9	2,362	May 8	do	5.31	3,433
1899				June 18	do	4.95	3,442
Jan 22	do	Frozen	2,726	25	do	5.46	4,530
April 9	do	4.95	3,004	July 29	do	4.32	3,376
23	do	5	2,639	July 29	do	4.32	2,396
May 7	do	5.05	3,057	31	do	4.77	2,778
23	do	5.54	4,073	31	do	4.3	2,326
June 4	do	4.36	2,628	31	do	4.3	2,492
18	do	4.75	1,921	31	do	4.8	2,734
29	do	5.8	7,728	31	do	4.77	2,723
July 9	do	5.4	3,435	31	do	4.77	2,787
23	do	4.25	1,792	Sept. 2	O. H. Timmerman	5.01	2,880
Aug. 6	do	4.93	3,251	1905			
20	do	4.61	2,267	Mar. 17	H. C. Gardner	4.4	4,659
Sept. 3	do	4.4	1,902	May 4	do	4.55	4,982
17	do	4.4	1,840	18	do	5.9	12,890
Oct. 5	do	4.6	2,402	June 21	do	4.65	5,316
15	do	4.8	1,983	July 8	do	5.3	3,263
1900				14	do	4.2	4,126
April 8	Adna Dobson	4.69	2,365	Aug. 12	do	4.2	5,089
29	do	5.2	4,455	Sept. 27	F. S. Dobson	4.03	3,153
May 13	do	4.68	2,771	Oct. 13	do	4.18	4,113
27	do	4.67	2,508	1906			
June 10	do	4.53	2,161	Feb. 23	do	5.95	11,290
20	O. V. P. Stout	4.02	2,491	Mar. 30	G. W. Bates	5.6	7,519
July 15	Adna Dobson	3.93	1,705	May 3	do	5.34	3,321
29	do	4.38	1,322				

Actual Discharge Measurements of Loup River, at Columbus

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1906		Feet	Sec.-ft.	1912		Feet	Sec.-ft.
June 8	Arthur Dobson	4.39	2,755	July 23	D. P. Weeks, Jr.	4.65	2,164
July 18	do	4.25	2,248	Aug. 3	do	4.7	2,793
Aug. 28	do	4.65	2,813	9	do	4.6	3,163
Sept. 29	do	4.49	2,686	14	do	4.5	2,450
Oct. 27	do	4.63	3,758	21	do	4.45	2,384
Nov. 24	do	4.7	2,751	29	do	4.35	1,650
1907				Sept. 5	do	4.5	2,116
April 8	Arthur Dobson	4.46	2,720	22	do	4.45	2,732
May 14	F. S. Dobson	4.4	2,850	29	do	4.75	2,608
June 20	Arthur Dobson	4.75	5,450	Oct. 6	do	4.55	2,413
July 23	do	4.8	3,390	13	do	4.8	3,141
Aug. 23	do	4.4	1,810	20	do	4.6	3,109
Sept. 14	do	4.6	2,620	27	do	4.65	2,657
Oct. 12	do	4.52	2,120	Nov. 2	do	4.65	3,550
Nov. 26	G. W. Bates	4.5	2,650	10	do	4.5	2,139
1908				17	do	4.5	3,071
Mar. 8	Dobson & Bates	4.56	3,510	24	do	4.45	2,899
April 20	Arthur Dobson	4.74	3,140	29	do	4.4	2,685
May 5	G. W. Bates	4.58	2,540				
June 7	Adna Dobson	5.55	9,920	1913			
July 10	Arthur Dobson	5.25	7,620	Mar. 19	do	4.7	4,620
July 1	do	4.35	2,780	April 6	do	4.65	3,421
22	do	4.27	2,270	13	do	4.6	3,902
Aug. 22	G. W. Bates	4.44	2,890	20	do	4.5	3,487
Oct. 10	A. A. Dobson	4.6	2,580	27	do	4.45	3,762
Nov. 6	do	4.45	2,580	May 4	do	4.4	4,723
Dec. 29	do	4.72	2,300	11	do	4.6	4,728
1909				18	do	4.6	3,568
Mar. 13	G. W. Bates	4.6	3,340	25	do	4.5	3,002
20	A. A. Dobson	4.55	2,300	June 8	do	4.5	2,599
April 13	do	4.55	3,010	18	do	4.8	2,871
May 8	do	4.63	2,970	25	do	4.5	2,082
July 8	do	4.79	6,540	July 2	do	4.55	2,180
Aug. 31	do	4.55	1,850	10	do	4.85	3,253
Oct. 22	do	4.57	2,660	16	do	4.1	1,644
Nov. 5	do	4.77	2,290	28	do	4.45	2,232
1910				5	do	4.1	1,572
April 20	D. D. Price	4.4	2,278	12	do	4.6	2,255
May 10	do	4.6	3,190	20	do	4.3	1,854
25	do	4.5	2,531	27	do	4.3	1,608
June 24	do	4.2	1,780	Sept. 3	do	4.3	1,692
July 25	do	4.54	2,164	9	do	4.3	1,718
Aug. 31	do	5.4	3,592	18	do	4.44	2,056
Oct. 1	A. A. Dobson	4.45	2,119	28	do	4.54	2,068
Nov. 19	do	4.39	2,230	Oct. 4	do	4.52	2,210
25	do	4.28	2,420	9	do	4.65	2,496
1911				23	do	3.7	4,557
Mar. 23	A. A. Dobson	4.22	2,981	29	W. M. Jefferys	3.6	2,374
April 25	A. B. Price	4.45	2,472	Dec. 12	do	3.2	3,747
May 18	do	3.9	2,730	20	do	Frozen	.....
26	do	4.5	2,609	1914			
June 13	do	4.5	2,178	Mar. 17	D. P. Weeks, Jr.	3.75	2,687
21	do	4.3	1,970	29	do	3.8	3,257
July 8	do	4.35	1,458	April 5	do	3.5	2,546
31	do	4.1	1,898	19	do	3.58	2,218
Aug. 10	do	4.4	2,582	25	do	3.5	1,932
25	do	4.3	2,268	May 3	do	3.96	3,554
Sept. 11	do	4.7	3,315	9	do	3.65	2,735
24	do	4.4	2,073	24	do	4.07	3,222
Oct. 4	do	4.4	2,453	31	do	3.75	2,913
Nov. 10	do	4.4	4,170	June 9	do	4.	2,782
1912				23	do	4.	11,551
April 26	C. G. Hrubesky	4.6	5,408	July 19	do	2.5	1,745
May 31	C. T. Graham	4.5	2,476	25	do	3.87	2,508
June 19	D. P. Weeks, Jr.	4.65	4,098	Aug. 6	do	3.15	1,748
27	do	4.4	2,539	Sept. 17	do	3.05	1,915
July 3	do	4.4	2,046	Sept. 1	do	3.46	2,162
10	do	4.45	1,975	8	do	3.3	2,472
20	do	4.4	1,698	20	do	3.53	2,240
							2,022

Gagings after November 23, 1913 made at new station at railroad bridge. Gage heights are from a new datum.—D. P. W., Jr.

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	5.24				7.53				4.46	2,750	4.52	1,975	7.71	11,825	3.89	1,600	4.24	1,350	4.16	1,600					1
2								4.44	2,675	4.44	1,800	5.32	5,350	3.85	1,450	4.2	1,275	4.16	1,650					2	
3								4.52	2,850	4.41	1,800	4.69	3,525	3.81	1,350	4.15	1,175	4.17	1,675					3	
4								4.54	2,850	4.8	2,675	4.6	3,300	3.79	1,275	4.15	1,175	4.16	1,675					4	
5	4.96				7.59			4.56	2,850	4.64	2,350	4.48	3,050	4.02	1,675	4.18	1,050	4.16	1,750					5	
6								4.57	2,800	4.78	2,675	4.22	2,975	4.42	2,500	4.09	1,075	4.16	1,800					6	
7								4.57	2,750	4.7	2,500	4.02	2,025	4.31	2,225	4.12	1,150	4.17	1,900					7	
8	5.18							4.88	3,950	4.6	2,775	4.68	2,500	3.84	1,750	4.39	2,400	4.03	1,000	4.18	1,925			8	
9					7.68			4.77	3,650	4.62	2,775	4.68	2,500	3.78	1,650	4.71	3,025	4.07	1,075	4.16	1,975			9	
10								4.77	2,875	4.68	2,425	3.86	1,850	4.7	3,050	4.22	1,350	4.18	2,075					10	
11								4.56	3,075	4.63	2,675	4.63	2,425	3.92	2,075	4.81	3,275	4.31	1,525	4.29	2,350			11	
12	7.18			8.45				4.44	2,775	4.66	2,675	4.7	2,600	4.02	2,375	4.61	2,725	4.36	1,625	4.43	2,725			12	
13								4.84	3,825	4.63	2,575	4.77	2,800	3.96	2,300	4.54	2,500	4.36	1,650	4.46	2,825			13	
14								4.93	4,100	4.63	2,525	4.75	2,775	3.91	2,225	4.48	2,375	4.34	1,625	4.44	2,850			14	
15	7.04							4.74	3,625	4.66	2,525	4.76	2,850	4.2	2,975	4.4	2,125	4.34	1,625	4.44	2,950			15	
16				5.73				4.7	3,500	4.67	2,500	4.74	2,850	4.08	2,650	4.33	1,950	4.3	1,550	4.5	3,125			16	
17								4.77	3,675	4.66	2,425	4.72	2,850	3.92	2,050	4.23	1,800	4.37	1,700	4.58	3,375			17	
18								4.91	4,075	4.65	2,375	4.69	2,775	3.84	2,050	4.19	1,600	4.28	1,550	5	4,700			18	
19				6.45				4.53	3,250	4.66	2,350	4.82	3,150	3.78	1,850	4.17	1,500	4.25	1,475	5.02	4,800			19	
20								4.63	3,250	4.62	2,225	4.74	3,000	3.95	2,250	4.15	1,450	4.23	1,450	4.86	4,375			20	
21								4.61	3,275	4.64	2,250	4.54	2,575	4	2,325	4.15	1,425	4.2	1,425	4.82	4,325			21	
22								4.62	3,950	4.77	2,300	4.43	2,350	3.96	2,150	4.15	1,275	4.2	1,450	4.76	4,250			22	
23				6.45				4.86	3,800	4.78	2,500	4.35	2,200	3.95	2,075	4.15	1,325	4.21	1,475	4.72	4,200			23	
24								4.82	3,575	4.82	2,575	4.34	2,175	3.96	2,050	4.16	1,300	4.24	1,550	4.8	4,500			24	
25								4.72	3,550	4.77	2,000	4.34	2,275	3.95	1,975	4.15	1,275	4.26	1,600	4.68	4,250			25	
26				7.68				4.66	3,375	4.66	2,225	4.44	2,525	3.98	1,975	4.2	1,325	4.26	1,625	4.64	4,200			26	
27								4.54	3,050	4.6	2,100	4.7	9,550	3.93	1,850	4.15	1,200	4.22	1,600	4.81	4,800			27	
28								4.41	2,725	4.68	2,300	4.95	4,000	3.85	1,650	4.1	1,100	4.2	1,550	6.26	10,400			28	
29								4.4	2,675	4.62	2,175	4.79	3,600	3.85	1,625	4.2	1,275	4.18	1,550	4.8	4,875			29	
30					4.76			4.54	3,040	4.55	2,025	5	4,250	3.86	1,600	4.23	1,300	4.16	1,550	4.75	4,750			30	
31								4.47	1,850					3.93	1,725	4.28	1,425							31	
Mean								3,695		2,496		2,891		2,616		1,812		1,427		3,422					
Run-off																									
in acre-ft.								219,900		153,500		172,000		155,700		111,400		84,900		210,400					
Maximum								7,120		2,880		9,550		11,820		3,280		1,700		10,400					
Minimum								2,680		1,850		1,800		1,600		1,100		1,000		1,600					

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							4.51	2,130	4.78	2,425	5	3,375	4.64	2,025	4.2	1,650	4.37	1,800	4.56	2,025	4.8	2,800			1
2							4.77	2,730	4.77	2,425	4.95	3,300	4.64	2,025	4.24	1,725	4.34	1,715	4.58	2,075	4.85	2,675			2
3							4.75	2,700	4.88	2,550	5.02	3,525	4.6	1,925	4.28	1,820	4.3	1,620	4.59	2,080	4.8	2,550			3
4							4.77	2,730	5.07	3,085	5.14	3,900	4.62	1,975	4.63	2,600	4.51	1,600	4.66	2,225	4.75	2,450			4
5							4.79	2,800	5.33	3,775	5.66	5,600	4.83	2,425	4.95	3,450	4.3	1,575	4.63	2,175	4.75	2,450			5
6							4.82	2,850	5.28	3,625	5.95	6,675	4.88	2,530	5.24	1,725	4.3	1,520	4.64	2,200	4.8	2,550			6
7							4.86	2,960	5.25	3,530	5.68	5,750	4.83	2,400	5.16	4,720	4.3	1,500	4.67	2,225	4.8	2,550			7
8							4.81	2,850	5.22	3,400	5.63	5,600	4.83	2,400	4.97	3,500	4.32	1,500	4.67	2,200	4.85	2,675			8
9							4.76	2,700	5.18	3,300	5.56	5,375	4.74	2,200	4.85	3,175	4.31	1,460	4.72	2,325	4.9	2,800			9
10							4.8	2,820	5.16	3,175	5.46	5,000	4.66	2,025	4.77	2,900	4.36	1,600	4.74	2,375	4.59	2,800			10
11							4.79	2,800	5.19	3,350	5.35	4,600	4.68	2,075	4.68	2,725	4.42	1,620	4.84	2,600	4.94	2,900			11
12							4.86	2,960	5.19	3,425	5.26	4,325	4.65	2,050	4.64	2,625	4.48	1,700	4.97	2,900	4.9	2,825			12
13							4.83	2,860	5.16	3,282	5.32	4,450	4.63	2,000	4.61	2,550	4.82	2,470	4.9	2,725					13
14							5.06	3,520	5.07	3,050	5.36	4,550	4.67	2,100	4.58	2,460	5.03	2,950	4.82	2,500					14
15							5.02	3,375	4.91	2,700	5.42	4,600	4.66	2,100	4.57	2,440	4.93	2,730	4.78	2,425					15
16							4.93	3,125	4.95	2,800	5.36	4,450	4.65	2,050	4.59	2,475	4.89	2,650	4.76	2,400					16
17							4.83	2,820	4.96	2,850	5.35	4,400	4.62	2,025	4.67	2,675	4.85	2,700	4.76	2,425					17
18							4.77	2,675	5.15	3,375	5.3	4,060	4.54	1,865	4.83	3,050	4.81	2,490	4.77	2,450					18
19							4.86	3,150	5.19	3,175	5.3	4,050	4.49	1,780	4.78	2,950	4.8	2,490	4.86	2,650					19
20							4.93	3,050	5.18	3,500	5.33	4,100	4.44	1,700	4.66	2,675	4.73	2,350	4.92	2,800					20
21							4.87	3,150	5.41	4,150	5.4	4,325	4.43	1,725	4.63	2,550	4.65	2,200	4.86	2,650					21
22							4.75	2,550	5.44	4,250	5.5	4,550	4.41	1,700	4.65	2,600	4.49	1,870	4.82	2,550					22
23							4.71	2,425	5.48	4,400	5.39	4,100	4.45	1,825	4.63	1,530	4.41	1,700	4.8	2,325					23
24							4.73	2,400	5.68	5,100	5.2	3,025	4.35	1,650	4.62	2,500	4.5	1,925	4.85	2,425					24
25							4.77	2,520	5.4	4,200	4.77	2,425	4.31	1,820	4.62	2,490	4.57	2,080	4.9	2,775					25
26							4.85	2,775	5.64	4,975	4.71	2,275	4.3	1,630	4.63	2,490	4.58	2,080	4.8	2,525					26
27							4.83	2,630	5.46	4,450	4.68	2,175	4.3	1,680	4.63	2,490	4.57	2,080	4.9	2,725					27
28							4.88	2,600	5.34	4,150	4.67	2,120	4.28	1,680	4.56	2,300	4.56	2,075	4.9	2,725					28
29							4.87	2,650	5.11	3,525	4.65	2,000	4.26	1,700	4.45	2,050	4.56	2,025	4.85	2,650					29
30							4.81	2,500	5.1	3,550	4.66	2,100	4.26	1,750	4.41	1,950	4.56	2,025	4.8	2,550					30
31									4.98	3,250			4.22	1,680	4.39	1,850			4.95	2,900					31
Mean								2,794		3,509		4,022		1,946		2,655		2,003		2,477		2,668			
Run-off in acre-ft.								166,300		215,800		239,300		119,700		163,300		119,200		152,300		64,000			
Maximum								3,520		5,100		6,680		2,530		4,720		2,950		2,900		2,900			
Minimum								2,130		2,420		2,000		1,620		1,650		1,460		2,020		2,450			

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2							5.4	4,251	4.95	2,684	5	2,945			4.25	1,702	4.85	2,945	4.4	1,933					2	
3							5.6	4,871	4.6	1,911			5.9	6,984	4.2	1,581	4.8	2,819	4.4	1,954					3	
4							5.8	5,526	4.7	2,152	4.8	2,646			4.25	1,682	4.8	2,819	4.4	1,954					4	
5							5.7	5,195	4.9	2,646			5.7	5,459	4.55	2,312	4.7	2,578	4.45	1,945					5	
6							5	3,127	4.95	2,768	5.4	4,043			4.93	3,258	4.6	2,335	4.4	1,911					6	
7							4.9	2,869	5.05	3,047			5.6	4,191	4.9	3,153	4.55	2,220	4.4	1,890					7	
8							5	3,127	4.95	2,793					4.8	2,894	4.5	2,085	4.4	1,825					8	
9							4.95	3,995	5.15	3,312					4.85	2,995	4.8	2,793	4.4	1,764					9	
10							4.9	2,869	5	2,894			4.4	1,188	4.8	2,869	4.7	2,549	4.4	1,682					10	
11							5	3,100	4.95	2,743	5.4	3,727			4.7	2,597	4.6	2,312	4.4	1,581					11	
12							4.9	2,819	4.8	2,359			4	1,000	4.85	2,970	4.5	2,085	4.4	1,445					12	
13							4.8	2,549	4.85	2,453			4.2	1,000	4.2	1,484	4.45	1,975	4.4	1,815					13	
14							4.9	2,768	4.97	2,694			4.21	1,000	4.1	1,278	4.4	1,847	4.5	1,581					14	
15							5.1	3,258	5.3	3,530			4.2	1,082	4.5	2,063	4.4	1,847	4.8	1,954					15	
16							5.2	3,476	5.15	3,100	4.8	2,040	4.1	1,014	4.2	1,445	4.4	1,847	4.7	1,784					16	
17							5.15	3,285	5.14	3,049			4.2	1,315	4.4	1,825	4.4	1,847	4.75	1,954					17	
18							5.1	3,100	4.95	2,549	4.7	1,804	4.15	1,334	4.4	1,868	4.4	1,847	4.7	1,911					18	
19							5	2,793	5	2,646			4	1,135	4.5	2,018	4.4	1,868	4.6	1,764					19	
20							4.9	2,500	5.05	2,768			3.98	1,170	4.61	2,265	4.4	1,868	4.5	1,620					20	
21							4.9	2,476	5.4	3,670	4.95	2,743	4	1,260	4.8	2,719	4.4	1,868	4.5	1,682					21	
22							4.9	2,453	5.8	4,871			4.1	1,465	4.7	2,476	4.4	1,868	4.7	2,175					22	
23							5	2,694	5.54	4,072			4.25	1,784	4.75	2,622	4.4	1,890	4.6	2,018					23	
24							4.9	2,453	5.4	3,699	5.1	3,985	4.2	1,682	4.8	2,743	4.4	1,890	4.6	2,085					24	
25							4.85	2,336					4.21	1,702	4.81	2,768	4.4	1,890	4.55	2,040					25	
26							4.9	2,476			5.9	7,287	4.2	1,661	4.8	2,743	4.4	1,910	4.55	2,108					26	
27							5	2,743					4.2	1,661	4.81	2,793	4.4	1,911	4.5	2,153					27	
28							5.4	3,811			5.8	7,713	4.22	1,682	4.8	2,768	4.4	1,911	4.55	2,085					28	
29							5.6	4,131	5.4	3,869			4.23	1,702	4.7	2,524	4.4	1,911	4.6	2,242					29	
30							5.8	5,064					4.5	2,265	4.6	2,312	4.4	1,933	4.65	2,500					30	
31													4.4	2,040	4.7	2,549			4.65	2,524					31	
Mean							3,280		3,085		3,893		2,104		2,357		2,142		1,914							
Run-off in acre-ft.							195,400		186,600		231,600		125,200		144,900		127,500		117,700							
Maximum							5,530		4,870		7,710		6,980		3,260		2,940		2,520							
Minimum							2,840		1,910		1,800		1,000		1,280		1,850		1,320							

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1	4.75	2,380					5.1	4,130	4.85	2,920	3.78	2,320	4.43	2,230	4.15	2,575	4.45	2,900	4.7	2,875					1	
2	4.75	2,380					5	3,811	4.7	2,549	3.9	3,860	4.43	2,300	4.2	2,610	4.45	2,930	4.65	2,790					2	
3	4.75	2,380					4.95	3,642	4.5	2,085	3.87	2,460	4.32	2,090	4.23	2,650	4.48	3,010	4.6	2,650					3	
4	4.75	2,380					4.96	3,670	4.85	2,920	4.54	4,235	4.28	2,075	4.23	2,500	4.48	3,050	4.48	2,390					4	
5	4.75	2,380					4.98	3,699	4.87	2,970	4.28	3,410	4.25	2,075	4.25	2,600	4.5	3,100	4.48	2,400					5	
6							4.75	2,380	4.95	3,586	4.82	2,844	4.93	5,380	4.25	2,125	4.25	2,490	4.5	3,150	4.45	2,350			6	
7							4.75	2,380	4.98	3,670	4.75	2,670	4.46	3,860	3.98	1,610	4.25	2,440	4.55	3,300	4.4	2,300			7	
8							4.71	2,406	5.32	4,650	4.65	2,430	4.62	4,300	4.05	1,800	4.27	2,450	4.55	3,300	4.43	2,375			8	
9							4.7	2,430	5.3	4,557	4.55	2,197	4.7	4,550	4.63	3,175	4.27	2,400	4.58	3,252	4.45	2,450			9	
10							4.72	2,548	5	3,670	4.53	2,154	4.4	3,615	4.68	3,350	4.28	2,375	4.6	3,400	4.48	2,550			10	
11							4.74	2,546	4.95	3,503	4.65	3,375	4.35	3,490	4.55	3,050	5.98	7,600	4.58	3,350	4.55	2,750			11	
12							4.7	2,597	4.95	3,476	4.65	3,450	4.2	3,050	4.44	2,800	5.25	4,600	4.58	3,300	4.55	2,820			12	
13							4.8	2,894	5.68	5,729	4.62	3,535	4.15	2,900	4.48	2,900	5.45	5,510	4.58	3,250	4.59	2,975			13	
14							4.81	2,945	5.2	4,161	4.61	3,650	3.98	2,490	4.43	2,850	5.63	6,090	4.58	3,240	4.55	2,900			14	
15							4.8	2,945	6.14	3,985	4.65	4,060	3.93	2,370	4.63	3,419	5.48	5,510	4.57	3,175	4.55	2,940			15	
16							4.82	3,048	5.05	3,699	4.65	4,350	4.28	3,200	5.53	6,290	5	4,000	4.57	3,125	4.5	2,870			16	
17							4.85	3,153	5.03	3,614	6.28	14,300	4.73	4,150	5.83	6,700	4.7	3,150	4.56	3,020	4.58	3,150			17	
18							4.87	3,232	5.01	3,553	5.2	6,650	4.78	4,210	5.5	7,480	4.48	2,650	4.55	2,975					18	
19							4.9	3,367	5	3,563	4.85	5,615	4.55	3,740	5.38	6,200	4.48	2,680	4.6	3,020					19	
20							5	3,670	4.95	3,340	3.98	3,075	4.38	3,120	5.48	3,300	4.45	5,510	4.66	3,100					20	
21							5.3	4,588	4.75	2,793	3.95	2,985	4.35	2,820	4.42	3,220	4.48	2,710		3,100					21	
22							5.3	4,619	4.72	2,719	4.1	3,355	4.43	2,800	4.38	3,200	4.48	2,790		3,200					22	
23							5.3	4,650	4.71	2,670	3.85	2,700	4.45	2,700	4.32	3,100	4.5	2,850		3,200					23	
24							5.32	4,744	4.7	2,646	3.87	2,715	4.98	3,900	4.35	3,220	4.48	2,820		3,300					24	
25							5.27	4,619	4.6	2,382	3.83	2,575	5.05	4,030	4.5	3,710	4.48	2,850		3,400					25	
26							5.26	4,619	4.65	2,476	3.88	2,690	5	3,775	4.57	3,950	4.48	2,870		3,500					26	
27							5.25	4,619	4.9	3,073	3.85	2,575	5.4	2,150	4.7	4,310	4.5	2,930		3,600					27	
28							5.25	4,619	4.8	2,814	3.83	2,520	5.5	2,350	4.68	4,230	4.48	2,900	5	3,700					28	
29							5.2	4,464	4.82	2,869	3.83	2,500	4.38	2,000	4.53	3,750	4.48	2,930	5	3,675					29	
30							5.2	4,464	4.7	2,573	3.8	2,390	4.35	1,980	4.35	3,200	4.4	2,790	4.81	3,175					30	
31										6.65	10,550			4.35	2,000	4.28	2,955			4.76	3,020					31
Mean							3,352		3,717		3,493		3,265		3,462		3,363		3,222		2,679					
Run-off in acre-ft.							199,500		228,500		207,800		200,800		212,900		200,100		198,100		90,000					
Maximum							4,740		10,550		14,300		5,380		7,480		7,600		3,700		3,150					
Minimum							2,380		2,380		2,080		1,980		1,610		2,380		2,900		2,300					

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1901

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							4.5	2,694	4.7	2,549	4.6	1,847	5.05	3,048	4.15	1,206	4.5	1,763	4.6	2,220	4.9	2,335			1	
2							4.48	2,646	4.7	2,500	4.6	1,825	5	2,970	4.1	1,082	4.5	1,763	4.65	2,336	5.1	3,294			2	
3							4.5	2,670	4.7	2,453	4.6	1,825	4.9	2,743	4.1	1,064	4.5	1,784	4.65	2,360	5.3	3,367			3	
4							4.6	2,919	4.7	2,406	4.7	2,018	4.9	2,793	4.1	1,047	4.57	1,932	4.65	2,358	5.2	3,126			4	
5							4.7	3,153	4.7	2,359	4.8	2,243	4.9	2,844	4.1	1,031	4.7	2,220	4.65	2,354	5.1	2,818			5	
6							4.8	3,394	4.8	2,573	4.7	2,023	4.7	2,406	4.13	1,064	4.8	2,453	4.65	2,324	5	2,670			6	
7							4.55	2,719	4.8	2,548	4.7	2,023	4.45	1,890	4.12	1,047	4.9	2,720	4.65	2,354	4.9	2,452			7	
8							4.5	2,597	4.85	2,621	4.7	2,023	4.38	1,784	4.12	1,031	4.95	2,844	4.65	2,336	4.8	2,242			8	
9							4.5	2,573	4.9	2,743	4.7	2,023	4.3	1,661	4.1	1,000	4.95	2,844	4.7	2,430	4.6	1,825			9	
10							4.6	2,819	4.9	2,615	4.7	1,975	4.2	1,523	4.1	1,000	5.1	3,258	4.8	2,647	4.55	1,743			10	
11							4.7	3,048	4.8	2,500	4.6	1,763	4.1	1,389	4.52	1,710	5.1	3,258	4.8	2,622	4.55	1,763			11	
12							4.8	3,285	4.8	2,476	4.6	1,743	4.1	1,426	4.4	1,484	5.45	4,251	4.8	2,600	4.55	1,800			12	
13							5	3,840	4.8	2,476	4.6	1,743	4.1	1,445	4.3	1,291	5.55	4,588	4.8	2,574	4.55	1,840			13	
14							5.1	4,101	4.7	2,243	4.6	1,723	3.97	1,211	4.45	1,582	5.6	4,744	4.8	2,550	4.6	1,997			14	
15							5.2	4,402	4.7	2,220	4.6	1,723	3.95	1,170	4.4	1,484	5.6	4,744	4.8	2,524	4.6	1,932			15	
16							5.3	4,681	4.7	2,197	6.45	7,097	4	1,241	4.4	1,484	5.6	4,776	4.75	2,382	4.55	1,974			16	
17							5.2	4,342	4.6	1,975	6.45	7,097	4	1,223	4.4	1,484	5.4	4,161	4.7	2,242	4.55	2,017			17	
18							5	3,754	4.6	1,975	5.8	4,861	4	1,206	4.35	1,381	5.3	3,868	4.7	2,200	4.55	2,059			18	
19							5	3,727	4.6	1,954	5.9	5,195	4	1,188	4.3	1,311	5.1	3,339	4.65	2,062	4.55	2,101			19	
20							5	3,699	4.65	2,062	6	5,526	4.05	1,260	4.27	1,260	4.7	2,359	4.65	2,019	4.55	2,152			20	
21							4.85	3,242	4.7	2,152	6.1	5,902	4.4	1,911	4.27	1,260	4.7	2,359	4.65	1,975	4.55	2,196			21	
22							4.85	3,258	4.8	2,383	6.05	5,729	4.3	1,681	4.27	1,260	4.7	2,483	4.65	1,953	4.55	2,240			22	
23							4.8	3,100	4.75	2,243	6	5,593	4.2	1,485	4.3	1,323	4.7	2,483	4.65	1,921	4.55	2,285			23	
24					4.6	2,995	4.8	3,048	4.8	2,359	5.9	5,293	4.1	1,260	4.4	1,523	4.7	2,406	4.65	1,898	4.55	2,332			24	
25					4.6	2,995	4.7	2,768	4.85	2,476	5.7	4,681	4	1,064	4.7	2,152	4.6	2,172	4.7	1,997	4.55	2,382			25	
26					4.6	2,995	4.9	3,258	4.9	2,573	5.6	4,402	3.9	1,000	4.55	1,825	4.5	1,975	4.7	1,997	4.55	2,429			26	
27					4.5	2,743	4.9	2,719	4.9	2,573	5.45	3,985	3.85	1,000	4.5	1,794	4.5	1,975	4.7	1,975	4.55	2,477			27	
28					4.5	2,743	4.9	3,179	4.8	2,312	5.34	3,783	4	1,014	4.45	1,640	4.5	1,975	4.7	1,953	4.6	2,646			28	
29					4.5	2,743	4.9	3,153	4.8	2,312	5.15	3,232	3.95	1,000	4.45	1,640	4.5	1,975	4.7	1,930	4.6	2,696			29	
30					4.45	2,621	4.8	2,844	4.7	2,063	5.1	3,126	4.1	1,153	4.45	1,640	4.55	2,106	4.75	2,040	4.55	2,869			30	
31					4.5	3,134				4.6	1,847			4.2	1,315	4.45	1,640			4.9	2,359				31	
Mean							3,254		2,346		3,467		1,615		1,380		2,853		2,243		2,335					
Run-off																										
in acre-ft.							193,600		144,200		206,300		96,100		84,800		169,800		137,900		138,900					
Maximum							4,680		2,740		7,100		3,050		2,150		4,780		2,650		3,370					
Minimum							2,570		1,850		1,720		1,000		1,000		1,760		1,900		1,740					

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1						4.65	2,382	4.8	2,298	4.85	2,585	6	7,363	4.8	3,530	5.4	6,040	5	3,152	4.79	2,477				1
2						4.6	2,243	4.8	2,298	4.95	2,869	6.6	9,936	4.7	3,258	5.1	5,000	5	3,126	4.8	2,500				2
3						4.55	2,265	4.8	2,265	5	3,047	6.8	10,895	4.6	2,970	4.6	3,476	5	3,100	4.8	2,500				3
4						4.5	1,976	4.85	2,382	5.4	4,151	6.1	7,910	4.6	2,970	4.55	3,224	5	3,048	4.85	2,622				4
5						4.6	2,500	4.9	2,500	5.8	5,425	6.1	7,990	4.55	2,695	4.5	2,995	4.92	2,819	4.85	2,622				5
6						4.8	2,646	5	2,743	5.9	5,763	6.05	7,871	4.5	2,695	4.5	2,671	4.95	2,869	4.85	2,622				6
7							2,382	5.1	2,970	5.95	5,936	6.1	8,152	4.45	2,578	4.5	2,743	4.95	2,869	4.8	2,743				7
8						5.79	6,826	4.7	2,382	5	2,719	5	7,830	4.4	2,463	4.45	2,406	4.9	2,743	4.95	2,369				8
9						5.79	6,760	4.7	2,382	4.95	2,573	4.9	2,793	5.9	7,517	5	4,043	4.45	2,382	4.8	2,500	4.96	2,369		9
10						5	4,101	4.7	2,382	4.9	2,464	4.85	2,585	6.45	9,892	6.1	1,685	4.45	2,335	4.8	2,500	4.95	2,869		10
11						4.7	3,232	4.7	2,359	4.8	2,203	4.7	2,959	5.59	6,586	4.9	3,698	4.48	2,514	5	2,995	4.8	2,500		11
12						4.6	2,945	4.73	2,405	4.8	2,203	4.65	2,265	5.25	5,326	4.7	3,125	4.45	2,382	5.6	4,712	4.7	2,265		12
13						4.7	3,178	4.76	2,532	4.9	2,382	4.65	2,298	5	4,526	4.65	3,100	4.4	2,265	5.5	4,402	4.65	2,155		13
14						4.8	3,355	4.75	2,405	5.1	2,824	4.6	2,211	5.5	5,146	4.62	3,073	4.4	2,220	5.4	4,101	4.65	2,155		14
15						4.8	3,285	4.75	2,405	5.3	3,367	4.6	2,265	5.25	5,277	4.6	3,073	4.35	2,063	5.3	3,811	4.65	2,155		15
16						4.8	3,258	4.7	2,265	5.3	3,367	4.7	2,500	5.1	4,712	4.6	3,125	4.3	1,911	5.2	3,530	4.6	2,040		16
17						4.7	2,995	4.7	2,265	5.3	3,340	4.65	2,479	5.05	4,657	4.6	3,203	4.2	1,693	5.1	3,250	4.65	2,155		17
18						4.7	2,970	4.7	2,265	5.7	4,493	4.65	2,500	5.1	4,712	5	4,402	4.4	2,062	5	2,995	4.7	2,265		18
19						4.6	2,660	4.7	2,243	5.9	5,129	5	3,421	5.1	4,691	5.55	6,255	4.5	2,265	4.9	2,743	4.75	2,383		19
20						4.6	2,621	4.7	2,221	6.1	5,763	5.4	4,650	5	4,372	5.5	6,183	4.65	2,597	4.9	2,743	4.3	2,500		20
21						4.64	2,645	4.7	2,221	5.56	7,443	5	3,503	4.9	4,043	5.5	6,255	4.8	2,909	4.9	2,743	4.8	2,500		21
22						4.65	2,645	4.75	2,311	5.55	4,039	4.95	3,394	4.8	3,727	5.4	6,005	5.8	5,867	4.9	2,743	4.8	2,500		22
23						4.68	2,693	4.8	2,358	5.5	3,869	4.7	2,768	4.75	3,558	5.4	6,075	6.1	6,909	4.9	2,743	4.81	2,525		23
24						4.7	2,719	4.8	2,334	5.4	3,755	4.8	3,047	4.7	3,394	5.3	5,867	5.1	3,566	4.9	2,743	4.85	2,622		24
25						4.8	2,945	4.8	2,311	5.36	3,503	4.7	2,824	4.8	3,690	5.5	6,724	5.1	3,530	4.9	2,743	4.85	2,622		25
26						4.9	3,152	4.85	2,464	5.15	4,372	4.6	2,621	4.85	3,718	5.55	6,901	5.1	3,530	4.9	2,743	4.85	2,622		26
27						4.95	3,285	5.15	3,206	5	2,695	4.8	3,179	4.8	3,586	5.45	6,541	5.4	4,402	4.9	2,743	4.85	2,622		27
28						4.97	3,312	5.1	3,047	4.95	2,597	4.8	3,258	4.85	3,727	5.5	6,614	5.2	3,783	4.85	2,522	4.85	2,622		28
29						5	3,366	5	2,793	4.9	2,500	5	3,840	4.85	3,699	5.69	6,901	5.1	3,476	4.85	2,622	4.85	2,622		29
30						4.8	2,793	4.9	2,793	4.85	2,429	5	3,927	4.85	3,699	5.8	6,901	5.05	3,312	4.8	2,500				30
31						4.7	2,500			4.85	2,524			4.8	3,530	5.95	8,152			4.8	2,500				31
Mean						3,348		2,409		3,226		3,250		5,669		4,767		3,218		3,011		2,501			
Run-off in acre-ft.						159,200		143,400		198,300		193,300		348,500		293,100		191,500		185,100		148,800			
Maximum						6,830		3,210		7,440		5,940		10,900		8,150		6,910		4,710		2,870			
Minimum						2,500		1,980		2,200		2,210		3,390		1,680		1,690		2,500		2,040			

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							4.3	3,950	4.6	5,400	5.2	8,700	6.85	19,020	4.8	6,700	4.4	5,000	4.25	3,180	4.2	3,670			1
2							4.4	4,400	4.55	5,150	5	7,500	6.25	15,120	6.8	19,190	4.35	4,700	4.4	3,910	4.15	3,450			2
3							4.5	4,900	4.7	5,900	5.5	10,500	6.7	18,050	5.9	18,600	4.3	4,420	4.35	3,750	4.1	3,210			3
4							4.9	6,950	4.6	5,400	5	7,500	6.55	17,080	5	8,270	4.3	4,380	4.3	3,580	4.1	3,210			4
5							4.6	5,400	4.75	6,150	4.7	5,900	5.85	12,600	4.75	7,000	4.5	5,300	4.2	3,200	4.25	3,900			5
6							4.4	4,400	4.85	6,675	4.65	5,650	5.7	11,700	4.4	5,800	4.6	5,770	4.2	3,250	4.5	5,100			6
7							4.2	3,500	4.8	6,400	4.35	4,175	5.8	12,300	4.45	5,700	4.85	7,000	4.2	3,300	4.35	4,380			7
8							4.1	3,050	4.7	5,900	4.25	3,725	5.4	9,900	4.5	6,110	4.85	6,960	4.2	3,350	4.3	4,110	4.5		8
9							4.2	3,500	4.75	6,150	4.45	4,650	5.22	8,370	4.4	5,720	4.55	5,300	4.3	3,880	4.3	4,110	5.7		9
10							4.3	3,950	5.6	11,100	4.35	-1,175	5	6,750	4.35	5,600	4.5	5,010	4.3	3,940	4.35	4,380	5.7		10
11							4.3	3,950	5	7,500	4.6	5,400	4.95	6,050	4.35	5,750	4.45	4,700	4.3	4,000	4.35	4,380	5.75		11
12							4.2	3,500	4.9	6,950	4.6	5,400	4.9	5,400	4.3	5,600	4.4	4,410	4.3	4,070	4.4	4,600	5.7		12
13							4.2	3,500	5.8	12,300	4.55	5,150	4.75	4,270	4.3	5,550	4.45	4,600	4.35	4,350	4.4	4,600	5.8		13
14							4.3	3,950	6.35	15,780	4.45	4,650	4.5	2,900	4.25	5,250	4.95	7,110	4.4	4,600	4.45	4,850	6.5		14
15							4.4	4,400	6.9	19,350	4.5	4,900	5	5,220	4.3	5,450	5.5	10,250	4.4	4,600	4.35	4,380	6		15
16							4.3	3,950	5.8	12,300	4.6	5,400	4.95	5,100	4.55	6,700	5.1	8,400	4.6	5,600	4.35	4,380	5.95		16
17					4.4	4,400	4.3	3,950	5.4	9,900	4.7	5,900	4.85	4,730	4.45	6,110	4.95	6,950	4.5	5,100	4.35	4,380	5.85		17
18					4.6	5,400	4.3	3,950	5	7,500	4.6	5,400	4.8	4,650	4.6	6,850	5.25	8,580	4.45	4,350	4.45	4,850			18
19					4.7	5,900	4.2	3,500	4.95	7,225	4.6	5,400	4.8	4,800	5.5	12,100	6.25	14,600	4.55	5,330	4.4	4,600			19
20					4.9	6,950	5.6	11,100	4.9	6,950	4.7	5,900	4.8	4,920	4.5	6,200	5.3	8,710	4.45	4,850	4.4	4,600			20
21					4.7	5,900	5.2	8,700	4.9	6,950	4.85	6,675	4.85	5,310	4.5	6,150	4.85	6,130	4.3	4,110	4.35	4,380			21
22					4.7	5,900	5.15	8,400	4.8	6,400	5	7,500	4.85	5,460	4.85	8,000	4.65	5,050	4.4	4,600	4.3	4,110			22
23					4.6	5,400	5.1	8,100	4.75	6,150	6.4	16,100	4.95	6,130	4.55	6,300	4.4	3,810	4.35	4,380	4.65	5,850			23
24					4.4	4,400	5.05	7,800	4.65	5,650	6.5	16,750	5.15	7,400	4.6	6,500	4.3	3,310	4.2	3,670	4.55	5,350			24
25					4.5	4,900	5	7,500	4.6	5,400	5.65	11,400	4.95	6,430	4.7	7,000	4.45	3,950	4.2	3,670	4.65	5,850			25
26					4.5	4,900	4.95	7,225	4.9	6,950	5.2	8,700	7.95	25,800	4.55	6,110	4.1	2,400	4.2	3,670	4.5	5,100			26
27					4.6	5,400	4.95	7,225	4.95	7,225	6.4	15,450	4.55	6,050	4.3	3,150	4.2	3,670	4.2	3,670	4.6	5,600			27
28					4.4	4,400	4.95	7,225	5.1	8,100	6.9	19,350	5.4	9,450	4.4	5,230	4.25	3,000	4.25	3,900	4.5	5,100			28
29					4.3	3,950	4.9	6,950	6.95	19,680	7	20,000	5.2	8,430	4.4	5,170	4.25	3,050	4.35	4,380	3.95	2,600			29
30					4.2	3,500	4.7	5,900	6.1	14,150	6.05	13,820	4.95	7,320	4.4	5,100	4.25	3,120	4.25	3,900	5.45	2,600			30
31					4.3	3,950			5.75	12,000			4.5	4,970	4.4	5,050			4.25	3,900					31
Mean					5,017		5,492		8,665		8,117		9,067		6,949		5,637		4,082		4,389				
Run-off in acre-ft.					149,300		326,800		522,800		483,000		557,500		427,300		335,400		251,000		261,200				
Maximum					6,950		11,100		19,680		20,000		25,800		19,190		14,600		5,600		5,850				
Minimum					3,500		3,050		5,150		3,720		2,900		5,050		2,400		3,180		2,600				

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									8.4	25,000	4.6	3,400	5.4	9,700	4.8	4,000	4.25	1,400	4.4	2,300	4.6	3,800			1
2									6.55	14,100	4.4	2,800	4.75	4,400	4.7	3,600	4.3	1,700	4.35	2,100	4.65	3,600			2
3									5.75	18,700	4.5	3,000	4.65	3,900	4.5	2,700	4.45	2,200	4.35	2,200	4.8	4,100			3
4									5.75	8,700	4.5	3,200	4.35	2,600	4.85	4,200	4.4	2,000	4.4	2,400	4.9	4,600			4
5									5.5	7,200	4.45	3,000	4.3	2,400	5	5,000	4.4	2,000	4.3	2,100	4.95	4,900			5
6									5	4,500	4.5	3,200	4.25	2,200	4.9	4,400	4.4	2,000	4.3	2,100	4.95	4,900			6
7									5	4,500	4.5	3,200	4.2	2,100	6.1	11,600	4.35	1,800	4.3	2,100	4.9	4,600			7
8									4.75	3,650	4.9	4,300	4.4	2,800	4.2	2,100	5.7	9,000	4.35	1,800	4.25	1,900	4.7	3,400	8
9									4.9	3,950	4.7	3,400	4.4	2,800	4.2	2,100	5.35	6,600	4.3	1,700	4.25	1,900	4.65	3,200	9
10									4.8	3,500	4.3	1,900	4.45	2,600	4.15	1,900	5.3	6,200	4.1	1,100	4.25	2,000	4.75	3,600	10
11									4.65	2,900	4.3	1,900	4.25	2,200	4.15	1,900	4.7	3,300	4.2	1,400	4.35	2,400	4.55	2,700	11
12									4.55	2,500	4.2	1,500	4.2	2,000	4.1	1,700	4.55	2,700	4.3	1,700	4.35	2,400	4.35	2,000	12
13									4.8	3,600	4.35	2,000	4.2	2,000	4.2	2,100	4.6	2,900	4.55	2,700	4.35	2,400	4.5	2,500	13
14									5.4	6,600	4.3	1,800	4.25	2,200	4.4	2,800	4.4	2,900	4.5	7,400	4.4	2,500	4.45	2,400	14
15									5.75	8,700	4.3	1,800	4.35	2,600	4.2	2,100	4.4	2,100	4.95	4,400	4.3	2,200	4.5	2,200	15
16									4.9	4,000	4.3	1,800	4.85	2,600	4.25	2,200	4.35	1,900	4.75	3,500	4.5	2,900	4.5	2,200	16
17									5	4,500	4.3	1,600	4.3	2,400	4.2	2,100	4.3	1,800	5.15	5,400	4.4	2,500	4.45	2,000	17
18									4.95	4,200	4.2	1,600	4.35	2,600	4.25	2,200	4.25	1,600	4.3	3,700	4.5	3,100	4.55	2,400	18
19									5.5	7,200	4.2	1,600	4.4	2,800	4.65	3,600	4.2	1,400	4.65	3,400	4.5	3,100	4.5	2,200	19
20									5.5	7,200	4.2	1,600	4.3	2,400	4.45	2,800	4.15	1,300	4.4	2,200	4.6	3,500	4.5	2,200	20
21									4.9	4,000	4.2	1,600	4.25	2,200	4.65	3,600	4.15	1,300	4.5	2,600	4.65	3,700			21
22									4.85	3,800	4.3	2,000	4.25	2,200	4.4	2,600	4.05	1,000	4.45	2,400	5.05	5,700			22
23									4.8	3,600	4.5	2,700	4.15	1,900	4.45	2,800	4.05	1,000	4.45	2,400	5.05	5,700			23
24									4.8	3,600	4.55	2,900	4.25	2,200	4.45	2,800	4.05	1,000	4.5	2,600	5.3	7,100	4.7	2,750	24
25									4.75	3,400	5.1	5,400	4.4	2,800	4.35	2,400	4.1	1,000	4.5	2,600	5	5,600	4.7	2,750	25
26									4.8	3,600	4.75	4,100		3,800	4.25	2,000	4.4	1,900	4.5	2,600	4.75	4,300	4.75	2,700	26
27									5.65	8,100	4.85	4,500	4.85	4,800	4.65	3,600	4.65	2,800	4.45	2,500	4.6	3,600	4.8	3,100	27
28									6.1	11,000	4.9	4,800	4.8	4,600	4.25	2,000	4.65	2,800	4.4	2,300	4.95	5,300	4.8	3,100	28
29									5.75	8,700	4.65	3,600	4.85	4,800	4.55	3,200	4.35	1,700	4.4	2,300	4.55	3,400	4.8	3,100	29
30									6.85	16,100	5.3	6,900	4.6	3,700	4.6	3,100	4.3	1,500	4.45	2,300	4.95	4,800	4.75	2,900	30
31											4.8	4,300			4.55	2,900	4.3	1,500			4.75	4,300			31
Mean									5.580	4,590		2,890		2,780		3,120		2,600		3,280		3,090			
Run-off in acre-ft.									332,000	282,000		172,000		171,000		19,200		155,000		202,000		184,000			
Maximum									16,100	25,000		4,800		7,900		11,600		7,400		7,100		4,900			
Minimum									2,500	1,600		1,900		1,700		1,000		1,100		1,900		2,000			

Daily Gage Height (in feet) of Loup River, at Columbus, for 1907

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									4.4		4.7		4.6		4.55		4.7		5.2		4.9		4.8		1
2									4.35		4.35		4.45		4.6		4.65		5.1		4.95		4.65		2
3									4.45		4.45		5		4.45		4.6		4.9		4.5		4.85		3
4									4.4		4.55		4.7		4.4		4.6		4.9		4.8		4.8		4
5									4.5		4.55		4.85		4.4		4.55		4.65		4.7		4.75		5
6									4.6		4.45		4.85		4.5		4.55		4.65		4.65		4.7		6
7									4.55		4.4		4.9		4.7		4.55		4.55		4.8		4.65		7
8									4.5		4.3		4.7		4.25		6.05		4.55		4.45		4.85		8
9									4.4		4.4		4.85		4.4		5.5		4.55		4.4		4.8		9
10									4.3		4.4		5.4		4.7		4.25		4.55		4.4		4.7		10
11									4.35		4.4		5.05		4.55		5.05		4.65		4.45		4.55		11
12									4.25		4.45		4.9		4.5		5.05		4.65		4.6		4.4		12
13									4.3		4.4		4.95		4.5		5.05		4.65		4.4				13
14									4.25		4.45		4.95		4.9		4.25		4.55		4.5		4.4		14
15									4.25		4.5		4.9		5.4		4.35		4.6		4.45				15
16									4.35		4.45		4.85		6		4.65		4.65		4.4		4.4		16
17									4.45		4.65		4.45		4.8		4.45		4.5		4.55		4.6		17
18									4.55		4.65		5.1		5.2		4.6		4.6		4.55		4.55		18
19									4.45		4.7		4.7		5.35		4.25		4.6		4.55		4.5		19
20									4.4		4.65		4.9		5.1		4.2		4.55		4.7		4.8		20
21									4.4		4.7		4.9		5.05		4.25		4.65		4.7		4.7		21
22									4.4		4.75		4.55		4.85		4.25		4.7		4.75		4.6		22
23											4.85		4.45		4.8		4.4		4.65		4.7		4.5		23
24									4.4		5.55		4.45		4.85		4.45		4.6		4.7		4.55		24
25									4.6		5.2		4.55		4.9		4.4		4.6		4.6		4.3		25
26									4.65		5.2		4.65		4.65		4.55		4.6		4.65		4.55		26
27									4.5		5.5		4.35		4.6		4.45		4.8		4.55		4.45		27
28									4.5		4.8		4.6		4.7		4.7		4.9		4.5		4.55		28
29									4.6		4.85		4.75		4.7		4.75		5		4.5		4.6		29
30									4.55		4.9		4.75		4.65		4.85				4.7		4.7		30
31											4.7				4.6		4.85				4.7				31
Mean																									
Run-off																									
in acre-ft.																									
Maximum																									
Minimum																									

NOTE—These gage heights may be used for only approximate computations of discharge owing to extreme shifting of sand. Ice conditions January to March, and after December 11.

Daily Gage Height (in feet) of Loup River, at Columbus, for 1908

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					4.75		4.45		4.25		4.7		4.35		4.15		3.1		4.3		4.35		4.05		1
2					5		4.6		4.3		5		4.45		3.95		4.45		4.3		4.45		4.05		2
3					4.4		4.55		4.3		4.45		4.65		4.05		4.45		4.25		4.45		4.05		3
4					4.4		4.55		4.55		4.6		4.5		4.05		4.35		4.2		4.45		4.05		4
5					4.4		4.5		4.95		4.5		4.4		4		4.25		4.5		4.45		4.6		5
6							4.5		4.85		6.25		4.4		4.1		4.2		5		4.45		4.85		6
7					4.7		4.8		4.75		5.95		4.55		4.1		4.2		4.55		4.45		4.7		7
8					4.7		4.55		4.45		6		4.6		4.1		4.2		4.6		4.5		4.7		8
9					4.6		4.6		4.45		5.45		4.5		4.25		4.15		4.45		4.45		4.85		9
10					4.55		4.6		4.4		5.2		4.3		4.3		4.15		4.5		4.45		4.85		10
11					4.6		4.5		4.8		4.95		4.3		4.4		4.15		4.55		4.5		4.9		11
12					4.6		4.7		4.5		5.5		4.35		5.1		4.15		4.6		4.5		4.7		12
13					4.6		4.6		4.45		5.4		4.15		4.45		4.15		4.5		4.45		5.2		13
14					4.65		4.6		4.6		5.15		4.1		4.85		4.15		4.5		4.25		5.1		14
15					4.6		4.65		4.65		5.3				5.3		4.15		4.5		4.25		5.05		15
16					4.65		4.6		4.55		4.85		4.3		5.95		4.2		4.5		4.4		4.95		16
17					4.4		4.85		4.75		4.85		4.25		4.6		4.2		4.5		4.45		4.8		17
18					4.35		4.65		4.75		5.3		4.2		4.6		4.2		4.5		4.65		4.7		18
19					4.55		4.7		4.7		5.2		4.2		4.75		4.15		4.45		4.55		4.65		19
20					4.4		4.75		4.6		4.85		4.25		4.4		4.25		4.6		4.5		4.45		20
21					4.6		4.75		4.4		4.45		4.2		4.5		4.2		4.75		4.55		4.45		21
22					4.45		4.7		4.35		4.55		4.2		4.75		4.25		4.65		4.65		4.35		22
23					4.55		4.6		4.55		6.25		4.45		4.4		4.2		4.65		4.6		4.6		23
24					4.5		4.5		4.5		5.55		4.25		4.4		4.2		4.45		4.65		4.55		24
25					4.45		4.45		4.7		4.9		4.3		4.4		4.2		4.35		4.65		4.55		25
26					4.25		4.65		4.75		4.8		4.75		4.45		4.25		4.35		4.55				26
27					4.55		4.35		4.8		4.25		4.85		4.45		4.35		4.35		4.35		4.35		27
28					4.5		4.5		4.9		4.2		4.85		4.45		4.4		4.25		4.45		4.45		28
29					4.5		4.2		5.15		4.1		4.6		4.45		4.5		4.2		4.65		4.5		29
30					4.45		4.75		4.75		4.15		4.4		4.35		4.25		4.2		4.65		4.5		30
31					4.3				4.9				4.2		4.3				4.3						31
Mean																									
Run-off																									
in acre-ft.																									
Maximum																									
Minimum																									

NOTE—These gage heights may be used for only approximate computations of discharge owing to extreme shifting of sand. Ice conditions to February 29, and after December 1.

Daily Gage Height (in feet) of Loup River, at Columbus, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	1
2	4.5						4.45		4.75		4.55		4.55		5.05		4.5		4.65		4.7		4.65		2
3	4.4						4.35		4.55		4.85		4.55		4.85		4.75		4.65		4.8		4.65		3
4	4.5						4.4		4.2		4.7		4.65		5.35		4.8		4.65		4.75		4.75		4
5	4.55				6.35		4.5		4.3		4.8		4.75		5.3		4.9		4.7		4.7		5.8		5
6					6.3		4.5		4.45		4.8		4.9		4.95		4.85		4.7		4.55		4		6
7					5.55				4.45		4.7		6.65		4.85		5.8		4.7		4.65		3.8		7
8	4.45				5.2		4.65		4.6		4.85		5.15		4.7		5.05		4.75		4.75		4.65		8
9					4.8		4.5		4.35		4.5		4.8		4.65		4.9		4.8		4.8		4.55		9
10					4.65		4.55		4.6		4.85		4.6		4.6		4.85		4.9		4.6		4.7		10
					4.6		4.65		4.6		4.75		5.1		4.6		4.85		5.05		4.55		4.85		10
11					4.6		4.4		4.65		4.85		5.55		4.75		4.75		4		4.5		4.9		11
12					4.75		4.35		4.6		4.9		5.6		4.65		4.75		4.75		4.5		4.9		12
13					4.6		4.45		4.45		4.8		5.1		4.6		4.85		4.75		4.8		4.95		13
14					4.7		4.4		4		4.8		4.7		4.8		4.85		4.5		5.05		5		14
15					4.6		4.35		4.9		4.75		4.65		4.9		4.85		4.5				5		15
16					4.5		4.35		4.75		4.75		4.7		5.05		4.7		4.55		5		5.7		16
17	5.75				4.4		4.5		4.85		4.5		4.6		4.8		4.75		4.5		4.8		5.65		17
18					4.45		4.45		4.7		4.6		4.6		4.7		4.55		4.45		4.45		5.7		18
19					4.4		4.4		4.7		4.5		4.55		4.65		4.65		4.5		4.4		5.2		19
20					4.55		4.45		4.65		4.5		4.4		4.7		4.6		4.45		4.55		5.2		20
21	6.2				4.55		4.45		4.7		4.95		4.4		4.6		4.7		4.4		5.2		5.25		21
22	6.4				4.5		4.55		4.7		4.6		4.4		4.5		4.65		4.45		5.15		5.2		22
23	6.7				4.5		4.45		4.7		4.75		4.4		4.5		4.7		4.5		4.85		5.15		23
24	6.5				4.55		4.45		4.65		4.45		4.45		4.45		4.75		4.6		4.8		5.1		24
25	6.3				4.6		4.45		6.35		4.95		4.6		4.45		4.65		4.55		4.8		5.1		25
26					4.4		4.45		5.5		4.75		4.7		4.45		4.6		4.45		4.8		5.15		26
27	6.75				5.5		4.5		4.9		4.65		4.9		4.45		4.6		4.55		4.75				27
28					4.35		4.55		4.8		4.55		4.7		4.5		4.6		4.6		4.65				28
29					4.45		4.45		4.85		4.65		4.65		4.6		4.6		4.6		4.6				29
30					4.45		4.9		4.85		4.5		4.65		4.6		4.6		4.6		4.65				30
31					4.45				4.9				4.7		4.5				4.7						31
Mean																									
Run-off																									
in acre-ft.																									
Maximum																									
Minimum																									

NOTE—No discharges have been computed for 1909, owing to the extreme shifting nature of the sandy bed. A fair idea of discharge may be had from gage heights. Computations would be misleading.

Daily Gage Height (in feet) of Loup River, at Columbus, for 1910

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							4.35		4.3		4.5		4.55		4.35		5.55		4.4		4.55		4.2		4.2	1
2							4.35		4.5		4.5		4.85		4.4		4.1		4.3		4.6		4.35		4.3	2
3							4.35		4.95		4.5		4.6		4.4		4.3		4.55		4.5		4.4		4.4	3
4							4.45		4.95		4.5		4.6		4.4		4.3		4.55		4.3		4.4		4.35	4
5							4.5				4.5		4.75		4.45		4.25		4.5		4.1		4.35		4.35	5
6									4.55		4.6		4.75		4.45		4.2		4.5		4.25		4.25		4.25	6
7									4.6				4.85		4.5		4.2		4.5		4.1		4.1		4.1	7
8													4.85		5		4.1		4.45		4.2		4.2		4.2	8
9													5.25		4.6		4.1		4		4.2		4.2		4.2	9
10									4.55		4.55		5.3		4.5		4.1		4.45		4.25		4.25		4.25	10
11											4.95		4.45		4.65		4.1		4.45		4.3		4.2		4.2	11
12					4.65		4.6		4.5		4.8		4.4		4.65		4.1		4.45		4.25		4.45		4.45	12
13					4.4		4.55		4.6		4.7		4.5		4.9		4.15		4.45		4.2		4.45		4.2	13
14					4.3		4.7		4.65		4.5		4.4		4.65		4.2		4.45		4.25		4.45		4.25	14
15					4.3		4.8		4.6		4.35		4.4		5.1		4.2		4.45		4.2		4.45		4.2	15
16					4.45		4.85		4.55		4.3		4.4		5.3		4.3		4.5		4.15		4.15		4.15	16
17					4.35		4.7		4.55				4.4		5.4		4.25		4.55		4.1		4.1		4.1	17
18					4.25		4.65		4.6		4.4		4.35		5.55		4.35		4.6		4.2		4.2		4.2	18
19					4.3		4.3		4.4		4.4		4.3		5.2		4.3		4.6		4.4		4.4		4.4	19
20					4.3		4.45		4.55		4.4		4.35		4.75		4.3		4.55		4.45		4.45		4.45	20
21					4.3		4.4		4.65		4.4		4.35		4.4				4.4		4.4		4.4		4.4	21
22					4.3		4.45		4.65		4.35		4.3		4.3		4.35		4.5		4.4		4.4		4.4	22
23					4.45		4.4		4.75		4.3		4.4		4.25		4.4		4.3		4.3		4.3		4.3	23
24					4.3		4.4		4.7		4.3		4.45		4.2		4.5		4.3		4.3		4.3		4.3	24
25					4.35		4.35		4.65		4.5		4.5		4.1		4.5		4.3		4.25		4.25		4.25	25
26					4.45		4.4		4.4		4.4		5.3		4.45		4.55		4.4		4.3		4.3		4.3	26
27					4.45		4.4		4.55		4.4		5.05		4.4		4.6		4.5		4.35		4.35		4.35	27
28					4.45		4.5		4.6		4.6		4.8		4.35		4.55		4.55		4.4		4.4		4.4	28
29					4.5		4.55		4.6		4.5		4.25		5		4.5		4.7		4.25		4.25		4.25	29
30					4.4		4.5		4.6		4.5		4.25		5.4		4.4		4.6		4.2		4.2		4.2	30
31					4.35				4.5				4.25		5.55				4.6							31
Mean																										
Run-off in acre-ft.																										
Maximum																										
Minimum																										

NOTE—No discharges have been computed for 1910, because of the extreme shifting nature of the stream bed.

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									5.25	2,920	4.5	2,178	4.15	1,370	3.95	2,320	4	2,820	4.4	2,450					1
2							4.4	2,440	4.55	2,530	4.6	2,080	4.1	1,353	4.05	2,380	4.25	3,000	4.4	2,450	4.5				2
3							4.35	2,420	4.45	2,580	4.5	2,040	4.2	1,385	4.25	2,490	4.4	3,100	4.45	2,480				Ice	3
4							4.5	2,500	4.5	2,610	4.5	2,080	4.15	1,370	4.15	2,440	4.3	3,030	4.4	2,453	4.2				4
5							4.6	2,560	4.65	2,690	4.6	2,080	4.2	1,385	4.25	2,490	4.45	3,140	4.65	2,590	4.15				5
6							4.4	2,440	4.75	2,750	4.55	2,060	4.2	1,385	4.2	2,460			6.5	3,620	4.45				6
7							4.3	2,390	4.65	2,690	4.6	2,080			4.4	2,580	4.4	3,100	5.95	3,320	4.45				7
8							4.3	2,390	4.6	2,660	4.65	2,110	4.35	1,458	4.45	2,610	4.4	3,100	5	2,790	4.45			4.45	8
9							4.35	2,420	4.5	2,610	4.4	1,940	4.55	1,500	4.35	2,550	4.8	3,390	4.8	2,680	4.2			4.2	9
10								4.3	2,490	4.45	2,020	4.45	1,470	4.5	2,582	5.55	3,920	4.3	2,400	4.25				4.35	10
11							4.35	2,420	4.25	2,460	4.4	1,940	4.8	1,585	4.4	2,582	4.65	3,316	4.55	2,540				4.5	11
12					4.6	3,250		4.35	2,520	4.5	2,178	4.45	1,470	4.3	2,510	4.8	3,390	4.3	2,420	Frozen	n			4.7	12
13					4.45	3,150	4.5	2,500		4.5	2,178	4.3	1,420	4.4	2,580	4.35	3,070	4.4	2,450					4.75	13
14					4.6	3,250	4.55	2,530	6	3,480	4.5	2,128	5.35	1,765		4.3	3,030	4.55	2,540					4.6	14
15					4.6	3,250	4.5	2,500	4.45	2,580	4.45	2,020	4.5	1,485	4.35	2,290	4.35	3,070	4.6	2,560				4.55	15
16					4.75	3,360	4.45	2,472			4.3	1,945	4.7	1,550	4.35	2,290	4.15	2,930	4.65	2,590				4.5	16
17					4.55	3,220	4.5	2,800	3.85	2,230	4.3	1,945	5	1,650	4.15	2,190	4.25	3,000	4.8	2,680	4.5			4.2	17
18					4.5	3,180	4.4	2,440	4.25	2,460	4.45	2,020	4.7	1,550	4.1	2,160	4.35	3,070	4.65	2,590					18
19					4.3	3,040	4.5	2,500			4.45	2,020	4.5	1,485	4.25	2,240	4.35	3,070	4.7	2,620	Ice	Gorge		4.45	19
20					4.15	2,940	4.55	2,530	4.15	2,400	4.4	1,990	4.65	1,535	4.5	2,370	4.3	3,030	4.8	2,680	4.9				20
21					4	2,930	4.45	2,472	4.4	2,550	4.35	1,970	4.45	1,470	4.65	2,450	4.35	3,070	4.75	2,650	4.7			4.8	21
22					4.5	3,180	4.4	2,440	4.9	2,840	4.3	1,945	4.3	1,420	4.5	2,370	4.4	3,100	4.6	2,560	4.3			4.65	22
23						2,980	4.4	2,440	5.65	3,270	4.25	1,925			4.75	2,500		4.65	2,590	Frozen	n			4.6	23
24					4.2	2,970	4.45	2,472	4.35	2,520	4.25	1,925	5.1	2,360	4.55	2,400	4.4	2,073	4.7	2,620				4.4	24
25					4.2	2,970	4.45	2,472	4.35	2,520	4.35	1,970	4.8	2,220	4.3	2,268	4.4	2,073	4.75	2,650				4.65	25
26					4.4	3,110	4.5	2,500	4.5	2,609	4.5	2,040	4.65	2,160	4.25	2,240	4.4	2,073	4.75	2,650				Frozen	26
27					4.4	3,110	4.45	2,472	4.7	2,720	5.1	2,310	4.45	2,060	4.2	2,220	4.4	2,073	4.6	2,560					27
28					4.45	3,180			4.7	2,720	4.95	2,240	4.2	1,945	4.3	2,250	4.4	2,073	4.5	2,510				Frozen	28
29					4.45	3,180	4.55	2,530	4.75	2,750	4.55	2,060	4	1,855			4.6	2,170	4.5	2,510					29
30					4.45	3,180	4.75	2,640	4.65	2,690	4.3	1,945	4	1,855	4.2	2,220	4.6	2,170	4.6	2,560					30
31					4.4	3,110			4.7	2,720			4.0	1,898	3.85	2,030			4.3	2,400					31
Mean					3,127		2,470		2,670		2,045		1,635		2,380		2,770		2,620						
Run-off in acre-ft.					124,000		132,600		148,300		117,800		94,000		137,000		153,500		160,800						
Maximum					3,360		2,640		3,420		2,310		2,360		2,582		3,920		3,220						
Minimum					2,930		2,390		2,490		1,925		1,353		2,030		2,073		2,900						

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1912

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2																										2
3																										3
4																										4
5																										5
6																										6
7																										7
8																										8
9																										9
10																										10
11																										11
12																										12
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25																										25
26																										26
27																										27
28																										28
29																										29
30																										30
31																										31
Mean							9.740		5.190		3.790		2.020		2.230		2.780		2.450		2.710					
Run-off in acre-ft.							564,000		319,000		226,000		124,000		137,000		165,000		151,000		161,000					
Maximum							14,400		7,760		8,620		5,180		3,930		5,100		3,750		3,900					
Minimum							5,410		1,900		1,200		1,300		1,250		1,200		1,200		1,650					

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							4.65	3,560			4.7	4,040			1,980	4.3	1,870	4.3	1,680	4.5	2,080	4.55	2,220	3.75		1
2							4.75	4,080				5	4,780	4.6		2,350	4.2	1,700	4.35	1,760	4.3	1,680	4.55	2,220	3.78	2
3							4.65	3,460	5.5	11,000	5.05	6,020	4.55		2,220	4	1,530	4.35	1,760	4.4	1,850	4.45	1,960	3.75	3	
4							4.95	5,300	4.95	8,500	4.8	4,460	4.4		1,850	4.1	1,600	4.4	1,850	4.45	1,960	4.65	2,510	3.85	4	
5							4.8	4,210	4.4	5,600	5	5,600	4.4		1,850	4.1	1,600	4.35	1,760	4.5	2,080	4.75	2,860	3.88	5	
6							4.7	3,720		4,520	4.75	4,040	5.25		5,750	4.1	1,600	4.35	1,760	4.5	2,080	4.6	2,350	4.2	6	
7							4.65	3,560	4.45	4,490	4.85	4,580	4.65		2,510	4.2	1,700	4.4	1,850	4.5	2,080	4.55	2,220	4.5	7	
8							4.5	2,900	4.4	3,980	4.5	2,600	4.55		2,210	4.25	1,780	4.4	1,850	4.55	2,220	4.55	2,220	4.1	8	
9						5.75	4.9	5,440	4.45	4,100	4.5	2,550	4.45		1,960		2,270	4.35	1,760	4.45	1,960	4.55	2,220	3.7	9	
10						5.7	4.95	5,930	4.55	4,560	4.45	2,770	4.75		2,860	4.65	2,760	4.4	1,850	4.5	2,080	4.55	2,220	3.55	10	
11						5.5	4.55	3,460	4.6	4,750	4.3	1,780	4.4		1,900	4.6	2,480	4.4	1,850	4.5	2,080	4.45	1,960	3.5	11	
12						4.75	4.5	3,300	4.55	4,230	4.3	1,740	4.2		1,610	4.65	2,510	5.75	4,750	4.55	2,220	4.45	1,960	3.2	12	
13						4.75	4.55	6,380	4.45	3,450	4.25	1,590	4.2		1,640	4.55	2,220	4.65	2,510	4.6	2,350	4.5	2,080	3.35	13	
14							4.5	3,400	4.7	4,820	4.25	1,550	4.3		1,820	4.6	2,350	4.35	1,760	4.7	2,670	4.5	2,080	3.42	14	
15							4.65	4,280	4.95	6,420	4.3	1,600	4.25		1,760	4.9	3,500	4.35	1,760	4.55	2,220	4.65	2,510	3.48	15	
16						3.8	4.7	4,600	4.75	4,750	4.55	2,240	4.15		1,650	4.6	2,350	4.35	1,760		2,280	4.55	2,220	3.5	16	
17						3.95	4.75	4,950	4.65	3,920	4.85	3,500	4.05		1,560	4.6	2,350	4.4	1,850	4.6	2,350	4.55	2,220	3.5	17	
18						4.45	4.8	5,300	4.6	3,550	4.8	3,050	4.1		1,600	4.55	2,220		2,060	4.55	2,220	4.4	1,850	3.5	18	
19						4.95	6,380	4.8	5,300	3,680	4.45	1,960	4.25		1,780	4.4	1,850	4.4	1,850	4.6	2,350	4.7	2,670	3.32	19	
20							5,260	4.65	4,280	3,820	4.65	2,160	4.95		4,380	4.35	1,760	4.45	1,960	4.5	2,080	4.75	2,860	3.5	20	
21						3.6	1,120	4.65	4,280	4.7	4,100	4.6	2,350	4.75	3,380	4.35	1,760	4.55	2,220	4.65	2,570	4.75	2,860	3.55	21	
22						3.7	1,180	4.5	3,400	4.45	2,780	4.45	1,960	4.45	2,240	4.35	1,760	4.55	2,220	4.6	2,350		3,710	3.2	22	
23						4	1,570	4.5	5,380	4.5	3,000	4.7	2,670	4.35	1,980	4.4	1,850	4.45	1,960	4.5	2,080		4,560	2.75	23	
24						5.1	7,200	5.05	7,350	4.25	1,950	4.65	2,510		1,920	4.45	1,960	4.35	1,760	4.55	2,220	3.85	4,190	2.8	24	
25						4.8	4,950	4.7	5,020	4.55	3,280	4.55	2,220	4.3	1,870	4.4	1,850		1,860	4.55	2,220	3.72	3,820		25	
26						4.1	1,710	4.65	4,880	4.55	3,280	4.55	2,220	4.3	1,870	4.4	1,850	4.45	1,960	4.55	2,220	3.68	3,460		26	
27						4.55	3,300	4.5	4,100	4.5	3,000		1,950	4.35	1,980	4.3	1,680	4.55	2,220	4.75	2,860	3.6	3,100	3.55	27	
28						4.45	2,770	4.4	3,680	4.45	2,780	4.3	1,680	4.5	2,370	4.3	1,680	4.5	2,080		2,470	3.75	2,740	3.7	28	
29						4.5	2,950	4.4	3,860	4.3	2,150		1,650	4.35	1,980	4.2	1,570	4.6	2,350	4.5	2,080	3.65	2,370	3.68	29	
30						4.65	3,680	4.35	3,740	4.3	2,150	4.25	1,620	4.3	1,870	4.2	1,570	4.55	2,220		1,960	3.75	2,500		30	
31						4.65	3,620			4.35	2,350			4.3	1,870	4.2	1,570			4.4	1,850			4.15	31	
Mean							3,510		4,350		4,340		2,800		2,210		1,970		2,030		2,180		2,620			
Run-off in acre-ft.							905,000		259,000		267,000		167,000		136,000		121,000		121,000		134,000		156,000			
Maximum							7,200		7,350		11,000		6,020		5,750		3,500		4,750		2,860		4,560			
Minimum							1,120		2,900		1,950		1,550		1,560		1,530		1,680		1,680		1,850			

Daily Gage Height (in feet) and Discharge (in second-feet) of Loup River, at Columbus, for 1914

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							3.75	3,120	3.9	3,200	3.65	2,570			3	1,730	3.45	2,470	4.5	2,080	4.55	2,220	3.75	2,220	1	
2							3.68	2,950	3.95	3,420	3.78	2,780	3.78		3	1,730	3.4	2,330	4.3	1,680	4.65	2,220	3.98	1,960	2	
3							3.65	2,880	3.98	3,610	3.8	2,730	3.7		3	1,730	3.4	2,330	4.4	1,850	4.45	2,220	3.75	1,960	3	
4							3.6	2,760	4.08	3,890	3.68	2,360	4.5		3.05	1,830	3.35	2,260	4.45	1,960	4.65	2,510	3.85	2,510	4	
5							3.5	2,530	4.05	3,800	3.6	2,110			3.05	1,830	3.3	2,150	4.5	2,080	4.75	2,860	3.88	2,860	5	
6							3.45	2,420		3,410	3.58	2,000	3.4	3,800	3.2	2,020	3.3	2,150	4.5	2,080	4.6	2,350	4.2	2,350	6	
7							3.45	2,420	3.75	2,020		1,940	3	2,780	3.1	1,830		2,200	4.5	2,080	4.55	2,220	4.5	2,220	7	
8							3.4	2,310	3.7	2,900	3.58	1,870	2.78	2,280	3	1,670	3.3	2,240	4.55	2,220	4.55	2,220	4.1	2,220	8	
9							3.4	2,310	3.65	2,780	3.9	2,500	2.7	2,100	2.95	1,590	3.75	3,270	4.45	1,960	4.65	2,220	3.7	2,220	9	
10							3.45	2,380	3.45	2,320	4.55	2,7	2.7	2,100	2.9	1,820	5.25	4.5	1,960	4.55	2,220	3.55	2,220	10		
11							3.48	2,400	3.48	2,390			2.68	2,060	2.95	1,590	5.1		4.5	2,080	4.45	1,960	3.5	1,960	11	
12							3.5	2,400	3.5	2,430	3.68			2,030	2.95	1,590	4.8	4.55	2,220	4.45	1,960	3.2	1,960	12		
13							3.55	2,450	3.78	3,030	6		2.6	1,900	5.45		3.65	2,270	4.6	2,350	4.5	2,080	3.35	2,080	13	
14							3.6	2,500	3.7	2,780	5.7		2.6	1,900		4.1	3,330	4.7	2,670	4.5	2,080	3.42	2,080	14		
15							3.55	2,330	3.65	2,610			2.55	1,820		3.9	2,830	4.55	2,220	4.65	2,510	3.48	2,510	15		
16							3.5	2,160	3.6	2,450			2.55	1,740	3	2,050	3.8	2,600		2,280	4.55	2,220	3.5	2,220	16	
17						3.75	2,690	3.5	2,130	2,460			1,700	3.05	2,160	3.65	2,270	4.6	2,350	4.55	2,220	3.5	2,220	17		
18						3.88	3,000	3.5	2,030	3.65	2,480		2.58	1,670	3.15	2,320	3.65	2,270	4.55	2,220	4.4	1,850	3.5	1,850	18	
19						3.85	2,980	3.58	2,220	3.65	2,420		2.6	1,630	2.9	1,800	3.58	2,120	4.6	2,350	4.7	2,670	3.32	2,670	19	
20						3.8	2,900	3.75	2,550	3.78	2,680		2.6	1,570	2.9	1,800	3.52	2,000	4.5	2,080	4.75	2,860	3.5	2,860	20	
21						3.78	2,900	3.55	2,070	3.78	2,640		2.62	1,550	2.95	1,820	3.5	1,960	4.65	2,510	4.75	2,860	3.55	2,860	21	
22						3.7	2,750		2,090	3.88	2,860		2.65	1,550	4.45	5,800	3.5	1,960	4.6	2,350		3,710		3,710	22	
23						3.68	2,720		2,120	4.35	4,000		2.68	1,530	3.8	3,650	3.5	1,960	4.5	2,080		4,560	2.75	4,560	23	
24						3.65	2,670	3.6	2,140	4.07	3,220			2,170	3.7	3,320	3.5	1,960	4.55	2,220	3.85	4,190	2.8	4,190	24	
25						3.6	2,580	3.5	1,930	4.5	4,600	3.9		2,840	3.6	3,020	3.45	1,870	4.55	2,220	3.72	3,820		3,820	25	
26						3.65	2,750	3.82	2,660		4,240	3.85	3.25	3,450	3.45	2,600	3.45	1,870	4.55	2,220	3.68	3,460		3,460	26	
27						3.95	2,780	4	3,150	4.25	3,830	3.45	3.15	2,180	3.5	2,660	3.45	1,870	4.75	2,860	3.6	3,100	3.55	3,100	27	
28						3.7	2,960	4.25	3,900	4.1	3,520	3		1,830	3.65	3,030	3.42	1,820		2,470	3.75	2,740	3.7	2,740	28	
29						3.78	3,200	4	3,300	4	3,350	2.68		2.9	1,600	4.35	5,100	3.4	1,780	4.5	2,080	3.65	2,370	3.68	2,370	29
30						3.75	3,120	4	3,350	3.9	3,200	2.65		2.9	1,600	4	3,850	3.1	1,780		1,960	3.75	2,500		2,500	30
31						3.75	3,120			3.85	3,150			2.9	1,600	3.9	3,570		4.1	1,850			4.15		4.15	31
Mean							2,870		2,530		3,120		2,320		2,000					2,180		2,620				
Run-off in acre-ft.							85,400		151,000		192,000		41,400		103,000					134,000		156,000				
Maximum							3,200		3,900		4,600		2,780		3,800					2,860		4,560				
Minimum							2,580		1,930		2,320		1,870		1,530					1,680		1,850				

ELKHORN RIVER AT NORFOLK

Location. At the Thirteenth Street bridge two miles south of Norfolk in Section 33, Township 24 North, Range 1 West.

Records Available. From July 16, 1896 to November 21, 1903.

Gage. The gage was an inclined staff on the river bank about a quarter of a mile down stream from the highway bridge.

Bench Mark. A standard four foot iron pipe of the U. S. G. S., thirty-five feet west and seven feet north of the top of the gage and 15.5 feet west of an ash tree. Elevation, 10.70 feet above zero of the gage.

Channel. Sandy mud. Straight above the station for three hundred feet and below for two hundred feet, and at an angle of 15° to 20° to a line perpendicular to the bridge.

Drainage Area. Not measured.

Accuracy. Slightly affected by shifting bed but results are generally good.

Actual Discharge Measurements of Elkhorn River, at Norfolk

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1896		Feet	Sec.-ft.	1899		Feet	Sec.-ft.
July 16....	O. V. P. Stout....	.98	191	July 7....	Glen E. Smith....	1.7	427
Aug. 27....	do	.89	175	July 17....	do	1.3	274
Sept. 12....	do	.86	176	Sept. 25....	do	1.12	184
1897				1900			
Mar. 24....	O. V. P. Stout....	2.72	1,323	April 20....	O. V. P. Stout....	2.43	568
May 6....	Adna Dobson....	2.02	647	May 4....	do	3.65	1,207
24....	do	1.38	387	27....	do	2.03	463
June 21....	O. V. P. Stout....	1.03	270	27....	do	2.03	407
July 9....	do	.9	212	June 29....	do	1.38	244
July 30....	do	.78	200	Aug. 3....	do	1.23	150
Aug. 16....	do	.89	220	Sept. 12....	do	1.66	318
Sept. 2....	do	.68	163	1901			
Oct. 15....	Adna Dobson....	.79	168	Mar. 21....	Adna Dobson....	2.3	466
1898				May 13....	C. B. Channel....	2.55	550
April 24....	Glen E. Smith....	1.6	451	June 27....	O. V. P. Stout....	6.69	3,445
May 12....	do	1.84	493	July 31....	do	1.36	215
23....	do	2.06	782	Dec. 30....	B. E. Forbes....		252
June 10....	do	2.86	1,319	1902			
20....	O. V. P. Stout....	2.46	760	Mar. 21....	J. C. Stevens....	2.39	570
July 28....	Glen E. Smith....	1.05	228	April 13....	do	2.22	534
Aug. 20....	do	1.28	238	May 12....	do	2.16	493
Sept. 10....	do	1	175	June 16....	do	2.54	551
29....	do	1	205	July 3....	do	4.36	1,376
Oct. 22....	do	1.34	256	Aug. 26....	do	2.45	475
28....	do	1.4	287	Aug. 22....	do	1.78	296
Nov. 16....	do	1.4	330	Sept. 29....	J. C. Stevens....	5.65	2,497
Dec. 16....	do		216	Nov. 14....	do	2.34	502
27....	do		217	1903			
1899				May 25....	do	3.97	1,167
Jan. 26....	Glen E. Smith....		272	June 24....	do	3.69	1,193
April 27....	do	1.94	505	Aug. 26....	do	3.13	784
May 10....	do	2.01	572	Sept. 18....	E. C. Murphy....	2.37	389
25....	do	2.72	830	1906			
				April 17....	G. W. Bates....		1,621

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Norfolk, for 1897

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	2.9								2.41	940	1.22	330	1.21	320	.7	165	.64	150	.63	145					1
2									2.3	840	1.33	370	1.21	325	.75	180	.67	160	.62	145					2
3									4.06	2.22	780	1.34	370	1.12	290	.8	195	.63	150	.6	140				3
4									5.95	2.15	740	1.29	355	1.08	285	.81	215	.61	160	.61	140				4
5									2.05	680	1.26	340	1.02	260	.81	215	.62	145	.61	140					5
6			2.86		3.01		5.66		2.01	660	1.26	340	.96	240	1	255	.58	135	.64	140					6
7							6.43		1.93	620	1.24	340	.95	240	.91	230	.57	130	.64	150					7
8							6.93		1.93	620	1.2	320	.89	220	1.06	275	.56	130	.7	170					8
9	2.52						6.62		2.12	720	1.16	310	.88	220	1.06	275	.5	115	.67	160					9
10							6.27		1.95	630	1.16	310	1.21	325	1.03	265	.65	155	.71	170					10
11							5.5		1.86	590	1.15	305	1.36	380	.97	245	.65	155	.72	170					11
12							5.26		1.8	560	1.12	290	1.1	290	.96	240	.64	150	.71	170					12
13			2.99				4.9		1.78	560	1.11	290	1.02	260	.9	225	.64	150	.85	210					13
14							4.52		1.74	540	1.11	290	1	255	.96	240	.64	150	.85	210					14
15							4.28		1.73	530	1.12	290	.96	240	.95	240	.64	150	.77	185					15
16	2.66						4.08		1.66	500	1.09	285	.91	230	.9	225	.73	175	.84	205					16
17							3.99		1.65	500	1.16	310	.89	220	.81	195	.79	190	.94	235					17
18							3.98		1.65	500	1.15	305	.86	210	.86	210	.78	190	1.71	245					18
19							3.89		1.57	460		301	.82	200	.86	210	.77	185	1.02	260					19
20			4.24		3.42		3.93		1.52	440	1.11	275	1.01	260	.81	195	.7	170	1.02	255					20
21							3.87		1.48	430	1.08	265	1.02	260	.76	180	.77	185	.98	250					21
22							3.72		1.47	420	1.03	265		230	.76	180	.7	170	.96	240					22
23	2.04						3.56		1.47	420	1.04	270	.91	225	.76	180	.7	170	.94	235					23
24							3.42		1.38	390	1.03	265	.9	210	.74	180	.76	180	.91	230					24
25							3.26		1.35	385	1	255	.86	210	.75	180	.7	170	.94	235					25
26							3.1		1.34	370	1.01	260	.86	200	.72	170	.69	165	.96	240					26
27			3.22		2.24		2.94		1.25	370	1	255	.82	195	.7	170	.68	160	.99	250					27
28							2.82		1.31	350	1.01	280	.81	180	.71	170	.64	150	1.06	275					28
29							2.65		1.26	340	1.07	280	.76	180	.67	160	.66	155	1.07	280					29
30	2.72						2.51		1.24	320	1.18	320	.76	180	.7	170	.63	145	1.09	285					30
31									1.22	330			.76	180	.64	150			1.12	295					31
Mean										539		302		244		206		158		209					
Run-off																									
in acre-ft.																									
Maximum										33,100		18,000		15,000		12,000		9,400		12,800					
Minimum										940		370		380		275		190		295					
										320		255		180		150		115		140					

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, at Norfolk, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							1.66	500	1.53	410	2.64	860	1.75	435	1.03	215	1.08	195	.93	185	1.37				1	
2							1.65	495	1.53	405	2.53	800	1.73	430	1.03	215	1	175	.99	200	1.35				2	
3							1.65	495	1.66	460	2.4	730	1.53	350	1.02	210	1	170	1.03	185	1.35				3	
4							1.64	490	1.67	460	2.77	1,060	1.66	400	1.02	210	1	170	1.03	210	1.35				4	
5							1.63	490	1.76	490	4.44		1.67	405	1.01	210	.98	165	1.04	210	1.35				5	
6							1.63	490	1.82	515	4.7		1.66	405	1.02	210	.98	165	1.02	210	1.35				6	
7							1.57	465	1.93	565	3.62		1.67	410	1.03	215	.97	160	1.02	200	1.35				7	
8							1.58	470	1.87	550	3.36		1.71	430	1.33	310	.98	165	1.02	195	1.36				8	
9							1.56	460	1.95	565	3.28		1.68	420	1.36	320	1.01	175	1.03	200	1.33				9	
10							1.55	455	1.97	565	3.78		1.65	405	1.56	390	1.05	185	1.04	200	1.33				10	
11							1.55	455	1.9	530	3.47		1.63	400	1.6	400	1.03	175	1.15	235	1.34				11	
12							1.59	473	1.84	490	3.15		1.57	380	1.7	440	1.17	210	1.17	245	1.34				12	
13							1.61	480	1.82	480	3		1.55	370	1.56	385	1.18	220	1.18	240	1.34				13	
14							1.61	480	1.87	490	2.92	1,380	1.49	350	1.56	380	1.14	210	1.18	235	1.39				14	
15							1.6	480	1.96	560	2.77	1,140	1.45	340	1.49	360	1.15	215	1.19	235	1.42				15	
16							1.6	480	1.85	455	2.67	1,000	1.48	350	1.44	340	1.13	210	1.13	210	1.42				16	
17							1.59	473	1.86	455	2.62	930	1.28	285	1.42	330	1.13	215	1.23	240	1.43				17	
18							1.61	480	2.06	530	2.58	870	1.26	280	1.37	310	1.13	220	1.28		1.41				18	
19							1.63	485	2.08	525	2.52	805	1.26	280	1.39	320	1.19	235	1.3		1.43				19	
20							1.65	490	2.68	840	2.54	810	1.18	255	1.42	325	1.07	175	1.33	260	1.5				20	
21							1.64	480	2.69	830	2.49	780	1.1	235	1.37	305	1.03	195	1.3	250	1.65				21	
22							1.6	460	2.65	790	2.34	690	1.13	210	1.21	250	.96	175	1.32	250	1.72				22	
23							1.6	455	2.56	730	2.25	640	1.1	235	1.22	220	.97	245	1.33	255	1.76				23	
24							1.6	450	2.63	760	2.15	585	1.1	240	1.26	260	1.02	200	1.37	270	1.8				24	
25							1.57	440	3.23	1,470	2.13	585	1.13	245	1.27	265	1.03	210	1.36	265	1.8				25	
26							1.53	425	3.13	1,320	2.1	580	1.03	215	1.24	250	1.01	220	1.36	265	1.8				26	
27							1.52	415	3.1	1,300	2.04	560	1.01	210	1.24	250	1.12	240	1.39	280	1.87				27	
28							1.49	405	3.02	1,170	1.96	520	1	210	1.24	250	.97	195	1.38	275	1.87				28	
29							1.49	399	2.99	1,160	1.91	500	.98	200	1.22	245	.97	195	1.38	275	1.87				29	
30							1.52	410	2.89	1,045	1.85	475	1.03	215	1.16	220	.97	195	1.37		1.87				30	
31										2.72	895		1.07	230	1.15	220			1.37							31
Mean								464		704		1,000		317		285		195		236		303				
Run-off in acre-ft.								27,600		43,300		59,500		19,500		17,500		11,600		14,500		18,000				
Maximum								500		1,470				435		440		245		280		335				
Minimum								399		405		475		200		210		160		185		285				

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, at Norfolk, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1									1.94	515	2.07	469	2.45	820	1.2	243	.97	158	1.13	180					1
2									2.24	660	2.03	456	2.2	633	1.23	253	.97	158	1.19	197					2
3									2.3	562	1.93	419	1.97	532	1.27	266	.76	105	1.23	206					3
4									3.2	700	1.85	392	1.66	408	1.32	282	.7	90	1.26	215					4
5									2.41	788	1.85	392	1.76	448	1.33	286	.67	80	1.22	203					5
6										2.31	788	1.87	404	1.74	439	1.33	286	1.06	180	1.23	206				6
7								1.9	490	2.24	694	2.45	660	1.68	419	1.36	296	1.08	186	1.22	203				7
8								1.87	477	2.16	647	2.22	553	1.71	431	1.35	292	1.12	194	1.27	218				8
9								1.9	490	2.06	594	1.92	431	1.67	416	1.45	327	1.15	203	1.28	221				9
10								1.93	502	2	567	1.82	396	1.73	430	1.27	266	1.13	194	1.25	209				10
11								2	532	1.92	528	1.75	370	1.73	439	1.28	266	1.13	194	1.2	194				11
12								2.01	536	1.83	480	1.74	370	1.78	460	1.48	334	1.1	186	1.2	194				12
13								2.05	553	1.78	460	1.64	334	1.69	423	1.48	334	1.06	174	1.29	221				13
14								2.05	553	1.73	431	1.63	334	1.65	408	1.33	282	1.02	161	1.27	215				14
15								2.03	545	1.77	435	1.64	340	1.56	370	1.34	286	1.06	171	1.33	234				15
16								1.98	523	1.77	423	1.65	347	1.51	352	1.33	282	1.11	186	1.3	221				16
17								1.98	523	1.74	404	1.6	334	1.48	341	1.38	299	1.09	177	1.32	227				17
18								1.97	519	1.7	374	1.53	309	1.45	330	1.26	259	1.11	183	1.31	224				18
19								1.99	528	1.8	400	1.57	326	1.43	323	1.25	256	1.04	163	1.32	227				19
20								1.9	490	3.5	1,700	1.57	330	1.45	330	1.23	250	1.03	161	1.34	234				20
21								1.97	519	3.58	1,750	1.57	334	1.38	306	1.25	256	1.02	156	1.33	227				21
22								1.89	477	3.34	1,500	1.53	323	1.34	292	1.23	246	1.03	159	1.33	227				22
23								1.85	469	2.63	772	1.45	296	1.26	266	1.17	227	1.04	161	1.33	227				23
24								1.84	464	2.65	780	1.55	334	1.21	250	1.17	224	1.17	197	1.31	221				24
25								1.84	464	2.75	868	2.07	545	1.23	256	1.14	212	1.11	180	1.36	237				25
26								1.87	477	2.8	905	1.75	416	1.23	256	1.13	209	1.1	174	1.31	221				26
27								1.93	502	2.85	953	2.65	972	1.24	259	1.12	206	1.12	180	1.34	227				27
28								1.95	515	2.75	858	3.75	2,200	1.24	259	.97	161	1.12	177	1.34	227				28
29								1.89	490	2.35	580	3.4	1,900	1.24	259	.95	156	1.13	180	1.31	218				29
30								1.73	427	2.2	519	3.02	1,400	1.21	246	.99	166	1.12	177	1.32	221				30
31									2.07	464				1.22	250	.97	163		1.3	215					31
Mean								503	745		550		376		254		168		217						
Run-off in acre-ft.								29,900	45,800		32,700		23,100		15,600		10,000		13,300						
Maximum								553	1,750		2,200		820		334		203		237						
Minimum								427	374		296		246		156		80		180						

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, at Norfolk, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1																									1
2								1.89	390	3.56	1,180	2.09	465	1.34	225	1.28	167	1.35	210	1.32	198	1.86	380		2
3								1.87	380	3.62	1,210	2.15	492	1.35	230	1.26	169	1.3	195	1.33	205	1.85	375		3
4								1.8	452	3.62	1,190	2.2	513	1.34	225	1.24	153	1.29	190	1.35	210	1.82	365		4
5								1.78	343	3.67	1,210	2.03	445	1.3	213	1.2	143	1.34	204	1.34	205	1.81	362		5
6								1.78	343	3.65	1,200	1.99	428	1.33	220	1.21	145	1.35	213	1.34	205	1.82	365		6
7								1.77	340	3.67	1,280	1.85	370	1.32	215	1.16	135	1.27	190	1.34	205	1.81	362		7
8								1.76	330	3.58	1,150	1.87	383	1.23	188	1.16	135	1.25	185	1.36	213	1.81	362		8
9								1.71	318	3.4	2,400	1.8	358	1.23	188	1.15	130	1.25	185	1.34	205	1.82	365		9
10								1.83	352	3.24	830	1.6	290	1.25	190	1.14	127	1.24	180	1.34	205	1.82	365		10
11								1.87	367	3.25	840	1.69	320	1.22	180	1.1	117	1.25	185	1.35	210	1.8	360		11
12								1.79	340	2.95	670	1.99	430	1.1	145	1.04	110	1.55	280	1.35	210	1.82	365		12
13								1.83	350	2.84	624	1.8	385	1.15	160	1.13	127	1.58	290	1.32	198	1.75	340		13
14								1.8	340	2.76	600	1.61	290	1.13	153	1.14	130	1.52	264	1.31	195	1.74	337		14
15								1.79	330	2.62	545	1.6	290	1.13	150	1.2	150	1.49	250	1.35	210	1.76	343		15
16								1.84	346	2.59	545	1.53	265	1.62	294	1.3	177	1.47	247	1.35	210	1.76	343		16
17								1.97	390	2.52	526	1.58	283	1.62	294	1.97	400	1.45	238	1.34	205	1.74	337		17
18								2.57	648	2.52	545	1.57	280	1.55	304	1.67	290	1.42	230	1.35	210	1.75	340		18
19								2.4	565	2.37	490	1.5	257	1.63	294	1.65	283	1.38	220	1.35	210				19
20								2.39	560	2.32	485	1.5	257	1.62	290	1.68	293	1.42	230	1.34	205				20
21								2.42	568	2.24	465	1.5	257	1.52	256	1.71	310	1.46	242	1.36	213				21
22								2.42	563	2.17	445	1.57	280	1.52	250	1.62	280	1.46	242	1.62	292				22
23								2.48	580	2.13	440	1.57	283	1.52	250	1.52	248	1.38	220	1.75	340				23
24								2.66	650	2.11	440	1.49	257	1.53	250	1.48	204	1.42	230	1.97	425				24
25								2.99	840	1.95	380	1.47	250	1.53	250	1.39	214	1.41	228	1.85	275				25
26								3.02	850	1.95	385	1.45	246	1.52	248	1.42	220	1.42	230	1.85	375				26
27								3.1	910	2.02	383	1.39	230	1.39	177	1.48	240	1.35	210	1.83	368				27
28								3.31	1,080	1.96	400	1.34	220	1.41	210	1.53	260	1.33	200	1.86	380				28
29								3.48	1,280	1.93	395	1.34	223	1.39	200	1.53	260	1.35	210	1.85	375				29
30								3.68	1,570	1.83	360	1.36	230	1.42	210	1.46	240	1.35	210	1.85	375				30
31								3.54	1,210	1.86	370	1.35	230	1.34	285	1.42	230	1.33	200	1.9	395				31
										1.85	367			1.3	173	1.35	204			1.91	400				
Mean									586	721			316		223		203		220		265		357		
Run-off in acre-ft.									34,900	44,300		18,800	13,700		12,500		13,100		16,300		21,200				
Maximum									1,570	2,400		513	304		400		290		425		380				
Minimum									318	360		220	145		110		180		195		337				

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Norfolk, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1					2.95	855	2.55	663	2.5	580	1.9	287	1.9	321	2.35	454	5.92	2,408	2.88	701				1		
2					3.25	1,022	2.68	687	2.35	516	3.11	691	1.9	321	2.7	593	5.76	2,597	2.71	621				2		
3					3.45	1,028	2.6	687	2.2	457	4.48	1,462	1.85	309	2.5	548	5.52	2,381	2.69	616				3		
4					3.2	999	2.55	659	2.1	425	4	1,170	1.85	309	2.4	508	5.35	2,232	2.65	598				4		
5					3.2	999	2.55	668	2.95	782	3.55	909	1.83	304	2.1	381	4.73	1,787	2.65	598				5		
6					2.97		876	2.5	635	3.07	840	3.05	673	1.81	299	1.9	329	4.6	1,684	2.59	571				6	
7					2.90		840	2.5	630	2.5	566	2.9	607	1.8	299	1.95	341	4.39	1,544	2.58	566				7	
8					2.85		821	2.45	607	2.55	584	2.72	531	1.79	296	1.97	349	4.26	1,462	2.58	566				8	
9					2.8		797	2.4	584	2.5	557	2.8	571	1.77	292	1.95	344	4.17	1,408	2.47	520				9	
10					2.55	553	2.7	749	2.3	540	2.4	512	2.85	598	1.75	287	1.99	354	4.06	1,342	2.47	520				10
11					2.6	575	2.5	659	2.25	516	2.35	489	2.85	593	1.75	287	2	357	4.01	1,312	2.43	504				11
12					2.62	584	2.32	575	2.2	497	2.2	435	2.9	630	1.73	282	2.01	360	4.26	1,462	2.3	457				12
13					2.75	644	2.2	527	2.2	497	2.1	403	2.9	635	1.7	272	2	357	4.1	1,384	2.21	428				13
14					2.72	630	2.15	508	2.15	475	2.4	497	3.4	882	1.68	270	1.98	352	3.88	1,234	2.1	397				14
15					2.72	630	2.15	508	2.1	457	2.4	497	4	1,234	1.65	263	1.93	341	3.66	1,105	2.15	411				15
16					2.12		497	2.15	471	2.7	621	3.85	1,146	1.7	277	1.9	334	3.41	965	2.03	378				16	
17					2.13		497	2.2	489	2.8	663	3.55	977	1.7	277	1.85	321	3.01	758	1.99	367				17	
18					2.15		504	2.3	523	2.75	635	3.85	977	1.73	284	1.85	321	2.97	739	1.97	362				18	
19					2.13		497	2.6	659	2.7	603	3	701	1.75	290	1.84	319	3.72	1,146	1.97	362				19	
20					2.65	598	2.1	482	2.8	749	2.61	557	3.4	954	1.75	290	2	360	3.65	1,105	2.03	378				20
21					2.52	630	2.15	501	2.85	773	2.5	504	3.25	825	1.78	296	2.35	461	3.49	1,011	2.03	378				21
22					2.45	598	2.1	482	2.8	744	2.3	438	3.05	729	1.8	301	2.45	497	3.42	971	2.09	394				22
23					2.42	584	2.1	479	2.75	720	2.22	438	2.9	653	1.85	314	2.37	471	3.39	954	2.13	405				23
24					2.38	571	2.01	447	2.75	715	2.12	378	2.85	640	2	352	2.65	589	3.29	898	1.12					24
25					2.4	580	2	444	2.7	691	1.95	329	2.6	531	2.63	557	2.83	668	3.22	860	1.22					25
26					2.4	580	2.2	516	2.6	640	1.85	301	2.49	489	2.78	626	3.1	797	3.16	830	1.26					26
27					2.4	584	2.35	570	2.61	644	1.82	290	2.4	457	2.9	682	3.47	994	3.06	782						27
28					2.45	607	2.35	570	2.61	640	1.8	282	2	344	3	429	4.89	1,886	2.96	734						28
29					2.38	580	2.45	621	2.6	635	1.75	265	2.19	394	2.6	544	5.69	2,534	2.95	729						29
30					2.35	566	2.5	644	2.55	607	1.75	259	2.1	370	2.1	378	5.94	2,750	2.91	710						30
31					2.3	544			2.55	607			2	344	2.1	378			2.82	668						31
Mean					591		651		616		490		710		354		642		1,265		482					
Run-off in acre-ft.					21,100		38,700		37,900		29,200		43,600		21,800		38,200		77,800		22,000					
Maximum					640		1,030		773		840		1,460		729		2,750		2,600		701					
Minimum					540		444		471		259		287		263		319		668		362					

Daily Gage Height (in feet) and Discharge (in second-feet) of Eikhorn River, near Norfolk, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							4.4	1,500	3.54	910	6.69	3,320	3.32	960	3.52	1,020	3.61	1,010	1.6	210	1.33	180			1
2							4.26	1,423	3.81	1,090	6.46	3,120	3.01	800	3.67	1,100	3.53	960	2.03	300	1.37	190			2
3							4.21	1,390	3.73	1,050	6.94	3,560	3.33	960	3.85	1,210	3.42	890	2.17	340	1.49	230			3
4							4.12	1,340	3.65	1,000	6.76	3,410	7.8	5,000	3.87	1,220	3.3	825	2.69	320	1.57	240			4
5							4.01	1,270	3.61	980	7.22	3,840	6.33	3,190	3.65	1,090	3.23	790	2.04	300	1.89	320			5
6							3.97	1,250	3.52	930	7.15	3,860	4.21	1,480	3.76	1,150	3.25	790	2.17	340	1.72	280			6
7							3.84	1,170	3.31	820	6.93	3,740	3.84	1,260	3.75	1,150	3.14	730	3.19	710	1.64	260			7
8							3.78	1,080	3.32	820	6.49	3,200	3.32	950	3.64	1,080	3.01	670	2.61	460	1.51	230			8
9					7	3,680	3.63	990	3.3	810	6.26	3,000	3.16	860	3.58	1,050	2.97	640	2.15	330	1.43	210			9
10					8.3	4,500	3.6	970	5.66	2,350	5.89	2,680	2.81	690	3.45	960	2.91	610	1.91	270	1.36	200			10
11					7.5	4,000	3.54	940	5.11	1,920	5.58	2,410	2.63	610	3.65	1,080	2.85	580	1.43	180	1.29	190			11
12					5.3	2,140	3.51	920	5.08	1,710	5.18	2,080	2.21	440	3.85	1,200	2.98	640	1.62	210	1.3	190			12
13					4.64	1,600	3.42	870	4.38	1,438	4.88	1,870	2.32	480	3.9	1,230	3.01	640	1.73	230	1.3	190			13
14					5	1,920	3.31	820	3.95	1,180	4.53	1,640	2.51	550	4.02	1,290	3	640	1.64	240	1.29	190			14
15					5.88	2,640	3.2	760	3.97	1,190	4.21	1,440	2.37	490	4.83	1,480	2.96	610	1.51	190	1.27	190			15
16					6.8	3,470	3.17	750	4.07	1,250	4.05	1,350	2.43	510	3.97	1,260	2.84	550	1.56	200	1.23	180			16
17					7.95	4,200	3.11	720	4.31	1,390	3.84	1,230	4.45	1,620	3.87	1,200	2.62	460	1.49	210					17
18					7.75	4,100	3.04	690	4.01	1,210	3.62	1,100	3.71	1,160	3.72	1,110	2.42	400	1.47	200					18
19					6.12	2,850	2.94	640	3.85	1,120	3.42	990	3.57	1,070	3.75	1,130	2.38	390	1.47	200					19
20					5.87	2,630	2.91	630	3.77	1,070	3.21	890	3.21	870	3.8	1,160	2.27	360	1.47	200					20
21					5.85	2,620	2.81	580	3.61	990	4.92	1,970	2.95	740	3.91	1,220	2.18	340	1.43	200	1.33	200			21
22					5.82	2,590	2.71	540	3.61	980	4.43	1,640	2.86	700	3.63	1,060	2.16	330	1.41	190					22
23					5.8	2,570	2.63	500	3.73	1,050	4.21	1,500	2.73	640	3.54	1,000	2.15	330	1.39	190					23
24					5.86	2,620	2.59	490	3.95	1,180	3.51	1,090	2.65	600	3.43	940	2.15	330	1.35	180					24
25					5.71	2,490	2.55	480	3.97	1,170	3.33	980	2.54	540	3.48	940	2.13	330	1.31	180					25
26					5.54	2,340	2.45	440	3.97	1,160	3.2	910	2.61	580	3.62	1,050	2.1	320	1.29	180					26
27					5.29	2,130	2.42	430	4.5	1,500	3.03	820	2.72	630	3.83	1,170	1.98	290	1.36	190					27
28					5.09	1,980	2.65	510	4.43	1,460	3	800	2.83	670	5	1,920	1.85	260	1.34	180					28
29					4.97	1,890	3.15	740	6.55	3,160	2.94	770	2.89	700	4.38	1,490	1.78	240	1.37	190					29
30					4.76	1,740	3.35	840	9.25	8,000	2.83	720	2.97	740	4.13	1,330	1.61	210	1.33	180					30
31					4.5	1,570			7.68	5,000			2.99	740	3.94	1,210			1.3	180					31
Mean					2,707			856		1,610			1,998		1,007		1,177		593		248		229		
Run-off in acre-ft.					123,500			50,900		99,000			118,900		61,900		72,400		32,100		15,200		7,300		
Maximum					4,500			1,500		8,000			3,860		5,000		1,920		1,010		710		320		
Minimum					1,570			430		810			720		440		940		210		180		180		

ELKHORN AT ARLINGTON

Location. One mile south of Arlington in Section 13, Township 17 North, Range 9 East, on the bridge just below the Chicago & North Western Railroad Bridge.

Records Available. From April 28, 1899 to November 21, 1903, and from July 9, 1913 to September 30, 1914.

Gage. On the original station an inclined gage was located two hundred feet down stream from the highway bridge on the right bank. This rod was washed out on May 10, 1899, and on May 29 of the same year a similar gage was installed twenty-five feet further up stream. The datum was not changed. This gage was used until the close of the season of 1903. When the station was re-established in 1913, a gage was painted in black and white on the south side of the east pier of the highway bridge.

Bench Marks. During the first period the station was maintained, two bench marks were established. No. 1. A spike in a pile, one hundred and fifty feet down stream from the bridge on the right bank. Elevation 6.36 feet above zero of the gage. No. 2. A spike in a pile one hundred and forty feet down stream from the gage on the right bank and twenty feet from the waters edge. Elevation, 9.12 feet above zero of the gage. During the latter period a bench mark was established on the south west corner of the east abutment directly over the gage. Elevation, 15.00 feet above zero of the gage.

Channel. Fine sand, rather shifting.

Discharge Measurements. Made from bridge.

Accuracy. High water gagings are affected by eddies from the railroad bridge above, but in low water very good results are obtained.



Elkhorn River Gaging Station at Arlington

Actual Discharge Measurements of Elkhorn River, at Arlington

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1894		Feet	Sec.-ft.	1901		Feet	Sec.-ft.
Aug. 17	A. Rosewater	214	214	Nov. 9	Frank Dobson	1.9	706
1898				June 17	O. V. P. Stout	2.37	905
May 26	Glen E. Smith	1,808	1,808	1902			
Dec. 15	do	422	422	Mar. 19	B. E. Forbes	1.85	771
1899				April 14	J. C. Stevens	2.15	924
Feb. 4	Glenn E. Smith	3,370	3,370	June 17	do	1.85	743
17	do	269	269	July 7	do	6.29	4,363
April 28	do	1.78	794	Aug. 29	do	3.57	1,402
May 9	do	3.9	1,779	Aug. 22	do	3.75	1,388
23	do		1,626	Sept. 10	do	2.1	805
29	do	4.24	2,462	Oct. 4	do	4.79	2,676
June 22	do	2.7	1,199	1903			
July 8	do	2.23	1,016	April 10	do	4.4	2,120
Aug. 9	do	1.72	732	May 15	do	7.36	4,330
18	do	1.4	606	June 3	do	10.3	8,431
Sept. 15	do	.82	344	June 22	do	5.4	2,136
24	do	.75	340	July 15	do	4.65	2,093
Oct. 13	do	.9	351	Aug. 29	do	10.65	8,658
1900				Sept. 16	do	7.7	4,883
April 19	O. V. P. Stout	2.06	685	1904			
May 5	do	3.25	1,411	May 6	J. C. Stevens		1,284
5	do	3.25	1,458	6	do		1,343
June 1	do	1.8	723	1913			
1	do	1.8	693	July 9	D. P. Weeks	2.	590
28	do	1.25	465	Aug. 5	do		300
28	do	1.25	468	Sept. 8	do	1.5	219
Aug. 2	do	1.26	431	17	do	1.6	264
2	do	1.26	452	Nov. 16	do	2.15	453
14	do	1.16	415	28	Jefferys-Weeks	2.2	470
14	do	1.16	441	Dec. 19	W. M. Jefferys	2.25	843
Sept. 12	do	4.74	2,855	1914			
Nov. 14	Glenn E. Smith	2.05	838	Mar. 20	D. P. Weeks, Jr.	2.45	618
14	do	2.05	760	April 24	do	2.48	510
1901				May 30	do	4.67	3,549
June 24	O. V. P. Stout	6.76	3,989	July 13	do	1.95	531
July 12	do	2.99	1,331	Aug. 5	do	2.06	391
30	do	1.15	564	Sept. 3	do	1.88	291

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Arlington, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.76	559	3.59	1,673	1.81	692	.97	384	1.35	498	2.14	808	1.94	723	3.82	1,855			1
2							1.75	555	3.51	1,615	1.87	718	.95	378	1.24	454	2.75	637	1.84	679	3.88	2,000			2
3							1.76	559	3.4	1,542	1.75	667	.98	387	1.16	429	1.52	548	1.82	670	3.75	1,837			3
4							1.74	551	3.33	1,495	1.93	745	.96	381	1.08	404	1.38	498	1.74	638	3.6	1,749			4
5							1.67	526	3.24	1,435	1.88	722	1.18	448	1.06	398	1.31	474	1.7	621	3.4	1,574			5
6							1.65	518	3.18	1,400	1.9	731	1.09	416	.99	378	1.27	461	1.65	601	3.15	1,400			6
7							1.61	504	3.22	1,428	1.92	740	1.02	395	.93	361	1.25	454	1.6	582	2.8	1,184			7
8							1.6	501	3.35	1,526	1.81	692	.99	387	.88	347	1.23	448	1.56	570	2.63	1,092			8
9							1.56	484	3.56	1,698	1.68	637	.92	367	.82	332	1.25	454	1.53	559	2.39	967			9
10							1.59	498	4.18	2,283	1.66	629	.88	355	.78	322	1.16	426	1.49	545	2.26	901			10
1							1.57	491	4	2,105	1.62	613	.91	364	.8	327	1.54	555	1.47	537	2.21	881			11
2							1.56	484	3.33	1,518	1.56	590	.85	347	.88	347	2.56	1,021	1.45	530	2.18	871			12
3							1.56	484	2.98	1,286	1.63	617	.84	344	.92	358	5.8	4,160	1.42	519	2.14	858			13
4							1.57	491	2.8	1,178	2.31	927	.76	325	1.18	435	5.7	4,074	1.39	508	2.07	823			14
5							1.6	501	2.7	1,120	1.6	605	.76	325	5.41	705	1.36	3,683	2.02	498	1.64	794			15
6							1.64	515	2.61	1,076	1.53	578	1.48	544	1.91	709	4.43	2,501	1.33	484	1.98	776			16
7							1.72	544	2.55	1,044	1.72	654	1.24	461	1.72	629	4	2,077	1.3	477	1.9	740			17
8							1.98	646	2.51	1,021	1.77	675	1.15	433	2.1	794	3.67	1,775	1.28	470	1.9	740			18
9							2.05	676	2.35	937	1.58	597	1.3	480	2.95	1,250	3.48	1,615	1.29	474	1.91	745			19
10							2.17	745	2.27	901	1.54	582	1.58	582	2.66	1,081	3.31	1,479	1.31	481	1.86	723			20
11							2.46	896	2.19	863	1.5	567	1.56	570	2.37	927	3.26	1,442	1.32	484	1.79	692			21
12							2.55	943	2.13	833	1.42	537	2.04	772	2.13	808	3.32	1,485	1.72	633	1.65	633			22
13							2.56	958	1.85	705	1.34	508	2.47	983	2.26	871	3.3	1,463	1.91	714	1.59	609			23
14							2.66	1,015	1.84	700	1.29	491	3.01	1,293	2.04	767	3.04	1,300	1.98	745	1.54	590			24
15							2.67	1,026	1.77	671	1.25	474	2.72	1,120	1.96	831	2.89	1,208	2.06	780					25
16							2.75	1,075	1.75	662	2.27	480	2.56	1,032	2.17	828	3.11	1,342	2.18	843					26
17							2.75	1,081	1.88	718	1.36	512	2.35	922	2.12	806	2.66	1,076	2.26	881					27
18							2.93	1,190	1.83	696	1.27	480	2.24	866	2.08	780	2.34	906	2.4	953					28
19							3.33	1,447	1.73	658	1.18	451	1.75	646	2.02	753	2.09	790	5.43	3,656					29
20							3.76	1,811	1.83	700	.98	390	1.56	570	1.95	723	2.01	755	4.48	2,522					30
1									1.72	654			1.46	533	2.32	896			4.12	2,115					31
Mean							742		1,166		610		562		627		1,331		824		1,034				
Run-off n acre-ft.							44,200		71,700		36,300		34,600		38,600		79,200		50,700		61,500				
Maximum							1,810		2,280		927		1,290		1,250		4,160		3,660		1,880				
Minimum							484		654		390		325		322		426		470		590				

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Arlington, for 1902

January		February		March		April		May		June		July		August		September		October		November		December		Day	
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		
Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
						2.24	968	3.2	1,518	1.9	776	1.8	585	4.95	2,653	3.47	1,400	4.2	2,096	2.88	1,196	2.01		1	
						2.39	1,048	3.23	1,582	1.88	767	1.99	650	4.15	1,846	3.12	1,202	5.15	3,066	2.86	1,184	2.1		2	
						2.51	1,115	3.3	1,640	1.82	740	2.2	740	3.37	1,250	2.8	1,037	5.07	2,936	2.76	1,126			3	
						2.73	1,244	3.12	1,495	1.72	696	2.85	1,026	3	1,037	2.64	968	4.8	2,686	2.75	1,120			4	
						2.89	1,342	3.71	1,236	1.82	740	3.57		2.75		896	2.52		4.73	2,619	2.72	1,103			5
						2.83	1,305	2.44	1,070	1.88	767	5.8	3,749	2.56	799	2.4	881	4.6	2,469	2.67	1,175			6	
						2.75	1,256	2.31	999	1.75	709	6.17	4,203	2.35	705	2.24	818	4.39	2,253	2.63	1,053			7	
						2.67	1,214	2.23	952	1.74	705	5.9	3,816	2.21	642	2.2	813	4.26	2,174	2.58	1,026			8	
						2.62	1,184	2.15	912	1.99	813	8.16	7,586	2.14	570	2.17	818	4.17	2,086	2.6	1,037			9	
				3.74	2,029	2.5	1,115	2.14	906	2.85	1,280	9.1	9,586	2	552	2	758	4.06	1,982	2.58	1,036			10	
				3.34	1,673	2.39	1,053	2.08	876	2.76	1,220	8.78	8,917	1.95	529	1.97	740	4.01	1,982	2.56	1,015			11	
				3.17	1,534	2.32	1,015	2	838	2.6	1,126	7.65	6,462	1.82	487	1.94	722	4.54	2,512	2.62	1,048			12	
				3.19	1,550	2.21	958	2.01	843	2.31	968	7.66	6,654	1.88	497	1.9	700	5.14	3,199	2.87	1,190			13	
				3.36	1,689	2.12	912	2.02	847	2.14	886	7.41	6,206	1.81	471	1.8	654	5.1	3,162	3.3	1,463			14	
				3.37	1,698	2.13	917	1.98	828	2.1	862	6.1	4,105	2.25	629	1.76	633	4.71	2,809	3.16	1,367			15	
				3.02	1,421	2.12	912	1.88	776	1.93	780	5.85	3,762	4.97	2,522	1.72	613	4.28	2,344	2.88	1,196			16	
				3.33	1,664	2.07	886	1.87	771	1.82	731	5.52	3,324	5.5	3,114	1.68	593	4.02	2,086	2.76	1,126			17	
						1.98	883	1.82	749	1.91	762	6.11	2,832	4.29	1,837	1.61	563	3.86	1,937	2.64	1,059			18	
						1.77	833	1.77	727	2.27	896	7.11	4,119	3.59	1,286	1.55	537	3.72	1,811	2.58	1,026			19	
				2.25	961	1.91	808	1.75	718	2.44	1,005	7.15	5,470	3.03	968	1.54	530	3.65	1,749	2.55	1,010			20	
				2.32	1,005	1.84	818	1.8	740	2.15	843	6.92	5,356	2.7	804	2.06	735	3.49	1,615	2.47	968			21	
				2.71	1,236	1.3	799	1.85	762	1.92	727	6.5	4,705	3.8	1,421	2.6	994	3.42	1,558	2.5	983			22	
				2.57	1,143	1.77	740	1.93	753	1.81	671	5.69	3,565	3.44	1,214	3.25	1,367	3.39	1,534	2.47	963			23	
				2.42	1,059	1.79	740	1.98	771	1.75	633	4.71	2,417	3.9	1,542	3.59	1,615	3.29	1,456	2.46	963			24	
				2.35	1,021	1.25	731	2	828	1.72	613	4.06	1,793	4.18	1,802	3.58	1,599	3.22	1,407	2.36	912			25	
				2.36	1,026	1.82	762	1.95	804	1.61	563	4.3	2,011	4.57	2,194	3.4	1,449	3.16	1,367	2.32	891			26	
				2.28	983	1.92	808	1.89	776	1.6	548	4.22	1,937	5.18	2,878	3.45	1,479	3.06	1,305	2.28	871			27	
				2.22	952	1.95	823	1.92	790	1.58	465	3.86	3,361	5.23	2,971	3.57	1,566	2.96	1,244	2.26	862			28	
				2.23	963	2.11	896	1.9	780	1.9	566	3.51	1,402	5.06	2,809	3.46	1,471	2.95	1,238	2.24	852			29	
				2.21	952	2.65	1,190	1.94	799	1.74	570	3.12	1,126	5.57	2,417	3.92	1,846	2.91	1,214	2.14	804			30	
				2.18	937			1.9	780			3.66	1,456	3.9	1,715			2.82	1,161					31	
						1,251		974		931		781		3,633		1,453		1,001		2,034		1,051			
						44,700		57,900		57,200		46,500		223,400		89,300		59,600		125,000		62,500			
						2,030		1,342		1,640		1,220		9,570		3,114		1,850		3,200		1,460			
						771		731		718		465		585		471		530		1,160		804			

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Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Arlington, for 1903

January		February		March		April		May		June		July		August		September		October		November		December		Day
Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
						6.11	3,510	3.44	1,410	10.25	8,270	4.74	1,910	3.35	1,290	9.93	7,565	3.22	1,380	3.15	1,350			1
						5.87	3,295	4	1,745	10.4	8,510	4.43	1,745	4.15	1,810	9.3	6,670	3.43	1,530	3.28	1,440			2
						5.7	3,170	4.37	1,980	10.33	8,510	4.23	1,620	5.54	2,335	8.18	5,370	4.87	2,480	3.5	1,560			3
						5.48	3,000	4.8	2,295	10.05	7,665	5.39	2,440	7.87	4,850	7.5	4,650	4.5	2,225	3.86	1,780			4
						5.26	2,795	4.96	2,405	9.76	7,340	7.29	4,020	8.4	5,425	6.98	4,190	3.75	1,715	4.1	1,945			5
						5.08	2,675	4.85	2,330	9.37	6,865	7.82	4,505	8.1	5,110	6.52	3,765	3.42	1,500	3.96	1,845			6
						4.87	2,480			9.25	6,670	7.91	4,650	7.37	4,370	5.96	3,295	3.27	1,410	3.78	1,745			7
						4.71	2,365	4.45	2,015	9.47	6,475	7.07	3,890	6.34	3,510	5.42	2,835	3.75	1,715	3.6	1,620			8
						4.5	2,225	4.25	1,875	9.17	6,235	6.25	3,255	5.74	3,000	5.1	2,595	4.88	2,515	3.55	1,590			9
						4.4	2,120	4.12	1,780	9.05	6,050	5.85	2,915	5.28	2,635	4.94	2,480	4.86	2,480	3.44	1,530			10
						4.38	2,120	4.5	2,050	8.64	5,535	5.6	2,755	4.9	2,330	4.85	2,405	4.5	2,225	3.43	1,530			11
						4.4	2,120	6.41	3,510	8.15	4,950	5.33	2,555	4.68	2,190	5.2	2,675	4.5	2,225	3.34	1,470			12
						4.5	2,190	7.61	4,555	7.84	4,600	5.12	2,405	4.94	2,405	6	3,380	4.62	2,295	3.23	1,410			13
						4.37	2,085	7.89	4,850	7.48	4,235	4.93	2,295	4.87	2,330	6.42	3,720	4.8	2,440	3.25	1,410			14
						4.1	1,910	7.36	4,325	7.03	3,765	4.64	2,085	5.05	2,480	7.62	4,800	4.9	2,515	3.22	1,380			15
						3.91	1,745	6.64	3,720	6.38	3,170	4.3	1,845	4.65	2,190	7.68	4,900	4.88	2,515	3.2	1,380			16
						3.76	1,650	6.26	3,380	5.84	2,635	5.46	2,675	4.68	2,225	7.12	4,325	4.88	2,515	3	1,260			17
						3.6	1,560	6.05	3,255	5.5	2,295	7.31	4,235	4.72	2,225	6.06	3,425	4.64	2,330	1.7	613			18
						3.45	1,470	7.56	4,555	5.33	2,155	6.98	3,975	4.9	2,295	5.52	2,955	4.35	2,120	1.87	675			19
						3.37	1,410	7.19	4,235	5.2	2,015	6.61	3,635	4.54	2,120	5.38	2,875	4.12	1,945	2.2	833			20
						3.31	1,380	7.67	4,695	5.19	2,015	6.55	3,595	4.47	2,050	5.15	2,675	3.9	1,810	2.54	1,010			21
						3.3	1,380	8.55	5,645	5.4	2,155	4.86	2,225	4.3	1,945	5	2,555	3.72	1,680					22
						3.18	1,320	9.45	6,735	5.17	1,980	4.35	1,910	4	1,745	4.62	2,260	3.57	1,590					23
						3.12	1,260	8.5	5,590	5.43	2,190	4.05	1,715	3.72	1,590	4.2	1,980	3.43	1,530					24
				7.53	4,800	3.05	1,202	8	5,110	5.97	2,555	3.8	1,560	3.72	1,590	3.85	1,780	3.35	1,470					25
						7.16	4,415	2.92	1,132	8.18	5,320	5.68	2,405	3.55	1,410		3.65	1,650	3.3	1,440				26
						7.02	4,280	2.8	1,064	8.85	6,115	5.4	2,225	3.38	1,320	9.65	7,060	3.43	1,530	3.26	1,410			27
						6.93	4,235	2.82	1,064	8.4	5,590	5.22	2,120	3.22	1,202	10.42	8,185	3.32	1,440	3.12	1,320			28
						6.85	4,145	2.88	1,132	8.25	5,480	5.06	2,050	3.25	1,238	10.65	8,670	3.22	1,380	3.12	1,320			29
						6.72	4,020	3.13	1,260	9.2	6,605	4.87	1,945	3.24	1,238	10.63	8,590	3.2	1,380	3.18	1,380			30
						6.53	3,890			10.05	7,665		3.16	1,178	10.23	7,950			3.2	1,380				31
mean				4,255			1,936		4,027		4,319		2,516		3,567		3,250		1,884		1,399			
un-off																								
acre-ft.				59,100		115,200	239,600		257,000		154,700		212,200		193,400		115,800		82,200		1,940			
maximum				4,800		3,510	7,660		8,510		4,650		4,650		8,670		7,560		2,510		1,940			
minimum				3,890		1,064	1,410		1,940		1,178		1,290		1,290		1,380		1,320		613			

ELKHORN RIVER AT WATERLOO

Location. One-quarter mile north of the Union Pacific Railroad Station at Waterloo.

Records Available. From May 19, 1911 to July 19, 1913.

Gage. Gage heights were obtained by measuring from a point on the hand-rail at about the center of the upstream side of the bridge to the surface of the water and subtracting this distance from twenty feet.

Bench Marks. No. 1. Post with white cross painted on top ten feet south and even with the west end of the bridge. Elevation assumed one hundred feet. No. 2. White cross on tubular pier, up stream side and west of the bridge. Elevation, 99.68 feet. No. 3. Point from which gagings are made on the handrail. Elevation, 104.16 feet.

Channel. Shifting sand. Approaches the bridge on somewhat of a curve causing eddies on the right bank and leaves the bridge in a comparatively straight line.

Accuracy. For most of period covered by these records conditions were good for estimates of discharge, but the accumulation of drift on the right bank made it necessary to discontinue gagings.

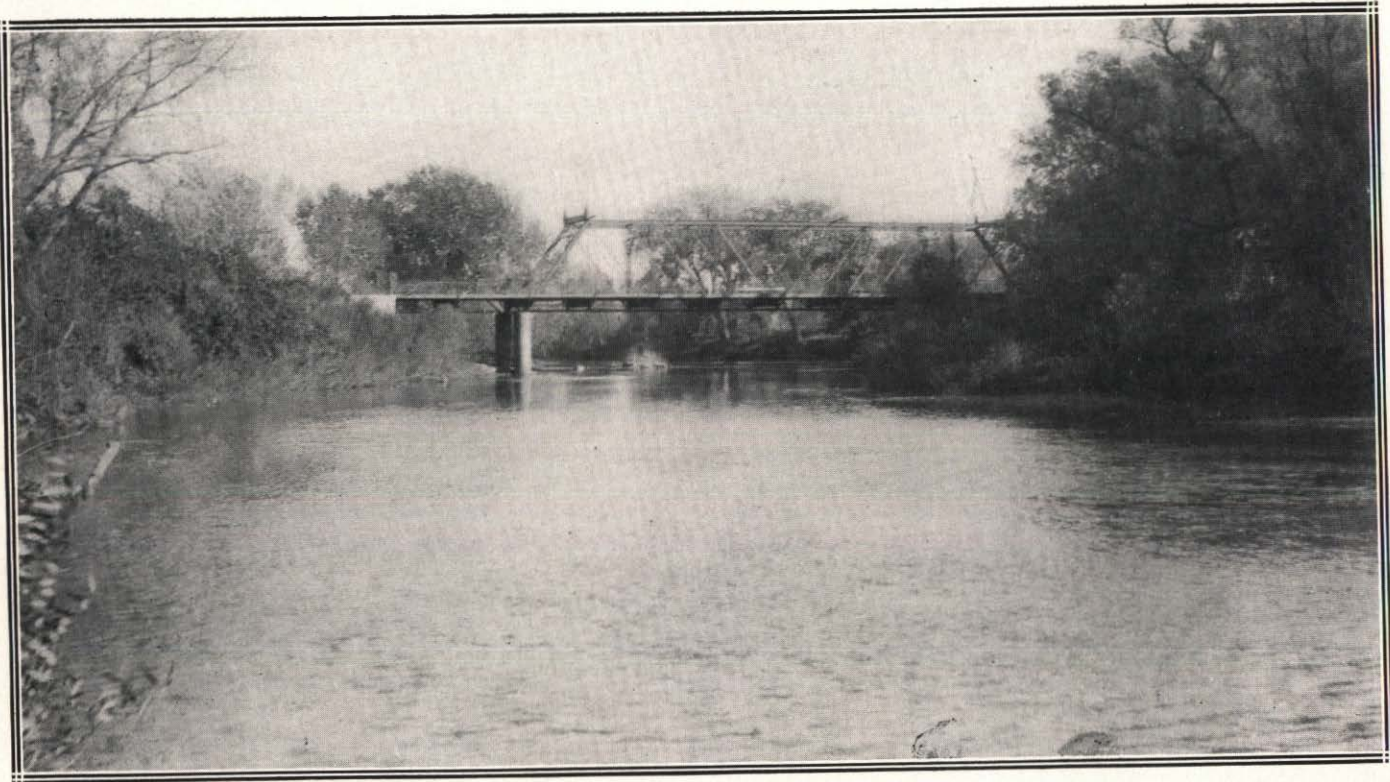
This station is but about twelve miles below the one at Arlington and for any purposes the data of the two stations may be used together

Actual Discharge Measurements of Elkhorn River, at Waterloo

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1911		Feet	Sec.-ft.	1912		Feet	Sec.-ft.
May 19	A. B. Price	3	1,062	Sept. 15	D. P. Weeks	1.2	739
30	do	2.6	930	21	do	...	598
June 12	do	1.9	655	28	do	...	600
23	do	2.1	844	Oct. 5	do	...	572
July 8	do	1.6	598	12	do	...	851
31	do	1.4	433	20	do	...	828
Aug. 9	do	1.4	537	26	do	...	702
28	do	1.5	425	Nov. 2	do	...	690
Sept. 12	do	1.3	303	9	do	...	500
Nov. 9	do	2.1	919	16	do	...	1,035
1912				24	do	...	643
April 29	C. G. Hrubesky	4	2,720	Dec. 7	do	...	419
May 30	C. T. Graham	2.3	...	1913			
June 21	D. P. Weeks, Jr.	1.9	11,120	Mar. 17	do	2.75	1,436
28	do	1.4	930	April 12	do	3.52	2,032
July 5	do	1.1	785	19	do	4.4	3,013
11	do	.5	653	27	do	4.97	3,203
19	do	.7	579	May 3	do	4.7	2,429
26	do	1.9	716	10	do	3.9	2,149
Aug. 2	do	1.25	598	17	do	6	5,067
8	do	0.85	583	24	do	4.35	2,887
13	do	1.3	747	June 7	do	3.25	1,428
23	do	3.1	1,545	17	do	2.5	901
28	do	1.45	735	28	do	2.6	1,060
Sept. 6	do	1.6	720	July 3	do	2.06	735

Daily Gage Height (in feet) and Discharge (in second-feet) of Elkhorn River, near Waterloo, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1											2.5	840	4	3,420	1.3	380	1.51	417	1.6	480	2.13	963	2.9		1		
2											2.45	800	3.75	3,080	1.28	400	1.5	410	1.65	520	2.13	963	2.7		2		
3											2.4	860	3.55	2,810	1.37	460	1.45	380	1.65	520	2.15	985	2.6		3		
4											2.35	820	2.9	1,920	1.48	540	1.4	350	1.68	544	2.12	952	2.9		4		
5											2.37	830	2.34	1,300	1.4	510	1.3	300	1.7	560	2.1	930	2.9		5		
6											2.33	900	2.05	980	1.5	590	1.28	292	1.9	730	2.15	985	2.86		6		
7											2.35	920	1.9	830	1.6	660	1.35	325	2.05	880	2.14	974	2.98		7		
8											2.15	740	1.7	650	1.64	720	1.32	310	2.1	930	2.2	1,040	2.65		8		
9											2.1	780	1.5	500	1.69	770	1.38	340	2.2	1,040	2.2	1,040	2.68		9		
0											2.05	740	1.75	700	1.6	690	1.4	350	2.55	1,490	2.27	1,120	2.98		10		
1											2	700	1.67	630	1.54	640	1.4	350	2.55	1,490	2.2	1,040	3.05		11		
2											1.9	660	1.7	650	1.5	610	1.41	356	2.6	1,560	1.5	1,060	2.81		12		
3											1.9	660	1.77	710	1.5	560	1.54	438	2.4	1,290	2.24	1,090	2.96		13		
4											1.9	660	1.75	700	1.47	545	1.46	386	2.28	1,140	2.4	1,290	2.77		14		
5											1.85	620	1.7	650	1.44	520	1.38	340	2.1	930	2.45	1,360	2.61		15		
6											1.76	545	1.75	700	1.44	520	1.34	320	2.05	880	2.45	1,360	2.61		16		
7											2.35	1,100	1.73	680	1.46	490	1.36	330	2	830	2.35	1,220	2.67		17		
8											2.5	1,280	1.65	610	1.54	560	1.32	310	2	830	2.45	1,360	2.52		18		
9											3	1,060	1.64	610	1.64	630	1.3	300	2	830	2.45	1,360	2.35		19		
0											1,170	2.75	1,580	1.6	580	2.02	960	1.3	300	2.01	840	2.36	1,240	2.4		20	
1											1,280	2.35	1,100	1.55	540	1.58	580	1.35	325	2.1	930	2.3	1,160	2.3		21	
2											1,390	2.3	1,050	1.5	500	1.47	500	1.28	292	2	830	2.4	1,290	2.38		22	
3											1,500	2.1	840	1.5	500	1.4	450	1.32	310	2.2	1,040	2.4	1,290	2.24		23	
4											3.35	1,600	1.9	660	1.58	570	1.4	350	2.18	1,020	1.73	1,310	2.2		24		
5											3.3	1,540	1.9	660	1.55	540	1.46	386	1.4	350	2.18	1,020	2.1	1,340	2.26		25
6											3.2	1,400	1.84	630	1.56	550	1.45	380	1.42	362	2.15	985	2.45	1,360	2.15		26
7											3.1	1,400	1.7	560	1.54	530	1.4	450	1.41	356	2.16	996	2.33	1,200	2.8		27
8											3	1,280	2.5	1,340	1.46	460	1.56	452	1.38	340	2.15	985	2.4	1,290	3.15		28
9											2.7	960	3.75	2,980	1.4	435	1.5	410	1.4	350	2.1	930	2.69	1,200	3.06		29
0											2.6	860	4.25	3,670	1.4	435	1.5	410	1.47	392	2.18	1,020	2.9	1,200	3.28		30
1											2.57	900			1.31	380	1.5	410			2.1	930			3.3		31
fean.											1,260		1,060		908		533		344		935		1,170		1,000		
run-off																											
1 acre-ft.											32,500		63,100		55,800		32,800		20,500		57,500		69,600		61,500		
maximum											1,600		3,670		3,420		960		438		1,560		1,360				
minimum											860		545		380		350		292		480		930				



Big Blue River Gaging Station at Beatrice

BIG BLUE RIVER AT BEATRICE

Location. At the Sixth Street bridge. Nearest tributary is a small stream entering from the north a mile or more below.

Records Available. From October 15, 1910 to September 30, 1914. Records of gage heights have been kept by the United States Weather Bureau from January 1 to July 31 of each year since June 1, 1905.

Drainage Area. 3,363 square miles. (United States Weather Bureau.)

Gage. A chain gage in a box is located at the center of the bridge on the up stream side fastened to the bridge floor outside the handrail. Length from end of weight to marker 24.4 feet. (Owned by United States Weather Bureau.)

Bench Mark. A bench mark is located on the up stream side of the bridge on the north abutment at the angle of the wing wall and abutment. Elevation, 25.62 feet.

Channel. Slightly shifting.

Discharge Measurements. Made from bridge.

Accuracy. Although the channel is rather shifting and the dam of the flour mill located about a mile above the station causes a slight daily fluctuation, sufficient measurements have been obtained to make estimates of discharge which are fair. Since the station has been established a coefficient of .80 has been used to correct for the angle which the stream makes with normal to the bridge. This angle has recently been found to vary and a coefficient is now found for each gaging.

Actual Discharge Measurements of Big Blue River, at Beatrice

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1897		Feet	Sec.-ft.	1911		Feet	Sec.-ft.
Aug. 21	O. V. P. Stout	208		Aug. 2	A. B. Price	1.7	267
1898				Sept. 16	do	2.3	377
July 4	do	285		1912			
1908				April 22	C. G. Hrubesky	4.9	564
Jan. 18	Arthur Dobson	292		May 28	C. T. Graham	3.5	417
Feb. 29	do	705		June 18	D. P. Weeks, Jr.	3.6	360
April 25	Adna Dobson	305		July 17	do	2.9	154
May 19	Arthur Dobson	383		Aug. 16	do	3.35	251
June 25	do	12,220		Sept. 13	do	3.2	229
July 23	do	3,698		Oct. 15	do	3.75	224
July 25	do	990		Nov. 19	do	3.1	195
Sept. 16	do	307		Dec. 14	do	2.55	193
Oct. 23	do	470		1913			
Nov. 28	do	378		Mar. 22	D. P. Weeks, Jr.	2.8	373
Dec. 30	do	376		April 19	do	2.5	279
1910				May 21	do	10.7	5,995
July 8	D. D. Price	321		June 23	do	2.15	176
Aug. 13	A. A. Dobson	359		July 22	do	2.2	177
Sept. 13	do	303		Aug. 15	do	2.15	149
Sept. 22	do	400		Sept. 16	do	2	105
Oct. 29	do	328		Nov. 12	do	2.3	253
Nov. 11	do	405		Dec. 5	W. M. Jefferys	2.55	334
July 8	D. D. Price	321		1914			
Aug. 13	do	2.62	359	Mar. 21	D. P. Weeks, Jr.	2.45	248
Aug. 13	A. A. Dobson	1.18	303	April 18	do	2.48	244
Sept. 22	do	1.38	400	May 17	do	2.27	207
Oct. 29	do	1.28	328	June 15	do	12.7	7,992
Nov. 11	do	1.35	405	July 20	do	2.05	195
1911				Aug. 22	do	2.85	397
April 7	Arthur Dobson	1.38	204	do	do	2.65	353
May 1	A. B. Price	1.6	249	Sept. 5	D. D. Price	2.3	244
June 9	do	1.3	203	30	D. P. Weeks, Jr.	2.5	328
July 3	do	.75	125				

† No daily gage heights during this period.

Daily Gage Height (in feet) and Discharge (in second-feet) of Big Blue River, at Beatrice, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	1.3	300	1.4	365	1.4	365	1.3	325	1.6	450	1.1	260	1	230	1.9	605	1.7	500	3.8	2,160	1.2	290	1.4	365	1
2	.....	300	1.4	365	1.5	405	1.2	290	1.7	500	1.2	290	1	230	1.7	500	1.5	405	5.1	3,460	1.2	290	1	320	2
3	.....	300	1.3	325	1.4	365	1.2	290	1.8	550	1.1	260	.9	200	1.4	365	1.5	405	3.6	1,960	1.1	260	1.3	325	3
4	.....	300	1.4	365	1.3	325	1.3	325	1.8	550	1.1	260	.8	175	1.3	325	1.5	405	2.4	920	1	230	1.4	365	4
5	.....	300	1.4	365	1.2	290	1.1	260	1.8	550	1.7	500	.7	150	1.4	365	1.5	405	2.3	850	1.1	260	1.4	365	5
6	.....	300	1.3	325	1.3	325	1.2	290	1.7	500	1.2	290	.8	175	1.4	365	1.4	365	2.2	780	1.2	290	1.5	405	6
7	.....	300	1.3	325	1.3	325	1.3	325	1.6	450	1.1	260	.9	200	1.4	365	1.4	365	2.2	780	1.2	290	1.3	325	7
8	.....	300	1.2	290	1.3	325	1.3	325	1.5	405	1.1	260	1	230	1.9	605	1.5	405	2.2	780	1.2	290	1.2	290	8
9	.....	300	1.2	290	1.4	365	1.4	365	1.4	365	1.1	230	1	230	2.4	920	1.4	365	2.3	850	1.2	290	1.2	290	9
10	1.5	300	1.2	290	1.4	365	1	230	1.5	405	1.1	260	.9	200	2.4	920	2.9	1,300	2.2	780	1.2	290	1.4	365	10
11	1.7	300	1.3	325	1.4	365	1.2	290	1.7	500	1.3	325	.8	175	2.2	780	2	660	2.9	815	1.1	260	1.4	365	11
12	1.7	300	1.3	325	1.4	365	1.2	290	1.6	450	1.1	260	.9	200	2	660	2	1,300	2.3	850	1.2	290	1.4	365	12
13	1.8	300	1.3	325	1.5	405	1.3	325	1.4	365	1.1	260	.9	200	2	660	2.5	990	2.6	1,060	1.2	290	1.4	365	13
14	1.8	300	1.4	365	1.4	365	1.3	325	1.4	365	1.1	260	.9	200	2.1	720	2.4	920	3.2	1,580	1.2	290	1.4	365	14
15	1.9	300	1.8	550	1.3	325	1.4	365	1.4	365	1.1	260	1	230	1.7	500	2.4	920	1.6	450	1.2	290	1.3	325	15
16	2.1	300	2	660	1.3	325	1.3	325	1.3	325	1.1	260	1	230	1.5	405	2.4	920	1.4	365	1.2	290	1.3	325	16
17	2.1	300	2.2	780	1.3	325	1.2	290	1.3	325	1.1	260	1	230	1.4	365	2.4	920	1.3	325	1.2	290	1.3	325	17
18	2	300	2	660	1.3	325	1.2	290	1.3	325	1	230	.8	175	1.3	325	2.2	780	1.4	365	1.2	290	1.3	325	18
19	1.6	450	2.1	720	1.3	325	1.3	325	1.3	325	1	230	.8	175	1.3	325	2.2	780	1.3	325	1.3	325	1.4	365	19
20	1.4	365	1.5	405	1.2	290	1.3	325	1.2	290	.9	200	1	230	1.4	365	1.8	550	1.3	325	1.3	325	1.5	405	20
21	1.4	365	1.2	290	1.2	290	1.3	325	1.2	290	.9	200	1	230	1.5	405	1.5	405	1.3	325	1.2	290	1.5	405	21
22	1.3	325	1.5	405	1.3	325	1.2	290	1.2	290	1	230	.9	200	1.8	550	1.4	365	1.2	290	1.2	290	1.5	405	22
23	1.3	325	1.6	450	1.3	325	1.3	325	1.2	290	1.1	260	24	22,400	2.5	990	1.4	365	1.1	260	1.2	290	1.4	365	23
24	1.3	325	1.7	500	1.2	290	1.2	290	1.2	290	1	230	(a)	14,700	1.7	500	1.3	325	1.1	260	1.2	290	1.2	290	24
25	1.3	325	1.7	500	1.3	325	1.2	290	1.3	325	.9	200	8.7	7,060	1.8	550	1.2	290	1	230	1.3	325	1.2	290	25
26	1.5	405	1.6	450	1.3	325	1.1	260	1.3	325	.8	175	3.7	2,060	1.9	605	1.3	325	1.1	260	1.3	325	1.3	275	26
27	1.4	365	1.5	405	1.3	325	1.3	325	1.3	325	.9	200	3.3	1,670	2	660	1.3	325	1.1	260	1.2	290	1.7	275	27
28	1.4	365	1.2	290	1.2	290	1.3	325	1.2	290	.9	200	3.1	1,480	2	660	1.3	325	1.2	290	.5	310	1.9	275	28
29	1.4	365	.....	.....	1.3	325	1.3	325	1.2	290	.9	200	2.8	1,220	2.1	720	1.3	325	1.1	260	.9	330	1.7	275	29
30	1.3	325	.....	.....	1.3	325	1.8	550	1.2	290	.9	200	2.4	920	2	660	1.4	365	1.2	290	1	350	1.6	275	30
31	1.4	365	.....	.....	1.2	290	.....	.....	1.1	260	.....	.....	2.3	850	1.9	605	.....	.....	1.3	325	.....	.....	.....	.....	31
Mean	.....	325	.....	415	.....	332	.....	316	.....	375	.....	250	.....	1,830	.....	560	.....	569	.....	736	.....	294	.....	331	.....
Run-off	.....	20,000	.....	23,000	.....	20,400	.....	18,800	.....	23,100	.....	14,900	.....	113,000	.....	34,400.	.....	33,900	.....	45,300	.....	17,500	.....	20,400	.....
Maximum	.....	450	.....	780	.....	405	.....	550	.....	550	.....	500	.....	22,400	.....	990	.....	1,300	.....	3,460	.....	350	.....	405	.....
Minimum	.....	300	.....	290	.....	290	.....	260	.....	260	.....	175	.....	150	.....	325	.....	290	.....	230	.....	230	.....	275	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of Big Blue River, at Beatrice, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1	2.4		3.4		2.8	356	2.6	302	2.5	278	2.7	295	2.6	270	2.4	220	1.9	97	2.4	185	2.2	143	2.7	355	1	
2	2.5		2.8		2.7	328	2.7	328	2.5	278	2.6	270	2.5	245	2.2	180	1.3	20	2.2	143	1.9	89	2.7	360	2	
3	2.4				2.6	302	2.8	356	2.4	255	2.5	245	2.6	270	2.1	160	1.1	5	2.3	163	2.5	230	2.7	375	3	
4	2.7				2.6	302	2.5	278	4	750	2.6	270	2.4	220	2.2	180	2	105	2.2	143	2.1	165	2.6	350	4	
5	2.6				2.6	302	2.8	356	4.8	1,080	2.6	270	2.3	200	2.2	180	1.4	29	2.1	123	2.5	280	2.8	410	5	
6					3	416	2.4	255	3.8	680	2.8	320	2.4	220	2.3	200	1.7	62	2	105	2.3	250	3.3	570	6	
7			2.7	328	2.7	328	2.4	255	3.3	510	4	710	2.3	200	2.4	220	1.5	39	2.4	185	2.5	297	3.6	675	7	
8			2.9	386	2.9	386	2.6	302	3.3	510	3	375	2.4	220	2.4	220	1.8	75	1.9	89	2.6	322	3.8	755	8	
9			3	416	3	416	2.5	278	3.2	478	2.6	270	2.5	245	2.2	175	1.4	29	2.1	123	2.3	250	3.3	570	9	
10			2.7	328	3.4	542	2.5	278	3.2	478	2.7	295	2.6	270	2.2	172	1.8	75	2	105	2.5	297	3	470	10	
11			2.6	302	3.3	510	2.7	328	3.8	680	2.5	245	2.5	245	2.3	190	1.9	89	2.1	123	2.4	273	2.9	440	11	
12			2.6	302	3.3	510	2.7	328	3.8	680	2.7	295	2.3	200	2	130	1.4	29	1.7	62	2.5	297	2.8	410	12	
13			2.7	328	3.1	446	2.5	278	3.4	542	2.6	270	2.2	180	1.9	110	2.1	123	1.9	89	2.4	273	2.8	410	13	
14			2.8	356	3.1	446	2.5	278	3.2	478	2.6	270	2.4	220	1.7	75	1.9	89	2.3	163	2.5	297	2.6	353	14	
15			2.4	255	3	416	2.6	302	3.2	478	2.5	245	2.2	180	2	119	1.8	75	2	105	2.5	297	2.7	380	15	
16			2.4	255	2.9	386	2.8	356	3	416	2.5	245	2.2	180	2	119	2.1	123	1.7	62	2.5	297	2.6	353	16	
17			2.5	278	3	416	2.7	328	3.2	478	2.6	270	2.4	220	1.9	102	1.9	89	2.2	143	2.5	297	2.6	353	17	
18			2.4	255	2.8	356	2.7	328	2.8	356	2.5	245	2.5	245	1.7	73	1.5	39	2.2	143	2.5	297	2.5	326	18	
19			2.5	278	2.8	356	2.8	356	2.7	328	2.5	245	2.5	245	2.3	180	1.9	89	2	105	2.5	297	2.6	353	19	
20			2.6	302	2.7	328	2.7	328	8.5	3,590	2.6	270	2.3	200	2.3	180	2.1	123	1.9	89	2.4	273	2.5	326	20	
21			2.6	302	2.9	386	2.6	302	12.9	8,400	2.6	270	2.2	180	1.7	73	2	105	2	105	2.5	297	2.2	252	21	
22			2.5	278	3	416	2.5	278	5.6	1,500	2.4	220	2.3	200	1.2	14	2.2	143	2.3	163	2.4	273	2.7	380	22	
23			2.6	302	2.8	356	2.6	302	4.6	1,000	2.4	220	2.4	220	2.2	158	2.1	123	2	105	2.4	273	2.4	300	23	
24			2.5	278	2.8	356	2.7	328	4.5	975	2.5	245	2.3	200	1.5	46	2.1	123	2.5	207	2.4	273	2.6	353	24	
25			2.8	356	3	416	2.7	328	4.8	1,060	2.7	295	2	144	1.8	87	2.3	163	2.4	185	2.4	273	2.5	326	25	
26	2.5		2.7	328	2.7	328	2.6	302	3.3	465	4.1	750	2.2	180	2	119	2.5	207	2.5	207	2.6	322	2.7	380	26	
27	2.6		2.4	255	2.6	302	2.5	278	3.1	405	2.6	270	2.2	180	2.1	138	2.6	230	2.2	143	2.5	297	2.4	300	27	
28	2.5		2.9	386	2.5	278	2.4	255	3.1	405	2.6	270	2.4	220	2	119	2.4	185	2.1	123	2.5	297	2.6	353	28	
29	2.5				2.7	328	2.2	212	2.8	320	2.6	270	2.3	200	2.3	180	2.4	185	2.3	163	2.4	273	2.8	410	29	
30	2.7				2.4	255	2.5	278	2.8	320	2.6	270	2	144	2.2	158	2.2	143	2.3	163	2.5	297	2.8	410	30	
31					2.5	278			2.6	270			2.2	180	2	119			2.3	163			2.6	353	31	
Mean				312		373		302		917		300		210		142		100		135		270		400		
Run-off in acre-ft.																										
Maximum				13,600		22,900		18,000		56,400		17,900		12,900		8,730		5,950		8,300		16,100		24,600		
Minimum				416		542		356		8,400		710		270		220		230		207		322		755		
				255		255		212		255		220		144		14		5		62		89		252		

LITTLE BLUE AT BLUE BLUFFS

Location. Section 20. Township 4 North, Range 6 West, about five miles south and three miles west of Edgar.

Records Available. From July 16 to November 23, 1912.

Gage. A staff gage was installed being wired rigidly to the down stream side of the east tube of the south pier of the highway bridge.

Channel. Straight at point of measurements, confined on the left bank by high bluffs and on the right by lower banks but not liable to overflow.

Accuracy. The short time which measurements were continued has made it difficult to make daily estimates of discharge.

Actual Discharge Measurements of Little Blue River, at Blue Bluff (near Edgar)

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1912		Feet	Sec.-ft.	1912		Feet	Sec.-ft.
July 16	D. P. Weeks, Jr. . . . .	.8	65	Oct. 19	D. P. Weeks, Jr. . . . .	.8	80
Aug. 15	do	.85	99	Nov. 20	do	.9	85
Sept. 12	do	.9	104				

LITTLE BLUE AT FAIRBURY

Location. At highway bridge one and one-half miles south of town.

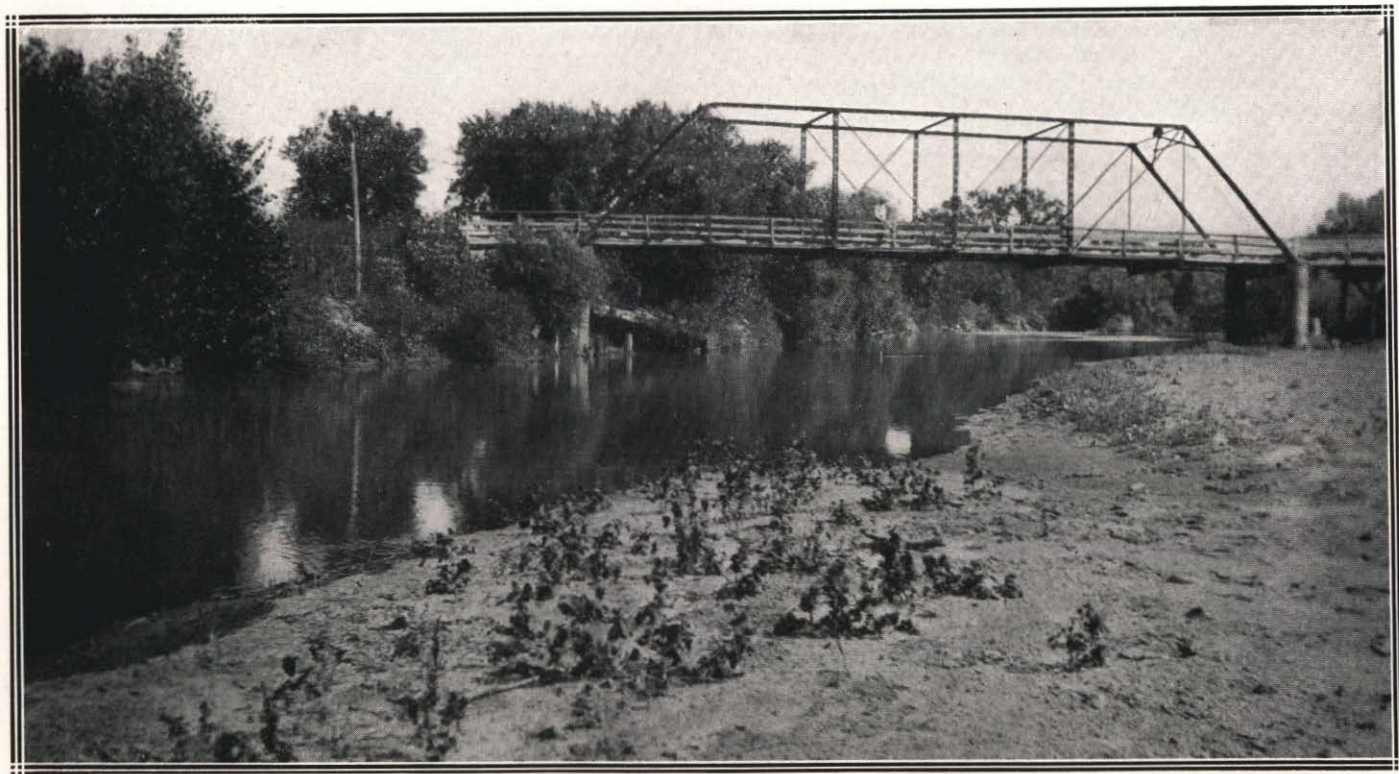
Records Available. From May 23, 1908 to September 30, 1914.

Gage. A standard chain and weight fastened to the downstream handrail of the bridge in the first and second panels from the south end. Distance from the end of weight to the marker, 19.53 feet.

Bench Mark. No. 1. The point on the east edge of the cap of the east tube of the south pier. Elevation, 14.31 feet. No. 2. The east edge of the edge of the cap of the east tube of the north pier. Elevation, 16.53. No. 3. The heads of three nails driven in the east side of the telephone pole forty feet west of the bridge across the north channel. Elevation, 12.46 feet. Bench mark datum equals zero of gage.

Channel. One channel at low water and two during high water. Sandy loam bed.

Accuracy. It has been suspected that the power plant, which is about a mile above the gaging station, causes a fluctuation which might render misleading results from the single gage height reading which has been made each day. Two readings per day were made for a period of ten days which to a degree substantiate this suspicion but which have shown that no serious discrepancies have been the result of the fluctuation.



Little Blue River Gaging Station at Fairbury

Discharge Measurements of Little Blue River, near Fairbury

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1908		Feet	Sec.-ft.	1911		Feet	Sec.-ft.
May 23	G. W. Bates	2.33	208	Mar. 30	A. A. Dobson	2.96	129
June 3	do	11.34	7,240	April 15	do	2.99	145
3	Adna Dobson	12.52	10,100	May 7	D. D. Price	3.2	133
20	Arthur Dobson	9.87	3,420	June 8	A. B. Price	2.8	129
July 3	do	6.28	1,230	July 12	A. B. Price	2.6	95
16	do	7.34	1,940	Aug. 7	do	5.65	926
Aug. 29	G. W. Bates	4.75	536	Sept. 15	do	3.5	300
Sept. 15	Arthur Dobson	3.2	218	Oct. 31	do	3	180
Oct. 2	do	2.9	189	1912			
Nov. 19	do	2.9	175	April 22	C. G. Hrubesky	4.9	564
Dec. 12	do	2.97	194	May 28	C. T. Graham	3.5	417
1909				June 18	D. P. Weeks, Jr.	3.6	360
Feb. 25	G. W. Bates	3.96	329	July 17	do	2.9	154
Mar. 31	do	3	202	Aug. 16	do	3.35	251
April 24	A. A. Dobson	2.91	171	Sept. 13	do	3.2	229
May 22	do	3.65	372	Oct. 15	do	3.75	224
June 10	do	10.85	3,310	Nov. 19	do	3.1	195
July 16	do	4.69	1,250	Dec. 14	do	2.55	193
23	do	3.2	207	1913			
Sept. 16	do	3.8	387	Mar. 23	D. P. Weeks, Jr.	2.9	262
Nov. 11	D. D. Price	3.1	188	April 24	do	2.65	206
1910				May 21	do	11.35	5,346
Jan. 29	D. D. Price	4.9	724	June 23	do	3	163
Mar. 2	do	3.6	350	July 23	do	2.7	109
April 3	do	2.9	203	Aug. 16	do	2.5	93
16	do	3	190	30	do	2	69
May 21	do	3	201	Sept. 15	do	2.1	68
June 9	do	12.1	7,320	Nov. 12	do	2.35	127
15	do	3.9	333	Dec. 4	W. M. Jefferys	2.65	174
July 14	do	3.7	355	1914			
Aug. 7	do	2.81	168	Mar. 14	D. P. Weeks, Jr.	2.67	200
Sept. 17	A. A. Dobson	2.71	137	April 18	do	2.6	208
Oct. 25	do	2.82	153	May 17	do	2.36	150
Nov. 11	do	2.8	151	June 15	do	8.95	2,785
Dec. 4	do	3.11	165	July 20	do	2.55	149
1911				Aug. 22	do	2.8	231
Jan. 28	do	3.52	187	Sept. 29	do	2.32	132

¹ Estimated overflow was 1,760 second feet.

² Fine slush ice running.

³ Wind strong across stream.

⁴ Includes overflow of 600 second-feet at north end of bridge.

Daily Gage Height (in feet) and Discharge (in second-feet) of Little Blue River, near Fairbury, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	2.6	150	3.5	190	3.5	255	3	190	2.9	180	3.2	210	4	330	3.2	210	2.6	150	3.2	210	2.8	170	4.5	480	1
2	2.75	165	3.5	190	3.55	232	3	190	2.8	170	3.4	240	4.7	540	4.3	425	4.4	450	3.2	210	2.9	180	7.9	2,390	2
3	2.9	180	3.1	200	3.25	218	3	190	2.8	170	3.3	225	3.4	240	3.4	240	3.1	200	3.1	200	4.2	400	7.7	2,220	3
4	3	190	3.25	218	3.15	205	2.9	180	2.8	170	3.2	210	3.4	270	3.2	210	9.2	3,650	3.1	200	4.8	575	5.8	990	4
5	3	190	3.25	218	3.1	200	2.9	180	2.8	170	3.5	255	8.2	2,890	3	190	7.5	2,060	3	190	4.1	375	3.9	330	5
6	3	190	3.3	225	3	190	3	190	2.8	170	3.4	240	11.5	8,200	3	190	6	1,090	3	190	4	350	4	350	6
7	3	190	3.2	210	3	190	2.9	180	2.8	170	3.5	255	8.8	3,740	3.9	330	6	1,090	3	190	3.6	270	3.8	310	7
8	3	190	3.15	205	3	190	2.9	180	2.8	170	12.3	9,550	8.9	3,990	3.9	330	5.8	990	3	190	3.3	225	3.9	330	8
9	3	190	3.15	205	3	190	3	190	2.8	170	11	4,780	8.1	3,200	3.8	310	3.8	310	4	350	3.2	210	4	350	9
10	3.2	180	3.2	180	2.95	185	2.8	170	2.7	160	10.9	4,380	9.5	5,200	3.9	330	3.5	225	4	350	3.2	210	4.2	400	10
11	3.2	180	3.2	180	2.95	185	3	190	2.8	170	6.3	470	6	1,650	3.8	310	3.6	270	4	350	3.1	200	4.1	375	11
12	3.2	180	3.3	180	2.95	185	2.9	180	2.8	170	5.2	300	6	1,750	3.6	270	4.9	610	3.2	210	3.1	200	3.9	330	12
13	3.2	180	3.3	180	2.95	185	2.9	180	2.8	170	5	230	5.6	1,570	2.7	270	5.3	770	3.2	210	4.7	540	3.6	270	13
14	3.4	180	3.3	180	2.95	185	2.8	170	2.9	180	4.5	180	5.3	1,450	2.6	160	5.2	730	3.1	200	7.9	2,390	3.5	255	14
15	3.4	180	3.35	180	2.95	185	3	190	3.7	290	4	130	4.7	1,170	2.6	150	4.5	480	3.2	210	7.7	2,220	3.7	290	15
16	3.4	180	3.35	185	2.95	185	2.9	180	4.6	510	4.3	180	4.6	1,200	2.6	150	5.4	810	3	190	5.8	990	3.5	255	16
17	3.5	180	2.95	185	2.95	185	2.9	180	4.5	480	4	150	4.1	710	2.6	150	5.2	730	3	190	4.5	480	4.1	375	17
18	3.5	180	2.9	180	3	190	2.9	180	4.5	830	3.6	130	3.8	580	2.6	150	3.2	210	3.2	210	4	350	4.1	375	18
19	3.5	180	3	190	3	190	2.9	180	7.6	2,140	3.4	120	3.6	400	2.6	150	3.2	210	3.2	210	3.9	330	4	350	19
20	3.5	180	3	190	2.95	195	2.9	180	4	350	3.2	110	3.6	270	2.6	150	3.4	240	3.2	210	3.8	310	4.1	375	20
21	2.9	180	3	190	2.95	195	2.8	170	5.5	990	3	100	3.5	255	2.6	150	3.4	240	3	190	3.6	270	4	350	21
22	2.95	185	3	190	2.95	195	2.9	180	4	350	5.3	450	3.4	240	2.6	150	5.3	770	3	190	3.6	270	3.9	330	22
23	2.95	185	3	190	2.95	195	2.9	180	4.1	375	12.6	8,300	3.4	240	2.6	150	5.1	690	3	190	3.6	270	3.8	310	23
24	2.95	185	3.9	330	3	190	2.9	180	3	190	7.7	1,680	3.2	210	2.6	150	5.2	730	3.1	200	3.6	270	3.7	290	24
25	3	190	3.9	330	3.3	225	2.9	180	4.45	465	6.5	1,010	3.2	210	2.6	150	4.8	575	2.9	180	3.5	255	3.8	310	25
26	3	190	3.8	330	3.2	210	2.8	170	5.8	990	6.3	960	3.2	210	2.6	150	4	350	2.9	180	3.4	240	3.8	310	26
27	3	190	3.7	290	3.1	200	2.9	180	3.8	310	5.3	580	3.2	210	2.6	150	3.7	290	3	190	3.4	240	3.9	330	27
28	3	190	3.65	280	3	225	2.8	170	3.5	255	4.5	350	3.1	200	2.6	150	3.7	290	3	180	4.8	575	3.7	290	28
29	3.5	190	.....	.....	2.95	185	2.8	170	3.4	240	4	290	3.1	200	2.6	150	3.4	240	.....	180	5.9	1,040	3.7	290	29
30	3.5	190	.....	.....	2.9	180	2.9	180	3.4	240	4.5	430	3.1	200	2.6	150	3.2	210	2.8	170	4.7	540	3.8	310	30
31	3.5	190	.....	.....	2.9	180	.....	.....	3.8	310	.....	.....	3.1	200	2.6	150	.....	.....	2.8	170	.....	.....	3.6	270	31
Mean	183	.....	213	.....	197	.....	180	.....	354	.....	1,180	.....	1,350	.....	204	.....	656	.....	209	.....	498	.....	477	.....	.....
Run-off in acre-ft.	11,300	.....	11,800	.....	12,100	.....	10,700	.....	21,800	.....	70,200	.....	83,000	.....	12,500	.....	39,000	.....	12,900	.....	29,600	.....	29,300	.....	.....
Maximum	190	.....	330	.....	225	.....	190	.....	2,140	.....	9,550	.....	8,200	.....	425	.....	3,650	.....	350	.....	2,390	.....	2,390	.....	.....
Minimum	150	.....	180	.....	180	.....	170	.....	160	.....	100	.....	200	.....	150	.....	150	.....	170	.....	170	.....	270	.....	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of Little Blue River, near Fairbury, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	3.1	125	3.2	150	3.3	175	3	145	4.8	450	2.9	125	2.5	90	3.2	200	3.5	290	9.5	3,340	3	190	2.9	180	1
2	3.2	135	3.1	140	3.6	220	3	145	3.7	225	2.8	115	2.4	80	3	190	3.4	270	6.4	1,360	2.9	180	3	190	2
3	.....	144	3	130	3.1	150	2.9	130	3.3	165	2.8	115	2.6	100	3.2	215	3.3	260	4.1	420	3	190	3.1	200	3
4	.....	153	3	130	3.1	150	3	145	3.3	165	2.8	115	2.5	90	3.1	200	3.7	320	3.5	280	3	190	3.3	230	4
5	.....	162	3.1	140	3	135	3	145	3.3	165	3	135	2.4	80	3	190	3.4	270	3.3	230	3	190	3	190	5
6	.....	171	3.1	140	3.1	150	3.1	160	3.2	150	2.9	125	3.2	175	6.1	1,140	3.3	250	3.3	230	3.1	200	3	190	6
7	.....	180	3	130	3.1	150	2.9	130	3.1	140	2.9	130	2.5	90	6.4	1,290	3.3	260	3.2	215	3	190	3.1	200	7
8	.....	188	3	130	3.1	150	3	145	3.1	125	2.8	120	2.4	80	4.8	575	3.4	270	3.1	200	3	190	2.9	180	8
9	3.6	195	3	130	3.1	150	2.9	130	3.9	250	2.8	120	2.6	100	5.3	770	3.3	250	3.1	230	2.9	180	3	190	9
10	3.3	150	3.1	140	3.1	150	3.1	160	3.3	150	2.9	130	2.6	100	5	650	4.3	470	3.2	215	2.9	180	3.1	200	10
11	3.5	180	3.1	140	3	135	3.1	160	3.1	125	2.8	120	2.7	110	4.3	425	3.3	250	3.1	200	3	190	3.1	200	11
12	3.7	210	3	130	3.1	150	3	145	3.1	125	2.7	110	2.5	90	3.9	330	3.2	225	3.1	200	2.8	170	3	190	12
13	3.4	165	3.1	140	3	135	3	145	3	115	2.8	120	2.6	110	3.7	290	3.2	250	3.3	230	3	190	3	190	13
14	3.9	250	3.2	150	3	135	2.9	130	3	115	2.7	110	2.7	120	3.5	260	3.5	300	3.1	200	2.9	180	3	190	14
15	3.4	165	3.1	140	3.1	150	3	145	3.1	125	2.7	110	2.5	100	3.4	245	3.5	300	3	190	3.1	200	3.1	200	15
16	3.4	165	3.3	165	3.1	150	3	135	3.1	125	2.7	110	4.3	380	3.3	230	3.4	285	3.1	200	3.1	200	3.1	200	16
17	3.7	210	3.4	180	3	135	3	135	3	115	2.7	110	3.5	235	3.3	230	3.3	270	3.1	200	3.2	215	3	190	17
18	3.5	180	3.4	180	3.1	150	3	135	3	130	2.7	110	3.5	235	3.2	215	3.2	265	3	190	3.1	200	3	190	18
19	3.4	165	3.2	150	2.9	125	2.9	125	2.9	115	2.8	120	3.2	190	3.7	290	3.1	240	3	190	2.9	180	3	190	19
20	3.2	135	3.1	140	3	135	3	135	2.9	115	2.8	120	3.6	250	6.9	1,640	3.2	255	3.1	200	3	190	3.1	200	20
21	3.3	150	3.1	140	3.1	150	2.9	125	3	130	2.6	100	3.5	235	7.25	1,840	3.2	255	3.1	200	3	190	3.1	200	21
22	3.5	180	3.3	165	3.1	150	2.9	125	3	130	2.7	110	3.3	200	9.2a	3,110	3	230	2.9	180	3	190	2.9	180	22
23	3.6	195	3.4	180	3	135	3	135	3	130	2.7	110	3.2	200	6.3	1,300	3	230	2.8	170	3	190	3	190	23
24	3.4	165	3.4	180	3	135	2.9	125	3	130	2.7	110	8.7	2,670	5.8	1,040	3	230	2.9	180	2.9	180	3	190	24
25	3.2	135	3.5	195	2.9	125	2.9	125	2.9	115	2.6	100	4.6	490	5.2	770	3	230	3	190	3	190	2.9	180	25
26	3.2	135	3.2	150	3	135	3	135	2.9	115	2.3	70	4.4	440	4.7	580	3	230	3	190	2.9	180	3	190	26
27	3.2	135	3.1	140	2.9	125	3	130	2.9	115	2.6	100	4.4	440	4.2	430	3	220	3.1	200	2.9	180	3.1	200	27
28	3.5	180	3.4	180	3	135	3	130	2.9	125	2.6	100	3.9	320	4	380	3	230	3	190	2.9	180	3.1	200	28
29	3.1	140	.....	.....	3	135	3.1	140	2.9	125	2.5	90	3.4	230	3.8	330	3	220	3	190	3	190	3.1	200	29
30	3.4	180	.....	.....	2.9	125	5.5	680	3	135	2.5	90	3.3	215	3.6	290	3.2	255	2.9	180	2.6	150	3.4	200	30
31	3.2	150	.....	.....	2.9	130	.....	.....	2.9	125	.....	.....	3.2	200	3.6	290	.....	.....	3	190	.....	.....	3.3	200	31
Mean	.....	167	.....	150	.....	144	.....	156	.....	147	.....	112	.....	272	.....	643	.....	262	.....	347	.....	187	.....	194	.....
Run-off n acre-ft.	10,300	8,330	.....	8,850	.....	9,280	.....	9,040	.....	6,660	.....	16,700	.....	39,500	.....	15,600	.....	21,300	.....	11,100	.....	11,900	.....	230	.....
Maximum	250	195	.....	220	.....	680	.....	450	.....	135	.....	2,670	.....	3,110	.....	470	.....	3,340	.....	215	.....	230	.....	180	.....
Minimum	125	130	.....	125	.....	125	.....	116	.....	70	.....	80	.....	190	.....	220	.....	170	.....	150	.....	180	.....	180	.....

(a) Maximum reading, 9.6.

Daily Gage Height (in feet) and Discharge (in second-feet) of Little Blue River, near Fairbury, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day			
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge				
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.				
1	2.8	240	2.7	220	2.9	260	2.6	200	2.6	195	3.1	170	3.4	220	2.5	95	2	65	2.4	92	2.4	92	2.5	136	3.1	250	1	
2	3	280	2.7	220	3.9	505	2.6	200	2.6	191	3	155	3.2	185	2.6	105	1.9	63	2.2	78	2.4	78	2.5	123	2.6	162	2	
3	2.4	170	2.8	240	2.5	185	2.6	200	3.2	300	3.1	170	3	155	2.5	95	2	65	2.3	86	2.6	154	3.1	250	3.1	250	3	
4	2.8	240	3	280	3.8	475	2.6	200	5.4	1,030	3	155	3	155	2.5	95	2.1	70	2.4	94	2.6	140	3.3	295	3.3	295	4	
5	2.6	200			2.8	240	2.6	200	3.7	410	3.4	220	2.9	140	2.7	115	2	65	2.3	87	2.5	142	4.9	780	4.9	780	5	
6	2.7	220			3.6	425	2.5	185	4	478	3.4	220	2.8	125	2.5	95	2.2	75	2.4	96	2.5	143	5.6	1,080	5.6	1,080	6	
7					3.1	300	2.6	200	3.6	370	3.4	220	2.9	140	2.4	87	2	65	2.3	89	2.5	144	4.4	595	4.4	595	7	
8					3.3	350	2.6	200	3.3	294	4.5	500	2.8	125	2.5	95	1.9	63	2.3	89	2.6	162	4.1	505	4.1	505	8	
9					3.5	400	2.7	220	3.9	410	3.8	315	2.8	125	2.4	87	2.1	70	2.4	99	2.5	148	3.6	370	3.6	370	9	
10					3.4	375	2.7	220	4.8	700	3.4	220	2.7	115	2.5	95	2.1	70	2.3	91	2.4	132	3.3	295	3.3	295	10	
11					3.2	325	2.8	240	3.6	342	3.3	200	2.7	115	2.6	105	2	65	2.3	92	2.5	148	3	232	3	232	11	
12					3.1	300	2.7	220	3.6	335	3.5	240	2.7	115	2.5	95	2.1	70	2.3	93	2.5	148	3	232	3	232	12	
13					3	280	2.6	200	4	425	3.4	220	2.6	105	2.5	95	2	65	2.4	103	2.3	123	2.9	214	2.9	214	13	
14					3.2	325	2.6	200	3.3	274	3.3	200	2.7	115	2.4	87	2.1	70	2.4	104	2.4	135	2.7	178	2.7	178	14	
15					3.8	475	2.6	200	3.1	208	3.3	200	2.6	105	2.4	87	2	65	2.4	105	2.4	135	2.8	196	2.8	196	15	
16					3	280	2.5	185	3	186	3.2	185	2.6	105	2.4	87	2.3	80	2.5	116	2.3	123	2.8	196	2.8	196	16	
17					3	280	2.6	200	2.9	167	3.2	185	2.6	105	2.5	95	2.2	75	2.4	107	2.4	135	2.7	178	2.7	178	17	
18					3	280	2.6	200	3.8	338	3.1	170	2.6	105	2.4	87	2.1	70	2.3	98	2.3	123	2.7	178	2.7	178	18	
19					3.3	350	2.7	200	3.2	204	3	155	2.6	105	2.5	95	2.2	75	2.4	109	2.3	123	2.8	196	2.8	196	19	
20					3.1	300	2.5	185	7.75	2,230	3.1	170	2.6	105	2.4	87	2.3	80	2.4	110	2.4	135	2.9	214	2.9	214	20	
21					3	280	2.6	200	11.5	5,500	3	155	2.6	105	2.4	87	2.1	70	2.5	121	2.5	148	2.6	162	2.6	162	21	
22					3.1	300	2.5	185	8.2	2,570	3	155	2.5	95	2.4	87	2.1	70	2.4	112	2.5	148	2.9	214	2.9	214	22	
23			2.6	200	2.9	260	2.5	185	5.4	835	2.9	140	2.7	115	2.4	87	2.2	75	2.5	123	2.4	135	2.7	178	2.7	178	23	
24			2.4	170	2.9	260	2.7	220	4.4	470	3.1	170	2.6	105	2.4	87	2.5	95	2.5	124	2.4	135	2.6	162	2.6	162	24	
25			2.5	185	2.9	260	2.7	220	4	365	6.3	1,270	2.5	95	2.5	95	2.4	87	2.4	115	2.5	148	2.9	214	2.9	214	25	
26			2.7	220	2.8	240	2.8	240	3.7	290	3.9	340	2.5	95	2.4	87	2.3	81	2.4	116	2.4	135	2.4	214	2.4	214	26	
27			2.7	220	2.7	220	2.7	220	3.6	265	3.2	185	2.6	105	2.3	87	2.3	81	2.4	117	2.4	135	2.9	196	2.9	196	27	
28			2.8	240	2.7	220	2.7	220	3.5	240	3.1	170	2.5	95	2.4	87	2.3	82	2.5	130	2.5	148	3.1	214	3.1	214	28	
29	2.8	240			2.8	240	2.6	200	3.3	200	3.2	185	2.5	95	2.3	80	2.3	83	2.5	131	2.6	162	3	250	3	250	29	
30	2.6	200			2.7	220	2.7	220	3.2	185	7.5	2,050	2.5	95	2	65	2.3	84	2.4	120	2.8	196	2.7	232	2.7	232	30	
31	2.8	240			2.6	200			3.2	185			2.4	87	2	65			2.6	149				178		178	31	
Mean						304		206		651		303		118		900		731		106		141		282				
Run-off in acre-ft.						18,700		12,300		40,000		18,000		7,260		5,530		4,350		6,520		8,390		17,300				
Maximum						505		240		5,500		2,050		220		115		95		149		196		1,080				
Minimum						185		185		167		140		87		65		63		78		123		135				

Daily Gage Height (in feet) and Discharge (in second-feet) of Little Blue River, near Fairbury, for 1914

January		February		March		April		May		June		July		August		September		October		November		December		Day	
Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge		
Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
						2.65	210	2.4	173	3.35	334	6.42	1,270	2.42	130	2.4	162							1	
						2.52	186	2.4	173	3.2	304	6	1,100	2.35	120	2.38	159							2	
						2.55	192	2.42	170	4.3	555	5.9	1,060	2.3	113	2.35	154							3	
						2.52	186	2.38	163	4.4	580	4.82	696	2.3	113	2.38	159							4	
						2.45	180	2.48	182	5.1	780	3.8	420	2.4	127	2.32	148							5	
																									6
						2.42	173	2.4	167	4.12	510	3.5	355	2.35	120	2.2	130							7	
						2.52	190	2.6	204	3.62	392	3.32	307	2.38	124	2.2	130							8	
						2.5	187	2.62	208	3.3	324	3.15	274	2.25	106	2.3	145							9	
						2.42	173	2.55	194	3	264	3.02	240	2.2	100	2.2	130							10	
						2.5	187	2.48	180	3.1	284	2.92	220	2.8	193	2.55	188							11	
						2.52	190	2.52	187	3.32	328	2.85	202	2.68	172	2.8	234							12	
						2.4	174	2.5	180	5.2	815	2.8	193	2.4	127	2.42	165							13	
						2.4	174	2.4	163	8.68	2,600	2.75	184	2.3	113	2.4	162							14	
				2.68	205	2.42	177	2.35	154	10.55	4,420	2.68	172	3.6	360	3.78	435							15	
				2.65	200	2.35	165	2.38	160	9.38	3,200	2.6	158	3.45	340	3.85	452							16	
						2.7	208	2.5	192	2.32	148	8.35	2,360	2.6	158	3.1	275	3.29	320					17	
						2.62	195	2.4	174	2.35	148	5.9	1,060	2.62	161	2.88	249	2.98	260					18	
						2.65	200	2.55	200	2.3	140	4.98	744	2.7	175	2.7	215	3.02	262					19	
						2.62	195	2.4	174	2.4	155	4.2	530	2.6	158	2.82	238	2.78	215					20	
						2.7	208	2.38	173	2.35	148	3.85	444	2.55	150	2.62	201	2.62	180					21	
						2.65	203	2.48	188	2.38	152	3.62	392	2.55	150	2.48	176	2.51	162					22	
						2.42	160	2.38	173	2.38	152	3.55	377	2.58	155	3.3	330	2.51	162					23	
						2.52	183	2.42	178	2.32	143	3.6	388	2.5	142	3.05	282	2.46	154					24	
						2.53	192	2.5	190	2.48	169	3.35	334	2.9	112	2.8	234	2.38	141					25	
						2.45	170	2.45	182	2.42	158	3.25	314	2.55	150	2.78	230	2.42	147					26	
						2.55	188	2.35	162	2.35	148	3.12	288	2.45	134	2.68	211	2.35	136					27	
						2.55	188	2.58	200	2.52	175	3.02	268	2.38	124	2.6	197	2.3	129					28	
						2.52	185	2.5	188	2.6	189	2.98	260	2.42	130	2.52	183	2.28	126					29	
						2.45	175	2.48	184	5.1	780	2.9	244	2.38	124	2.45	170	2.3	129					30	
						2.58	198	2.5	188	3.4	345	4.35	568	2.45	134	2.4	162	2.28	126					31	
						2.58	198			3.4	345			2.35	120	2.32	148							31	
can						192				198			809		294		189		187						
un-off																									
acre-ft.						6,850				10,900			48,100		18,100		11,600		11,100						
aximum						208				780			4,420		1,270		360		452						
imum						160				162			244		112		100		126						



Power Development on Little Blue River at Fairbury

FRENCHMAN RIVER AT WAUNETA

Location. About one hundred yards below the Wauneta mills and Wauneta falls in Section 11, Township 5 North, Range 36 West.

Record Available. From August 8, 1895 to September 26, 1896.

Gage. A vertical staff attached to the upright pile of the south bent of the bridge.

Bench Marks. No. 1. The stone door-step of a concrete house below the gage on the right bank. Elevation, 20.99 feet above zero of the gage. No. 2. The top of a stake in the northwest corner of the lot in which the concrete house stands. Elevation, 20.33 feet above zero of the gage.

Channel. Shifting sand.

Accuracy. Not entirely satisfactory.

Actual Discharge Measurements of Frenchman River, at Wauneta

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1895		Feet	Sec.-ft.	1897		Feet	Sec.-ft.
Aug. 9	O. V. Stout	1.4	61	April 14	Adna Dobson . . . . .	....	128
Sept. 10	do	.92	56	1899			
1896				Sept. 9	A. B. McCoskey . . . . .	....	63
May 15	C. E. Crowover	2.2	85				
June 18	O. V. P. Stout	1.84	48	1900			
July 14	E. T. Youngfeldt	2.15	91	July 27	do	....	74
Aug. 12	O. V. P. Stout	1.9	46				
Sept. 16	E. T. Youngfeldt	2.07	85	1901			
Oct. 17	C. E. Crowover	2	62	June 21	H. O. Smith . . . . .	....	113

FRENCHMAN RIVER AT PALISADE

Location. Just above the Burlington and Missouri river railroad bridge at Palisade.

Records Available. From October 14, 1894 to September 28, 1896.

Gage. The gage was an inclined staff on the right bank immediately above the railroad bridge.

Bench Mark. The top of the second thread on the bottom of the east side of the north pile of the second pier from the right end of the bridge. Elevation, 7.89 feet above zero of the gage.

Channel. Shifting sand.

Accuracy. Reliable estimates of daily discharge can not be made by ordinary methods. During the season of 1896 special efforts were made to obtain sufficient data to afford reliable estimates of the daily discharge. Two supplementary gages were installed and the observer was instructed to make frequent observations. The upstream gage was three hundred and twenty-five feet above the main gage and the downstream gage three hundred feet below the main gage. It was thus possible to obtain the slope of the water surface at the time of making soundings and current meter measurements, and the resulting estimates were fairly reliable. The fall of the water table so obtained in a distance of six hundred and twenty-five feet in a table follows. The gage heights are those observed on the main gage.

Heights on Supplementary Gages, Frenchman River at Palisade, 1896
[Referred to original zero of main gage]

Day	Down-stream Gage	Up-stream Gage	Difference	Day	Down-stream Gage	Up-stream Gage	Difference
June 18.....	1.85	1.11	0.74	July 28.....	1.89	1.13	0.76
23.....	2.11	1.35	.76	30.....	1.89	1.15	.74
25.....	2.10	1.35	.75	Aug. 1.....	1.89	1.14	.75
27.....	2.06	1.34	.72	4.....	1.89	1.13	.76
July 1.....	2.14	1.40	.74	6.....	1.89	1.13	.76
3.....	2.13	1.39	.74	8.....	1.88	1.12	.76
5.....	2.13	1.38	.75	25.....	1.87	1.08	.79
7.....	2.03	1.27	.76	28.....	1.87	1.09	.81
9.....	1.97	1.15	.82	31.....	1.87	1.09	.78
11.....	1.94	1.17	.77	Sept. 4.....	1.83	1.17	.66
14.....	1.96	1.19	.77	9.....	1.89	1.13	.76
16.....	1.99	1.21	.78	12.....	1.84	1.10	.74
18.....	1.91	1.13	.78	14.....	1.99	1.17	.82
21.....	1.89	1.11	.78	20.....	1.98	1.19	.79
23.....	1.89	1.13	.76	29.....	2.00	1.23	.77
25.....	1.87	1.12	.75				

Actual Discharge Measurements of Frenchman River, at Palisade

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1894		Feet	Sec.-ft.	1897		Feet	Sec.-ft.
Dec. 8....	O. V. P. Stout....	1.87	116	July 2....	O. V. P. Stout....	....	63
1895				July 19....	do	....	73
Mar. 22....	do	1.52	100	1898			
June 5....	do	1.76	154	July 7....	Glen E. Smith....	....	92
July 4....	do	1.61	74	1899			
Aug. 9....	do	1.5	68	May 29....	H. H. Pickens....	....	97
10....	do	1.5	72	Sept. 16....	A. B. McCoskey....	....	66
1896				1900			
May 15....	C. E. Crownover..	1.55	103	July 27....	A. B. McCoskey....	....	91
June 18....	O. V. P. Stout....	1.35	50	1901			
July 15....	E. T. Youngfeldt..	1.46	93	June 21....	H. O. Smith....	....	176
Aug. 13....	O. V. P. Stout....	1.36	64	1904			
Sept. 16....	E. T. Youngfeldt..	1.51	85	June 30....	J. A. Green....	....	240
Oct. 17....	C. E. Crownover..	1.5	82	1905			
				Aug. 2....	H. C. Diesem....	....	324

Daily Gage Height (in feet) and Discharge (in second-feet) of Frenchman River, at Palisade, for 1894

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1																					1.86	113	1.73	91	1
2																					1.85	110	1.8	96	2
3																					1.84	107	1.82	102	3
4																					1.85	110	1.84	107	4
5																					1.85	110	1.81	99	5
6																					1.83	104	1.8	96	6
7																					1.82	102	1.81	99	7
8																					1.83	104	1.83	104	8
9																					1.83	104	1.83	104	9
10																					1.81	99	1.84	107	10
11																					1.81	99	1.83	104	11
12																					1.82	102	1.84	107	12
13																					1.8	96	1.85	110	13
14																					1.82	102	1.82	110	14
15																					1.83	104	1.81	125	15
16																					1.85	110	1.85	118	16
17																					1.84	107	1.81	96	17
18																					1.85	110	1.83	88	18
19																					1.82	102	1.85	93	19
20																					1.81	99	1.81	75	20
21																					1.8	96	1.83	83	21
22																					1.82	102	1.83	83	22
23																					1.81	99	1.84	78	23
24																					1.84	107	1.85	78	24
25																					1.85	110	1.81	75	25
26																					1.85	110	1.8	222	26
27																					1.86	113	1.81	218	27
28																					1.9	125	1.81	189	28
29																					1.89	122	1.83	213	29
30																					1.89	122	1.85	22	30
31																					1.88	118	2.25	73	31
Mean																					109	73	97		
Run-off in acre-ft.																					3,890	6,250	5,690		
Maximum																					125	122	125		
Minimum																					97	97	73		

Daily Gage Height (in feet) and Discharge (in second-feet) of Frenchman River, at Palisade, for 1895

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	2.31		2.5		1.6	118	1.55	107	1.63	123	1.75	600	1.65	94	1.55	85	1.49	68	1.6	101					1
2	2.35		2.58		1.58	112	1.59	105	1.72	144	1.9	215	1.65	94	1.58	95	1.49	68			1.64				2
3	2.38		2.58		1.55	107	1.58	112	1.63	123	1.8	171	1.63	84	1.63	130	1.5	71							3
4	2.4		2.59		1.6	118	1.59	115	1.66	130	1.7	130	1.61	74	1.6	101	1.51	74							4
5	2.42		2.6		1.6	118	1.6	118	1.66	130	1.72	138	1.6	69	1.55	85	1.52	77	1.61	104	1.6				5
6	2.36		2.55		1.6	118	1.7	140	1.73	146	1.75	150	1.6	69	1.55	85	1.5	71							6
7	2.38		2.5		1.55	107	1.75	150	1.7	140	1.73	142	1.81	79	1.55	85	1.5	71							7
8	2.4		2.45		1.52	100	1.75	150	1.68	134	1.68	122	1.76	142	1.53	79	1.5	71	1.62	107					8
9	2.42		2.5		1.53	102	1.77	156	1.67	132	1.68	130	1.57	54	1.55	85	1.5	71			1.6				9
10	2.45		2.62		1.53	102	1.75	150	1.65	128	1.7	130	1.6	69	1.5	71	1.5	71							10
11	2.45		2.72		1.55	107	1.74	147	1.65	128	1.93	229	1.65	94	1.51	74	1.51	74							11
12	2.46		2.82		1.53	102	1.73	146	1.66	130	1.72	128	1.65	94	1.5	74	1.5	71	1.62	107	1.6				12
13	2.42		2.83		1.54	104	1.74	147	1.66	130	1.68	109	1.65	84	2.05	437	1.49	68							13
14	2.48		2.84		2	104	1.73	146	1.66	130	1.67	104	2.69	580	1.9	216	1.5	71							14
15	2.48		2.85		1.9	104	1.72	144	1.64	125	1.67	104	1.95	239	1.55	85	1.5	71	1.62	107					15
16	2.48		2.89		1.94	104	1.72	144	1.63	123	1.68	109	1.85	195	1.55	85	1.5	71			1.6				16
17	2.5		2.9		1.72	104	1.71	142	1.64	125	1.7	118	1.75	154	1.55	85	1.51	74							17
18	2.5		2.9		1.6	104	1.72	144	1.64	125	1.68	109	1.7	135	1.54	82	1.53	79							18
19	2.45		2.9		1.56	109	1.72	146	1.65	123	1.67	104	1.66	121	1.52	77	1.52	77	1.63	111	1.6				19
20	2.45		2.9		1.56	109	1.74	147	1.68	134	1.65	94	1.63	111	1.52	77	1.53	79							20
21	2.33		2.95		1.55	107	1.75	150	1.66	130	1.68	109	1.64	113	1.47	64	1.55	85							21
22	2.26		2.95		1.55	102	1.77	156	1.64	125	1.66	99	2.66	580	1.48	66	1.56	88	1.65	117					22
23	2.2		2.94		1.52	100	1.7	140	1.64	125	1.65	94	2.45	513	1.5	71	1.57	91			2				23
24	1.93		2.92		1.52	100	1.68	134	1.64	125	1.63	84	1.87	203	1.5	71	1.58	95							24
25	1.98		2.75		1.51	99	1.7	140	1.66	130	1.64	89	1.8	174	1.5	71	1.57	91							25
26	1.9		2.68		1.5	98	1.68	134	1.6	118	1.6	69	1.72	143	1.51	74	1.57	91	1.68	128	2.2				26
27	2.08		1.58		1.52	100	1.62	122	1.6	118	1.57	58	1.7	135	1.5	71	1.55	85							27
28	2.3		1.58		1.52	100	1.62	122	1.62	137	1.62	50	1.65	117	1.65	71	1.5	88	1.56						28
29	2.28				1.53	102	1.6	118	1.57	111	1.59	65	1.61	104	1.49	68	1.58	95	1.66		121				29
30	2.35				1.52	100	1.66	130	1.62	111	1.63	84	1.6	101	1.5	71	1.59	98			1.9				30
31	2.43				1.53	102	1.78			158			1.57	101	1.5	71									31
Mean						105				137			132		158		96		78		101				
Run-off n acre-ft.										8,150		7,930		7,850		9,720		5,900		4,640		6,820			
Maximum						118				156			158		580		437		98		128				
Minimum						98				107			111		50		64		68		101				

Daily Gage Height (in feet) and Discharge (in second-feet) of Frenchman River, at Palisade, for 1896

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							1.63		1.86	200	1.55	92	1.7	110	1.42	79	1.48	81	1.48	81	1.65				1	
2							1.63		1.75	140	1.54	89	1.7	110	1.41	76	1.46	78	1.5	83	1.58				2	
3							1.63		1.75	140	1.54	89	1.68	109	1.4	75	1.46	78	1.52	86	1.58				3	
4							1.64		1.73	1	1.55	89	1.69	112	1.4	75	1.5	83	1.54	89	1.56				4	
5							1.64		1.75	140	1.53	86	1.67	109	1.4	74	1.45	86	1.54	89	1.56				5	
6							1.65		1.69	120	1.53	85	1.64	107	1.39	72	1.48	81	1.53	87	1.58				6	
7							1.64		1.67	120	1.51	82	1.6	103	1.4	74	1.5	83	1.5	83	1.6				7	
8							1.64		1.64	116	1.5	79	1.52	92	1.39	71	1.45	76	1.48	81	1.65				8	
9							1.65		1.64	116	1.5	79	1.46	85	1.39	71	1.45	76	1.48	81	1.65				9	
10							1.66		1.64	116	1.5	78	1.44	83	1.38	69	1.48	81	1.45	76	1.63				10	
11							1.65		1.65	118	1.49	76	1.43	83	1.37	66	1.48	81	1.45	76	1.65				11	
12							1.65		1.58	108	1.48	74	1.43	85	1.36	64	1.45	76	1.48	81	1.63				12	
13							1.61		1.55	104	1.48	74	1.44	87	1.36	64	1.5	83	1.48	81	1.6				13	
14							1.63		1.55	104	1.46	69	1.45	90	1.35	62	1.5	83	1.45	76	1.6				14	
15							1.63		1.54	103	1.44	65	1.46	92	1.36	64	1.5	83	1.48	81	1.6				15	
16							1.62		1.65	116	1.42	61	1.8	105	1.36	64	1.48	81	1.5	83	1.58				16	
17							1.73		1.63	112	1.41	60	1.47	93	1.4	83	1.5	83	1.5	83	1.58				17	
18							1.69		1.64	113	1.34	50	1.46	90	1.48	81	1.5	83	1.5	83	1.68				18	
19							1.65		1.62	110	1.35	51	1.45	89	1.46	78	1.48	81	1.53	87	1.63				19	
20							1.67		1.6	107	1.36	53	1.45	89	1.48	81	1.48	81	1.52	86	1.65				20	
21							1.66		1.56	100	1.48	71	1.44	86	1.51	85	1.48	81	1.52	89	1.65				21	
22							1.67		1.58	103	1.44	66	1.43	85	1.56	92	1.5	83	1.5	83	1.65				22	
23							1.67		1.61	105	1.3	116	1.44	86	1.5	83	1.48	81	1.5	83	1.65				23	
24							1.63		1.6	104	1.62	93	1.45	86	1.48	81	1.5	83	1.5	83	1.63				24	
25							1.64		1.58	100	1.67	101	1.45	86	1.5	83	1.5	83	1.48	81	1.63				25	
26							1.64		1.58	100	1.63	103	1.46	87	1.5	83	1.54	89	1.48	81	1.63				26	
27							1.65		1.58	98	1.66	93	1.47	87	1.48	81	1.5	83	1.45	76	1.6				27	
28							1.65		1.58	98	1.55	87	1.46	86	1.45	76	1.5	83	1.45	76	1.65				28	
29							1.68		1.58	97	1.56	89	1.45	85	1.42	72	1.5	83	1.48	81					29	
30							1.7		1.55	92	3	800	1.44	82	1.48	81	1.48	81	1.65						30	
31							1.65		105				1.42	79	1.45	76			1.64						31	
Mean									114		104		94		76		82		82							
Run-off																										
in acre-ft.									7,010		6,190		5,780		4,670		4,880		5,040							
Maximum									200		800		145		92		89		89							
Minimum									92		50		80		63		76		76							



Frenchman River Gaging Station at Culberton

FRENCHMAN RIVER AT CULBERTSON

Location. Just south of town at a pile bridge.

Records Available. From June 12, 1913 to September 30, 1914.

Gage. A staff gage installed on the left bank of the stream about ten feet above the bridge. It is nailed to a frame anchored to the bank.

Bench Mark. Three brass headed tacks on a stringer on the upstream side of the bridge about midway across the stream. Elevation, 8.00 feet above zero of the gage.

Channel. Very shifting. For a short period during 1913 it was obstructed by a sod dam about two hundred feet above the bridge, but high water has washed this away.

Discharge Measurements. Made by wading during low water about one hundred feet above the bridge where the stream is in two channels, and during high water from the bridge which is at a very large angle from normal to the stream.

Accuracy. Shifting sand has made the computation of daily discharge impracticable.

Co-operation. Besides the co-operation of the U. S. G. S., the daily observations at this station have been furnished by the McCook Irrigation and Water Power Company.

Actual Discharge Measurements of Frenchman River, at Culbertson

Date	Hydrographer	Gage height	Discharge	Date	Hydrographer	Gage height	Discharge
1914		Feet	Sec.-ft.	1914		Feet	Sec.-ft.
June 12....	D. P. Weeks, Jr....	1.1	17	Mar. 13....	D. P. Weeks, Jr....	1.9	191
July 18....	do	1.4	29	April 11....	do	1.9	299
Aug. 14....	do	1.3	17	May 21....	do	1.9	102
Sept. 13....	do	1.5	14	June 19....	do	2.02	223
Nov. 7....	do	1.45	33	July 17....	do	1.15	32
				Aug. 19....	do	1	29
Dec. 3....	W. M. Jefferys....	1.5	17	Sept. 28....	do	.8	11

¹ From bridge.

² By wading above bridge.

By wading below bridge.

Daily Gage Height (in feet) and Discharge (in second-feet) of Frenchman River, at Culbertson, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2																										2
3																										3
4																										4
5																										5
6																										6
7																										7
8																										8
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25																										25
26																										26
27																										27
28																										28
29																										29
30																										30
31																										31
Mean																										
Run-off in acre-ft.																										
Maximum																										
Minimum																										

*Station established June 12, 1913

Daily Gage Height (in feet) and Discharge (in second-feet) of Frenchman River, near Culberson, for 1914

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		Feet
1																									1	
2																										2
3																										3
4																										4
5																										5
6																										6
7																										7
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14																										14
15					1.9																					15
16					1.9																					16
17					1.9																					17
18					1.9																					18
19					1.8																					19
20					1.9																					20
21					1.9																					21
22					1.9																					22
23					2																					23
24					1.9																					24
25					1.9																					25
26					1.9																					26
27					1.9																					27
28					1.9																					28
29					1.9																					29
30					1.9																					30
31					1.9																					31
Mean																										
Run-off																										
in acre-ft.																										
Maximum																										
Minimum																										

(a) High water mark.

SOUTH FORK OF REPUBLICAN RIVER AT BENKELMAN

Location. At highway bridge between Sections 17 and 20 in Township 1 North of Range 37 West of Sixth P. M., about three quarters of a mile west of town and about a quarter of a mile above its junction with the Republican.

Records Available. From November 1, 1894 to October 24, 1895 and from May 20, 1903 to November 30, 1906.

Gage. A vertical staff spiked to the upstream side of the first bent in the channel from the east bank.

Bench Marks. No. 1. Top of south end of concrete foundation to west upright pier of elevated track in B. & M. yards just east of depot. Elevation 18.29 feet above zero of the gage. The gage on the Republican station is also referred to this bench mark. No. 2. The top of the upstream end of the first bent from the left end of the bridge. Elevation 6.62 feet above zero of the gage.

Channel. Straight at the gaging section. The bed is of shifting sand.

Accuracy. Affected by shallow water at low stages and shifting sand.

Actual Discharge Measurements of South Fork of Republican River,
at Benkelman

Date	Hydrographer	Gage height	Discharge	Date	Hydrographer	Gage height	Discharge
		Feet	Sec.-ft.			Feet	Sec.-ft.
1894				1904			
Dec. 9	O. V. P. Stout	.....	1	Dec. 7	Jas. A. Green	1.32	32
1895				1905			
Mar. 23	O. V. P. Stout	1.89	.....	Mar. 21	H. C. Gardner	1.77	140
June 4	do	.....	348	May 2	do	1.65	111
June 24	do	1.5	75	June 6	do	1.35	34
July 3	do	2.6	278	July 5	do	1.4	51
Aug. 7	do	1.75	22	July 31	G. W. Bates	1.45	72
1900				Aug. 28	H. C. Gardner	.....	0
Aug. 18	J. C. Stevens	.....	3	Sept. 28	F. S. Dobson	1.2	21
1903							
May 20	do	1.15	58				
Sept. 7	do	.76	2				
1904				1906			
April 3	J. C. Stevens	1.7	142	May 11	F. S. Dobson	1.5	75
June 18	Adna Dobson	1.1	14	June 19	Arthur Dobson	1	0
June 16	J. C. Stevens	1.7	142	Aug. 25	do	.....	0
June 16	do	1.7	145	Nov. 30	do	1.48	45

Daily Gage Height (in feet) of South Fork of Republican River, near Benkelman, for 1895

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	1.06		1.42		2.42		1.87		1.65		1.88		1.34		1.9										1
2	1.06		1.54		2.13		1.92		1.63		(a)		3.12		1.9										2
3	1.06		1.56		2.12		1.86		1.56				2.7		1.89										3
4	1.06		1.68		2.12		1.83		1.45				2.3		1.89										4
5	1.06		1.74		2.09		1.78		1.43				2.01		1.89										5
6	1.23				2.07		1.79		1.42				1.9		1.88										6
7	1.25		1.97		1.97		2.17		1.41				1.8		1.75										7
8	1.26		1.86		1.96		2.06		1.4				1.89		1.68										8
9	1.56		1.64		1.94		1.99		1.39				1.8		1.68										9
10	1.58		1.59		1.89		1.89		1.4				1.8		1.65										10
11	1.63		1.39		2.11		1.86		1.39				1.89		1.03										11
12	1.6		1.36		1.94		1.79		1.36				1.89		1.06										12
13	1.74		1.32		1.63		1.74		1.39				2		1.58										13
14	1.73		1.26		1.64		1.7		1.36				3.12		1.55										14
15	1.76		1.23		1.66		1.72		1.37				2.88		1.55										15
16	1.76		1.23		1.68		1.82		1.36				2.3		1.55										16
17	1.79		1.25		1.95		1.88		1.37				2.2		1.54										17
18	1.85		1.29		2.12		1.84		1.37				2.1		1.54										18
19	1.82		1.29		2.09		1.77		1.37				2.01		1.54										19
20	2		2.13		2.05		1.75		1.36				2.12		1.54										20
21	2.06		2.14		1.99		1.71		1.35		1.5		2.2		1.58										21
22	2.09		2.14		1.98		1.71		1.35		1.5		2.3		1.5										22
23	2.19		2.24		1.89		1.7		1.35		1.45		2.6		1.5										23
24	2.04		2.29		1.89		1.74		1.36		1.5		2.3		1.5										24
25	1.68		2.34		1.9		1.68		1.37		1.45		2.3												25
26	1.68		2.39		1.87		1.61		1.39		1.45		2.05												26
27	1.67		2.54		1.83		1.58		1.37		1.45		2.04												27
28	1.61		2.68		1.83		1.7		1.37		1.4		2												28
29	1.59				1.78		1.88		1.37		1.4		1.9												29
30	1.54				1.69		1.76		1.55		1.4		1.89												30
31	1.44				1.73				2.27				1.89												31
Mean																									
Run-off																									
in acre-ft.																									
Maximum																									
Minimum																									

(a) Gage washed out.

Daily Gage Height (in feet) and Discharge (in second-feet) of South Fork of Republican River, near Benkelman, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1											1.05	43	.8	7	.98	36	.8	7	.9	22	1.2	65	1.2		1	
2											1.05	43	.8	7	1.3	79	.8	7	.9	22	1.15	57	1.2		2	
3											1.05	43	.8	7	1.1	50	.8	7	.9	22	1.15	57	1.15		3	
4											1.05	43	.85	15	1	36	.8	7	1	36	1.15	57	1.05		4	
5											1.05	43	.9	22	.95	29	.8	7	.9	22	1.1	50	1.1		5	
6											1.05	43	.8	7	.9	22	.8	7	.9	22	1.15	57	.1		6	
7											1.2	65	.8	7	.9	22	.8	7	.9	22	1.1	50	.2		7	
8											1.2	65	.8	7	.9	22	.8	7	1	36	1.15	57	.3		8	
9											1.2	65	.8	7	.85	15			1	36	1.15	57	.3		9	
10											1.2	65	.8	7	1.9	36			1	36	1.15	57	.4		10	
11											1.2	65	.8	7	.85	15			1	36	1.15	57	.3		11	
12											1.15	57	.95	29	.8	7			1	36	1.2	65	.1		12	
13											1.1	50	1	36	.8	7			1	36	1.15	57	.15		13	
14											1.05	43	.8	7	1	36	.85	15	1.05	43	1.15	57	.25		14	
15											1.05	43	1	36	1	36	.85	15	1.05	43	1.15	57	.3		15	
16											1	36	1	36	1.1	50	.85	15	1	36	1.1	50	.3		16	
17											1	36	.95	29	1	36	.85	15	1.05	43	1.2	65	.4		17	
18											1	36	.9	22	1	36	.85	15	1.05	43	1.2	65	.4		18	
19											1	36	.9	22	1	36	.85	15	1.05	43	1.1	50	.4		19	
20											1.15	57	.95	29	.95	29	1	36	.85	15	1	36	1.15	.45		20
21											1.15	57	.95	29	.9	22	.9	22	.85	15	1.05	43	1.1	.4		21
22											1.1	50	.9	22	.9	22	.85	15	1.05	43	1.3		.35		22	
23											1.1	50	.9	22	.85	15	.85	15	1.05	43	1.4		.25		23	
24											1.1	50	.9	22	.8	7	.9	22	1.1	50	1.3		.7		24	
25											1.05	43	.9	22	.8	7	.85	15	.9	22	1.1	50	1.2	.7		25
26											1.15	57	.9	22	.8	7	.8	7	.8	7	1.1	50	1.2	1.4		26
27											1.05	43	.85	15	.8	7	.8	7	.9	22	1.1	50	1.25	1.4		27
28											1.05	43	.8	7	.8	7	.8	7	.9	22	1.1	50	1.25	1.5		28
29											1	36	.8	7	.8	7	.8	7	.9	22	1.1	50	1.2	1.5		29
30											1.05	43	.8	7	.8	7	.8	7	.9	22	1.1	50	1.1	1.4		30
31											1.1	50			.8	7	.8	7		1.1	50		1.4		31	
Mean											48				37				15		39		57			
Run-off in acre-ft.											1,140				2,200				922		1,540		2,260			
Maximum											57				65				36		655		65			
Minimum											36				7				7		7		50			

Daily Gage Height (in feet) and Discharge (in second-feet) of South Fork of Republican River, near Benkelman, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1	1.3				1.35	57	1.2	21	1.5	89	1.5	89	1.35	57	1	1.05	15	1.3	47	1.5	66	1.3	31	1	
2	1.5				1.4	66	1.15	25	1.55	102	1.55	102	1.4	66	1.5	89	1.05	15	1.25	39	1.5	66	1.3	31	2
3	1.4				1.3	47	1.2	31	1.5	89	1.6	115	1.5	89	1	1.05	15	1.25	39	1.5	66	1.3	31	3	
4	1.3				1.4	66	1.2	31	1.5	89	1.4	66	1.55	102	1.2	31	1	1.1	1.3	47	1.5	66		4	
5	1.3				1.55	102	1.2	31	1.7	145	1.6	115	1.4	66	1.1	19	1	1.1	1.3	47	1.5	66		5	
6	1.4				1.5	89	1.2	31	1.5	89	1.55	102	1.5	89		16	1	1.1	1.25	39	1.5	66		6	
7	1.4				1.35	57	1	11	1.5	89	1.5	89	1.3	47		14	1	1.1	1.3	47	1.5	66	1.32	32	7
8	1.4				1.4	89		11	1.5	89	1.45	78		81	1	11	1	1.1	1.4	66	1.45	57		8	
9	1.4				1.4	66	1	11	1.4	66	1.6	115	1.6	115	1.5	89	1	1.1	1.3	47		52		9	
10	1.4				1.4	66	1.05	15	1.45	78	1.75	161	1.55	102	1.4	66	1	1.1	1.4	66	1.4	47		10	
11	1.55				1.3	47	1.1	19	1.4	66	2.15	323	1.5	89	1.3	47	1	1.1	1.4	66	1.5	66		11	
12	1.6				1.4	66	1.1	19	1.35	57	1.8	178	1.2	31	1.1	19	1	1.1	1.3	47	1.5	66		12	
13	1.4				1.4	66	1.15	15	1.4	66	1.8	178	1.3	47	1.1	19	1	1.1	1.3	47	1.5	66		13	
14	1.3				1.4	66	1	11	1.4	66	1.8	178	1.3	47	1.1	19	1	1.1	1.25	39	1.5	66		14	
15	1.4				1.4	66	.95	8	1.3	66	1.8	178	1.1	19	1.1	19	1	1.1	1.25	39	1.45	57		15	
16	1.4				1.4	66	1	11	1.4	66	1.6	115	1.1	19	1.1	19	1	1.1	1.25	39	1.45	57		16	
17	1.45				1.4	66	.95	8	1.4	66	1.8	178	1.05	15	1.05	15	1	1.1	1.3	31	1.5	66		17	
18	1.5				1.4	66	.9	6	1.4	66	1.8	178	1	11	1.1	19	.85	5	73	1.45	57		18		
19	1.4				1.4	66	.95	8	1.4	66	2.3	397	1.05	15	1.1	19	.85	5	1.7	115	1.45	57		19	
20	1.5				1.4	66	.95	8	1.3	47	1.3	47	1.1	11	1	11	.85	5	1.7	115	1.45	57		20	
21	1.4				1.4	66	.95	8	1.4	66	1.5	89	.9	6		18	.85	5	1.6	89	1.45	57		21	
22	1.4				1.4	66	1.05	15	1.5	89	1.55	102	.9	6	1.15	25	.35	5	1.5	66	1.5	66		22	
23	1.35				1.3	47	1	11	1.5	89	1.7	145	.9	6	1.1	19	.85	5	1.5	66	1.4	47		23	
24					1.25	39		21	2	255	2	255	1.1	19	1.05	15	.85	5	1.5	66	1.46	57		24	
25					1.39	47	1.2	31	1.7	145	1.45	78	1.1	19	1.05	15	1	1.1	1.35	39	1.45	57		25	
26					1.2	31	1.2	31	1.6	115	1.45	78		19	1.05	15	1	1.1	1.4	47	1.45	57		26	
27					1.25	39	1.3	47	1.8	178	1.4	66	.8	5	1.05	15	1	1.1	1.35	39	1.45	57		27	
28			1.4		1.35	57	1.2	31	1.6	115	1.4	66	.8	5	1.05	15		29	1.5	66		54		28	
29			1.4		1.3	47	1.2	31	1.5	89	1.3	47	.8	5	1.05	15	1.3	47	1.5	66		50		29	
30					1.25	39	1.4	66	1.5	89	1.3	47	.85	5	1.05	15	1.3	47	1.55	78	1.4	47		30	
31					1.25	39			1.45	78			.85	5	1.05	15			1.50	66				31	
Mean					60			21		92		132		39		24		13		59		59			
Run-off in acre-ft.					3,690			1,260		5,680		7,850		2,420		1,480		774		3,530		3,530			
Maximum					102			66		255		397		115		89		47		66		66			
Minimum					31			6		47		47		5		11		5		47		47			

Daily Gage Height (in feet) and Discharge (in second-feet) of South Fork of Republican River, near Benkelman, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.85	167	1.7	123	1.65	109	1.6	96	1.6	96									1
2							1.9	183	1.65	109	1.55	84	1.55	84	1.5	73									2
3							2.05	232	1.65	109	1.5	73	1.6	96	1.5	73									3
4							1.95	199	1.7	123	1.45	62	1.5	73	1.5	73									4
5							1.9	183	1.7	123	1.35	43	1.4	52	1.4	52	1.35								5
6							1.8	152	1.6	96	1.35	43	1.4	52	1.35	43									6
7							1.75	137	1.6	96	1.3	35	1.4	52	1.3	35									7
8							1.75	137	1.6	96	1.25	28	1.35	43	1.25	28									8
9							1.75	137	1.65	109	1.35	43	1.35	35	1.25	28									9
10							1.75	137	1.7	123	1.85	167	1.25	28	1.2	21	1.45								10
11							1.75	137	1.7	123	1.6	96	1.2	21	1.25	28									11
12							1.55	84	1.7	123	1.55	84	1.2	21	1.25	35									12
13							1.5	73	1.5	73	1.35	43	1.15	15	1.3	35									13
14							1.4	52	1.55	84	1.35	43	1.1	10											14
15							1.4	52	1.55	84	1.3	35	1	5											15
16							1.4	52	1.55	84	1.35	43	1.1	10											16
17					2.1	249	1.5	73	1.5	73	2.2	283	1	5											17
18					1.95	199	1.45	62	1.45	62	1.7	123	1.1	10	1.55										18
19					2.1	249	1.45	62	1.6	96	1.6	96	1	5			1.5								19
20					1.95	199	1.55	84	1.7	123	1.55	84	1	5			1.5								20
21					1.85	167	1.6	96	1.4	52	1.2	21	1.1	10											21
22					1.8	152	1.5	73	1.75	137	1.55	84	1.15	15											22
23					1.8	152	1.8	152	1.45	62	1.45	62	1.1	10											23
24					1.8	152	2.1	249	1.45	62	1.45	62	1.1	10											24
25					1.75	137	2.25	300	1.45	62	1.35	43	1.1	10					1.35						25
26					1.7	123	2.05	232	1.65	109	1.35	43	1.1	10					1.35						26
27					1.6	96	2.05	232	1.65	109	1.35	43	1.05	7					1.4						27
28					1.7	123	2	215	1.6	96	1.25	28	1.1	10					1.45						28
29					1.7	123	1.8	152	1.75	137	1.25	28	1.2	21					1.5						29
30					1.7	123	1.75	137	1.65	109	1.25	28	1.8	152					1.55						30
31					1.78	146			1.75	137			1.7	123					1.6						31
Mean					159			141		100			68		35			48							
Run-off in acre-ft.					4,730			8,390		6,150			4,080		2,180			1,230							
Maximum					249			300		137			283		152			96							
Minimum					96			52		52			21		5			21							

Daily Gage Height (in feet) and Discharge (in second-feet) of South Fork of Republican River, near Benkelman, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.75	137	2	215	1.4	52	.95	1		.9	1		1.45	42					1
2							1.7	123	1.95	199	1.4	52	.95	1		.9	1		1.5	48					2
3							1.7	123	1.95	199	1.35	43	.95	1		.9	1		1.5	48					3
4							1.7	123	1.95	199	1.3	35		1		.9	1		1.5	48					4
5							1.6	96	1.9	183	1.25	28	.95	1		.9	1		1.5	48					5
6							1.6	96	1.8	152	1.2	21	.95	1		.9	1		1.5	48					6
7							1.65	109	1.7	123	1.15	15	.95	1		.95	1	.95	1.45	42					7
8							1.6	96	1.7	123	1.10	10	.95	1		.95	1	.95	1.45	42					8
9							1.6	96	1.7	123	1.05	5	.95	1		.95	1	.95	1.45	45					9
10							1.55	84	1.6	96	1.05	5	.95	1		.95	1	.95	1.5	48					10
11								88	1.5	73	1	.5	.95	1	.9		.95	1	1.5	48					11
12								92	1.5	73	1	.5	.95		.9		.9	1	1.4	36					12
13							1.6	96	1.5	73	1	.5			.9		.9		39						13
14							1.6	96	1.5	73	1	.5	.95		.9				42			1.45			14
15							1.6	96	1.5	73	1	.5	.95		.9			1	42			1.45			15
16							1.5	73	1.45	73		.5	.95		.9		.95	1.2	17	42					16
17							1.5	84	1.5	62	1	.5	.95		.9		.95	1.2	17	48					17
18							1.6	96	1.4	52	1	.5	.9		.9		1	1.2	17	48					18
19							1.6	96		62	1	.5	.9		.9		1	1.25	21	50					19
20							1.7	123		62	1	.5	.9		1		1	1.25	21	53					20
21							1.7	123	1.5	73	.95		.9		.9		.95		34	55					21
22							1.65	109	1.45	62			.9		.9		1		47	58					22
23							1.65	109		79	1		.9			1	.95	1.6	61	61					23
24							1.65	109	1.6	96	1		.9		1		1	1.5	48	48					24
25							1.7	123	1.6	96	1		.9			1	1.6	61	48	48					25
26							1.6	96	1.5	73				92		1		61	1.55	54					26
27							2.3	317	1.5	73			1.9	183	.95		1	1.6	61	1.55	54				27
28							2.3	317	1.5	73			1.2	21	.95		1	1.55	54	54					28
29							2.2	283	1.45	62	1		.9	18	.9		1	1.55	54	1.55	54				29
30								249	1.4	52	.95			14	.9		.95	1.55	54	1.5	48				30
31									1.4	52			1.1	10	.95			1.5	48						31
Mean								129		99			9		109			21.8		48					
Run-off in acre-ft.								7,680		6,100			537		670			1,340		2,880					
Maximum								317		215			52		183			61		61					
Minimum								73		52			0		0			0		36					

REPUBLICAN RIVER AT BENKELMAN

Location. At highway bridge between Sections 17 and 20 Township 1 North, Range 37 West, about a half mile east of town.

Records Available. From November 1, 1894 to October 31, 1895, and from May 20, 1903 to November 30, 1906.

Gage. Vertical staff spiked to the down stream side of the second bent from west end of the bridge.

Bench Marks. No. 1. Top of south end of concrete foundation of west upright bent of elevated track in B. & M. yards just east of depot. Elevation, 16.14 feet above zero of the gage. No. 2. The top of the up stream side of the first pier from the left end of the bridge. Elevation, 6.88 feet above zero of the gage.

Channel. Straight for two hundred feet above and five hundred feet below the section.

Accuracy. Affected by shifting sand and shallow water at low stages.

Actual Discharge Measurements of Republican River, at Benkelman

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1894		Feet	Sec.-ft.	1904		Feet	Sec.-ft.
Dec. 9 . . .	O. V. P. Stout . . .	1.74	75	April 3 . . .	J. C. Stevens . . .	1.1	112
1895				18 . . .	Adna Dobson . . .	1.02	32
Mar. 23 . . .	O. V. P. Stout . . .	1.89	72	June 16 . . .	J. C. Stevens . . .	1.1	87
June 4 . . .	do . . .	1.68	141	Dec. 7 . . .	Jas. A. Green . . .	1.5	136
24 . . .	do . . .	1.06	36	1905			
Aug. 7 . . .	do . . .	.96	64	Mar. 21 . . .	H. C. Gardner . . .	1.2	171
1896				do . . .	do . . .	1.35	156
June 16 . . .	O. V. P. Stout . . .		29	June 6 . . .	do . . .	1.25	61
Aug. 25 . . .	do . . .		5	July 5 . . .	H. C. Gardner . . .	1.1	36
1900				31 . . .	G. W. Bates . . .	1.4	160
Aug. 18 . . .	O. V. P. Stout . . .		42	Aug. 28 . . .	H. C. Gardner . . .	.8	10
1902				Sept. 28 . . .	F. S. Dobson . . .	1.1	49
June 12 . . .	H. O. Smith . . .		35	1906			
Sept. 17 . . .	J. C. Stevens . . .		45	May 11 . . .	F. S. Dobson . . .	1.15	114
1903				June 19 . . .	Arthur Dobson . . .	1	40
May 20 . . .	J. C. Stevens . . .	1.15	57	Aug. 25 . . .	do . . .	1.12	64
Sept. 7 . . .	do . . .	.8	33	Sept. 22 . . .	do . . .	1.15	74
				Nov. 30 . . .	do . . .	1.1	122

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, near Benkelman, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1										1.15	57	.9	40	1.22	61	.6	19	1	47	1.1	54	1.1			1
2										1.2	61	.85	36	1	47	.6	19	1.05	50	1.1	54	1.15			2
3										1.2	61	.75	29	.9	40	.6	19	1	47	1.15	57	1.1			3
4										1.2	61	.95	43	.9	40	.6	19	1	47	1.1	54	1			4
5										1.2	61	1	47	.8	33	.65	23	1.05	50	1.1	54	1.1			5
6										1.2	61	.8	33	.7	26	.85	36	1	47	1.1	54	1.35			6
7										1.5	81	.75	29	.7	26	.85	36	1	47	1.15	57	1.05			7
8										1.45	78	.7	26	.7	26	.8	33	1	47	1.1	54	1.25			8
9										1.35	71	.7	26	.7	26	.8	33	1.05	50	1.1	54	1.25			9
10										1.3	68	.75	29	.8	33	.9	40	1.05	50	1.1	54	1.25			10
11										1.35	71	1.98	112	.7	26	.9	40	1.05	50	1.05	50	1.05			11
12										1.3	68	1.2	61	.75	29	.9	40	1.05	50	1.1	54	1.35			12
13										1.3	68	.9	40	.75	29	.9	40	1	47	1.1	54	1.25			13
14										1.3	68	.8	33	.7	26	.9	40	1.05	50	1.15	57	1.5			14
15										1.25	64	1.1	54	.7	26	.9	40	1	47	1.1	54	1.5			15
16										1.25	64	1.25	64	.7	26	.95	43	.95	43	1.15	57	1.5			16
17										1.2	61	1	47	.9	40	.9	40	1	47	1.2	61	1.50			17
18										1.2	61	1	47	.9	40	.95	43	1	47	1.15	57	1.6			18
19										1.1	54	1	47	.85	36	.95	43	1	47	1.15	57	1.7			19
20										1.15	57	1.1	54	.85	36	.95	43	1.05	50	1.25	64	1.6			20
21										1.15	57	1.1	54	1	47	.8	33	1	47	1.05	50	1.6			21
22										1	47	.9	40	.75	29	1	47	1.05	50	1.6					22
23										1	47	.9	40	.75	29	1	47	1.05	50	1.2					23
24										1.05	50	1	47	.85	36	.75	29	1	47	1.05	50	1.1			24
25										1	47	.7	26	.7	26	.7	26	1	47	1	47	1.15			25
26										1.25	64	1.05	50	.7	26	.75	29	.95	43	1	47	1.2			26
27										1.35	71	1	47	.65	23	.85	36	1	47	1.05	50	1.2			27
28										1.3	68	1	47	.6	19	.75	29	1	47	1.05	50	1.2			28
29										1.25	64	1	47	.6	19	.75	29	1	47	1.05	50	1.1			29
30										1.2	61	.95	43	.6	19	.7	26	1	47	1.1	54	1.05			30
31										1.25	64			.65	23	.7	26			1.1	54				31
Mean										58	59		39		32		39		49		56				
Run-off in acre-ft.										1,380	3,510		2,400		1,970		2,320		3,010		2,220				
Maximum										71	81		112		61		47		54		64				
Minimum										47	43		19		26		19		43		50				

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, near Benkelman, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	1.3				1	87	1.1	111	1.25	87	1	55	1.1	46	1.6	165	.8	10	1.15	55	1.2	65	1.2	65	1
2	1.4				.95	76	1.1	111	1.3	99	1.1	76	1.15	55	1.4	111	.7	10	1.15	55	1.2	65	1.3	87	2
3	1.35				1.1	111	1.1	111	1.1	111	1.1	46	1	30	.8	10	1.3	87	1.2	65	1.2	65	1.2	65	3
4	1.3				.9	65	1.1	111	1.25	87	1.6	211	1.2	65	1.2	65	.7	10	1.7	195	1.2	65	1.2	65	4
5	1.3				.9	65	1.1	111	1.2	76	1.05	65	1.1	46	1.1	46	.7	10	1	30	1.2	65	1.2	65	5
6	1.4				1.05	99	1.1	111	1.2	76	1.1	76	1.05	38	.....	46	.75	5	1	30	1.2	65	1.2	65	6
7	1.5				.9	65	1.2	124	1.2	76	1	55	1.75	211	.....	46	.8	10	1	30	1.2	65	1.5	136	7
8	1.6				.95	76	.....	105	1	38	1	55	.....	143	1.1	46	.9	17	1	30	1.15	55	.....	55	8
9	1.6				1.1	111	1.1	87	1	38	1.1	76	1.25	76	1.05	38	.9	17	1	30	1.15	55	.....	55	9
10	1.6				1.05	99	1.05	76	1.05	46	1.4	151	1.2	65	1	30	.9	17	1.1	46	1.15	55	.....	55	10
11	1.5				1	87	1.1	87	1	38	1.2	99	1.1	46	.9	17	.9	17	1.1	46	1.15	55	.....	55	11
12	1.45				1	87	1	46	.95	30	1.2	99	1	30	1.1	46	.85	13	1	30	1.15	55	.....	55	12
13	1.3				1.05	99	1	46	.9	23	1.4	151	1	30	.8	10	.85	13	1.05	38	1.2	65	.....	65	13
14	1.45				1	37	1	38	.9	23	1.2	99	.9	17	.8	10	.85	13	1	30	1.15	55	.....	55	14
15	1.55				1.1	111	1	38	1.05	46	1.2	99	1	30	.8	10	.8	10	1.05	38	1.25	76	.....	76	15
16	1.45				1	87	1.05	38	1	46	1.1	87	.9	17	.8	10	.....	14	1	30	1.15	55	.....	55	16
17	1.45				1	87	1	30	1	46	1.35	137	.85	13	.8	10	.9	17	1.05	38	1.2	65	.....	65	17
18	1.45				.8	46	1	30	1	46	1.35	137	.8	10	.8	10	.85	13	.....	101	1.15	55	.....	55	18
19	1.3				.95	76	1	30	1	46	1.1	65	.9	17	.9	17	.85	13	1.6	165	1.15	55	.....	55	19
20	1.3				1	87	1	30	1	46	1	46	1.2	65	.9	17	.85	13	1.3	87	1.20	65	.....	65	20
21	.9				1.05	99	1	30	1.05	55	1.1	65	1	30	.....	17	.85	13	1.3	87	1.15	55	.....	55	21
22	.9				1	87	1.05	38	1.1	65	1.15	76	1	30	.90	17	.85	13	1.2	65	1.2	65	.....	65	22
23	1				1.05	99	1	30	1.2	87	1.25	87	.9	17	.85	13	.85	13	1.2	65	1.3	87	.....	87	23
24	.....				1.05	99	.....	47	1	46	1.8	227	1.1	46	.8	10	.85	13	1.15	55	1.2	65	.....	65	24
25	.....				1.05	99	1.2	65	1	46	1.2	65	.9	17	.8	10	.9	17	1.2	65	1.15	55	.....	55	25
26	.....				1	65	1.2	65	1	46	1.15	55	.8	10	.8	10	.9	17	1.1	46	1.2	65	.....	65	26
27	.....				1.05	99	1.1	46	1.05	55	1.15	55	.8	10	.8	10	.9	17	1.2	65	1.25	76	.....	76	27
28	.....		.95	76	1	87	1.05	38	1.1	65	1.1	46	.8	10	.8	10	.....	11	1.2	65	.....	80	.....	80	28
29	.....		.95	76	1.05	99	1	30	1	46	1.15	55	.8	10	.8	10	1.1	46	1.2	65	.....	83	.....	83	29
30	.....		.....	.....	1.1	111	1.3	87	1	46	1.15	55	.75	5	.8	10	1.1	46	1.2	65	1.3	87	.....	87	30
31	.....		.....	.....	1.1	111	.....	.....	1	46	.....	.....	.....	.75	5	.8	10	.....	.....	1.2	65	.....	.....	.....	31
Mean	.....	.....	.....	.....	.....	89	.....	65	.....	54	.....	91	.....	40	.....	29	.....	15	.....	61	.....	64	.....	.....	.....
Run-off	.....	.....	.....	.....	.....	5,480	.....	3,870	.....	3,310	.....	5,430	.....	2,520	.....	1,780	.....	892	.....	3,750	.....	3,810	.....	.....	.....
Maximum	.....	.....	.....	.....	.....	111	.....	124	.....	99	.....	227	.....	211	.....	165	.....	46	.....	195	.....	87	.....	.....	.....
Minimum	.....	.....	.....	.....	.....	46	.....	30	.....	23	.....	46	.....	5	.....	10	.....	.....	.....	30	.....	55	.....	.....	.....

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, near Benkelman, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day		
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge			
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.			
1							1.15	1.2	130	1.1	78	.8	10	.9	24	.85	17	.9	24	.85	17	.9	24	.85	17	.9	1
2							1.1	1.2	130	1.1	78	.8	10	.9	24	.85	17	.9	24	.85	17	.9	24	.85	17	.9	2
3							1.1	1.2	130	1.1	78	.8	10	.9	24	.85	17	.9	24	.85	17	.9	24	.85	17	.9	3
4							1.1	1.2	130	1.1	78	.8	10	.9	24	.85	17	.9	24	.85	17	.9	24	.85	17	.9	4
5							1.1	1.2	130	1.1	78	.8	10	.9	24	.85	17	.9	24	.85	17	.9	24	.85	17	.9	5
6							1.05	1.2	130	.95	42	.8	10	1.1	62	.9	24	1	47	1.25	150	1.25	150	1.25	150	1.25	6
7							1.1	1.2	130	.9	36	.95	32	1	42	.9	24	1.05	67	1.2	135	1.2	135	1.2	135	1.2	7
8							1.1	1.25	145	.85	24	1.05	51	1	42	.85	17	1.05	67	1.2	135	1.2	135	1.2	135	1.2	8
9							1.1	1.25	145	.8	17	1.05	51	1	42	.85	17	1.05	67	1.2	135	1.2	135	1.2	135	1.2	9
0							1.1	1.15	115	.8	17	1.05	51	1	42	.85	17	1.05	67	1.2	135	1.2	135	1.2	135	1.2	10
1								1.15	115	.8	14	1	42	1	42	.9	24	1.1	78	1.2	135	1.2	135	1.2	135	1.2	11
2								1.1	100	.8	14	1	42	1	42	.9	24	1.1	78	1.2	135	1.2	135	1.2	135	1.2	12
3								1.1	100	.8	14	1	26	1	42	.9	24	1.1	78	1.2	135	1.2	135	1.2	135	1.2	13
4							1.15	1.1	100	.85	20	.8	10	.9	24	.9	24	1.05	67	1.25	150	1.25	150	1.25	150	1.25	14
5							1.15	1.05	113	1.7	263	.8	10	.9	24	.9	24	1.05	67	1.25	150	1.25	150	1.25	150	1.25	15
6							1.15	1.05	113		160	.8	10	.9	24	.9	24	1.15	93	1.25	150	1.25	150	1.25	150	1.25	16
7							1.22	1.1	67	1.05	57	.8	10	.9	24	.95	32	1.2	105	1.3	167	1.3	167	1.3	167	1.3	17
8							1.2	1.1	67	1	47	.75	4	.8	10	1	42	1.05	67	1.2	147	1.2	147	1.2	147	1.2	18
9							1.2	1.30	74	1	47	.7	2	.8	10	1	42	1.1	78	1.2	163	1.2	163	1.2	163	1.2	19
0							1.2	1.30	74	.85	17	.7	2	.8	10	1.1	62	1.1	78	1.2	163	1.2	163	1.2	163	1.2	20
1							1.2	1.30	80	1.05	80	.6	10	.8	10	1.1	62		100		163		163		163		21
2							1.2	1.30	75	1.05	75	.5	1	.7	2	1.1	62		100		163		163		163		22
3							1.15	1.15	185	1	42	.5			32	1.1	70		100	1.3	180		180		180		23
4							1.2	1.30	1.7	295	1	42	.7	2	1.1	62	1.1	70		100	1.3	180		180		24	
5							1.15	1.3	145	1.1	62	.50		1.12	66	1.25	108	1.2	122	1.3	180		180		180		25
6							1.1	1.02	87		40		64		48	1.1	70		122	1.1	117		117		117		26
7							1.9	398	1.1	82		40	1.35	128	.95	32	1.05	57	1.2	122	1.2	147		147		27	
8							1.6	275	1	59		40	1.05	51	.85	17	1.0	47	1.15	105		132		132		28	
9							1.6	275	1.05	70	.85	17		38	.85	17	1.0	47	1.15	105	1.1	117		117		29	
0								200	1.1	82	.8	10		37		20	1.0	47	1.15	105	1.1	117		117		30	
1									1.1	82			.9	24	.9	40			1.2	122							31
Mean un-off								135	108		48.4		24.7		30.6		39.9		83.3		147						
Maximum							8,030	6,640	2,880		2,880		1,520		1,880		2,370		5,120		8,750						
Minimum							398	295	10		10		128		62		108		122		180						
							88	59							2		17		47		117						

REPUBLICAN RIVER AT CULBERTSON

Location. Three quarters of a mile south of town in Section 20, Township 3 North, Range 31 West.

Records Available. From June 12, 1913 to September 30, 1914.

Gage. Vertical staff located on the upstream side of the bridge fastened to a steel piling about midstream.

Bench Mark. Top of steel stringer on upstream side of bridge six feet south of north pier of north span the steel bridge. Elevation, 7.10 feet above zero of the gage.

Channel. Two channels except at low water. The north channel is at an angle of about 45° with the bridge. The south channel is normal to the bridge.

Accuracy. Fair measurements may be made only by wading and estimation of daily discharge is very difficult because of shallow water and shifting sand.

Actual Discharge Measurements of Republican River, at Culbertson

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1892		Feet	Sec.-ft.	1903		Feet	Sec.-ft.
Nov. 25	U. S. G. S.	.....	209	Aug. 29	H. O. Smith	.....	.....
1896				1913			
May 16	G. E. Crownover	.....	78	June 12	D. P. Weeks, Jr.	Est.	6
June 19	O. V. P. Stout	.....	6	July 21	do	.....	Dry
Sept. 10	do	.....	.....	Aug. 14	do	.....	Dry
1898				Sept. 13	do	.....	Dry
June 25	O. V. P. Stout	.....	91	Nov. 7	do	.....	Dry
				Dec. 3	W. M. Jefferys	1.1	132
1899				1914			
May 29	O. V. P. Stout	.....	.....	April 11	D. P. Weeks, Jr.	1.35	109
Sept. 19	A. B. McCoskey	.....	.....	Mar. 13	do	1.2	143
				May 21	do	1.2	128
1902				June 18	do	.49	46
April 25	F. Dobson	.....	204	July 17	do	.....	11
Sept. 18	J. C. Stevens	.....	41	Sept. 28	do	.08	2

¹ Estimated.

REPUBLICAN RIVER AT BOSTWICK

Location. One mile south of town in Section 23, Township 1 North, Range 8 West.

Records Available. From June 26, 1904 to September 30, 1914. Previous to 1904 a gaging station was maintained at Superior, the data from which may be used in connection with the records of this station for most purposes.

Drainage Area. 23,300 square miles.

Gage. Regulation chain and weight fastened to the downstream handrail. Distance from the end of weight to the index on the chain 20.52 feet.

Bench Mark. No. 1. Top of bearing shoe, (cast iron) of upper chord of north span, down stream truss at north end of span. Shoe rests on rollers on top of pier. Shoe has three openings, the east opening is the bench mark. Elevation, 15.75 feet. No. 2. The northeast cardinal point of the rim or edge of the cover plate of pier at the south end of same truss described above. Elevation, 15.89 feet. Bench mark datum is zero of the gage.

Channel. Straight for considerable distance above and below the section. Island of considerable size is a short distance below the bridge.

Accuracy. Affected by shifting sand and shallow water at low stages.

tial Discharge Measurements of Republican River, at Bostwick

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1904		Feet	Sec.-ft.	1909		Feet	Sec.-ft.
June 5	J. C. Stevens	2.1	884	July 23	do	1.66	386
6	do	2.64	1,289	Sept. 16	do	1.12	206
29	do	3.5	2,379	Nov. 20	do	1.47	382
July 8	R. D. Hubbard	3.05	1,709	1910			
Aug. 16	do	1.5	397	April 13	D. D. Price	1.7	345
Dec. 8	J. A. Green	1.7	520	May 18	E. C. Simmins	1.55	429
1905				June 15	D. D. Price	1.4	238
Mar. 22	H. C. Gardner	2.45	1,181	July 12	A. A. Dobson	1.01	114
April 29	do	3	2,009	Aug. 13	do	1.1	110
June 7	do	2.55	1,045	Sept. 22	do	1.21	162
July 6	do	8.3	14,870	Nov. 5	do	1.34	215
26	do	5.45	5,915	1911			
Aug. 10	do	3.55	3,082	April 8	A. A. Dobson	.91	384
Sept. 30	F. S. Dobson	1.32	648	May 14	A. B. Price	1.7	367
1906				June 7	do	1.3	129
April 7	F. S. Dobson	2	590	July 22	do	1.85	413
May 19	do	1.66	832	Aug. 8	do	9.2	15,500
June 18	Arthur Dobson	1.05	391	Sept. 17	do	3.0	1,700
July 19	do	.75	276	Nov. 1	do	1.20	293
Aug. 30	do	.84	267	1912			
Oct. 13	do	.68	187	April 22	C. G. Hrubesky	2.2	991
1907				May 28	C. T. Graham	1.7	536
April 2	Arthur Dobson	1.46	570	June 18	L. W. Erickson	2.43	85
June 12	do	2.05	991	July 17	D. P. Weeks, Jr.	1.3	261
July 9	do	1.05	243	Aug. 16	do	5	4,291
Aug. 13	do	.75	106	Sept. 20	do	1.7	431
Sept. 10	do	.65	106	Oct. 19	do	1.65	394
Oct. 31	do	.9	139	Nov. 23	do	1.7	462
1908				1913			
Mar. 13	F. S. Dobson	1.45	544	April 5	D. P. Weeks, Jr.	2.2	699
April 25	Arthur Dobson	1.05	230	May 3	do	2.9	1,336
May 12	G. W. Bates	1.8	749	June 15	do	1.5	257
June 5	Arthur Dobson	2.72	1,480	July 22	do	1.1	41
23	do	3.62	2,390	Aug. 15	do	.6	12
July 15	do	2.15	894	Nov. 8	do	.98	33
Aug. 29	G. W. Bates	2.34	1,020	Dec. 4	W. M. Jefferys	1.3	132
Sept. 15	A. A. Dobson	.92	174	1914			
Oct. 23	do	4.79	4,320	Mch. 14	D. P. Weeks, Jr.	2.05	516
Nov. 28	do	1.55	597	April 12	do	1.88	398
1909				May 22	do	2.88	1,376
Mar. 26	A. A. Dobson	1.95	794	June 20	do	3.8	2,246
April 13	do	4.55	3,010	July 18	do	1.85	486
17	do	1.66	572	Aug. 20	do	1.32	190
June 24	do	3.6	2,450	Sept. 29	do	.92	64

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1904

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1																									1	
2													2.9	1,635	1.45	365	1.4	335	1.4	335	1.6	465	1.7	535	1.7	2
3													2.7	1,415	1.4	335	1.25	245	1.35	305	1.7	535	1.7	535	1.7	3
4													2.65	1,360	1.4	335	1.2	215	1.3	275	1.75	570	1.7	535	1.7	4
5													3.7	2,670	1.45	365	1.3	275	1.35	305	1.7	535	1.7	535	1.7	5
6													6.1	7,130	1.5	400	1.4	335	1.4	335	1.7	535	1.7	535	1.7	6
7													2.4	1,115	6.25	7,480	1.75	570	1.25	245	1.35	305	1.7	535	1.7	7
8													2.2	930	3.7	2,670	1.7	535	1.3	275	1.35	305	1.65	500	1.7	8
9													1.5	430	3.05	1,810	2.3	1,020	1.25	245	1.3	275	1.65	500	1.7	9
10													2.1	845	3.07	1,835	2.2	930	1.15	185	1.35	305	1.7	535	1.7	10
11													2.15	885	3.9	2,965	1.9	680	1.25	245	1.3	275	1.65	500	1.7	11
12													2	760	3.4	2,250	1.7	535	1.25	245	1.35	305	1.65	500	1.7	12
13													2	760	3.1	1,870	1.6	465	1.2	215	1.4	335	1.65	500	1.7	13
14													1.95	720	3.25	2,055	1.6	465	1.2	215	1.35	305	1.65	500	1.7	14
15													1.9	680	3.1	1,870	1.55	430	1.1	160	1.45	365	1.7	535	1.7	15
16													3.1	1,870	2.75	1,470	1.5	400	1.05	135	1.4	335	1.65	500	1.7	16
17													2.95	1,690	2.55	1,260	1.45	365	1	110	1.5	400	1.7	535	1.7	17
18													2.4	1,115	2.3	1,020	1.45	365	1	110	1.45	365	1.7	535	1.7	18
19													2.45	1,165	2.15	885	1.6	465	.95	85	1.4	335	1.7	535	1.7	19
20													2.75	1,470	2.05	800	1.5	400	.9	60	1.45	365	1.65	500	1.7	20
21													2.45	1,165	2	760	2.3	1,020	1	110	2	760	1.7	535	1.7	21
22													2.75	1,470	2	760	1.85	640	.95	85	2.4	1,115	1.7	535	1.7	22
23													2.5	1,210	1.95	720	1.7	570	1	110	2.3	1,020	1.7	535	1.7	23
24													2.55	1,260	1.9	720	1.45	365	1	110	2.3	1,020	1.65	500	1.7	24
25													3.68	2,640	1.85	640	1.45	365	.95	85	2.25	975	1.7	535	1.7	25
26													4.1	3,260	1.8	605	1.4	335	1	110	2.15	885	1.7	535	1.7	26
27													4.9	4,630	1.75	570	1.35	305	.95	85	2.1	845	1.7	535	1.7	27
28													4.3	4,450	1.70	535	1.4	335	1	110	2.05	800	1.7	535	1.7	28
29													3.85	2,590	1.65	500	1.35	305	1.15	185	1.95	720	1.7	535	1.7	29
30													3.5	2,385	1.5	400	1.25	245	1.2	215	1.8	605	1.7	535	1.7	30
31													3.1	1,870	1.5	400	1.4	335	1.3	275	1.7	535	1.7	535	1.7	31
															1.45	365	1.5	400			1.65	500				31
Mean														1,667	1,656	475	180			518		523				
Un-off														99,200	101,800	22,800	10,700			31,500		31,100				
Maximum														4,630	7,480	1,020	385			1,110		570				
Minimum														480	365	245	60			275		465				

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1905

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					2.15	888	2.75	1,470	3.3	2,120	6.25	7,480	6.35	8,170	1.2	560	1.25	595							1
2					2.15	888	2.55	1,260	3.3	2,120	8.7	14,020	6.45	8,440	1.2	560	1.15	530							2
3					2.2	930	2.5	1,210	4.1	3,265	9.3	19,100	6.9	9,760	1.9	1,090	1.15	530							3
4					2.15	888	2.45	1,162	3.7	2,670	10.4	24,500	7.3	11,060	1.9	1,090	1.15	530							4
5					2.15	888	2.45	1,162	2.9	1,635	9.5	20,000	5.65	6,515	1.9	1,090	1.1	500							5
6					2.15	888	2.35	1,068	2.65	1,362	7.65	12,310	5.3	5,800	1.9	1,090	1.1	500							6
7					2.5	1,210	2.35	1,068	2.55	1,260	5.5	6,200	5.5	6,200	1.5	770	1.1	500							7
8					2.4	1,115	2.35	1,068	2.35	1,068	4.75	4,770	4.65	4,595	1.3	630	1.1	500							8
9					2.35	1,068	2.4	1,115	2.25	975	4.5	4,340	4.05	3,615	1.3	630	1.05	470							9
0					2.25	975	2.45	1,162	2.35	1,068	4.6	4,510	3.8	3,250	1.9	1,090	1	440							10
1					2.2	930	6.1	7,130	2.4	4.1	3,690	3.5	2,830	1.3	630	1	440								11
2					2.2	930	2.7	1,415	2.5	1,210	3.6	2,970	3.05	2,260	1.3	630	1	440							12
3					2.1	845	3	1,750	4	3,115	3.35	2,635	2.8	1,970	1.1	500	.95	410							13
4					2.1	845	3.05	1,810	3	1,750	3.05	2,260	2.5	1,650	1.1	500	.95	410							14
5					2.1	845	3.15	1,932	2.7	1,415	2.9	2,080	2.35	1,500	1.1	500	.95	410							15
6					2.05	802	5.4	5,610	4.15	3,342	2.85	2,025	2.5	1,650	1.2	560	1	440							16
7					2.1	845	4.1	3,265	4.55	4,005	2.8	1,970	2.65	1,805	1.1	500	.95	410							17
8					2.05	802	3.15	1,932	5.5	5,820	2.7	1,860	2.85	2,025	1.3	630	1	440							18
9					2.05	802	2.95	1,692	3.85	2,890	2.65	1,805	2.55	1,700	1.2	560	1	440							19
10					2	760	2.7	1,415	3.5	2,385	4.1	3,690	2.15	1,315	1.4	700	1.05	470							20
11					2.25	975	2.5	1,210	3	1,750	2.5	1,650	2	1,180	1.45	735	1.05	470							21
12					2.45	1,162	2.05	802	2.45	1,162	2.85	1,580	2.4	1,550	1.85	1,050	1.4	700	1.05	470					22
13					2.5	1,210	2.2	930	2.35	1,068	5.2	5,210	2.35	1,500	1.75	970	1.35	665	1.1	500					23
14					2.45	1,162	2.45	1,162	2.45	1,162	5.75	6,350	2.25	1,405	1.7	930	1.45	735	1.1	500					24
15					2.4	1,115	2.6	1,310	2.35	1,068	6.05	7,015	2.15	1,315	1.65	890	1.6	850	1.1	500					25
16					2.4	1,115	2.95	1,692	2.25	975	5.85	6,570	5.7	6,620	1.65	890	1.55	810	1.1	500					26
17					2.4	1,115	2.8	1,625	2.45	1,162	5.5	5,820	3.65	3,040	1.6	850	1.55	810	1.1	500					27
18					2.3	1,020	3.1	1,870	2.25	975	4.15	3,342	3.5	2,830	1.5	770	1.5	770	1.1	500					28
19					2.3	1,020	2.1	1,750	5.4	5,610	3.85	2,890	5.4	6,000	1.3	630	1.4	700	1.1	500					29
20					2.25	975	2.9	1,635	3.9	2,965	4.15	3,342	4.65	4,595	1.3	630	1.35	665	1.1	500					30
21					2.2	930			3.7	2,670			4.9	5,040	1.3	630			1.1	500					31
Mean					1.082			1.060		1.927		2.949		5.734		3.082		725		479					
Run-off in acre-ft.					21,500			63,100		118,500		175,500		352,600		189,500		43,100		29,400					
Maximum					1,210			1,870		7,130		7,010		24,500		11,060		1,090		595					
Minimum					930			760		975		975		1,315		630		500		410					

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1906

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1																									1
2									3.9	3,390	1.55	750			1.15	460	.8	260	.65	190	1.4	630			2
3									4.95	5,130	1.5	710			1.1	430	.8	260	.65	190	1.4	630			3
4									4.15	3,770	1.5	710			1.3	560	.75	235	.6	170	1.35	595			4
5									3.85	3,320	1.5	710			1.65	890	.75	235	.6	170	1.35	595			5
6									2.75	1,920	1.45	670			1.45	670	.7	210	.6	170	1.4	630			6
7									2.55	1,700	1.45	670			1.35	595	.65	190	.7	210	1.4	630			7
8									2.45	1,590	1.35	595			1.25	525	.6	170	.75	235	1.4	630			8
9								2.15	705	2.65	1,800	1.3	560	1.15	460	.55	150	.8	260	1.4	630			9	
10								2.05	628	2.55	1,700	1.25	525	1.05	400	1.15	460	.65	190	.75	235	1.4	630		10
11								1.95	552	2.45	1,590	1.25	525	1	370	2.1	1,240	.65	190	.7	210	1.4	630		11
12								1.95	552	2.3	1,440	1.15	460	.9	310	2.45	1,590	.9	310	.65	190	1.4	630		12
13								1.9	515	2.2	1,340	1.1	430	1.6	790	2.15	1,290	1.1	430	.65	190	1.4	630		13
14								2.15	705	2.1	1,240	1.05	400	.95	340	1.65	830	.75	235	.7	210	1.4	630		14
15								2.5	1,010	2.05	1,190	1.05	400	.9	310	1.5	710	.95	340	.7	210	1.4	630		15
16								2.35	875	2	1,140	1	370	.9	310	1.4	630	1.15	460	.75	235	1.4	630		16
17								2.15	705	1.95	1,100	1	370	.8	260	1.35	595	.85	285	.75	235	1.35	595		17
18								2.05	628	1.9	1,050	1	370	.75	235	1.2	490	.85	285	.8	260	1.35	595		18
19								2	590	1.85	1,000	.95	340	.7	210	1.15	460	.8	260	.8	260	1.4	630		19
20								1.95	552	1.8	960	.9	310	.7	210	1.05	400	.8	260	.85	285	1.4	630		20
21								1.95	552	1.65	830	.9	310	.8	260	1	370	.85	285	.9	310	1.35	595		21
22								1.95	552	1.6	790	.85	285	1.25	525	.9	310	.8	260	1	370	1.35	595		22
23								1.9	515	3.8	3,250	.85	285	2.95	2,140	.9	310	.8	260	1.35	595	1.3	560		23
24								1.9	515	2.6	1,750	.8	260	2.95	2,140	.9	310	.8	260	1.45	670	1.3	560		24
25								1.9	515	2.15	1,290	.8	260	2.6	1,750	1.1	430	.8	260	1.4	630	1.25	525		25
26								1.85	480	1.8	960	.8	260	2.5	1,390	1.1	430	.75	235	1.35	595	1.3	560		26
27								1.85	480	1.75	915	.85	285	2.15	1,290	.95	340	.75	235	1.45	670	1.35	595		27
28								2	590	1.55	750	.95	340	2.1	1,240	.9	310	.75	235	1.6	790	1.35	595		28
29								2.25	788	1.55	750	1.35	595	1.85	1,000	.85	285	.7	210	1.5	710	1.4	630		29
30								2.35	875	1.65	830	1.55	750	1.4	630	.85	285	.7	210	1.5	710	1.4	630		30
31								3.15	1,690	1.6	790	1.15	460	1.3	560	.85	285	.7	190	1.45	670	1.4	630		31
									1.55	750				1.25	525	.8	260			1.45	670				31
Mean								673		1,610		466		736		553		253		371		610			
Maximum								32,000		99,000		27,700		35,000		34,000		15,100		22,800		36,300			
Minimum								5,130		750		750		2,140		1,590		460		790		630			
								480		750		260		210		260		150		170		525			

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1907

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	Gage h'ght	Dis- charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1								565	1.35	495	1.65	640	1.5	520	.95	185	.6	75	1.2	310	.95	185	1.25	342	1
2							1.45	565	1.35	495	1.5	520	1.4	445	.9	165	.6	75	1.2	310	.9	165	1.25	342	2
3							1.45	565	1.4	530	1.5	520	1.5	520	.85	148	.5	60	.9	165	.9	165	1.25	342	3
4							1.45	565	1.4	530	1.4	445	1.45	482	.85	148	.9	165	.65	78	.95	185	1.3	375	4
5							1.45	565		530	1.4	445	1.3	375	.85	148	.9	165	.6	75	.95	185	1.25	342	5
6							1.45	565	1.4	530	1.35	410	1.25	342	.8	130	.95	185	.5	60	.95	185	1.25	342	6
7								565	1.45	565	2.15	1,080	1.15	282	.75	115	.9	165	.5	60	.95	185	1.3	375	7
8							1.45	565	1.4	530	3.1	2,120	1.1	255	1	205	.7	100	.55	68	.95	185	1.25	342	8
9							1.4	530	1.45	565	2.1	1,030	1.05	230	.85	148	.65	88	.7	100	.9	165	1.2	310	9
0							1.4	530	1.45	565	2.2	1,130	1	205	.75	115	.65	88	.7	100	.9	165	1.2	310	10
1							1.4	530	1.4	530	2.45	1,380	.95	185	.7	100	.65	88	.65	88	.95	185	1.25	342	11
2							1.35	495		530	2.1	1,080	1.15	282	.7	100	.65	75	.6	75	.95	185	1.3	375	12
3							1.35	495	1.4	530	1.8	760	.95	185	.7	100	.6	75		82	.95	185	1.3	375	13
4							1.35	495	1.4	530	2	940	1.3	375	.75	115	.55	68	.65	88	.95	185	1.2	310	14
5							1.35	495	1.35	495	1.65	640	2.35	1,280	.7	100	.55	68	.7	100	.9	165			15
6							1.35	495	1.3	460	1.5	520	1.6	600	.7	100	.55	68	.7	100	.9	165			16
7							1.35	495	1.3	460	1.4	445	1.65	640	.65	88	.5	60	.75	115	.95	185			17
8							1.3	460	1.3	460	1.45	482	2.25	1,180	.65	88	.5	60	.7	100	.95	185			18
9							1.35	495	1.45	565	1.6	600	1.35	410		80	.4	50	.7	100	1	205			19
0							1.35	495	1.35	495	1.4	445	1.25	342		80	.35	45	.7	100	1.2	310			20
1							1.35	495	1.2	395	1.3	375	.95	185		80	.35	45	.75	115	1.1	255			21
2							1.3	460	1.2	395	1.35	410	1.75	720	.95	185		42	.8	130	1.15	282			22
3							1.35	495	1.15	365	2.1	1,080	1.6	600	1	205	.3	40	.8	130	1.3	375			23
4							1.35	495	1.15	365	1.4	445	1.6	600	.9	165	.3	40	.85	148		375			24
5							1.3	460	1.15	365	1.45	482	1.45	482	.75	130	.3	40	.8	130	1.3	375			25
6							1.35	495	1.1	335	1.7	680	1.4	445	.8	115	.3	40	.8	130	1.3	375			26
7							1.4	530	2.65	1,600	1.4	445	1.25	342	.7	100	.55	68	.8	130	1.3	375			27
8							1.4	530	2.55	1,480	1.4	445	1.2	310	.75	115	.4	50	.8	130	1.3	375			28
9							1.4	530	2.1	1,030	1.4	445	1.1	255	.7	100		62	.85	148	1.25	342			29
0							1.4	530	1.85	805	1.65	640	1.05	230	.7	100	.6	75	.85	148	1.25	342			30
1										1.8	760		.95	185		.6	75		.85	148					31
Mean								518		590		699		435		123		77.5		122		240		345	
Run-off in acre-ft.								30,800		36,300		41,600		26,700		7,560		4,610		7,500		14,300		9,580	
Maximum								565		1,600		2,120		1,280		205		185		310		375		375	
Minimum								460		335		375		185		75		40		68		165		310	

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1908

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					1.75	720	1.35	410	.95	185	1	200	1.75	530	1.4	280	1.75	560	.75	115	1.85	805	1.7		1
2					1.65	640	1.35	410	.95	185	3.2	2,050	1.7	490	1.3	280	1.65	485	.7	100	1.7	680	1.65		2
3					1.6	600	1.25	342	.95	185	1.8	570	1.7	490	1.25	195	1.55	420	.7	100	1.7	680	1.55		3
4					1.55	560	1.25	342	1	205	1.5	345	1.8	570	1.2	170	1.45	350	100	1.6	600	1.75		4	
5					1.55	560		376	1	205	2.7	1,410	1.5	345	1.05	112	1.55	440	.7	100	1.65	640	1.65		5
6					1.55	560	1.35	410	1	205	2.05	770	1.4	280	1	95	1.25	260	.8	130	1.6	600			6
7					1.5	520	1.3	375	1	205	2.55	1,250	3.05	1,800	1.1	130	1.2	235	.7	100	1.6	600	2.75		7
8					1.5	520	1.25	342	1.05	230	1.8	570	2	730	1.15	150	1.15	205	.7	100		560	2.7		8
9					1.45	482	1.2	310	1.05	230	1.65	452	1.55	380	1.2	170	1.15	205	.7	100	1.5	520	2.7		9
10					1.4	445	1.2	310	1.05	230	2.15	852	1.4	280	1.4	280	1.15	230	1.25	342	1.5	520	2.7		10
11					1.45	482	1.2	310	1.15	288	2.5	1,200	1.85	610	2.2	895	1.1	210	1.1	255	1.5	520	2.7		11
12					1.45	482	1.2	310	1.65	640	3.6	2,440	2.05	770	2.45	1,150	1	165	1	205	1.45	482	2.85		12
13					1.45	482	1.15	288	1.25	342	3.5	2,320	2.85	1,580	1.45	312	1	165	.9	165	1.45	482			13
14					1.4	445	1.1	255	2.55	1,480		1,540	2.35	1,040	1.05	112	.95	185	.9	165	1.45	482	2.7		14
15						445	1.1	255	1.8	760	2.05	770	2.15	852	.95	80	.9	165	.9	165		482	2.55		15
16					1.4	445	1.1	255	1.3	350	3.6	2,440	2.5	852	1.85	610	.9	165	.85	148	1.45	482	2.4		16
17					1.35	410	1.15	288	1.2	290	3.9	2,810	1.45	312	1.95	690	.9	165	.85	148	1.55	560	1.85		17
18					1.35	410	1.15	288	1.2	290	6.3	6,160	1.95	690	1.3	220	.85	148		148	1.55	560	1.75		18
19					1.35	410		272	1.3	350	4.3	3,330	2.5	1,200	3.5	2,320	.85	148	.85	148	1.55	560	3.1		19
20					1.35	410	1.1	255	1.4	420	4.65	3,780	2.5	1,200	4.9	4,130		124	.9	165	1.5	520	4.05		20
21					1.35	410	1.1	255	1.25	320	3.8	2,680	2.35	1,040	2.3	990	.7	100	.9	165	1.45	482	4.9		21
22					1.35	410	1.1	255	1.15	240	2.9	1,630	2.05	770	4.4	3,460	.7	100	.9	165	1.55	560	4.8		22
23					1.35	410	1.1	255	1.1	215	3.4	2,200	3.6	2,440	3.6	2,440	.7	100	4.8	4,350	1.6	600	4.8		23
24					1.3	375	1.05	230		215	3.5	2,320	2.95	1,680	2.9	1,630	.65	88	3.55	2,660	1.55	560	4.8		24
25					1.3	375	1.05	230	1.1	215	2.45	1,150	1.85	610	2.5	1,200	.65	88		2,100	1.5	520	4.8		25
26					1.3	375	1	205	1.1	215	2.15	852	1.6	415	2.15	852	.65	88	2.6	1,540	1.5	520	4.75		26
27					1.3	375	1	205	1.1	215	2.2	895	2.5	1,200	2.2	895	.8	118	2.3	1,230	1.55	560			27
28					1.3	375	1	205	1.85	680	1.85	610	2	730	1.85	610	.85	148	2.1	1,030	1.55	560	3.95		28
29					1.3	375	.95	185	1.35	320	1.65	452	1.7	490	2.3	990	.75	115	2.05	985		600	3.9		29
30					1.3	375	.95	185	1.3	290	1.6	415	1.65	452	2.4	1,100	.75	115	1.9	850	1.65	640	3.85		30
31					1.3	375			1.2	240			1.5	345	2	730				1.85	805		3.8		31
Mean					460		287		337		1,620		812		878		203		609		546				
Run-off in acre-ft.					28,300		17,100		20,700		96,400		49,900		54,000		12,100		37,400		32,500				
Maximum					720		410		1,480		6,160		2,440		4,130		560		4,350		805				
Minimum					375		185		185		200		280		80		88		100		482				

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1909

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							2	640	1.45	360	2	805	2.1	800	1.45	348	.65	65	1.3	270	1.2	230	1.85	605	1	
2							1.95	590	1.5	385	2	805	2	720	1.25	250	2.15	845	1.3	270	2	720	1.75	535	2	
3							1.9	515	1.5	385	2	805	4.5	3,590	2.25	940	2.1	800	1.25	270	2	1,555	405	1.75	535	3
4							1.9	495	1.5	385	1.75	796	3	1,740	2	720	1.45	348	1.2	230	1.35	295	1.7	500	4	
5							1.9	480	1.5	400	1.85	670	3.15	1,900	1.65	468	1.25	250	1.15	212	1.3	270	1.8	570	5	
6							1.85	420	1.45	375	1.7	550	4.45	3,520	1.4	320	1.05	178	1.1	195	1.25	250			6	
7					2		865	1.85	400	1.45	375	2	805	3.5	2,320	1.25	250	1	160	1.1	195	1.2	230	1.8		7
8					2		865	1.85	380	1.45	375	4.3	3,480	2.95	1,680	1.2	230	.95	145	1.2	230	1.2	230	1.8		8
9					2		860	1.85	370	1.45	375	2.4	1,230	2.15	845	1.15	212	1	160	1.25	250	1.3	270			9
10					1.9		765	1.8	325	1.4	350	2.65	1,500	2.05	760	1.05	178	1	160	1.2	230	1.3	270			10
11					1.9		765	1.85	335	1.4	350	2.3	1,130	5.1	4,410	1.15	212	1	160	1.1	195	1.3	270			11
12					1.75		645	1.85	315	1.35	325	2.6	1,440	4	2,940	1.4	320	1	160	1.1	195	1.25	250			12
13					1.9		765	1.8	280	1.3	300	2.4	1,230	3.25	2,020	1.2	230	1.1	195	1.05	178	1.5	375			13
14					1.9		765	(a)	(a)	1.35	325	2.4	1,230	3.05	1,800	1.1	195	1.2	230	1.05	178	1.5	375			14
15					1.8		670	(a)	(a)	1.4	350	3.4	2,360	2.9	1,630	1.05	178	1.25	250	1.05	178	1.45	348			15
16					1.8		670	(a)	(a)	1.5	400	3.6	2,610	2.4	1,100	1	160	1.1	195	1.05	178	1.3	270			16
17					1.8		670	1.7	600	1.3	300	3.35	2,300	2.15	845	1.45	348	1	160	1	160	1.2	230			17
18					1.8		670	1.65	480	1.35	325	3.25	2,180	2	720	1.05	178	1	160	1	160	1.2	230			18
19					1.9		755	1.6	440	1.3	300	2.9	1,780	1.9	640	1.05	178	1.9	640	1	160	1.4	320			19
20					1.9		755	1.6	440	1.3	300	2.65	1,500	1.75	535	.95	145	5.85	5,480	1.05	178	1.45	348			20
21					1.9		750	1.6	440	1.25	280	2.55	1,390	1.7	500	.85	115	4.35	3,400	1.05	178	1.45	348			21
22					1.8		660	1.6	440	1.2	270	4.15	3,240	1.6	435	.85	115	3.2	1,960	1.1	195	1.5	375			22
23					1.8		660	1.65	480	1.2	270	4.95	4,300	1.5	375	.75	88	2.85	1,580	1.1	195	1.45	348			23
24					2		840	1.65	480	1.2	270	3.6	2,440	1.5	375	.7	75	2	720	1.1	195	1.45	348			24
25					1.95		795	1.65	480	1.3	320	4	2,940	1.45	348	.65	65	1.75	535	1.15	212	1.5	375			25
26					2		835	1.6	440	1.25	295	3.05	1,800	1.45	348	.65	65	1.6	435	1.1	195	1.6	435			26
27					1.95		755	1.6	440	3.75	2,740	2.65	1,360	1.4	320	1.4	320	1.5	375	1.1	195	1.7	500			27
28					2		770	1.6	440	3.2	2,066	3.1	1,850	1.4	320	1.1	195	1.45	348	1.1	195	1.85	605			28
29					2.2		930	1.6	440	2.75	1,560	2.35	1,048	1.35	295	.9	130	1.4	320	1.05	178	1.85	605			29
30					2.1		710	1.55	410	2.35	1,140	2.15	845	1.45	348	.7	75	1.35	295	1.1	195	1.85	605			30
31					2		675			2.15	945			1.95	680	.7	75			1.15	212					31
Mean					755		444		555		1,680		1,250		238		690		201		358		549			
Run-off in acre-ft.					37,400		23,800		34,100		100,000		76,900		14,600		41,100		12,400		21,300		5,440			
Maximum					930		640		2,740		4,300		4,410		940		5,480		270		720		605			
Minimum					660		280		270		550		295		65		65		160		230		500			

(a) Flood.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1910

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1					2.75	1.8	400	1.55	345	1.5	275	1.1	125	.8	60	1.8	440	1.7	380	1.2	160	1.5	195	1.5	1
2			3.2		2.95	1.8	400	1.45	295	1.45	255	1.1	125	.7	50	1.7	380	1.6	325	1.5	195	1.5	195	1.5	2
3			3.2		2.45	1.75	375	1.45	295	1.55	300	1	100	.7	50	1.6	325	1.7	380	1.3	195	1.5	195	1.5	3
4			3.15		2.35	1.75	375	1.45	295	1.55	300	1	100	1.6	325	1.6	325	1.6	325	1.3	195	1.6	195	1.6	4
5			3.15		2.65	1.7	345	1.5	345	1.55	300	1	100	1.3	195	1.6	325	1.5	325	1.3	195	1.6	195	1.6	5
6			3.05		2.85	1.7	345	1.6	400	1.45	255	1	100	1.9	510	1.5	275	1.5	275	1.3	195	1.8	195	1.8	6
7			3		2.5	1.7	345	1.6	400	1.5	275	1.1	125	1.4	235	1.6	325	1.5	275	1.3	195	1.8	195	1.8	7
8			3		2.45	1.7	345	1.55	375	2.1	660	1	100	1.5	275	1.7	380	1.4	235	1.4	235	1.8	235	1.8	8
9			2.95		2.25	1.75	375	1.55	375	1.75	410	1	100	1.2	160	1.5	275	1.4	235	1.4	235	1.6	235	1.6	9
10			2.75		2.25	1.75	375	1.6	400	1.7	380	1	100	1.2	160	1.5	275	1.3	195	1.4	235	1.7	235	1.7	10
11			2.75		2.15	640	1.7	345	1.6	400	1.6	325	.9	75	1.1	125	1.5	275	1.3	195	1.4	235	1.9	11	
12			2.7		2.2	680	1.7	345	1.65	470	1.55	300	1	100	1.2	160	1.5	275	1.3	195	1.4	235	1.9	12	
13			2.7		2.2	680	1.7	345	1.65	470	1.55	300	1	100	1.1	125	1.5	275	1.2	160	1.4	235	1.8	13	
14			2.75		2.15	640	1.7	360	1.6	440	1.45	255	1	100	1.5	275	1.4	235	1.2	160	1.4	235	1.8	14	
15			3		2.1	600	1.7	360	1.6	440	1.4	235	1	100	1.4	235	1.3	195	1.2	160	1.4	235	1.8	15	
16					2.05	570	1.7	360	1.6	440	1.4	235	1	100	1.2	160	1.3	195	1.2	160	1.4	235	1.7	16	
17			2.9		2.05	570	1.7	360	1.6	440	1.4	235	1.6	325	4.8	4,090	1.3	195	1.1	125	1.4	235	1.7	17	
18			2.9		2	540	1.7	360	1.55	429	1.3	195	1.4	235	5.2	4,830	1.2	160	1.2	160	1.4	235	1.6	18	
19			3.1		2	540	1.7	360	1.5	400	1.2	160	1.2	160	5.2	4,830	1.2	160	1.2	160	1.4	235	1.6	19	
20					2	540	1.7	360	1.5	375	1.2	160	1.1	125	5.5	5,430	1.2	160	1.2	160	1.5	275	1.6	20	
21			2.8		2	540	1.7	380	1.55	410	1.2	160	1.4	235	4	2,810	1.3	195	1.2	160	1.5	275	1.6	21	
22					1.95	500	1.7	380	1.55	410	1.1	125	1	100	3.3	1,870	1.2	160	1.2	160	1.5	275	1.7	22	
23			2.75		1.95	500	1.65	360	1.5	350	1.1	125	1.1	125	2.9	1,410	1.5	275	1.2	160	1.5	275	1.9	23	
24			2.75		1.9	460	1.65	360	1.45	325	1.1	125	1	125	2.6	1,110	4	2,810	1.1	125	1.5	275	2.4	24	
25			2.75		1.9	460	1.6	340	1.45	325	1.2	160	1	125	2.4	920	2.9	1,410	1.1	125	1.5	275	2.7	25	
26			2.7		1.9	460	1.6	340	1.4	275	1.8	440	.9	75	2.4	920	3.1	1,630	1.2	160	1.5	275	2.9	26	
27	2.5		2.7		1.9	460	1.6	340	1.95	600	1.7	380	.9	75	2.2	740	2.5	1,010	1.2	160	1.5	275	2.9	27	
28			2.7		1.85	440	1.6	360	1.8	500	1.5	275	.8	60	2	580	2.4	920	1.2	160	1.5	275	2.9	28	
29					1.85	440	1.55	345	1.6	345	1.3	195	.8	60	2.3	830	2	580	1.2	160	1.5	275	2.3	29	
30					1.8	400	1.5	325	1.6	345	1.1	125	.8	60	2.3	830	1.8	440	1.2	160	1.5	275	2.1	30	
31	3.25				1.8	400		1.55	310				.8	60	1.8	440			1.2	160			1.9	31	
Mean					527		359		388		264		116		1,120		496		201		239				
Run-off																									
in acre-ft.					22,000		21,400		23,900		15,700		7,130		68,900		29,500		12,400		14,200				
Maximum					680		400		600		660		325		5,430		2,810		380		275				
Minimum					400		325		275		125		60		50		160		125		160				

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1911

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
1	1.9	.....	2.2	.....	3.2	1,930	1.5	240	1.5	240	1.3	160	.9	55	2.6	1,130	2.2	850	1.7	510	1.2	280	1.5	.....	1
2	1.9	.....	1.9	.....	3	1,650	1.5	240	1.4	200	1.3	160	.9	55	2	550	2	700	1.3	320	1.2	280	1.5	.....	2
3	1.9	.....	1.9	.....	2	550	1.5	240	1.5	240	1.4	200	.9	55	9,65[a]	16,700	1.8	570	1.3	320	1.2	280	1.5	.....	3
4	1.9	.....	1.9	.....	2	550	1.5	240	1.5	240	1.3	160	.8	40	9.3	15,700	1.7	510	1.2	280	1.2	280	1.2	.....	4
5	1.9	.....	1.9	.....	1.9	470	1.5	240	1.6	290	1.3	160	.8	40	9,92[a]	17,400	1.7	510	1.2	280	1.2	280	1.2	.....	5
6	1.9	.....	2	550	1.9	470	1.5	240	1.6	290	1.3	160	.8	40	10(a)	17,600	1.8	570	1.2	280	1.2	280	1.3	.....	6
7	1.9	.....	2	550	1.9	470	1.5	240	1.6	290	1.3	160	.8	40	9.15	15,100	1.6	460	1.2	280	1.2	280	1.3	.....	7
8	1.9	.....	1.9	470	2	550	1.6	290	1.6	290	1.3	160	.7	25	9.45	16,200	1.5	410	1.3	320	1.2	280	1.3	.....	8
9	1.9	.....	1.7	340	2	550	1.7	340	1.6	290	1.3	160	.9	55	9.52	16,400	1.7	510	3.4	2,210	1.1	250	1.4	.....	9
10	1.9	.....	1.7	340	1.9	470	1.7	340	1.6	290	1.2	120	.9	55	8.92	14,500	2	700	2.5	1,130	1.2	280	1.4	.....	10
11	1.9	.....	1.7	340	1.9	470	1.7	340	1.6	290	1.2	120	1	70	6.95	9,200	1.7	510	2	700	1.2	280	1.5	.....	11
12	1.9	.....	1.7	340	1.8	400	1.7	340	1.6	290	1.1	90	1	70	4.7	4,300	2	700	1.8	570	1.3	320	1.4	.....	12
13	1.9	.....	1.8	400	1.8	400	1.7	340	1.6	290	1.1	90	4.2	3,400	3.8	2,790	4.5	3,900	1.7	510	1.3	320	1.4	.....	13
14	1.9	.....	1.9	470	1.8	400	1.6	290	1.7	340	1.1	90	2.7	1,260	3.4	2,210	3	1,690	1.5	410	1.3	320	1.4	.....	14
15	1.9	.....	1.9	470	1.7	340	1.6	290	1.6	290	1	70	3	1,650	4.2	3,400	2.2	1,030	1.4	360	1.3	320	1.4	.....	15
16	1.9	.....	1.9	470	1.7	340	1.6	290	1.6	290	1	70	4.6	4,100	3.3	2,070	2.2	850	1.4	360	1.3	320	1.4	.....	16
17	1.9	.....	1.9	470	1.7	340	1.5	240	1.6	290	1	70	3.7	2,640	3	1,690	2	700	1.3	320	1.3	320	1.4	.....	17
18	1.9	.....	1.9	470	1.7	340	1.5	240	2	550	1	70	2.9	1,520	2.8	1,450	1.9	630	1.3	320	1.3	320	1.3	.....	18
19	2.1	.....	1.8	400	1.7	340	1.5	240	1.9	470	1.2	120	2.4	910	3	1,690	1.9	630	1.3	320	1.3	320	1.4	.....	19
20	2.1	.....	2.2	720	1.7	340	1.5	240	1.8	400	1.1	90	2.1	630	3.7	2,640	1.9	630	1.3	320	1.3	320	1.3	.....	20
21	2.1	.....	1.9	470	1.6	290	1.5	240	1.7	340	1.9	470	2	550	3.6	2,490	1.8	570	1.3	320	1.3	320	1.3	.....	21
22	2.1	.....	2	550	1.6	290	1.5	240	1.6	290	1.8	400	1.9	470	3.5	2,350	1.7	510	1.2	280	1.3	320	1.3	.....	22
23	2.1	.....	2	550	1.6	290	1.5	240	1.6	290	1.6	290	4	3,100	3.3	2,070	1.7	510	1.2	280	1.3	320	1.4	.....	23
24	2.1	.....	1.9	470	1.6	290	1.4	200	1.5	240	1.5	240	2.8	1,390	4.2	3,400	1.7	510	1.2	280	1.4	.....	1.5	.....	24
25	2.1	.....	2	550	1.6	290	1.4	200	1.5	240	1.3	160	3	1,650	3.1	1,810	1.4	360	1.2	280	1.4	.....	1.5	.....	25
26	2.3	.....	2	550	1.6	290	1.4	200	1.4	200	1.2	120	3.5	2,350	2.7	1,340	1.4	360	1.2	280	1.4	.....	1.5	.....	26
27	2.2	.....	2	550	1.6	290	1.3	160	1.5	240	1.1	90	4	3,100	2.4	1,030	1.4	360	1.2	280	1.4	.....	1.4	.....	27
28	2.2	.....	1.6	290	1.5	240	1.4	200	1.5	240	1.1	90	2.8	1,390	2.3	940	1.3	320	1.1	250	1.5	.....	1.4	.....	28
29	2.2	.....	.....	.....	1.5	240	2	550	1.4	200	1.1	90	2.5	1,010	2.4	1,030	1.3	320	1.1	250	1.5	.....	1.4	.....	29
30	2.2	.....	.....	.....	1.5	240	1.9	470	1.4	200	1	70	2.5	1,010	2.4	1,030	1.4	360	1.1	250	1.5	.....	1.4	.....	30
31	2.2	.....	.....	.....	1.5	240	.....	.....	1.4	200	.....	.....	2.2	720	2.5	1,130	.....	.....	1.2	280	.....	.....	1.4	.....	31
Mean	.....	.....	.....	459	.....	463	.....	273	.....	285	.....	150	.....	1,080	.....	5,850	.....	708	.....	424	.....	299	.....	.....	.....
Run-off in acre-ft.	.....	.....	.....	25,500	.....	28,500	.....	16,200	.....	17,500	.....	8,930	.....	66,400	.....	360,000	.....	42,100	.....	26,100	.....	17,800	.....	.....	.....
Maximum	.....	.....	.....	720	.....	1,930	.....	550	.....	550	.....	470	.....	4,100	.....	17,600	.....	3,900	.....	2,210	.....	320	.....	.....	.....
Minimum	.....	.....	.....	290	.....	240	.....	160	.....	200	.....	70	.....	25	.....	550	.....	320	.....	250	.....	250	.....	.....	.....

NOTE—(a) Maximum reading August 6, 10.11. ¹Backwater from ice January 1 to February 1, and November 24 to December 31.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Bostwick, for 1913

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	Gage h'ght Feet	Dis-charge Sec.-ft.	
1	2.5						2.3	780	2.1	620	1.7	350	1.5	195	.8	18	.4	6	1	30	.95	26	1.55	240	1
2	2.4						2.3	780	2.1	620	1.7	350	2.3	692	.8	18	.4	6	.95	26	.95	26	1.3	150	2
3	2.4				2.5		2.2	700	3.1	1,550	1.7	350	2.5	852	.8	18	.4	6	.9	22	.95	26	1.3	150	3
4	2.3				2.6		2.2	700	2.3	780	1.7	350	2.1	529	.8	18	.4	6	.9	22	.95	26	1.3	150	4
5	2.3				2.8		2.2	700	3.45	1,940	1.8	415	1.8	328	.7	15	.4	6	.85	20	.95	26	1.3	150	5
6					2.8		2.1	620	3.3	1,770	1.7	350	1.6	218	.7	15	.4	6	.85	20	1	30	2	550	6
7					3		2.1	620	3.3	1,770	1.75	382	1.5	168	.7	15	.4	6	1.3	90	1	30	2.1	620	7
8					2.7	1.140	2.1	620	3.4	1,880	1.7	350	1.4	123	.7	15	.5	9	1.1	45	1	30	1.75	382	8
9					3.1	1,550	2.1	620	3.4	1,880	1.6	295	1.2	68	.65	14	.55	10	1.1	45	1	30	1.75	382	9
10					2.8	1,240	2.1	620	4.3	2,960	1.7	350	1.2	65	.65	14	.55	10	1.1	45	.95	26	1.85	448	10
11					2.5	960	2.2	700	3.2	1,660	1.95	515	1.2	62	.6	12	.5	9	1	30	.95	26	2	550	11
12					2.5	960	2.2	700	2.8	1,240	1.8	415	1.75	262	.6	12	.68	14	.95	26	1	30	2.05	585	12
13					2.3	780	2.3	780	2.6	1,050	1.7	350	1.5	144	.6	12	.9	22	.95	26	1	30	2	550	13
14					2.3	780	2.3	780	2.4	870	1.6	295	1.3	80	.55	10	.9	22	.9	22	1	30	1.95	515	14
15					2.3	780	2.2	700	2.3	780	1.5	240	1.2	60	.55	10	.8	18	.9	22	1	30	1.9	480	15
16					2.3	780	2.3	780	2.3	780	1.5	240	1.1	45	.5	9	.8	18	.9	22	1	30	1.9	480	16
17					2.5	960	2.3	780	2.85	1,100	1.4	195	1	30	.5	9	.75	16	.9	22	1	30	1.8	415	17
18			2.4		2.3	780	2.2	700	2.6	1,050	1.4	195	1	30	.5	9	.7	15	.9	22	1	30	1.8	415	18
19			2.2		2	550	2.2	700	2.4	870	1.4	195	.9	22	.5	9	.75	16	.9	22	1	30	1.8	415	19
20			2.3		2	550	2.2	700	2.5	960	1.4	195	1	30	.45	8	.7	15	.9	22	1	30	2		20
21			2.3		2.4	620	2.1	620	3	1,440	1.4	195	1.1	45	.5	9	.7	15	.9	22	1	30	2.3		21
22			3.3		2.2	700	2.1	620	2.25	740	1.7	344	1	30	.45	8	.6	12	.95	26	1	30	2.1		22
23			3.2		2.2	700	2.1	620	2.2	700	1.7	339	1	30	.45	8	.65	14	.95	26	1	30	2		23
24			3		2.3	780	2.2	700	2.1	620	1.7	334	1.4	120	.4	6	.95	26	.9	22	1	30	2.1		24
25			3		2.3	780	2.2	700	2.0	550	2	522	1.2	65	.45	8	1	30	.9	22	1	30	2		25
26			3		2.5	960	2.2	700	2	550	1.8	382	1.2	65	.45	8	.95	26	.9	22	1	30	2		26
27					2.3	780	2.3	780	1.9	480	1.7	317	1	30	.4	6	.9	22	.9	22	1	30	2		27
28					2.5	960	2.2	700	1.9	480	1.8	370	.9	22	.4	6	.9	22	.9	22	1	30	2		28
29					2.4	870	2.2	700	1.9	480	1.6	251	.9	22	.4	6	.9	22	1	30	1.1	35	2		29
30					2.4	870	2.2	700	1.9	480	1.6	346	.9	22	.4	6	1	30	.95	26	1.55	218	2		30
31					2.3	780			1.8	415			.8	18	.4	6		.9	22			2			31
Mean					859		697		1,070		323		144		109		15.2		27.8		36.2				
Run-off in acre-ft.					40,900		41,500		65,800		19,200		8,850		670		90.4		1,710		2,150				
Maximum					1,550		780		2,960		522		852		18		30		90		218				
Minimum					550		620		415		195		18		6		6		20		26				

REPUBLICAN RIVER AT SUPERIOR

Location. At highway bridge two miles west of Superior in Section 34, Township 1 North, Range 7 West.

Records Available. From June 20, 1896 to November 30, 1903. Since the latter date a station has been maintained at Bostwick a few miles above and the records of the two stations may be combined for most purposes.

Drainage Area. 23,400 square miles.

Gage. The original gage was a vertical staff spiked to piling about twelve feet above the dam with zero of gage the same elevation as the crest of the dam. Later an inclined staff was installed on the left bank of the river twenty-five feet above the bridge. On April 19, 1898 two other gages were installed, one a few feet above the dam with its zero at the mean elevation of the crest of the dam and the other in the mill race fifty yards below the intake.

Bench Marks. No. 1. A standard four inch iron post of the U. S. G. S., located eighty-three feet north of the up stream cylinder of north pier and ten feet west of the line of the up stream truss of the bridge. Elevation, 4.92 feet above zero of the original gage and the gage which was a few feet above the dam; 6.92 feet above the zero of the gage in the race, and 4.88 feet above the zero of the inclined staff. No. 2. Top of six inch by eight inch oak piling in direct line with crest of dam extended to the east and fourteen feet east of the west face of the east retaining wall and twenty-two feet slightly north of west of large cottonwood tree. Piling is one of a row of six and the fourth from the south one. Elevation, 9.07 feet above the zero of the original gage.

Channel. On a slight curve. The bed is of shifting sand.

Accuracy. The conditions at this station were complicated by a mill dam and race just below the gaging station and the result of the attempts to use the diversion dam as a measuring weir were complicated by the intermittent use of flash boards and by leakage through the dam. The gage heights in the mill race were found to be no index to the discharge, because the flow was entirely controlled by the mill half a mile below. Gage readings were therefore supplemented by noting the time required for a float to pass over a fifty foot range in midstream of the race. Measurements of discharge were made as before at the highway bridge above both the dam and mill race. The discharge of the mill race was also measured in order that the net amount flowing over the dam could be determined as a more stable relation between gage heights and the amount of water flowing at the dam was thereby obtained. The procedure above outlined was continued during 1898. In 1899 and subsequent years, however the gage in the mill race was not read because when the mill was not working the channel of the race silted up so that the cross section area was slightly reduced. The depth of the water was, however, noted at mid stream of the race and the ratio of such

central depth to the time in seconds simultaneously observed for a float to pass over a fifty foot range in midstream was found to bear a close relation to the discharge in the mill race. Because of so many complications the station was discontinued and another established at Bostwick about ten miles above.

Actual Discharge Measurements of Republican River, at Superior

Date	Hydrographer	Gage height	Dis-charge	Date	Hydrographer	Gage height	Dis-charge
1896		Feet	Sec.-ft.	1897		Feet	Sec.-ft.
June 20	O. V. P. Stout . . . . .	.92	700	Sept. 25	Adna Dobson . . . . .	.04	81
July 17	E. T. Youngfelt . . . . .	.78	585	Oct. 24	do	.02	184
Aug. 24	do	.89	684				
Sept. 21	do	.42	228	1898			
Oct. 25	R. A. Trail . . . . .	.45	72	April 20	Glen E. Smith . . . . .	.79	626
Dec. 23	E. T. Youngfelt . . . . .	.73	515	May 10	do	1.16	1,337
1897				May 27	do	1.05	1,030
April 12	Adna Dobson	1.12	1,257	June 17	do	1.4	1,573
24	do	.99	887	June 27	O. V. P. Stout . . . . .	.89	679
May 18	do	.45	337	July 19	Glen E. Smith . . . . .	.6	416
June 12	O. V. P. Stout . . . . .	.72	716	Aug. 6	do	.3	119
July 8	do	.87	766	Aug. 28	Adna Dobson . . . . .	.15	76
18	do	.32	222	Sept. 13	Glen E. Smith(a)	1.4	252
Aug. 6	do	.49	372	Oct. 9	Adna Dobson(a)	1.18	143
22	do	.05	195	Nov. 5	Glen E. Smith . . . . .	.5	380

(a) Water surface raised by 12 inch flash boards placed on crest of dam.

Actual Discharge Measurements of Republican River at Superior.

Date	Made by	River		Mill Race		
		Gage height	Dis-charge	Center Depth (a)	Time (b)	Discharge
1899		Feet	Sec.-ft.	Feet	Seconds	Sec.-ft.
Jan. 24	Glen E. Smith	Ice	463	.....	.....	.....
Feb. 14	do	Ice	131	.....	.....	.....
April 10	do	.98	728	2.98	52	49
May 1	do	.75	382	3	Dead	.....
13	do	.61	442	3.10	46	47
June 2	do	.51	291	2.60	44	55
16	do	.63	439	3.50	55	53
26	do	.42	204	3.40	45	59
July 6	do	.90	732	2.80	50	56
26	do	.23	135	.....	.....	.....
Aug. 11	do	.40	215	2.70	40	56
Sept. 6	do	.....	.....	2.60	45	50
29	do	.....	.....	1.20	25	25
Oct. 17	do	.....	.....	1.50	35	50
1900						
April 15	Adna Dobson	.91	989	.....	.....	.....
26	do	1.06	1,056	1.14	32	79
May 19	O. V. P. Stout	.63	457	2.60	.....	113
June 1	Adna Dobson	.54	374	3.20	50	93
21	do	.43	312	3.10	70	58
Aug. 16	O. V. P. Stout (c)	1.73	433	.....	.....	.....
Sept. 30	Adna Dobson (c)	1.21	67	.....	.....	.....
Oct. 23	do (c)	1.31	118	.....	.....	.....
1901						
April 14	O. V. P. Stout	1.57	1,189	3.7	96	21
May 29	Adna Dobson	.41	250	2.4	18	139
July 27	O. V. P. Stout	(d)	45	.....	.....	.....
Sept. 10	do	2.28	2,237	5.0	245	17
Nov. 15	Frank Dobson	.90	370	2.9	36	72
1902						
Mar. 16	Frank Dobson	.75	625	3.0	110	22
April 5	J. C. Stevens	.70	638	2.6	40	54
May 24	Frank Dobson	1.30	1,499	1.8	.....	35
July 8	J. C. Stevens	6	12,494	(e)	(e)	(e)
30	do	1.25	1,562	1.9	18	119
Aug. 12	do	.72	553	2.3	35	54
Sept. 19	do	.39	154	2.4	720	3
1903						
April 11	do	.80	950	3.7	33	87
May 19	do	1.35	2,198	3.4	14	244
June 4	do	1.76	2,896	3.6	30	85
23	do	1.05	1,008	.....	40	78
July 14	do	3.20	7,662	.....	.....	.....
Sept. 12	do	.42	364	2.8	.....	158

(a) Depth of water in mid stream at bridge.

(b) Time in seconds required for a float to pass over a fifty foot range in mid stream.

(c) Water surface raised by 12 inch flash boards placed on crest of dam.

(d) No water at gage rod.

(e) Mill race over gorged with float waters; running backward into river.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1898

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1									.69	500	1.21	1,295	.7	511	.3	210	.09		1.27	200	.47	320			1	
2									1.23	1,310	1.06	1,030	.73	540	.34	230	(a)		1.34	230	.49	330			2	
3									.85	700	1.04	1,000	.68	495	.31	215	(a)		1.21	165	.5	340			3	
4									.86	710	1.02	960	.51	345	.3	210	2		1.21	165	.54	370			4	
5									.9	765	1.04	1,000	.61	430	.3	210	(a)		1.22	170	.5	340			5	
6									1	930	1.19	1,240	.61	430	.3	210	.59		1.21	165	.59	340			6	
7									1.04	995	1.03	980	.6	420	.24	185	.53		360	1.24	185	.53	360			7
8									1.14	1,100	1.44	1,720	.6	420	.34	185	.52		305	1.28	200	.52	350			8
9									1.02	960	1.26	1,380	.72	530	.26	195	.53		360	1.31	145	.53	360			9
10									1.16	1,210	1.27	1,325	1.24	1,345	.24	185	.09		345	1.39	195	.51	345			10
11									1.03	980	1.7	2,300	1.04	1,000	.21	165	b 1.17		350	1.4	270	.52	350			11
12									.99	910	1.41	1,625	.72	530	.17	150	1.35	410	b 1.45	300	.59	410			12	
13									1.14	1,170	1.34	1,530	.74	560	.18	155	1.42		285	.43	290	.64	415			13
14									1.22	1,310	1.38	1,610	.99	910	.34	230	1.35		240	.41	280	.59	410			14
15									.93	740	1.38	1,565	.87	725	.2	100	1.34		230	.4	270	.6	420			15
16									.99	910	1.36	1,575	.74	560	.21	165	1.24		185	.49	330	.6	420			16
17									.96	870	1.4	1,600	.73	540	.21	165	1.25		190	.53		.65	470			17
18									.98	890	1.26	1,380	.67	480	.17	150	1.35		240	.43		.63	450			18
19									.95	845	1.47	1,600	.61	430	.18	160	1.3		210	.45		.63	450			19
20								.77	590	1.04	1,000	1.29	1,430	.55	380	.05		1.3	210	.43		.72			20	
21								.77	580	1.33	1,465	1.2	1,275	.51	345	.16		145	1.65	470	.44				21	
22								1.02	940	1.42	1,445	1.11	1,040	.6	420	(a)			1.59	410	.42				22	
23								1.63		1.24	1,350	1.18	1,240	.5	340	(a)			1.55	380	.54	325			23	
24								1	885	1	930	1.07	1,045	.5	340	.55			380	1.4	270	.44	295			24
25								.81	430	.98	890	.99	910	.4	270	.4			270	1.47	275	.43	290			25
26								.76	580	1.07	1,050	.88	710	.5	295	.31			215	1.35	240	.47	295			26
27								.74	560	.99	910	.89	750	.41	280	.29			205	1.32	220	.39	265			27
28								.74	560	1.05	1,015	.84	685	.4	270	.35			180	1.32	220	.49	330			28
29								.68	490	1.5	1,870	.8	630	.4	270	.28			200	1.31	215	.47	320			29
30								.71	520	1.39	1,630	.74	560	.32	220	(a)			1.29	205	.59	365			30	
31									1.13	1,170				.41	230	(a)				.49	330					31
Mean										1,053		1,235		479		195		289		264		382				
Run-off																										
n acre-ft.										64,800		73,500		29,400		12,000		17,200		16,200		22,700				
Maximum										1,870		2,300		1,340		380		470		365		470				
Minimum										500		560		220		100		185		145		320				

NOTE—(a) Water below gage. (b) Flashboards one foot high on dam—September 11 to October 12.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1899

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1						.97		737	.74	388	.45	236	1.05	906	.91	812	.12	102	(a)	27					1
2						727	.7	363	.51	274	.9	738	.95	868	.09	78	(a)	42							2
3						.95		692	.73	396	.6	346	.8	608	.82	650	.2	90	(a)	27					3
4						.94		682	1.18	995	.6	311	.8	574	.68	475	(a)	52	(a)	54					4
5						1		780	.68	383	.47	268	.79	590	.6	397	(a)	49	(a)	38					5
6						.98		753	.64	366	.45	256	.9	743	.45	320	(a)	29	(a)	37					6
7						842	.5	331	.47	268	.93	837	.52	345	(a)	34	(a)	52							7
8						.97		759	.61	394	.45	262	.89	793	.42	247	(a)	43	(a)	48					8
9						1		747	.68	417	.4	238	.63	490	.41	238	(a)	38	(a)	61					9
10						.97		728	.63	416	.4	245	.51	412	.41	245	(a)	37	(a)	61					10
11						.94		698	.63	452	.41	228	.45	355	.4	207	(a)	66	(a)	25					11
12						.89		618	.6	442	.35	213	.42	327	.41	231	(a)	56	(a)	24					12
13						.9		623	.61	452	.33	209	.52	355	.5	242	(a)	58	(a)	45					13
14						.9		607	.67	457	.7	493	.47	342	.6	350	(a)	61	(a)	37					14
15						.88		606	.63	451	.53	348	.42	302	.44	247	(a)	41	(a)	32					15
16						.74		480	.69	499	.63	428	.45	319	.39	229	(a)	49	(a)	78					16
17						.83		532	.65	453	.42	266	.45	318	.62	378	(a)	6	(a)	50					17
18						.83		529	.64	418	.41	238	.46	304	.52	306	(a)	58	(a)	68					18
19						1.13		522	.65	407	.12	158	.39	287	.42	230	(a)	45	(a)	74					19
20						.94		470	.93	735	.35	152	.4	293	.41	212	(a)	47	(a)	53					20
21						.89		.82	478	1.5	1,800	.35	162	.49	371	.27	160	1.25	16	(a)	101				21
22						.99		.73	412	1.02	873	.32	141	.42	320	.35	154	(a)	49	(a)	25				22
23						.99		.63	414	.8	587	.6	306	.35	285	.31	156	(a)	48	(a)	101				23
24						.96		.75	425	.74	517	.63	364	.2	215	.2	136	(a)	41	(a)	40				24
25						.92		.7	375	.7	465	.39	241	.26	234	.3	188	(a)	45	(a)	65				25
26						.94		.73	407	.8	544	.42	201	.26	209	.45	258	(a)	71	(a)	63				26
27						.93		.75	434	.73	436	2.6	4,036	.25	214	.72	421	(a)	60	(a)	90				27
28						.95		.75	412	.66	410	2.05	2,570	.26	238	.33	193	(a)	62	(a)	78				28
29						.92		.79	470	.65	361	1.31	1,304	1.22	1,384	.21	150	(a)	25	(a)					29
30						.91		.7	385	.63	334	1.22	1,174	.69	501	.33	187	(a)	31	(a)	54				30
31						.96			.54	292			.45	316	.2	146			(a)	81					31
Mean.						706		578		511		531		458		303		50		53					
Run-off																									
1 acre-ft.						43,400		34,400		31,400		31,600		28,200		18,600		3,000		3,300					
Maximum						956		842		1,800		4,040		1,380		868		102		101					
Minimum						601		375		292		141		209		136		6		24					

(a) Water below gage.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1900

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1						.73	703	.94	850	.73	532	.41	250	1.14	82	(a)	49	.94	90	.83	87			1	
2						.74	718	.92	812	.52	367	.39	240	1.35	158	(a)	12	.82	55	.98	90			2	
3						.65	648	.9	785	.52	408	.3	267	.25	102	(a)	10	.65	77	1.09	83			3	
4						.65	621	.89	757	.49	306	.18	133	.42	81	(a)	8	.99	44	1.23	52			4	
5						.65	618	.84	717	.49	349	.21	223	1.29	100	(a)	10	.15	60	1.1	49			5	
6						.64	630	.97	935	.48	345	.2	216	1.22	134	(a)	9	.15	53	1.12	52			6	
7						.64	628	1.13	1,073	.43	307	.09	184	.67	47	(a)	12	.01	32	1.15	36			7	
8						.67	580	2.11	2,945	.39	290	.21	132	.01	45	(a)	10	.39	45	1.11	60			8	
9						.62	565	1.61	2,066	.35	256	.09	179	.08	83	(a)	8	.44	26	1.31	80			9	
10						.64	630	1.25	1,306	.25	250	.39	294	1.50	267	(a)	10	(a)	27	1.35	90			10	
11						.64	634	1.1	1,080	.53	390	.24	225	(a)	51	1.72	463	.03	36	1.29	89			11	
12						.66	665	1.02	847	.73	605	.19	180	(a)	39	2.62	2,010		35	1.31	119			12	
13						.8	856	.92	670	.79	674	.07	139	(a)	24	1.67	450	.22	54	1.3	115			13	
14						.75	759	.9	630	.58	457	.5	73	(a)	44	1.4	244	(a)	40	1.21	87			14	
15						.91	980	.82	566	.51	390	.58	67	.21		1.3	195	.41	42	1.24	95			15	
16						1	1,120	.77	520	.65	430	.51	94	2.25	1,278	1.32	120	.25	60	1.29	162			16	
17						1.1	1,370	.74	508	.41	365	.73	102	1.52	311	1.16	120	(a)	43	1.2	92			17	
18						1.04	1,226	.66	460	.42	340	.9	77	1.4	130	1.22	140	.13	62	1.32	96			18	
19						.98	1,015	.63	438	.42	349	1.05	90	1.42	195	1.19	120	.28	38	1.22	102			19	
20						.98	970	.59	418	.41	322	1.23	164	1.24	177	1.17	105	.07	60	1.25	112			20	
21						1.2	1,396	.62	401	.43	326	1.2	142	1.23	147	1.13	72	1.37	130		50			21	
22						1.09	1,140	.82	401	.52	410	1.22	95	1.2	148	1.05	54	1.28	139		61			22	
23						1	972	.59	390	.57	450	1.14	103	1.2	137	1.21	73	1.31	148	1.2	63			23	
24						1.41	1,671	.63	419	.41	390	1.21	123	1.15	118	1.02	55	1.26	109	1.32	160			24	
25						1.01	920	.7	470	.53	439	1.14	88	1.03	71	.82	63	1.22	83					25	
26						1.06	1,035	.63	421	.53	442	1.18	137	.91	36	(a)	75	1.3	140					26	
27						1.11	1,087	.59	404	.54	461	1.09	87	.9	100	.23	31	1.15	80					27	
28						1.17	1,150	.49	370	.5	418	.72	77	.99	63	.32	37	1.25	50					28	
29						1.13	1,080	.49	365	.43	369	1.63	349	.1	50	.39	75	1.12	100					29	
30						1	895	.58	320	.38	315	1.46	210	(a)	36	.83	34	1.06	80					30	
31								.49	342			1.3	192	(a)	27			.87	89					31	
Mean							909		735			392		159		149		156		69			87		
Run-off in acre-ft.							54,100		45,200		23,300		9,800		9,200		9,300		4,200		5,200				
Maximum							1,670		2,940		674		349		1,280		2,010		148		162				
Minimum							565		320		250		67		24		8		26		36				

(a) Water below gage.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1901

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.21	650	1.21	622	.47	167	.38	154	(a)	30	(a)	15	1.15	515	1.1	527			1
2							1.21	637	1.12	560	.53	136	.51	154	(a)	15	(a)	15	1.83	1,490	1.5	1,030			2
3							1.24	668	1.11	530	.52	129	.43	140	(a)	10	(a)	15	1.5	980	.91	377			3
4							1.32	771	1.12	527	.42	144	.45	108	(a)	5	(a)	10	1	430	.9	370			4
5							1.3	774	.98	552	.4	161	.32	109	(a)	5	(a)	25	1.13	495	1	442			5
6							1.47	956	1.12	555	.4	190	.32	124	(a)	5	2.12	2,032	1	375	.84	336			6
7							1.46	900	1.09	516	.42	124	.35	89	(a)	5	1.91	1,657	1	435	.82	324			7
8							1.43	903	1.05	490	.47	133	.31	80	(a)	5	2.02	1,826	1.08	507	1	442			8
9							1.47	951	.85	469	.5	147	(a)	36	(a)	5	2.41	2,575	1.1	525	.85	341			9
10							1.48	974	.81	416	.45	148	(a)	31	(a)	5	2.25	2,237	.93	384	.8	312			10
11							1.5	1,019	.91	393	.4	135	(a)	30	1.42	856	3.1	4,123	.93	384	.93	391			11
12							1.52	1,060	.99	363	.39	138	(a)	30	1.38	812	3.45	4,941	.93	384	.9	370			12
13							1.52	1,045	.85	347	.39	143	(a)	20	.3	114	2.75	3,247	.95	398	.98	427			13
14							1.57	1,189	.9	325	.49	157	(a)	10	.3	112	2.1	1,957	.9	363	.98	427			14
15							1.73	1,347	.88	331	.82	301	(a)	7	(a)	28	2.58	2,827	.92	377	.9	370			15
16							1.79	1,507	.9	364	.25	153	(a)	5	(a)	22	2.19	2,115	.9	363	.88	358			16
17							1.71	1,416	.72	390	.36	117	(a)	5	(a)	18	2.01	1,784	.93	384	.8	312			17
18							1.65	1,349	.75	395	.5	170	(a)	5	(a)	16	1.08	462	.9	363	.97	419			18
19							1.68	1,284	1.01	379	.69	184	(a)	5	(a)	10	1.07	453	.92	377	.93	391			19
20							1.69	1,296	.7	267	.75	215	(a)	5	(a)	8	1.07	453	.8	305	.94	398			20
21							1.61	1,155	.82	302	1.09	465	(a)	5	(a)	5	1.05	433	.88	351	1	442			21
22							1.51	1,025	.61	272	1	370	(a)	5	(a)	5	1.05	415	.9	363	.93	391			22
23							1.42	885	.82	265	1.05	415	(a)	5	(a)	5	1.04	406	.78	295	1	442			23
24							1.35	870	.65	239	1.12	480	(a)	5	(a)	5	1.03	397	.88	351	.8	312			24
25							1.31	741	.65	206	.97	347	(a)	5	(a)	10	1.02	408	.9	363	1	442			25
26							1.28	726	.69	206	.88	336	(a)	5	(a)	10	1.02	388	.78	295	1	442			26
27							1.31	756	.62	216	.78	295	(a)	5	(a)	10	1.02	388	.76	285	.98	427			27
28							1.3	680	.45	218	.73	265	(a)	5	(a)	10	1.01	379	.8	305	1.03	469			28
29							1.27	644	.41	250	.69	225	(a)	5	(a)	10	1.4	815	.9	363	.98	427			29
30							1.25	655	.59	146	.65	181	(a)	5	(a)	10	1.2	565	1.1	525	.95	406			30
31									.59	159			(a)	119	(a)	20			.98	420					31
Mean							961		364		219		44		70		1,246		443		419				
Run-off in acre-ft.							57,100		22,400		13,000		2,600		4,300		74,100		27,200		24,900				
Maximum							1,510		622		480		154		856		4,990		1,490		1,030				
Minimum							637		146		117		5		5		10		285		312				

(a) Water below gage.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1902

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day	
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge		
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.		
1							.8	730	.56	400	1.1	1,095	1.98	3,430	1.42	1,920	.7	680	1	890	.6	635			1	
2							.8	710	.5	335	1	960	2.32	4,525	1.2	1,500	.68	520	.98	865	.6	610			2	
3							.71	600	.7	555	1.05	1,030	2.05	3,690	1.05	1,200	.65	570	1.05	1,050	.59	635			3	
4							.73	665	.46	470	1.32	1,530	1.3	1,845	1.18	1,490	.61	560	1.19	1,370	.55	620			4	
5							.7	620	.49	525	.95	880	2.4	4,960	.95	1,050	.6	400	1.35	1,775	.56	620			5	
6							.7	590	.53	445	1.95	3,235	(b)		.92	790	.58	440	1	1,050	.63	635			6	
7							.62	500	.9	775	1.9	3,125	(b)		.9	785	.52	370	.98	1,050	.6	660			7	
8							.56	570	1.02	950	1.92	3,225	(b)	12,490	.82	650	.53	315	.9	890	.61	660			8	
9							.9	760	.55	590	1.15	1,220	1.48	2,230	(b)	.8	645	.45	270	.89	890	.62	635			9
10							.85	740	.58	620	.85	730	1.3	1,800	3.5	10,460	.7	690	.42	225	.82	845	.7	710	10	
11							.8	670	.68	595	.75	570	1.42	2,000	2.55	5,380	.81	790	.48	260	.88	940	.71	660	11	
12							.8	680	.78	740	.69	510	1	1,180	1.88	3,000	.7	620	.4	240	1.05	1,205	.73	460	12	
13							.8	630	.68	570	.86	690	.95	1,110	1.92	3,000	.62	480	.32	320	1.45	1,995	.74	720	13	
14							.83	690	.6	555	.8	660	.88	835	1.72	2,515	.8	690	.31	170	1	1,125	.78	530	14	
15							.75	670	.6	510	.78	675	1.05	1,160	1.42	1,750	.78	670	.4	185	.85	830	.71	560	15	
16							.75	650	.62	500	.7	530	.82	690	1.3	1,520	.65	600	.41	165	.82	770	.78	570	16	
17							.7	530	.68	580	.7	525	.7	760	1.15	1,260	.6	485	.32	155	.99	1,050	.74	510	17	
18							.85	690	.65	520	.75	630	.85	860	1.68	2,515	.55	480	.48	255	.9	890	.79	570	18	
19							.8	680	.62	485	1.85	2,810	1.38	1,920	1.8	2,865	.52	385	.34	190	.91	915	.75	510	19	
20							.64	505	.7	570	1.69	2,500	1.2	1,530	1.1	1,265	.51	345	.35	240	.83	830	.74	520	20	
21							.6	455	.65	510	1.53	2,120	1.2	1,550	1.05	1,315	.5	335	.4	225	.78	820	.71	500	21	
22							.75	570	.63	530	1.42	1,750	1.08	1,315	1	1,235	.52	335	1.85	2,760	.7	735	.71	535	22	
23							.78	630	.67	510	1.2	1,290	.95	1,090	.92	1,065	.68	520	3.6	10,875	.71	916	.67	685	23	
24							.75	620	.65	570	1.3	1,600	.9	990	1.02	970	.5	435	2.32	4,380	.72	910	.8	970	24	
25							.68	550	.62	485	1.56	2,095	.82	830	1.08	1,125	.5	330	1.86	2,780	.7	860	.8	970	25	
26							.8	655	.58	545	1.95	3,115	.76	755	(b)		.5	345	1.78	2,705	.73	760	.7	620	26	
27							.81	670	.6	460	1.95	3,105	.68	690	3.25	9,060	.6	450	1.35	1,700	.75	650	.9	690	27	
28							.97	920	.56	445	1.65	2,365	.65	645	3	7,665	.58	435	1.1	1,310	.75	590	.7	460	28	
29							.52	330	.56	445	1.75	2,540	.78	820	1.6	2,380	.59	440	1.05	1,030	.72	530	.8	570	29	
30							.83	715	.52	390	1.25	1,420	1.1	320	1.2	1,490	.67	540	1.02	970	.71	520			30	
31							.81	830			1.2	1,425			1.7	2,670	.62	455			.72	530			31	
Mean							675		555		1,269		1,372		3,080		674		1,175		937		622			
Run-off in acre-ft.							29,400		33,000		78,000		81,600		189,400		41,400		70,000		57,600		37,000			
Maximum							920		740		2,810		3,240		12,490		1,920		10,880		1,990		970			
Minimum							330		390		335		320		970		330		155		520		460			

(b) Flood—water over top of gage.

Daily Gage Height (in feet) and Discharge (in second-feet) of Republican River, at Superior, for 1903

Day	January		February		March		April		May		June		July		August		September		October		November		December		Day
	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	Gage h'ght	Dis-charge	
	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	Feet	Sec.-ft.	
1							1.18	1,260	.8	845	2.6	6,455	1.05	910	2.1	3,285	.9	700	.39	305	.7	460			1
2							1.12	1,095	.86	935	2.1	4,340	.96	760	2.08	3,245	.75	520	.38	305	.79	690			2
3							1.11	1,085	.96	1,055	1.89	3,610	.92	700	1.7	2,165	.61	400	.38	325	.62	520			3
4							1.11	1,065	.8	845	1.76	2,115	.88	785	1.88	2,695	.65	470	.19	265	.69	525			4
5							1	1,055	.95	1,095	1.58	2,690	.8	660	1.28	1,270	.62	420	.4	295	.6	435			5
6							1.03	1,035	.99	1,150	1.45	2,290	.79	630	1.1	885	.56	410	.42	295	.6	450			6
7							1.01	935	1.09	1,470	1.33	2,055	1.55	1,900	1.03	825	.52	345	.4	285	.62	450			7
8							1	950	2.02	3,905	1.44	2,310	1.3	1,860	.95	690	.5	475	.34	245	.7	460			8
9							.97	1,010	2.08	4,530	1.41	2,205	1.13	1,075	.85	565	.48	525	.4	285	.61	425			9
10							.95	1,015	2.59	6,580	1.2	1,600	.99	755	.83	570	.49	455	.35	260	.57	385			10
11							.8	785	3.2	9,515	1.19	1,595	1.8	2,400	.78	525	.46	410	.45	250	.64	480			11
12							.86	825	2.75	7,095	1.21	1,640	2.41	4,295	.89	630	.42	365	.46	320	.62	440			12
13							.81	765	2.6	6,400	1.13	1,560	2.76	5,960	1.12	915	.4	320	.5	355	.12	140			13
14					3.1	7,750	.8	765	2.32	5,050	1.03	1,350	3.18	7,825	1.84	2,630	.39	480	.51	350	.02	130			14
15					2.81	6,345	.9	930	2.08	4,255	1.07	1,365	2.9	6,455	1.2	1,175	.38	405	.5	355	.02	135			15
16					2.21	3,895	.88	935	1.99	3,895	1.04	1,260	2.78	6,040	1.1	1,005	.4	355	.47	340	.5	505			16
17					2.08	3,555	.92	895	1.68	3,010	1	1,065	1.76	2,285	.92	730	.4	315	.49	355	.02	145			17
18					1.98	3,240	.9	910	1.42	2,325	.99	1,075	1.42	1,455	.89	695	.4	405	.55	320	.42	220			18
19					1.95	3,085	.75	870	1.41	2,155	.96	1,000	2.1	3,255	1.02	840	.38	445	.49	355	.4	295			19
20					1.88	2,940	.83	705	1.33	2,040	.91	915	1.75	2,280	1.02	835	.43	335	.5	350	.4	315			20
21					1.6	2,140	.85	835	1.2	1,690	.96	970	1.47	1,575	1.09	995	.41	315	.5	350	.46	335			21
22					1.59	2,150	.87	915	1.54	2,545	.94	835	1.3	1,260	1.05	920	.36	405	.51	345	.6	415			22
23					1.42	1,700	.8	840	1.41	2,165	1.09	1,075	1.11	910	.81	590	.4	335	.49	365	.72	535			23
24					1.44	1,770	.78	845	1.3	1,890	1.08	1,065	1	770	.82	565	.42	300	.5	355	.62	435			24
25					1.35	1,555	.83	900	3.48	11,320	1.16	1,170	.91	670	.75	520	.36	305	.53	320	.6	435			25
26					1.3	1,455	.81	765	2.8	7,305	1.29	1,465	.88	740	.73	520	.31	320	.5	365	.63	480			26
27					1.29	1,470	.72	710	2.32	5,160	1.76	2,545	.87	640	.78	570	.47	275	.5	355	.7	540			27
28					1.28	1,475	.76	785	1.96	3,765	1.58	2,165	.8	520	1.42	1,580	.37	270	.51	350	.8	645			28
29					1.18	1,380	.88	1,025	3.88	14,100	1.41	1,690	.8	520	1.9	2,840	.38	310	.5	345	.79	570			29
30					1.2	1,295	.92	1,015	3.76	13,190	1.19	1,260	.78	525	1.46	1,680	.4	315	.53	390	.75	510			30
31					1.21	1,260			2.88	7,950			.76	465	1.2	1,175		.52	355						31
Mean					2,692			918	4,491		1,921		1,948	1,230		389		326		417					
Run-off in acre-ft.					96,100			54,600	276,100		114,300		119,800	75,600		23,100		20,000		24,800					
Maximum					7,750			1,260	14,100		6,460		7,820	3,280		700		390		690					
Minimum					1,260			705	845		835		465	520		270		245		130					

MISCELLANEOUS STREAM MEASUREMENTS

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Artesian Well No. 1.....	Sec. 12-6-41.....	D. P. Weeks, Jr.....	Sept. 12, 1913	.11	These measurements were made with small trapezoidal weir—checked by timing flow into bucket
Artesian Well No. 2.....	Sec. 12-6-41.....	D. P. Weeks, Jr.....	Sept. 12, 1913	.15	
Artesian Well No. 3.....	Below sec. 12-6-41.....	D. P. Weeks, Jr.....	Sept. 12, 1913	.11	
Ash Creek, E. Branch.....	Half mile above mouth.....	E. T. Youngfelt.....	June 25, 1896	1.09	Tributary White River
Ash Creek, E. Branch.....	Head of Tomlin Ditch, 30-32-50.....	C. B. Channel.....	May 15, 1899	3.35	Tributary White River
Ash Creek, E. Branch.....	Head of Sheldon Ditch, 33-32-50.....	A. B. McCoskey.....	Aug. 18, 1899	.33	Tributary White River
Ash Creek, E. Branch.....	Quarter mile above fork.....	T. J. O'Keefe.....	June 22, 1900	.25	Tributary White River
Ash Creek, E. Branch.....	Head Tomlin Ditch, 31-32-50.....	A. B. McCoskey.....	July 17, 1900	.38	Tributary White River
Ash Creek, E. Branch.....	Quarter mile above fork.....	T. J. O'Keefe.....	Aug. 20, 1900	Dry	Tributary White River
Ash Creek, W. Branch.....	N. line Sec. 25-32-51.....	E. T. Youngfelt.....	June 25, 1896	1.73	Tributary White River
Ash Creek, W. Branch.....	Woodward's, 25-32-51.....	C. B. Channel.....	May 15, 1899	.19	Tributary White River
Ash Creek, W. Branch.....	Head of Mace Ditch, 2-32-51.....	A. B. McCoskey.....	Aug. 18, 1896	.96	Tributary White River
Ash Creek, W. Branch.....	Quarter mile above fork.....	T. J. O'Keefe.....	June 22, 1900	.14	Tributary White River
Ash Creek, W. Branch.....	Above Broadhurst Ditch, 35-32-51.....	A. B. McCoskey.....	July 17, 1900	.97	Tributary White River
Ash Creek.....	Sec. 12-32-51.....	A. B. McCoskey.....	Sept. 21, 1898	.51	Tributary White River
Ash Creek.....	At Cripps, 13-32-51.....	C. B. Channel.....	May 15, 1899	.5	Tributary White River
Ash Creek.....	At mouth.....	C. B. Channel.....	May 15, 1899	.76	
Ash Creek.....	Sec. 12-32-51.....	G. W. Bates.....	June 10, 1908	15	Flood
Ash Creek.....	Sec. 12-32-51.....	G. W. Bates.....	June 14, 1908	47.8	Tributary White River
Ash Creek.....	Above Spraggs' Dam, 10-31-17.....	C. B. Channel.....	June 20, 1898	2.19	
Antelope Creek.....	Sec. 12-32-40.....	A. B. McCoskey.....	June 2, 1898	3.1	Tributary Niobrara River
Baker Creek.....	N. line Sec. 19-31-13.....	C. B. Channel.....	June 19, 1899	.35	Tributary Niobrara River

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MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Bazile Creek	Niobrara	G. W. Bates	May 16, 1908	97	Tributary Niobrara River
Bazile Creek	Creighton	Arthur Dobson	Sept. 10, 1908	6.3	Tributary Niobrara River
Beaver Creek	Genoa	O. V. P. Stout	Sept. 7, 1894	71	Tributary Loup River
Beaver Creek	Genoa	W. J. McEathron	Aug. 14, 1896	112.2	Tributary Loup River
Beaver Creek	Genoa	O. V. P. Stout	June 21, 1898	149.7	Tributary Loup River
Beaver Creek	Genoa	O. V. P. Stout	Aug. 8, 1900	50.18	Tributary Loup River
Beaver Creek	Genoa	O. V. P. Stout	July 12, 1901	74.7	Tributary Loup River
Beaver Creek	Genoa	O. V. P. Stout	July 30, 1901	85.5	Tributary Loup River
Beaver Creek	Albion	O. V. P. Stout	July 21, 1896	47.4	Tributary Loup River
Beaver Creek	Albion	Glen E. Smith	April 23, 1898	88.6	Tributary Loup River
Beaver Creek	Albion	B. E. Forbes	Dec. 3, 1901	92.3	Tributary Loup River
Beaver Creek	Below Diversion, Gt. E. Can	O. V. P. Stout	Aug. 8, 1900	7.21	Tributary Loup River
Beaver Creek	Sec. 20-34-46	C. B. Channel	May 22, 1899	8.97	Tributary White River
Beaver Creek	Sec. 4-33-46	G. W. Bates	July 3, 1908	1.65	Tributary White River
Beaver Creek	Sec. 34-35-47	G. W. Bates	July 8, 1908	1.46	Tributary White River
Beaver or Mud	Ravenna	J. C. Stevens	Mar. 11, 1903	984	
Beaver in Holt	Sec. 19-32-16	G. W. Bates	April 27, 1905	20	About twice normal
Birdwood Creek		U. S. Geol. Surv.		126	Tributary North Platte River
Birdwood Creek	Below Bratt's Ditch	O. V. P. Stout	Sept. 9, 1896	133	Bratt's D. diverting
Birdwood Creek	Above Beauchamp's Ditch, 15-15-33	C. B. Channel	May 7, 1898	123.32	
Birdwood Creek	One mile above mouth	H. H. Pickens	May 25, 1899	183.47	
Birdwood Creek	Sec. 35-15-33	H. O. Smith	Aug. 29, 1901	183	
Birdwood Creek	Sec. 15-15-33	H. O. Smith	Oct. 30, 1901	170.4	
Birdwood Creek	Below E. Birdwood Ditch	H. O. Smith	Sept. 23, 1903	147.93	
Birdwood Creek	E. Birdwood Ditch	H. O. Smith	Sept. 23, 1903	14.46	
Blue Creek		U. S. Geol. Surv.		105	Tributary North Platte River

Blue Creek	N. E. $\frac{1}{4}$ of Sec. 30-16-42	Adna Dobson	Mar. 28, 1897	115	
Blue Creek	Sec. 33-17-42	A. B. McCoskey	Aug. 31, 1898	80.6	
Blue Creek	S. line Sec. 18-27-42	H. H. Pickens	May 22, 1899	90.12	
Blue Creek	Above Graff Dam, 19-16-42	E. D. Johnson	July 26, 1900	27.39	
Blue Creek	Sec. 6-16-42	H. O. Smith	July 17, 1902	90	
Blue Creek	Sec. 19-16-42	H. O. Smith	Aug. 18, 1902	50	
Blue Creek	S. line Sec. 18-16-42	H. O. Smith	Aug. 31, 1904	26.25	
Blue Creek	Second bridge from mouth	R. H. Willis	Aug. 14, 1910	23.1	
Blue Creek	Near mouth	R. H. Willis	Sept. 3, 1910	57.36	
Blue River	Crete	O. V. P. Stout	July 2, 1898	126.6	Below Mill
Blue River	Crete	J. C. Stevens	April 18, 1902	143	
Blue River	Crete	J. C. Stevens	April 18, 1902	132	
Blue River	Crete	Arthur Dobson	Sept. 17, 1908	300	In Mill Race
Blue River	Wilber	O. V. P. Stout	June 7, 1900	189.8	
Blue River	Wilber	Arthur Dobson	Sept. 16, 1908	288	
Blue River	Seward	O. V. P. Stout	July 1, 1898	42.7	Below Dam, Mill not running
Blue River	Seward	J. C. Stevens	April 5, 1902	50	
Blue River	DeWitt	O. V. P. Stout	July 2, 1898	202	1000 feet below Mill
Blue River	DeWitt	O. V. P. Stout	June 7, 1900	235	
Blue River	Blue Springs	O. V. P. Stout	June 7, 1900	250	
Blue River	Milford	O. V. P. Stout	July 1, 1898	53.4	Below Mill
Blue River	Wymore	O. V. P. Stout	July 12, 1901	235	
Blue River	Wymore	J. C. Stevens	June 4, 1904	664	
Blue River	Wymore	J. C. Stevens	June 28, 1904	453	
Blue River	Oak	Jas. A. Green	July 14, 1904	517.1	
Blue River, West Fork	Sec. 31, 32—9 N., 3 E.	D. D. Price	Nov. 29, 1912	118.3	
Blue River, Little	Ayr, Nebr.	O. V. P. Stout	Aug. 23, 1900	1.71	
Blue River, Little	W. line Sec. 18-5-10	O. V. P. Stout	Aug. 23, 1900	1.58	
Boardman Creek	Two miles above mouth		July 24, 1897	Est. 1	
Boardman Creek	Sec. 6-29-33	A. B. McCoskey	May 20, 1898	Est. 40	
Boardman Creek	Beckley's, 13-30-31	C. B. Channel	June 3, 1898	16.4	
Boardman Creek	Secs. 1 and 2-30-31	J. C. Stevens	Aug. 16, 1904	7.3	

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Boggy Creek	Line between Secs. 17 and 18-32-54.	A. B. McCoskey	July 8, 1897	.15	Tributary Hat Creek
Boggy Creek	N. line Sec. 31-33-54	A. B. McCoskey	July 8, 1897	.35	
Boggy Creek	N. line Sec. 31-33-54	A. B. McCoskey	May 24, 1899	.05	
Bone Creek	Ainsworth	C. B. Channel	June 12, 1898	3.72	
Bone Creek	At Strenger's, 16-31-21	C. B. Channel	June 17, 1899	12.46	
Bordeaux Creek, Big	Sec. 25-33-48	A. B. McCoskey	Sept. 22, 1898	1.9	Docket No. 494 using 0.08
Bordeaux Creek, Big	Sec. 23-33-48	G. W. Bates	June 25, 1908	5.97	
Bordeaux Creek, Big	Sec. 11-32-48	G. W. Bates	June 30, 1908	.19	
Bordeaux Creek, Big	Sec. 21-34-48	G. W. Bates	July 17, 1908	6.77	
Bordeaux Creek, Little	Sec. 29-33-47	G. W. Bates	June 26, 1908	2.17	
Brown's Creek	Rating Flume	R. H. Willis	June 25, 1913	87.89	
Brown's Creek	Rating Flume	R. H. Willis	Aug. 8, 1913	49.01	
Brush Creek	Sec. 23-33-13	P. T. Francis	Aug. 14, 1902	25	
Brush Creek	Sec. 26-32-14	G. W. Bates	April 27, 1905	10.1	
Buck Creek	Sec. 14-31-41	A. B. McCoskey	Sept. 1, 1898	Est. 4	
Burton Creek	At mouth, T. 35, R. 19	C. B. Channel	Sept. 17, 1898	5.57	
Buffalo Creek	Sec. 7-1-40	C. B. Channel	Nov. 22, 1900	9.9	
Buffalo Creek	Sec. 33-9-18	H. O. Smith	July 5, 1902	6.4	
Buffalo Creek	Sec. 30-10-20	H. O. Smith	July 5, 1902	2	
Buckhorn Slough	N. W. $\frac{1}{4}$ Sec. 8-14-36	H. O. Smith	Oct. 2, 1908	2	

Calamus River	Burwell	O. V. P. Stout	July 10, 1896	368	
Calamus River	Burwell	Glen E. Smith	May 17, 1899	372	
Calamus River	Burwell	B. E. Forbes	Mar. 25, 1902	407	
Calamus River	Sec. 8-24-19	C. B. Channel	Sept. 20, 1899	152	
Cedar River	Fullerton	O. V. P. Stout	Sept. 15, 1894	210.6	
Cedar River	Fullerton	O. V. P. Stout	July 11, 1896	338	
Cedar River	Fullerton	O. V. P. Stout	July 21, 1898	277	
Cedar River	Fullerton	Adna Dobson	Nov. 21, 1901	291	
Cedar River	Fullerton	G. W. Bates	April 12, 1905	372	
Cedar River	Cedar Rapids	O. V. P. Stout	July 21, 1896	212	
Cedar River	Ericson	W. J. McEathron	Mar. 16, 1895	152	
Cedar River	Ericson	W. J. McEathron	June 1, 1895	214	
Cedar River	Ericson	W. J. McEathron	Aug. . ., 1895	112.1	
Cedar River	Ericson, above Dam	Glen E. Smith	May 17, 1899	107.4	
Cedar River	Ericson, below Dam	Glen E. Smith		113	
Cedar River, Branch	At mouth, near Ericson	Adna Dobson	May 17, 1899	5	
Cedar Creek	At Bruce's Mill, 33-34-25	C. B. Channel	July 9, 1909	7.41	
Cedar Creek	Sec. 18-14-36	H. O. Smith	June 17, 1903	1.66	
Chadron Creek	Above Chadron W. W., 18-32-48	A. B. McCoskey	Sept. 14, 1897	1.59	
Chadron Creek	Above Chadron W. W., 18-32-48	C. B. Channel	May 17, 1899	2.24	
Chadron Creek	Below Chadron W. W., 18-32-48	A. B. McCoskey	Sept. 14, 1897	.96	
Chadron Creek	Below Chadron W. W., 18-32-48	C. B. Channel	May 17, 1899	2.15	
Chadron Creek	Sec. 36-33-49	A. B. McCoskey	Sept. 23, 1898	1.23	
Chadron Creek	Sec. 36-33-49	C. B. Channel	May 17, 1899	8.71	
Chadron Creek	Sec. 12-32-49	G. W. Bates	June 19, 1908	3.79	
Chimney Creek	Sec. 6-32-22	G. W. Bates	May 7, 1905	.78	
Clear Creek	Sec. 29-16-41	Adna Dobson	Nov. 23, 1896	12.8	Keith County
Clear Creek	700 yards below Barber & Marsh Headgate, 32-16-41	H. H. Pickens	May 19, 1899	7.84	Keith County
Clear Creek	Sec. 29-16-41	H. O. Smith	Aug. 8, 1901	10.07	Lincoln County
Clear Creek	Sec. 5-14-34	C. B. Channel	Dec. 16, 1899	3.4	Lincoln County

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

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STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Cottonwood Creek, Big.....	Six miles west of Whitney.....	E. T. Youngfelt.....	June 25, 1896	.2	Tributary White River
Cottonwood Creek, Big.....	Sec. 21-25-22.....	C. B. Channel.....	June 12, 1899	1.2	Tributary White River
Cottonwood Creek, Little...	Sec. 7-32-51.....	E. T. Youngfelt.....	June 25, 1896	.1	Tributary White River
Cottonwood Creek, Little...	W. line Twp. 31, R. 51.....	C. B. Channel.....	May 15, 1899	.29	Tributary White River
Cottonwood Creek, Little...	Below mouth of Spring Creek.....	C. B. Channel.....	May 19, 1898	.78	Tributary White River
Coon Creek.....	Above Winterer's D., 34-15-37.....	C. B. Channel.....	May 25, 1898	2.93	
Cold Water Creek.....	Sec. 26-18-46.....	C. B. Channel.....	June 18, 1898	.76	
Crooked Creek.....	Head Mutz D., S. W. $\frac{1}{4}$, 20-35-19.....	C. B. Channel.....	June 13, 1899	1.23	
Crooked Creek.....	At Mutz, 19-34-19.....	C. B. Channel.....	May 16, 1899	.35	
Crooked Creek.....	Sec. 1-1-11.....	B. E. Forbes.....	July 2, 1902	175	Flood
Cook Creek.....	Sec. 2-2-18.....	H. O. Smith.....	Sept. 24, 1901	.9	
Cook Creek.....	Alma.....	C. B. Channel.....	1909	.4	
Center Creek.....	Sec. 36-2-15.....	G. W. Bates.....	June 10, 1902	7.6	
Center Creek.....	Sec. 1-1-15.....	G. W. Bates.....	June 10, 1902	7.7	
Dead Horse Creek.....	Sec. 31-33-50.....	A. B. McCoskey.....	Sept. 21, 1898	Est. 3.3	
Dead Horse Creek.....	Sec. 7-32-49.....	A. B. McCoskey.....	Sept. 23, 1898	Est. .6	
Dead Horse Creek.....	N. line Sec. 31-33-49.....	G. W. Bates.....	May 17, 1899	3.46	
Dead Horse Creek.....	At Slatery's D., Sec. 32-33-49.....	G. W. Bates.....	May 17, 1899	3.98	
Dead Horse Creek.....	Sec. 32-32-49.....	C. B. Channel.....	June 15, 1909	2.7	
Dead Man's Slough.....	S. W. $\frac{1}{4}$ Sec. 6-14-36.....	H. O. Smith.....	Oct. 2, 1908	1	
Deer Creek.....	Sec. 22-30-43.....	A. B. McCoskey.....	June 1, 1898	12	

Deer Creek	S. W. $\frac{1}{4}$ Sec. 5-40-43	J. C. Stevens	Aug. 23, 1904	7.3
Dismal River	Dunning	O. V. P. Stout	Aug. 23, 1895	293.6
Dismal River	Dunning	G. H. Lawrence	Aug. 22, 1894	435
Dismal River	Dunning	Glen E. Smith	April 28, 1898	368.7
Dismal River	Dunning	Glen E. Smith	Nov. 1, 1898	351
Dismal River	Dunning	A. B. McCoskey	April 21, 1899	334.48
Dismal River	Dunning	R. D. Hubbard	Sept. 15, 1904	394.7
Deadman Creek	Head Phillips D., 19-30-52	T. J. O'Keefe	Oct. 2, 1900	1.8
Deadman Creek	Head P. & R. D., 1-30-53	T. J. O'Keefe	Oct. 2, 1909	1.1
Driftwood Creek	Sec. 1-2-30	D. P. Weeks, Jr.	May 21, 1914	.9
Eagle Creek	Sec. 9-30-13	Geo. W. Bates	April 25, 1905	25.2
Eagle Creek	Sec. 1-32-11	Geo. W. Bates	May 16, 1908	64.3
Eagle Creek, North Fork	Sec. 26-31-13	Geo. W. Bates	April 26, 1905	8.1
Elkhorn River	Atkinson	Adna Dobson	Oct. 2, 1896	11.1
Elkhorn River	Atkinson	A. B. McCoskey	May 24, 1898	110.5
Elkhorn River	Ewing	O. V. P. Stout	Sept. 3, 1897	9.77
Elkhorn River	Ewing	C. B. Channel	Aug. 18, 1898	53.52
Elkhorn River	O'Neill	O. V. P. Stout	June 23, 1897	20.63
Elkhorn River	O'Neill	Glen E. Smith	June 10, 1898	288
Elkhorn River	O'Neill	C. B. Channel	Aug. 17, 1898	31.3
Elkhorn River, N. Fork	Norfolk	O. V. P. Stout	July 16, 1896	70
Elkhorn River, N. Fork	Norfolk	Adna Dobson	Mar. 24, 1897	701
Elkhorn River, N. Fork	Norfolk	Adna Dobson	May 6, 1897	166
Elkhorn River, N. Fork	Norfolk	Adna Dobson	May 24, 1897	77
Elkhorn River, N. Fork	Norfolk	O. V. P. Stout	July 30, 1897	69.8
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	June 20, 1898	162
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	April 27, 1899	122
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	May 25, 1899	414
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	Feb. 20, 1899	119
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	Aug. 17, 1899	81.3

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Elkhorn River, N. Fork	Norfolk	Glen E. Smith	Sept. 25, 1899	85.2	
Elkhorn River, N. Fork	Norfolk Junction Bridge	O. V. P. Stout	May 27, 1900	75.9	
Elkhorn River, N. Fork	Norfolk	O. V. P. Stout	Aug. 3, 1900	89	
Elkhorn River, N. Fork	Norfolk	C. B. Channel	May 31, 1901	550	
Elkhorn River, N. Fork	Norfolk	O. V. P. Stout	July 31, 1901	150	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	Mar. 21, 1902	118	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	April 13, 1902	150	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	May 12, 1902	116	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	June 16, 1902	137	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	July 26, 1902	168	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	Aug. 22, 1902	170	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	Sept. 29, 1902	242	
Elkhorn River, N. Fork	Norfolk Junction Bridge	J. C. Stevens	Nov. 14, 1902	118	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	May 24, 1903	386	
Elkhorn River, N. Fork	Norfolk	J. C. Stevens	May 25, 1903	498	
Elkhorn River, N. Fork	Norfolk	G. W. Bates	April 27, 1906	523	
Elkhorn River, N. Fork	Norfolk	Arthur Dobson	Sept. 11, 1908	85	
Elkhorn River, N. Fork	Pierce	Arthur Dobson	Sept. 11, 1908	46.5	
Elkhorn River, S. Branch	Pierce	O. V. P. Stout	Sept. 3, 1897	18.17	
Flag Creek	Sec. 3-2-19, above Dam	H. O. Smith	Sept. 24, 1901	1.5	
Flag Creek	Sec. 3-2-19, below Dam	H. O. Smith	Sept. 24, 1901	.6	
Flag Creek	Two miles below Dam	H. O. Smith	Sept. 24, 1901	.5	
Frenchman River	Sec. 33-4-32	O. V. P. Stout	June 19, 1896	26.3	
Frenchman River	Maranville Ditch	E. D. Johnson	July 8, 1899	19.33	
Frenchman River	Head Maranville D., 12-6-41	A. B. McCoskey	July 26, 1900	3.39	Ditch diverting all water
Frenchman River	Below head of Inman's D., 17-6-40	E. D. Johnson	July 9, 1899	16.62	
Frenchman River	Head of Inman's D., 17-6-40	A. B. McCoskey	July 26, 1900	7.98	Ditch diverting all water

Frenchman River	Head of Inman's D., 17-6-40	E. D. Johnson	Sept. 29, 1900	6.2
Frenchman River	Below head Wirsig D., 24-6-40	E. D. Johnson	July 10, 1899	20.98
Frenchman River	Head of Wirsig D., 24-6-40	A. B. McCoskey	July 26, 1900	13.97
Frenchman River	Two miles above Culbertson	Adna Dobson	June 26, 1900	79
Frenchman River	W. line Sec. 3-5-38	H. H. Pickens	June 3, 1899	29.54
Frenchman River	Sec. 24-6-40	H. O. Smith	May 31, 1901	11.6
Frenchman River	Sec. 17-6-40	H. O. Smith	May 31, 1901	10.6
Frenchman River	Sec. 24-6-40	H. O. Smith	June 18, 1901	14.8
Frenchman River	Sec. 17-6-40	H. O. Smith	June 18, 1901	18
Frenchman River	Sec. 21-6-39	H. O. Smith	June 18, 1901	47.3
Frenchman River	Sec. 5-5-36	H. O. Smith	June 21, 1901	93
Frenchman River	Enders	H. O. Smith	June 13, 1902	60
Frenchman River	Head Krotter Ditch	H. O. Smith	Aug. 5, 1903	66.5
Frenchman River	Sec. 18-6-40	J. A. Green	June 28, 1904	10
Frenchman River	Champion	J. A. Green	June 29, 1904	45
Frenchman River	Sec. 12-3-32	L. W. Erickson	June 15, 1912	34.7
Frenchman River	Sec. 12-6-41	D. P. Weeks, Jr.	Sept. 12, 1913	1.15
Flowing Well	Sec. 13-6-40	H. O. Smith	July 24, 1901	.5
Goose Creek	Sec. 10-22-27	C. B. Channel	April 27, 1899	30.27
Goose Creek	Sec. 18-25-24	R. D. Hubbard	Sept. 13, 1904	14.4
Gordon Creek	Sec. 15-32-29	O. V. P. Stout	July 23, 1897	3.53
Golden Creek	Sec. 25-15-39	H. O. Smith	Aug. 19, 1902	.6
Greenwood Creek	Center, 15-18-50	R. H. Willis	June 10, 1904	6
Hat Creek, East	Sec. 23-32-55	A. B. McCoskey	July 10, 1897	.3
Hat Creek, East	Above mouth, 10-32-55	A. B. McCoskey	July 10, 1897	1.05
Hat Creek, West	Above mouth, Sec. 10-32-55	A. B. McCoskey	July 10, 1897	.53
Hat Creek, West	Below Confluence, 10-32-55	A. B. McCoskey	July 10, 1897	1.6
Hat Creek, West	Head of Steel D., 16-32-55	A. B. McCoskey	July 16, 1897	.69
Hat Creek, West	Sec. 23-33-55	A. B. McCoskey	Sept. 30, 1898	1.41
Hat Creek, West	Above Coffee's D., 26-33-55	A. B. McCoskey	May 24, 1899	3.6

Ditch diverting a ll water

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Harney Creek	Sec. 31-33-23	C. B. Channel	June 11, 1898	23.49	
Horse Creek	Nebraska-Wyoming state line	A. B. McCoskey	Oct. 15, 1897	10.5	Scotts Bluff County
Horse Creek	Nebraska-Wyoming state line	A. B. McCoskey	June 16, 1899	11.1	Scotts Bluff County
Horse Creek	Nebr.-Wyoming line, Sec. 23, R. 58	G. W. Bates	Mar. 24, 1909	56.3	
Horse Creek	Aget	U. S. R. S.	Aug. 20, 1910	11	
Horse Creek	B. & M. Ry. crossing	E. T. Youngfelt	June 16, 1896	.22	Dundy County
Horse Creek	Sec. 11-1-39	W. A. Channel	Nov. 22, 1900	1.2	Dundy County
Horse Head Creek	Sec. 16-33-24	C. B. Channel	June 9, 1899	1.15	
Holt Creek	Head Webster Ditch, 19-35-20	C. B. Channel	June 12, 1899	3.58	
Indian Creek	Near mouth	E. T. Youngfelt	June 25, 1896	.06	Dundy County
Indian Creek	Line between Secs. 10 and 17-2-37	W. A. Channel	Nov. 14, 1900	1.3	Dundy County
Indian Creek	N. line Sec. 33-32-50	A. B. McCoskey	Aug. 18, 1899	.5	Dawes County
Indian Creek	Sec. 28-32-50	G. W. Bates	June 14, 1908	1.46	
Indian Creek, West Fork	Sec. 28-32-50	G. W. Bates	June 14, 1908	.42	
Indian Creek, East Fork	Sec. 28-32-50	G. W. Bates	June 14, 1908	1.22	
Jim Creek	Above Woodruff's Dam, 14-33-57	Geo. W. Bates	July 22, 1897	.22	
Keya Paha River	Ab. mouth Burton Creek, T. 35, R. 19	C. B. Channel	June 17, 1898	62.02	
Keya Paha River	Sec. 24-35-20	C. B. Channel	June 13, 1899	38.99	
Keya Paha River	N. W. $\frac{1}{4}$ Sec. 24-34-16	Adna Dobson	Oct. 23, 1903	77.6	
Keya Paha River	Sec. 23-34-16	G. W. Bates	July 15, 1905	136	
Laramie River, Wyoming		U. S. R. S.	July 16, 1910	17	

Lawrence Fork.....	Sec. 36-19-52.....	R. H. Willis.....	June 10, 1901.....	1.7
Lawrence Fork.....	Sec. 36-19-52.....	F. Dobson.....	July 22, 1901.....	1.4
Lawrence Fork.....	Sec. 11-18-52.....	R. H. Willis.....	July 22, 1902.....	1.6
Lawrence Fork.....	Sec. 1-18-52.....	R. H. Willis.....	July 29, 1902.....	2.9
Lawrence Fork.....	Sec. 15-18-52.....	R. H. Willis.....	July 31, 1902.....	2.2
Lawrence Fork.....	Criglers.....	R. H. Willis.....	Aug. 21, 1903.....	.7
Lawrence Fork.....	Redington.....	R. H. Willis.....	Aug. 21, 1903.....	4.3
Lawrence Fork.....	Niehus.....	R. H. Willis.....	Aug. 20, 1903.....	2.76
Lawrence Fork.....	Sec. 11-18-52.....	H. O. Smith.....	Aug. 21, 1903.....	1.25
Lawrence Fork.....	Sec. 1-18-52.....	H. O. Smith.....	Aug. 20, 1903.....	4
Lawrence Fork.....	Above Spring Creek.....	H. O. Smith.....	Oct. 25, 1905.....	5.5
Lawrence Fork.....	Below Spring Creek.....	H. O. Smith.....	Oct. 25, 1905.....	8.3
Lawrence Fork.....	At Capron's Ranch.....	R. H. Willis.....	Sept. 26, 1910.....	3.56
Lower Dugout Creek.....	Point of diversion, Cooper Canal.....	R. H. Willis.....	July 26, 1910.....	.88
Lower Dugout Creek.....	Cooper's Headgate.....	R. H. Willis.....	Oct. 10, 1910.....	1
Lodge Pole Creek.....	Kimball.....	Adna Dobson.....	May 26, 1896.....	4.5
Lodge Pole Creek.....	Kimball.....	E. D. Johnson.....	Sept. 12, 1900.....	4.92
Lodge Pole Creek.....	Kimball.....	E. D. Johnson.....	Sept. 15, 1900.....	1.14
Lodge Pole Creek.....	Kimball.....	E. D. Johnson.....	Sept. 18, 1900.....	4.3
Lodge Pole Creek.....	Kimball.....	H. O. Smith.....	June 2, 1902.....	5.6
Lodge Pole Creek.....	Kimball.....	H. O. Smith.....	June 15, 1904.....	2.1
Lodge Pole Creek.....	Kimball.....	H. O. Smith.....	Sept. 6, 1904.....	13.4
Lodge Pole Creek.....	One mile west of Kimball.....	E. D. Johnson.....	Sept. 10, 1900.....	1.29
Lodge Pole Creek.....	Four miles west of Kimball.....	E. D. Johnson.....	Aug. 9, 1899.....	7.43
Lodge Pole Creek.....	One mile west of Kimball.....	E. D. Johnson.....	Aug. 9, 1899.....	2.41
Lodge Pole Creek.....	Three-fourths mile east of Kimball.....	E. D. Johnson.....	Aug. 11, 1899.....	2.04
Lodge Pole Creek.....	Half mile above Kinney Ditch.....	E. D. Johnson.....	Aug. 10, 1899.....	6.52
Lodge Pole Creek.....	Above Young's Ditch.....	E. D. Johnson.....	Aug. 10, 1899.....	15.57
Lodge Pole Creek.....	Sec. 33-14-49.....	E. D. Johnson.....	May 15, 1900.....	3.86
Lodge Pole Creek.....	½ mile west of Jones Dam, 34-14-49.....	E. D. Johnson.....	May 15, 1900.....	6.26
Lodge Pole Creek.....	Sec. 14-14-51.....	E. D. Johnson.....	May 17, 1900.....	2.34
Lodge Pole Creek.....	Sec. 31-14-47.....	E. D. Johnson.....	May 18, 1900.....	2.6
Lodge Pole Creek.....	Sec. 3-13-46.....	E. D. Johnson.....	May 21, 1900.....	2.26
Lodge Pole Creek.....	Sec. 12-12-45.....	E. D. Johnson.....	May 22, 1900.....	1.33
Lodge Pole Creek.....	Sec. 23-23-15.....	E. D. Johnson.....	May 23, 1900.....	7.33

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Lodge Pole Creek.....	Sec. 36-15-57.....	E. D. Johnson.....	May 25, 1900	4.75	
Lodge Pole Creek.....	Sec. 2-14-58.....	E. D. Johnson.....	May 26, 1900	9.23	
Lodge Pole Creek.....	Sec. 36-13-45.....	E. D. Johnson.....	Aug. 7, 1900	3.12	
Lodge Pole Creek.....	Sec. 3-14-58.....	E. D. Johnson.....	Aug. 8, 1900	6.23	
Lodge Pole Creek.....	Sec. 23-15-55.....	E. D. Johnson.....	Aug. 9, 1900	6.34	
Lodge Pole Creek.....	Sec. 33-15-57.....	E. D. Johnson.....	Aug. 10, 1900	12.34	
Lodge Pole Creek.....	Sec. 8-12-45.....	E. D. Johnson.....	Aug. 10, 1900	1.34	
Lodge Pole Creek.....	Sec. 33-14-49.....	E. D. Johnson.....	Aug. 14, 1900	6.42	
Lodge Pole Creek.....	Sec. 31-14-47.....	E. D. Johnson.....	Aug. 16, 1900	2.5	
Lodge Pole Creek.....	Sec. 14-14-51.....	E. D. Johnson.....	Aug. 17, 1900	2.35	
Lodge Pole Creek.....	Sec. 2-13-46.....	E. D. Johnson.....	Aug. 22, 1900	2.85	
Lodge Pole Creek.....	Above Polly D., 30-15-55.....	E. D. Johnson.....	Sept. 10, 1900	2.44	
Lodge Pole Creek.....	Below Polly D., at Bridge.....	E. D. Johnson.....	Sept. 10, 1900	1.13	
Lodge Pole Creek.....	Three miles east of Sidney.....	H. H. Pickens.....	May 15, 1899	10.95	
Lodge Pole Creek.....	Lodge Pole Station.....	E. D. Johnson.....	Oct. 8, 1900	2.12	
Lodge Pole Creek.....	Chappel.....	E. D. Johnson.....	Oct. 18, 1900	3.11	
Lodge Pole Creek.....	Sidney.....	H. O. Smith.....	July 1, 1901	6.7	
Lodge Pole Creek.....	Sec. 9-14-51.....	H. O. Smith.....	July 1, 1901	5.6	
Lodge Pole Creek.....	Sec. 29-14-48.....	H. O. Smith.....	July 2, 1901	4	
Lodge Pole Creek.....	Sec. 29-14-47.....	H. O. Smith.....	July 2, 1901	2.2	
Lodge Pole Creek.....	Sec. 31-14-46.....	H. O. Smith.....	July 3, 1901	3.4	
Lodge Pole Creek.....	Sec. 12-14-59.....	H. O. Smith.....	July 30, 1901	2.9	
Lodge Pole Creek.....	Sec. 27-15-56.....	H. O. Smith.....	July 31, 1901	6.2	
Lodge Pole Creek.....	Sec. 36-14-47.....	H. O. Smith.....	April 13, 1902	4	
Lodge Pole Creek.....	Sec. 35-15-55.....	H. O. Smith.....	April 25, 1902	12	
Lodge Pole Creek.....	Sec. 25-15-56.....	H. O. Smith.....	July 2, 1902	7.5	
Lodge Pole Creek.....	Sec. 31-15-56.....	H. O. Smith.....	July 2, 1902	10.5	
Lodge Pole Creek.....	Sec. 26-15-55.....	H. O. Smith.....	April 24, 1903	12.6	Head McIntosh Ditch
Lodge Pole Creek.....	Sec. 26-15-56.....	H. O. Smith.....	April 25, 1903	16.6	Head Hurly Lilly Polly Ditch
Lodge Pole Creek.....	Head Bay State Ditch.....	H. O. Smith.....	May 25, 1903	4.4	
Lodge Pole Creek.....	Sec. 35-15-56.....	H. O. Smith.....	May 27, 1903	31.3	Head Polly Ditch

Lodge Pole Creek	Sec. 26-15-56	H. O. Smith	May 29, 1903	31	
Lodge Pole Creek	Sec. 31-15-56	H. O. Smith	June 1, 1903	12.5	Head Kinney Ditch
Lodge Pole Creek	Sec. 31-15-57	H. O. Smith	June 1, 1903	15.8	
Lodge Pole Creek	Sec. 33-15-57	H. O. Smith	June 2, 1903	12.8	Head Young's Ditch
Lodge Pole Creek	Sec. 2-14-58	H. O. Smith	June 3, 1903	10.1	Above Bushnell Ditch
Lodge Pole Creek	Sec. 10-14-51	H. O. Smith	June 18, 1903	5.4	Above Anderson Ditch
Lodge Pole Creek	West line Sec. 25-15-56	H. O. Smith	July 23, 1903	7.4	
Lodge Pole Creek	Sec. 31-15-56	H. O. Smith	July 23, 1903	.5	Below Kinney's Dam
Lodge Pole Creek	Three miles below Sec. 31-15-56	H. O. Smith	July 23, 1903	7.5	
Lodge Pole Creek	West line Sec. 29-15-55	H. O. Smith	July 24, 1903	6.6	
Lodge Pole Creek	Sec. 26-15-55	H. O. Smith	July 24, 1903	4.6	
Lodge Pole Creek	West line Sec. 30-15-54	H. O. Smith	July 24, 1903	0.0	
Lodge Pole Creek	West line Sec. 3-14-52	H. O. Smith	July 25, 1903	3.2	Head Adams Ditch
Lodge Pole Creek	Center, 8-14-51	H. O. Smith	July 25, 1903	3.5	
Lodge Pole Creek	Sec. 10-14-51	H. O. Smith	July 25, 1903	3.8	
Lodge Pole Creek	Sec. 9-14-51	H. O. Smith	July 25, 1903	3.8	
Lodge Pole Creek	Sec. 15-14-51	H. O. Smith	July 25, 1903	2.9	Above Pomeroy's
Lodge Pole Creek	East line Sec. 14-14-51	H. O. Smith	July 25, 1903	0.0	
Lodge Pole Creek	West line Sec. 29-15-55	H. O. Smith	Oct. 30, 1903	15.5	
Lodge Pole Creek	West line Sec. 29-15-55	H. O. Smith	Nov. 7, 1903	21.6	
Lodge Pole Creek	West line Sec. 29-15-55	H. O. Smith	Nov. 16, 1903	20.4	
Lodge Pole Creek	Center, 8-14-51	H. O. Smith	April 27, 1904	8.62	
Lodge Pole Creek	Center, 9-14-51	H. O. Smith	April 27, 1904	6.62	
Lodge Pole Creek	Center, 10-14-51	H. O. Smith	April 27, 1904	7.25	
Lodge Pole Creek	West line Sec. 33-15-56	H. O. Smith	April 28, 1904	14.4	
Lodge Pole Creek	West line Sec. 33-15-56	H. O. Smith	April 30, 1904	12.4	
Lodge Pole Creek	State line	H. O. Smith	May 2, 1904	4.3	
Lodge Pole Creek	One mile east of State line	H. O. Smith	May 2, 1904	4.6	
Lodge Pole Creek	Sec. 8-14-58	H. O. Smith	May 3, 1904	34.5	
Lodge Pole Creek	West line Sec. 29-15-55	H. O. Smith	May 4, 1904	20.5	
Lodge Pole Creek	West line Sec. 33-15-56	H. O. Smith	May 5, 1904	48.2	
Lodge Pole Creek	Three miles west of Kimball	H. O. Smith	Sept. 8, 1904	8.6	
Lodge Pole Creek	East line Sec. 31-14-46	H. O. Smith	Sept. 8, 1904	3.3	
Lodge Pole Creek	Sec. 30-15-55	H. O. Smith	Dec. 7, 1904	25.6	
Lodge Pole Creek	Sec. 20-14-50	H. O. Smith	Dec. 7, 1904	4.4	
Loneran Creek	Sec. 17-15-39	C. B. Channel	May 22, 1898	6.1	

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Loneragan Creek	Sec. 19-15-39	H. O. Smith	Aug. 18, 1902	2.5	
Lost Creek	Sec. 10-1-15	H. O. Smith	June 10, 1902	.7	
Long Pine Creek	Long Pine	Adna Dobson	Oct. 3, 1896	47.1	
Long Pine Creek	Long Pine	C. B. Channel	June 30, 1898	50.41	
Long Pine Creek	Long Pine	Glen E. Smith	Aug. 21, 1898	44.3	
Long Pine Creek	Long Pine	Glen E. Smith	Sept. 8, 1898	138	
Long Pine Creek	Long Pine	B. E. Forbes	Aug. 9, 1902	49.7	
Long Pine Creek	Long Pine	Adna Dobson	Oct. 6, 1903	38.7	
Long Pine Creek	Long Pine	Adna Dobson	Oct. 6, 1903	54.9	
Long Pine Creek	Long Pine	D. D. Price	Aug. 30, 1910	49.6	
Long Pine Creek	At Kyner's Dam	D. D. Price	Oct. 6, 1910	47.6	
Long Pine Creek	Below Miller's Mills, 5-31-20	C. B. Channel	June 15, 1899	5.9	
Looking Glass Creek	Near mouth	W. J. McEathron	July , 1896	15	
Loup River	Fullerton	O. V. P. Stout	Sept. 16, 1894	170.4	
Loup River	Fullerton	O. V. P. Stout	July 11, 1906	2,900	
Loup River	Sec. 13-7-2	O. V. P. Stout	Aug. 19, 1904	1,335	From notes, L. F. Gottschalk
Loup River, Middle	Arcadia	A. B. McCoskey	April 18, 1899	809.66	
Loup River, Middle	Arcadia	R. D. Hubbard	June 10, 1904	2,137	
Loup River, Middle	Boelus	Adna Dobson	May 28, 1897	837	
Loup River, Middle	Dunning	O. V. P. Stout	April 23, 1895	321.5	
Loup River, Middle	Dunning	Glen E. Smith	April 28, 1898	410	
Loup River, Middle	Dunning	Glen E. Smith	Nov. 1, 1898	433	
Loup River, Middle	Dunning	O. V. P. Stout	Aug. 30, 1896	323	
Loup River, Middle	Dunning	A. B. McCoskey	April 21, 1899	408.23	
Loup River, Middle	Fork 8½ miles above Mullen	O. V. P. Stout	Aug. 20, 1895	41.8	
Loup River, Middle	Gates, Custer County	G. H. Lawrence	Aug. 25, 1894	850	

Loup River, Middle	Gate Bridge	Adna Dobson	Oct. 11, 1904	677.9
Loup River, Middle	Loup City	O. V. P. Stout	Aug. 29, 1895	878.6
Loup River, Middle	Mullen	O. V. P. Stout	Aug. 20, 1895	120
Loup River, Middle	St. Paul	B. E. Forbes	May 23, 1902	1,538
Loup River, Middle	St. Paul	R. D. Hubbard	June 10, 1904	12,800
Loup River, Middle	Seneca	O. V. P. Stout	Aug. 21, 1895	216.2
Loup River, Middle	Seneca	O. V. P. Stout	Aug. 30, 1896	212.3
Loup River, Middle	Seneca	Glen E. Smith	April 28, 1898	221.6
Loup River, Middle	Seneca	Glen E. Smith	Nov. 1, 1898	198
Loup River, Middle	Seneca	C. B. Channel	May 2, 1899	225.34
Loup River, Middle	Seneca	R. D. Hubbard	May 24, 1904	205
Loup River, Middle	Seneca	G. W. Bates	April 10, 1906	236
Loup River, Middle	Thedford	O. V. P. Stout	April 22, 1895	284.3
Loup River, Middle	Thedford	R. D. Hubbard	May 24, 1904	270
Loup River, Middle	Thedford	Jas. A. Green	June 28, 1904	232
Loup River, North	Burwell	B. E. Forbes	Mar. 25, 1902	1,088
Loup River, North	Burwell	O. V. P. Stout	July 9, 1896	625
Loup River, North	Burwell	Glen E. Smith	May 16, 1899	984
Loup River, North	Brewster	C. B. Channel	Sept. 21, 1899	361.92
Loup River, North	Brewster	R. D. Hubbard	Sept. 14, 1904	467.3
Loup River, North	Below mouth Wanaduzza Creek	O. V. P. Stout	July 24, 1897	129.8
Loup River, North	Brownlee	C. B. Channel	May 1, 1899	359.79
Loup River, North	Brownlee	C. B. Channel	Sept. 23, 1899	195.84
Loup River, North	Brownlee	R. D. Hubbard	June 20, 1904	147
Loup River, North	Cascade	Jas. A. Green	June 21, 1904	223
Loup River, North	Moulton	G. H. Lawrence	Nov. 2, 1894	460
Loup River, North	St. Paul	B. E. Forbes	May 23, 1902	1,186
Loup River, North	St. Paul	R. D. Hubbard	June 10, 1904	2,150
Loup River, South	Arnold	C. B. Channel	Aug. 4, 1898	31.48
Loup River, South	Arnold	Adna Dobson	Dec. 9, 1904	38.3
Loup River, South	Callaway	O. V. P. Stout	Aug. 28, 1895	48
Loup River, South	Callaway	C. B. Channel	Aug. 3, 1898	82.91
Loup River, South	Callaway	Adna Dobson	Dec. 9, 1904	123.8
Loup River, South	Ravenna	O. V. P. Stout	Aug. 31, 1895	296
Loup River, South	Ravenna	O. V. P. Stout	Aug. 29, 1896	142

Sec. 32-19-21

River four in. above normal

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Loup River, South.....	Ravenna.....	J. C. Stevens.....	Mar. 11, 1903	1,723	
Loup River, South.....	Ravenna.....	J. C. Stevens.....	May 13, 1903	399	
Loup River, South.....	Georgetown.....	G. H. Lawrence.....	Sept. 10, 1896	68	
Loup River, South.....	St. Michaels.....	Adna Dobson.....	May 28, 1898	220	
Loup River, South.....	Sec. 27-18-26.....	Jas. A. Green.....	July 27, 1904	9	
Loup River, South.....	Sec. 31-17-24.....	Jas. A. Green.....	July 28, 1904	56	
Loup River, South.....	Sec. 30-15-21.....	Jas. A. Green.....	July 28, 1904	103	
Methodist Creek.....	Sec. 2-1-18.....	H. O. Smith.....	Sept. 24, 1901	2.6	
Middle Creek, East.....	Sec. 32-33-23.....	C. B. Channel.....	June 10, 1899	.27	
Middle Creek, West.....	Sec. 32.33.23.....	C. B. Channel.....	June 10, 1899	1.48	
Minnehaduzu Creek.....	Valentine.....	O. V. P. Stout.....	June 24, 1897	21.2	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	May 14, 1898	23.2	
Minnehaduzu.....	Valentine.....	A. B. McCoskey.....	May 18, 1898	105.8	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	May 24, 1898	89.5	
Minnehaduzu.....	Valentine.....	C. B. Channel.....	June 6, 1898	33.9	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	June 12, 1898	52.5	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	July 27, 1898	15.3	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Aug. 21, 1898	18.2	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Sept. 7, 1898	18.8	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Sept. 27, 1898	22.1	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Oct. 15, 1898	22.5	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Oct. 29, 1898	27	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Jan. 27, 1899	26.2	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Feb. 21, 1899	45	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	Mar. 15, 1899	25.7	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	April 26, 1899	32.6	
Minnehaduzu.....	Valentine.....	Glen E. Smith.....	May 11, 1899	35	

Minnechaduza Creek	Valentine	Glen E. Smith	May 26, 1899	64.7	
Minnechaduza	Valentine	Glen E. Smith	June 26, 1899	23	
Minnechaduza	Valentine	Glen E. Smith	Aug. 13, 1899	19	
Minnechaduza	Valentine	Glen E. Smith	Sept. 13, 1899	23.5	
Minnechaduza	Valentine	Glen E. Smith	Sept. 26, 1899	26.5	
Minnechaduza	Valentine	O. V. P. Stout	Aug. 1, 1901	27.3	
Minnechaduza	Valentine	O. V. P. Stout	Nov. 14, 1901	26.6	
Minnechaduza	Valentine	J. C. Stevens	Mar. 22, 1902	33.1	
Minnechaduza	Valentine	J. C. Stevens	April 12, 1902	33.3	
Minnechaduza	Valentine	J. C. Stevens	July 4, 1902	27.4	
Minnechaduza	Valentine	J. C. Stevens	July 15, 1902	23.1	
Minnechaduza	Valentine	J. C. Stevens	July 20, 1902	22.7	
Minnechaduza	Valentine	J. C. Stevens	Aug. 20, 1902	23.8	
Minnechaduza	Valentine	J. C. Stevens	April 26, 1903	48	
Minnechaduza	Valentine	J. C. Stevens	May 26, 1903	33	
Minnechaduza	Valentine	J. C. Stevens	Aug. 24, 1904	21	
Minnechaduza	Valentine	Geo. W. Bates	May 9, 1905	85.3	
Minnechaduza	Sec. 29-35-30	J. C. Stevens	April 11, 1902	14.9	
Minnechaduza	Sec. 2-34-29	J. C. Stevens	April 11, 1902	17.3	
Minnechaduza	Sec. 8-34-29	J. C. Stevens	April 11, 1902	26	
Minnechaduza	Sec. 30-34-28	J. C. Stevens	April 11, 1902	23.8	
Monroe Creek	Head of Schlitz Ditch, 27-33-56	A. B. McCoskey	July 20, 1897	.22	
Monroe Creek	Head Wilcox Ditch, 33-33-56	A. B. McCoskey	July 21, 1897	1.02	
Monroe Creek	Head Wilcox Ditch, 33-33-56	T. J. O'Keefe	Sept. 24, 1900	.84	
Monroe Creek	Sec. 14-33-56	A. B. McCoskey	Sept. 30, 1898	Est. .3	
Medicine Creek	Cambridge	Adna Dobson	June 28, 1900	24.5	
Medicine Creek	Cambridge	G. W. Bates	Mar. 29, 1909	48.5	} Running through wheel above back water
Medicine Creek	Cambridge	G. W. Bates	Mar. 29, 1909	56.9	
Muddy Creek	Three miles above Arapahoe	Adna Dobson	June 28, 1900	3.7	
Niobrara River	Carns	Erickson-Newton	Aug. 22, 1912	1,285	
Niobrara River	Dawes County	Prof. L. E. Hicks	May 4, 1887	98	
Niobrara River	Marsland	E. T. Yungfelt	June 23, 1896	4	
Niobrara River	Marsland	C. B. Channel	Oct. 31, 1898	23.24	

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Niobrara River	Marsland	Glen E. Smith	May 29, 1899	36.16	
Niobrara River	Above Marsland, 6-28-51	McCoskey & O'Keefe	July 18, 1900	7.03	
Niobrara River	Gregg's Br., near Marsland	T. J. O'Keefe	Sept. 7, 1900	11.25	
Niobrara River	Five miles south of Valentine	Glen E. Smith	Mar. 5, 1899	650	
Niobrara River	Lavaca P. O.	O. V. P. Stout	June 25, 1897	105	
Niobrara River	Lavaca P. O.	Glen E. Smith	April 26, 1898	209.9	
Niobrara River	Lavaca P. O.	A. B. McCoskey	June 2, 1898	152.1	
Niobrara River	Lavaca P. O.	Glen E. Smith	Oct. 30, 1898	203.4	
Niobrara River	Nebraska-Wyoming State line	A. B. McCoskey	Oct. 20, 1897	3.56	
Niobrara River	Above Warnecke's D., 27-30-57	A. B. McCoskey	Oct. 20, 1897	5.12	
Niobrara River	Above Bourrett's D., 33-30-56	A. B. McCoskey	Oct. 21, 1897	6.36	
Niobrara River	At Bourrett's, 32-30-56	C. B. Channel	May 27, 1899	13.65	
Niobrara River	Above Ernest's Dam, 9-29-56	A. B. McCoskey	Oct. 21, 1897	7.36	
Niobrara River	At Ernest's Ranch, 23-29-56	A. B. McCoskey	Oct. 21, 1897	16.34	
Niobrara River	At McGinley's, 31-29-56	A. B. McCoskey	Oct. 22, 1897	9.27	
Niobrara River	At O. Harris' house, T. 28, R. 54	A. B. McCoskey	Oct. 23, 1897	13.44	
Niobrara River	Near Bell P. O., 8-28-53	A. B. McCoskey	Oct. 23, 1897	11.92	
Niobrara River	B. T. Moore's R., 11-28-53	A. B. McCoskey	Oct. 25, 1897	17.1	
Niobrara River	B. T. Moore's R., 11-28-53	T. J. O'Keefe	Sept. 6, 1900	10.80	
Niobrara River	McMcLaughlin's, 10-28-52	A. B. McCoskey	Oct. 25, 1897	16.79	
Niobrara River	H. of proposed Golden D., 13-31-41	Engineers in employ of	April 26, 1897	190	
Niobrara River	½ mile below proposed Golden D.	Golden Irr. D.	April 27, 1897	195	
Niobrara River	Dunlap	A. B. McCoskey	May 20, 1898	75.4	
Niobrara River	Dunlap	A. B. McCoskey	Aug. 7, 1900	14.12	
Niobrara River	Sec. 22-29-48	A. B. McCoskey	May 31, 1898	55.5	
Niobrara River	Bridge north of Ainsworth	C. B. Channel	June 13, 1898	958.6	
Niobrara River	Fort Niobrara	Glen E. Smith	April 24, 1898	987	
Niobrara River	Fort Niobrara	Glen E. Smith	May 13, 1898	1,588	
Niobrara River	Fort Niobrara	Glen E. Smith	May 24, 1898	11.56	
Niobrara River	Fort Niobrara	Glen E. Smith	June 12, 1898	876	
Niobrara River	Fort Niobrara	Glen E. Smith	July 27, 1898	690	

Niobrara River.....	Fort Niobrara.....	Glen E. Smith.....	Sept. 7, 1898.....	748
Niobrara River.....	Fort Niobrara.....	Glen E. Smith.....	Sept. 26, 1898.....	840
Niobrara River.....	Fort Niobrara.....	Glen E. Smith.....	Oct. 16, 1898.....	867
Niobrara River.....	Fort Niobrara.....	Glen E. Smith.....	Oct. 29, 1898.....	960
Niobrara River.....	Fort Niobrara.....	Glen E. Smith.....	Nov. 17, 1898.....	960
Niobrara River.....	Mouth of Whistle Creek.....	C. B. Channel.....	May 28, 1899.....	33.04
Niobrara River.....	Head Hatch and Cross D., 25-2-50.....	C. B. Channel.....	May 29, 1898.....	47.94
Niobrara River.....	Cook's Ranch, 6-28-55.....	A. B. McCoskey.....	Aug. 3, 1899.....	13.87
Niobrara River.....	Cook's Ranch, 6-28-55.....	A. B. McCoskey.....	Aug. 16, 1899.....	10.65
Niobrara River.....	Head of Mirage Canal, 26-29-48.....	McCoskey & O'Keefe.....	Aug. 7, 1900.....	14.50
Niobrara River.....	Head of Hay Springs C., 29-29-47.....	McCoskey & O'Keefe.....	Aug. 7, 1900.....	4.03
Niobrara River.....	West line Sec. 26-29-46.....	A. Dobson.....	June 3, 1902.....	25.4
Niobrara River.....	Sec. 31-33-23.....	J. C. Stevens.....	Aug. 13, 1904.....	752
Niobrara River.....	Secs. 26 and 27-34-26.....	J. C. Stevens.....	Aug. 14, 1904.....	679
Niobrara River.....	Sec. 10-33-34.....	J. C. Stevens.....	Aug. 18, 1904.....	221
Niobrara River.....	Secs. 11 and 12-33-36.....	J. C. Stevens.....	Aug. 20, 1904.....	200
Niobrara River.....	Sec. 27-33-37.....	J. C. Stevens.....	Aug. 20, 1904.....	180
Niobrara River.....	Secs. 34 and 35-33-38.....	J. C. Stevens.....	Aug. 21, 1904.....	117
Niobrara River.....	Sec. 21-34-42.....	J. C. Stevens.....	Aug. 22, 1904.....	54
Niobrara River.....	Sec. 18-30-44.....	J. C. Stevens.....	Aug. 23, 1904.....	27
Newman Creek.....	Head Newman D., 17-33-24.....	C. B. Channel.....	June 9, 1899.....	.73
Oak Creek.....	Three miles northwest of Lincoln.....	McCoskey & Pickens.....	May 10, 1899.....	27.46
Oak Creek.....	Three miles northwest of Lincoln.....	McCoskey & Johnson.....	July 3, 1899.....	703.25
Oak Creek.....	Dannebrog.....	Glen E. Smith.....	May 10, 1899.....	5
Otter Creek.....	Sec. 9-15-40.....	H. O. Smith.....	Aug. 18, 1902.....	18.3
Pawnee Creek.....	Above Plummer's D., 19-13-27.....	C. B. Channel.....	April 25, 1898.....	4.94
Pawnee Creek.....	Above Holcomb's D., 12-13-28.....	C. B. Channel.....	April 25, 1898.....	4.73
Paxton Springs.....	Sec. 29-15-27.....	H. O. Smith.....	May 7, 1902.....	.8
Pine Creek.....	Sec. 33-30-44.....	A. B. McCoskey.....	June 1, 1898.....	24.5
Pine Creek.....	Sec. 22-30-40.....	J. C. Stevens.....	Aug. 23, 1904.....	12.8
Pine Creek.....	Sec. 22-30-44.....	J. C. Stevens.....	Aug. 23, 1904.....	27

Swollen by heavy rains

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

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STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Platte River	South Bend	J. C. Stevens	May 5, 1903	13,179	
Platte River	Ashland	J. C. Stevens	Aug. 31, 1903	41,270	
Platte River	Valley	J. C. Stevens	May 7, 1904	3,976	
Platte River	Central City	Glen E. Smith	Sept, 8, 1899	50	
Platte River	Grand Island	O. V. P. Stout	Sept. 7, 1896	Dry	
Platte River	Grand Island	O. V. P. Stout	Sept. 15, 1898	12	
Platte River	Grand Island	J. C. Stevens	Oct. 1, 1903	Dry	
Platte River	Grand Island	R. D. Hubbard	Aug. 28, 1904	0.0	
Platte River	Kearney	H. O. Smith	July 22, 1901	Dry	
Platte River	Kearney	J. C. Stevens	Sept. 7, 1902	Dry	
Platte River	Sec. 29-12-26	H. O. Smith	Sept. 13, 1904	36	Head Gothenburg Canal
Platte River, North	Lewellen Bridge	A. B. McCoskey	Sept. 1, 1898	Est. 5	
Platte River, North	Lewellen Bridge	H. H. Pickens	May 22, 1899	15,901.88	
Platte River, North	Lewellen	H. O. Smith	Aug. 7, 1901	100	
Platte River, North	Lewellen	H. O. Smith	Aug. 8, 1901	758	
Platte River, North	Lewellen	H. O. Smith	Aug. 30, 1904	60	
Platte River, North	At Lewellen Bridge	R. H. Willis	Sept. 2, 1910	76.59	
Platte River, North	Sec. 3-23-58	F. Dobson	Aug. 26, 1902	31.5	
Platte River, North	Sec. 3-23-58	R. H. Willis	Aug. 28, 1902	31	
Platte River, North	Sec. 3-23-58	R. H. Willis	Sept. 8, 1902	8	
Platte River, North	Sec. 3-23-58	R. H. Willis	Sept. 22, 1902	630	
Platte River, North	Sec. 3-23-58	H. O. Smith	Aug. 28, 1904	29.6	Head Paxton & Smith D.
Platte River, North	Sec. 18-14-33	H. O. Smith	July 28, 1901	394	
Platte River, North	Sec. 18-14-33	E. F. Seedberger	Aug. 7, 1901	150	
Platte River, North	Sutherland	H. O. Smith	Aug. 7, 1904	26.7	Head North Platte D.
Platte River, North	Morrill Wagon Bridge	U. S. R. S.	Aug. 20, 1910	105	
Platte River, North	Morrill Bridge	U. S. R. S.	July 21, 1910	325	
Platte River, North	Bayard Bridge	U. S. R. S.	Aug. 24, 1910	19	
Platte River, North	At Bayard Bridge	R. H. Willis	Aug. 28, 1910	22.29	

Platte River, North.....	Paxton Bridge.....	R. H. Willis.....	Sept. 2, 1910	13.97
Platte River, North.....	Bayard.....	C. G. Hrubesky.....	May 17, 1912	3,529
Platte River, North.....	Bayard.....	C. G. Hrubesky.....	May 20, 1912	3,333
Platte River, North.....	At Keystone Bridge.....	R. H. Willis.....	Sept. 1, 1910	54.96
Platte River, North.....	At Paxton Bridge.....	R. H. Willis.....	Sept. 2, 1910	55.10
Platte River, South.....	Arnold.....	A. Dobson.....	Dec. 9, 1904	38.3
Platte River, South.....	Ogalalla.....	H. O. Smith.....	Aug. 30, 1905	34
Platte River, South.....	Sutherland.....	H. H. Pickens.....	May 23, 1899	50
Plum Creek.....	At mouth, 13-32-22.....	C. B. Channel.....	June 13, 1898	101.13
Plum Creek.....	Sec. 35-32-23.....	C. B. Channel.....	June 10, 1899	81.07
Plum Creek.....	Hoef's Mill, Sec. 27-31-24.....	A. B. McCoskey.....	Oct. 26, 1900	28.77
Pole Creek.....	Sec. 28-32-40.....	A. B. McCoskey.....	June 1, 1898	Est. 2
Ponca Creek.....	Lynch.....	G. W. Bates.....	May 16, 1908	20.1
Ponca Creek.....	Lynch.....	Arthur Dobson.....	Sept. 9, 1908	10.1
Ponca Creek.....	Near Spencer.....	Arthur Dobson.....	Sept. 9, 1908	6.5
Prairie Creek.....	Sec. 26-16-5.....	A. Dobson.....	Nov. 21, 1901	8.4
Pumpkinseed Creek.....	Sec. 30-19-50.....	R. H. Willis.....	May 29, 1903	7.9
Pumpkinseed Creek.....	Sec. 30-19-50.....	R. H. Willis.....	July 17, 1903	3.4
Pumpkinseed Creek.....	Secs. 25 and 30-19-50.....	R. H. Willis.....	July 17, 1903	4.4
Pumpkinseed Creek.....	Lot 1, Sec. 7-19-55.....	R. H. Willis.....	July 16, 1903	1.3
Pumpkinseed Creek.....	Sec. 25-19-51.....	R. H. Willis.....	July 17, 1903	2.7
Pumpkinseed Creek.....	Sec. 25-19-51.....	R. H. Willis.....	July 17, 1903	.6
Pumpkinseed Creek.....	N. E. Cor. Sec. 33-19-52.....	H. O. Smith.....	June 16, 1904	11.43
Pumpkinseed Creek.....	Round House Rock.....	H. O. Smith.....	Oct. 25, 1905	12
Pumpkinseed Creek.....	One mile from mouth.....	H. O. Smith.....	Oct. 28, 1905	22
Pumpkinseed Creek.....	Bridgeport.....	R. H. Willis.....	June 3, 1907	30.5
Pumpkinseed Creek.....	Near Meredith Headgate.....	D. P. Weeks, Jr.....	July 22, 1914	11.9
Pumpkinseed Creek.....	Below Meredith Dam.....	Mason & Willis.....	Aug. 3, 1914	10.2
Pumpkinseed Creek.....	Below Last Chance Headgate.....	Mason & Willis.....	Aug. 3, 1914	.895
Pumpkinseed Creek.....	100 feet below Meredith Dam.....	R. H. Willis.....	Aug. 16, 1914	25.99

Court House Rock D.

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Red Bird Creek	Sec. 11-32-10	G. W. Bates	May 16, 1908	44.8	
Republican River	Cambridge	Adna Dobson	June 28, 1900	7.2	
Republican River	Cambridge	G. W. Bates	Mar. 29, 1909	439	
Republican River	Edison	E. D. Johnson	July 18, 1900	16.6	
Republican River	Franklin	H. O. Smith	June 10, 1902	743	
Republican River	Haigler	O. V. P. Stout	June 7, 1896	6.1	
Republican River	Haigler	E. T. Youngfelt	June 16, 1896	6	
Republican River	Haigler	O. V. P. Stout	June 17, 1896	8.2	
Republican River	Haigler	E. T. Youngfelt	June 17, 1896	14.9	
Republican River	Haigler	O. V. P. Stout	July 16, 1896	9.8	
Republican River	Haigler	O. V. P. Stout	Aug. 25, 1896	10	
Republican River	Haigler	O. V. P. Stout	Sept. 18, 1896	24.5	
Republican River	Haigler	F. Dobson	April 26, 1902	52.3	
Republican River	Haigler	J. C. Stevens	May 20, 1903	16	
Republican River	Haigler	D. D. Price, & D. P. Weeks	Mar. 13, 1914	87.9	
Republican River	Ives	F. Dobson	April 26, 1902	39	
Republican River	Laird, Colorado	D. D. Price & D. P. Weeks, Jr.	Mar. 13, 1914	66.9	Gage 1.41
Republican River	Laird, Colorado	D. P. Weeks, Jr.	June 18, 1914	1.7	Gage .5
Republican River	Laird, Colorado	D. P. Weeks, Jr.	July 17, 1914	1.2	Gage .5
Republican River	Laird, Colorado	D. P. Weeks, Jr.	Aug. 18, 1914	1.1	Gage .43
Republican River	Laird, Colorado	D. P. Weeks, Jr.	Sept. 27, 1914	4.8	
Republican River	Colorado-Nebraska Line	D. P. Weeks, Jr.	Aug. 18, 1914	7.1	Gage .73
Republican River	Colorado-Nebraska Line	D. P. Weeks, Jr.	Sept. 27, 1914	11.3	Gage .9
Republican River	McCook	Adna Dobson	April 13, 1897	745	
Republican River	McCook	O. V. P. Stout	July 19, 1897	Dry	
Republican River	McCook	A. B. McCoskey	Sept. 19, 1899	12.3	
Republican River	McCook	A. B. McCoskey	July 27, 1900	104	
Republican River	McCook	O. V. P. Stout	July 20, 1901	Pools	
Republican River	McCook	F. Dobson	April 27, 1902	137	

Republican River	McCook	J. C. Stevens	Sept. 17, 1902	29	
Republican River	McCook	James A. Green	June 30, 1904	443	
Republican River	Naponee	James A. Green	July 7, 1904	1,290	
Republican River	Oxford	O. V. P. Stout	June 3, 1895	16,000	
Republican River	Oxford	O. V. P. Stout	Sept. 12, 1895	55	
Republican River	Oxford	G. E. Crownover	May 17, 1896	255	
Republican River	Oxford	O. V. P. Stout	June 15, 1896	109	
Republican River	Oxford	O. V. P. Stout	June 24, 1898	385	
Republican River	Oxford	Glen E. Smith	Sept. 6, 1899	Dry	
Republican River	Oxford	E. D. Johnson	July 18, 1900	14.3	
Republican River	Oxford	H. O. Smith	July 22, 1901	Pools	
Republican River	Oxford	F. Dobson	April 27, 1902	255	
Republican River	Oxford	J. C. Stevens	Sept. 17, 1902	37	
Republican River	Oxford	J. C. Stevens	May 19, 1903	556	
Republican River	Stratton	F. Dobson	April 26, 1902	.85	
Republican River	Orleans	A. B. McCoskey	Sept. 6, 1899	.3	
Republican River	Head of Meeker Canal	E. D. Johnson	Sept. 19, 1899	17.5	
Republican River	Warwick, Kansas	J. C. Stevens	June 5, 1903	741	
Republican River	Wray, Colorado	J. C. Stevens	May 21, 1903	35	
Republican River	Sec. 19-1-39	O. V. P. Stout	Aug. 25, 1896	5	
Republican River	Sec. 22-3-31	H. O. Smith	June 22, 1901	Dry	
Republican River	Sec. 22-3-31	O. V. P. Stout	July 20, 1901	Dry	
Republican River, So. Fork	State Line	H. O. Smith	June 12, 1902	32.8	
Rock Creek	B. & M. Ry. Crossing, near Ives	O. V. P. Stout	June 16, 1896	12.16	Dundy County
Rock Creek	B. & M. Ry. Crossing, near Ives	E. T. Youngfeldt	Aug. 25, 1896	12.2	
Rock Creek	Sec. 21-1-39	W. A. Channel	Nov. 22, 1900	8.8	Dundy County
Rock Creek	Ives	F. Dobson	April 26, 1902	.99	Dundy County
Rock Creek	Sec. 4-31-18	C. B. Channel	June 20, 1898	2.8	Rock County
Rock Creek	Sec. 28-32-18	C. B. Channel	June 20, 1898	4.39	Rock County
Rock Springs Creek	Above Moore's D., 12-32		June 14, 1898	2.37	Keya Paha County
Rush Creek	Sec. 33-31-42	J. C. Stevens	Aug. 22, 1904	.6	
Salt Creek	Lincoln	Adna Dobson	Aug. 17, 1900	5,807	Flood

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Salt Creek	Lincoln	O. V. P. Stout	May 20, 1901	44	
Salt Creek	Lincoln	Adna Dobson	July 7, 1902	5,438	Flood
Salt Creek	Lincoln	Adna Dobson	July 10, 1902	10,136	Flood
Salt Creek	Lincoln	B. E. Forbes	Oct. 1, 1902	92.4	
Salt Creek	Lincoln	H. W. Roberts	Mar. 20, 1912	6,750	C. B. & Q. Bridge on J St. Flood
Salt Creek	Lincoln	H. W. Roberts	Mar. 20, 1912	4,725	C., B. & Q. Bridge on A St.
Salt Creek	Lincoln	D. P. Weeks, Jr	June 6, 1914	6,069	14th St. Bridge
Salt Creek	Lincoln	D. P. Weeks, Jr	June 13, 1914	7,958	J St. C., B. & Q. Bridge
Salt Creek	Lincoln	D. P. Weeks, Jr	June 13, 1914	5,408	U. P. Bridge. Made immediately after J St. gaging
Salt Creek	Ashland	J. C. Stevens	Aug. 31, 1903	217.2	
Salt Creek	N. W. $\frac{1}{4}$ Sec. 9-14-36	H. O. Smith	Oct. 2, 1908	4	
Sandy Creek	Sec. 3-31-15	C. B. Channel	June 17, 1899	8.28	
Shobe Branch	At Lamb's, Sec. 32-33-11	C. B. Channel	June 20, 1899	1.66	
Sand Creek	Sec. 14-15-40	H. O. Smith	Aug. 19, 1902	1.3	
Sand Creek	Sec. 33-15-40	G. W. Bates	April 27, 1905	60	Flood
Sappa Creek	Stamford	J. A. Green	July 6, 1904	37	
Shell Creek	Platte Center	O. V. P. Stout	July 21, 1896	47.4	
Shell Creek	Schuyler	O. V. P. Stout	July 24, 1896	26.3	
Schagle Creek	Sec. 24-33-28	G. W. Bates	May 9, 1905	22	
Silver Creek	Memphis	F. S. Dobson	Feb. 28, 1906	8.1	
Snake Creek	Sec. 2-30-31	Engs. Golden. I. Ditch	Mar. 22, 1897	250	

Snake Creek	Sec. 2-30-31	Engs. Golden I. Ditch	April 13, 1897	225	
Snake Creek	Four miles east of Sec. 2-30-31	Engs. Golden I. Ditch	Mar. 16, 1897	222	
Snake Creek	Four miles east of Sec. 2-30-31	Engs. Golden I. Ditch	April 13, 1897	240	
Snake Creek	At mouth	O. V. P. Stout	July 23, 1897	280	
Snake Creek	At mouth of Boardman Creek	O. V. P. Stout	July 24, 1897	215	
Snake Creek	N. E. $\frac{1}{4}$ Sec. 15-32-30	J. C. Stevens	Aug. 16, 1904	279	
Snake Creek	N. E. $\frac{1}{4}$ Sec. 10-30-31	J. C. Stevens	Aug. 16, 1904	204	
Snake Creek	S. E. $\frac{1}{4}$ Sec. 2-30-32	J. C. Stevens	Aug. 17, 1904	194	
Snake Creek	Sec. 16-31-30	J. C. Stevens	Oct. 31, 1904	245	
Soldier Creek	Five miles above Ft. Robinson	J. C. Stevens	April 14, 1897	2.28	
Soldier Creek	Ft. Robinson	E. T. Youngfelt	June 25, 1896	3.23	
Soldier Creek	Ft. Robinson	Glen E. Smith	April 27, 1898	3.67	
Soldier Creek	Ft. Robinson	T. J. O'Keefe	Aug. 22, 1900	1.8	
Soldier Creek	Ft. Robinson	T. J. O'Keefe	Sept. 22, 1900	2.5	
Sowbelly Creek	Above Head of Schaefer D., 7-32-55	A. B. McCoskey	July 16, 1897	1.45	
Sowbelly Creek	Bodarc P. O., 5-32-55	A. B. McCoskey	July 14, 1897	1.54	
Sowbelly Creek	Bridge south of Gilchrist	A. B. McCoskey	July 24, 1897	.08	
Sowbelly Creek	Sec. 19-33-55	A. B. McCoskey	Sept. 30, 1898	Est. 1	
Sowbelly Creek	North line Sec. 19-32-55	A. B. McCoskey	Aug. 1, 1899	1.37	
Sowbelly Creek	Head of Nutto's D., 24-32-56	T. J. O'Keefe	Sept. 24, 1900	3.15	
Squaw Creek	Patrick Dunn's, 15-33-57	A. B. McCoskey	July 22, 1897	.13	Sioux County
Squaw Creek	Sec. 1-31-52	E. T. Youngfelt	June 24, 1896	.66	Dawes County
Squaw Creek	Duncan's, Sec. 28-31-51	C. B. Channel	May 11, 1899	1.21	Dawes County
Squaw Creek	Stetson's, Sec. 18-31-51	C. B. Channel	May 11, 1899	.33	Dawes County
Squaw Creek	Head Daniels & Stetson D., 19-31-51	C. B. Channel	May 11, 1899	.79	Dawes County
Squaw Creek	Head Cooper Ditch, 36-32-52	C. B. Channel	May 12, 1899	.72	Dawes County
Skunk Creek	A. Miller's D., 1-14-37	C. B. Channel	May 18, 1898	2.2	
Skunk Creek	N. W. $\frac{1}{4}$ Sec. 6-14-36	H. O. Smith	Oct. 2, 1908	6	
Spring Creek	Sec. 28-16-41	H. O. Smith	May 23, 1898	4.5	
Spring Creek	Sec. 29-16-41	H. O. Smith	May 23, 1898	6.7	
Spring Creek	At Mills P. O., 9-34-18	H. O. Smith	June 16, 1898	7.3	Tributary to Keya Paha
Spring Creek	Head Townsend Ditch, 35-34-19	H. O. Smith	June 13, 1899	5.18	

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
Spring Creek.....	Head Opperman Ditch, 29-32-20....	H. O. Smith.....	June 15, 1899	.31	Tributary to Niobrara
Spring Creek.....	At mouth.....	H. O. Smith.....	May 16, 1899	.29	Trib. to Little Cottonwood
Spring Creek.....	Sec. 25-10-31.....	H. O. Smith.....	July 11, 1901	4.4	
Spring Creek.....	Sec. 30-10-21.....	H. O. Smith.....	Aug. 18, 1902	1	
Spring Creek.....	Sec. 36-14-37.....	H. O. Smith.....	April 23, 1902	2.4	
Spring Creek.....	Sec. 29-15-37.....	C. B. Channel.....	May 19, 1898	1.1	
Spring Creek.....	Sec. 30-15-37.....	H. O. Smith.....	May 7, 1902	2.5	
Stinking Water Creek.....	Palisade.....	O. V. P. Stout.....	June 19, 1896	12.24	Above Palisade Mill
Stinking Water Creek.....	Palisade.....	E. T. Youngfelt.....	Sept. 17, 1896	20	Below Palisade Mill
Stinking Water Creek.....	Palisade.....	Glen E. Smith.....	July 7, 1898	23.6	
Stinking Water Creek.....	Palisade.....	James A. Green.....	June 30, 1904	79	
Stinking Water Creek.....	Palisade.....	James A. Green.....	June 30, 1904	63	
Trunk Butte Creek.....	North line Sec. 36-33-50.....	C. B. Channel.....	May 17, 1899	1.45	
Trunk Butte Creek.....	North line Sec. 36-33-50.....	A. B. McCoskey.....	Aug. 18, 1899	.34	
Turkey Creek.....	Sec. 30-4-21.....	E. D. Johnson.....	Sept. 6, 1899	2.26	Furnas County
Turkey Creek.....	Naponee.....	O. V. P. Stout.....	Aug. 24, 1900	7	Franklin County
Turkey Creek.....	Naponee.....	Jas. A. Green.....	July 7, 1904	31.3	
Thompson Creek.....	Sec. 4-2-13.....	E. D. Johnson.....	Sept. 8, 1899	3.45	
Union Creek.....	Madison.....	O. V. P. Stout.....	July 23, 1896	38.3	
Victoria Creek.....	Sec. 1-19-21.....	Adna Dobson.....	July 28, 1896	5.2	
Victoria Creek.....	Gates Br.....	Adna Dobson.....	Oct. 11, 1904	2.6	
Verdigre Creek.....	At mouth, Sec. 6-31-6.....	O. V. P. Stout.....	April 7, 1901	105	
Verdigre Creek.....	Niobrara.....	G. W. Bates.....	May 17, 1908	137.5	
Verdigre Creek.....	Verdigris.....	Arthur Dobson.....	Sept. 9, 1908	56	

Wahoo Creek	Aahland	F. S. Dobson	May 16, 1907	63.5
Wahoo Creek	Aahland	F. S. Dobson	May 16, 1907	71.7
Weeping Water Creek	Nehawka	G. W. Bates	Mar. 11, 1908	38.3
Willow Creek	S. W. $\frac{1}{2}$ Sec. 17-14-35	H. O. Smith	Oct. 2, 1908	4
West Middle Creek	Above Allen's Ditch, 29-33-23	H. O. Smith	June 11, 1898	1.84
West Middle Creek	N. E. of N. W., Sec. 29-33-23	H. O. Smith	June 11, 1898	.87
White River	Sec. 23-31-53	E. T. Youngfelt	June 24, 1896	23.3
White River	Sec. 23-31-53	C. Spearman	July 24, 1901	16.3
White River	Whitney	E. T. Youngfelt	June 25, 1896	27.2
White River	Whitney	A. B. McCoskey	Sept. 21, 1898	Est. 8
White River	Whitney	C. B. Channel	May 15, 1899	10.37
White River	Whitney	T. J. O'Keefe	Sept. 3, 1900	5
White River	Head of Crawford Ditch	Stout & McCoskey	Aug. 14, 1897	11.9*
White River	Head of Crawford Ditch	A. B. McCoskey	Sept. 14, 1897	10.44*
White River	Head of Crawford Ditch	A. B. McCoskey	Sept. 24, 1897	13.65
White River	Head of Crawford Ditch	A. B. McCoskey	Oct. 18, 1897	15.25*
White River	Head of Crawford Ditch	A. B. McCoskey	Nov. 5, 1897	15.87*
White River	Head of Crawford Ditch	Glen E. Smith	April 27, 1898	18.3*
White River	Head of Crawford Ditch	A. B. McCoskey	May 19, 1899	16.7*
White River	Head of Crawford Ditch	McCoskey & O'Keefe	July 16, 1900	15.48
White River	Head of Crawford Ditch	T. J. O'Keefe	Aug. 22, 1900	14*
White River	Bridge below Crawford	A. B. McCoskey	Aug. 14, 1897	8*
White River	Bridge below Crawford	A. B. McCoskey	Sept. 9, 1897	6.96
White River	Bridge below Crawford	A. B. McCoskey	Sept. 20, 1897	7.53*
White River	Bridge below Crawford	A. B. McCoskey	Oct. 18, 1897	10.13*
White River	Bridge below Crawford	A. B. McCoskey	Nov. 5, 1897	10.58*
White River	Bridge below Crawford	Glen E. Smith	April 27, 1898	11.1*
White River	Bridge below Crawford	A. B. McCoskey	Sept. 20, 1898	7.7
White River	Bridge below Crawford	A. B. McCoskey	May 19, 1899	18.05*
White River	Bridge below Crawford	A. B. McCoskey	May 22, 1899	45.89
White River	Bridge below Crawford	A. B. McCoskey	Aug. 19, 1899	16.2
White River	Bridge below Crawford	McCoskey & O'Keefe	July 16, 1900	28.29
White River	Bridge below Crawford	T. J. O'Keefe	Sept. 1, 1900	13.5

*When these measurements were taken the water was all diverted into Crawford ditch. The gaging at the bridge below Crawford show only water accumulated between the two points, from Soldier Creek, seepage, springs, etc. The actual discharge of the stream at Crawford with the Crawford ditch closed would be a little less than the sum of the discharges at the two points on the same date.

Ditch not diverting any water

Swollen by heavy rains

MISCELLANEOUS STREAM MEASUREMENTS—(Continued)

STREAM	LOCALITY	HYDROGRAPHER	DATE	Discharge Cubic Feet Per Second	REMARKS
White River	Below Crawford	A. B. McCoskey	May 17, 1899	18.68	
White River	One mile below mouth Kyle Creek	A. B. McCoskey	Aug. 11, 1897	6.6	
White River	R. R. Bridge above Glen	A. B. McCoskey	Aug. 13, 1897	5.7	
White River	At Andrew's Siding	C. B. Channel	May 26, 1899	4.93	
White River	Force's Ranch, Sec. 31-31-54	A. B. McCoskey	May 19, 1899	4.41	
White River	Sec. 34-32-52	A. Dobson	June 2, 1902	64.9	
White River	Sec. 25-32-52	B. E. Forbes	Aug. 20, 1902	10.4	
White River	Sec. 7-34-47	G. W. Bates	July 8, 1908	99.1	
White River	Fort Robinson	Page T. Francis	July 3, 1910	14.7	
White River	Military Reservation	Page T. Francis	July 10, 1910	13.8	
White River	Half mile west of Crawford	Page T. Francis	Aug. 7, 1910	13.2	
White River	Half mile west of Crawford	Page T. Francis	Aug. 14, 1910	15.6	
White River	Half mile west of Crawford	Page T. Francis	Aug. 30, 1910	12.4	
White River	Half mile west of Crawford	Page T. Francis	Oct. 5, 1910	18.5	
White River	Half mile west of Crawford	Page T. Francis	Oct. 23, 1910	21.7	
White River	Half mile west of Crawford	Page T. Francis	Nov. 20, 1910	28.7	
White Horse Creek	Above Lamplough Lake, 5-14-30	C. B. Channel	May 3, 1898	2.33	
White Horse Creek	Sec. 8-14-30	Price & Mason	June 12, 1914	3.2	
White Tail Creek	Above White Tail Can., 22-15-38	C. B. Channel	May 20, 1898	24.67	
White Tail Creek	Above Reed Ditch, 15-15-38	C. B. Channel	May 20, 1898	24.62	
White Tail Creek	Above Holloway Can., 36-15-38	C. B. Channel	May 20, 1898	26.06	
White Tail Creek	South line Sec. 36-15-38	H. O. Smith	May 7, 1902	24.07	
White Tail Creek	North line Sec. 36-15-38	H. O. Smith	May 7, 1902	36	
White Tail Creek	N. E. $\frac{1}{4}$ Sec. 26-15-38	H. O. Smith	May 7, 1902	33	
White Tail Creek	Keystone Headgate	R. H. Willis	Aug. 16, 1910	23.61	
White Tail Creek	South R. R. Bridge	R. H. Willis	Sept. 1, 1910	22.63	
White Clay Creek	At Brook's, 2-33-45	H. O. Smith	May 20, 1899	5.27	Sheridan County
White Clay Creek	Sec. 32-15-51	C. B. Channel	May 11, 1899	.72	Dawes County

White Clay Creek	Sec. 1-31-52	T. J. O'Keefe	Aug. 23, 1900	1.5	
White Clay Creek	Sec. 36-35-45	G. W. Bates	June 19, 1904	11	
Wood River	Glenwood	C. B. Channel	Aug. 8, 1898	5.82	
Wood River	Sec. 12-9-16	J. C. Stevens	Sept. 7, 1902	27.3	
Wood River	West line Sec. 31-10-16	Price & Mason	June 11, 1914	10	Estimated
Wooden Spring Branch	Sec. 25-35-29	C. B. Channel	June 13, 1899	2.14	

MISCELLANEOUS MEASUREMENTS OF WATER AND CONVENIENT EQUIVALENTS

A "second foot" is water flowing continuously at such a rate that one cubic foot passes a given point in one second of time.

An "acre foot" is water one foot deep covering one acre of land.

1 acre foot equals 43,560 cubic feet, equals 325,851 U. S. gallons.

1 second-foot will supply 1 acre foot in 12.1 hours.

1 U. S. gallon equals 231 cubic inches.

1 cubic foot equals 7.48 U. S. gallons.

1 cubic foot of water weighs 1,000 ounces or 62.5 pounds avoirdupois.

1 U. S. gallon of water weighs 8.355 pounds avoirdupois.

1 horsepower is equivalent to raising 33,000 pounds one foot in one minute.

1 second-foot falling 8.8 feet is equivalent to one theoretical horse-power. 20 per cent of the theoretical horsepower is generally allowed for the friction of machinery, etc., leaving 80 per cent for the net horsepower, therefore one second foot falling 11 feet equals one available horsepower (80 per cent efficiency). About 10 per cent of this is lost when converted into electrical energy.

1 horsepower equals 746 Watts equals .746 Kilowatts.

1 volt ampere equals .0013405 horsepower.

The approximate rate of flow of water in open channels may be found by observing the velocity of a float on the surface of the stream. The velocity is greater at the surface and least along the bottom and sides, being there retarded by friction.

Careful experiments have shown that the mean velocity is about 84 per cent of the maximum central surface velocity. The mean rate of flow is at six-tenths of the depth measured from the surface.

The most approved formula for determining the flow of water in canals is Kutter's:

$$v = \left\{ \frac{1.811}{n} + 41.6 + \frac{.00281}{s} \right\} \sqrt{rs}$$

$$v = \left\{ \frac{.00281}{s} \right\} \frac{n}{1 + \left\{ 41.6 + \frac{.00281}{s} \right\} \frac{n}{\sqrt{r}}} \right\} \sqrt{rs}$$

In this formula

v = the mean velocity in feet per second.

r = the hydraulic radius or mean depth in feet equals the area of cross section in square feet divided by the wetted perimeter or width along the bottom and sides in feet.

s = the slope; that is the fall of the surface in any distance divided by that distance.

n = a co-efficient of roughness, varying in value from .010 for straight channels with smooth, glazed surfaces, to .035 for canals and rivers in bad order, having stones, detritus and aquatic plants in great quantities. This value has been found to be .025 for ordinary irrigation canals and about one-half this quantity for flumes of unplanned lumber.

The following table gives the velocity in feet per second, based on Kutter's Formula, Co-efficient of Roughness n .025 (F fall in feet per mile, S slope).

VELOCITY IN FEET PER SECOND—BASED ON KUTTER'S FORMULA

n = 0.25. F = Fall in feet per mile. S = Slope

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r=av'ge Depth	F=.528 S=.00010	F=.792 S=.00015	F=1.056 S=.00020	F=1.320 S=.00025	F=1.584 S=.00030	F=1.848 S=.00035	F=2.112 S=.00040	F=2.376 S=.00045	F=2.640 S=.00050	F=2.904 S=.00055	F=3.168 S=.00060	F=3.432 S=.00065	F=3.696 S=.00070	F=3.960 S=.00075
0.2	.13	.17	.20	.22	.25	.27	.29	.31	.33	.35	.36	.38	.39	.41
0.4	.24	.30	.36	.41	.45	.49	.53	.56	.59	.62	.65	.68	.71	.73
0.6	.34	.43	.50	.57	.63	.68	.73	.78	.82	.86	.90	.94	.98	1.01
0.8	.43	.54	.63	.72	.79	.86	.92	.93	1.03	1.08	1.13	1.18	1.23	1.27
1.0	.52	.65	.76	.85	.94	1.02	1.09	1.16	1.23	1.29	1.35	1.40	1.46	1.51
1.2	.60	.75	.87	.98	1.08	1.17	1.26	1.34	1.41	1.48	1.55	1.61	1.68	1.74
1.4	.68	.84	.99	1.11	1.22	1.32	1.41	1.51	1.59	1.66	1.74	1.81	1.88	1.95
1.6	.76	.94	1.09	1.23	1.35	1.46	1.56	1.66	1.76	1.84	1.92	2.00	2.08	2.15
1.8	.83	1.03	1.19	1.34	1.47	1.59	1.70	1.81	1.91	2.00	2.10	2.18	2.27	2.34
2.0	.90	1.11	1.29	1.45	1.59	1.72	1.84	1.96	2.06	2.17	2.26	2.36	2.45	2.53
2.2	.97	1.20	1.39	1.55	1.71	1.84	1.97	2.10	2.21	2.32	2.42	2.52	2.62	2.71
2.4	1.04	1.28	1.48	1.66	1.82	1.96	2.10	2.23	2.35	2.47	2.58	2.68	2.79	2.88
2.6	1.10	1.36	1.57	1.76	1.93	2.08	2.23	2.36	2.49	2.61	2.73	2.84	2.95	3.05
2.8	1.17	1.43	1.66	1.85	2.03	2.19	2.35	2.49	2.63	2.75	2.88	3.00	3.11	3.22
3.0	1.23	1.51	1.74	1.95	2.13	2.31	2.46	2.61	2.76	2.89	3.02	3.14	3.26	3.38
3.2	1.29	1.58	1.82	2.04	2.23	2.41	2.58	2.74	2.88	3.02	3.16	3.29	3.41	3.53
3.4	1.35	1.65	1.90	2.13	2.33	2.55	2.69	2.85	3.01	3.15	3.30	3.43	3.56	3.68
3.6	1.41	1.72	1.98	2.22	2.43	2.62	2.80	2.97	3.13	3.28	3.43	3.57	3.70	3.83
3.8	1.46	1.79	2.06	2.30	2.52	2.72	2.91	3.08	3.25	3.41	3.56	3.70	3.84	3.98
4.0	1.52	1.85	2.14	2.39	2.61	2.82	3.01	3.19	3.37	3.53	3.68	3.83	3.98	4.12
4.2	1.57	1.92	2.21	2.47	2.70	2.92	3.12	3.30	3.48	3.65	3.81	3.96	4.11	4.26
4.4	1.63	1.99	2.29	2.55	2.79	3.01	3.22	3.41	3.59	3.77	3.93	4.09	4.20	4.39
4.6	1.68	2.05	2.36	2.63	2.88	3.10	3.32	3.51	3.70	3.88	4.05	4.22	4.37	4.53
4.8	1.74	2.11	2.43	2.71	2.96	3.19	3.41	3.62	3.81	3.99	4.17	4.34	4.50	4.66
5.0	1.79	2.17	2.50	2.78	3.04	3.28	3.51	3.72	3.92	4.11	4.28	4.46	4.63	4.79

TRAPEZOIDAL WEIRS

As a result of experiments made in Italy in 1886 by Cippoletti, he adopted a trapezoidal weir, the sides of which have an inclination of one-fourth horizontal to one vertical. This is based on the theory that the effective length l of a rectangular weir being less than its true length owing to a contraction of the area if the weir be increased in proportion to its depth (since contraction increases in this ratio) and so as to balance the loss due in contraction, the flow through the weir will remain the same as though the weir were rectangular without contraction. The conditions called for in placing a rectangular weir must be nearly fulfilled with a trapezoidal weir, but the distance of the sill of the weir from the bottom of the canal must be at least three times the depth of the weir, and in length must be at least three times the depth of the water flowing over it.

This weir seems to possess some excellent qualities, the chief difficulty in connection with it being the same as arises in using the rectangular weir, namely, that where silt laden water is employed this may fill up above the front board of the weir. This weir may be used as a divisor, and for fairness of measurement is especially adapted to use on irrigation canals.

Depth in Feet	DISCHARGE OVER CIPPOLETTI'S TRAPEZOIDAL WEIRS IN SECOND FEET						
	Length 1 Foot	Length 2 Feet	Length 3 Feet	Length 4 Feet	Length 5 Feet	Length 7 Feet	Length 10 Feet
0.05	.0377	.0754	.1131	.1508	.1885	.2640	.3771
.10	.1064	.2128	.3192	.4256	.5319	.7447	1.0639
.15	.1956	.3912	.5868	.7824	.9780	1.3692	1.9560
.20	.3010	.6020	.9029	1.2039	1.5049	2.1069	3.0008
.25	.4208	.8417	1.2625	1.6833	2.1041	2.9458	4.2083
.30	.5531	1.1063	1.6594	2.2126	2.7657	3.8720	5.5314
.35	.6972	1.3945	2.0917	2.7890	3.4862	4.8807	6.9724
.40		1.7035	2.5553	3.4071	4.2588	5.9624	8.5177
.45		2.0328	3.0492	4.0656	5.0820	7.1148	10.1640
.50		2.3805	3.5708	4.7610	5.9512	8.3318	11.9025
.55		2.7465	4.1198	5.4930	6.8663	9.6128	13.7326
.60		3.1293	4.6939	6.2585	7.8231	10.9524	15.6463
.65		3.5283	5.2924	7.0565	8.8206	12.3489	17.6413
.70		3.9437	5.9156	7.8874	9.8593	13.8030	19.7186
.75			6.5599	8.7466	10.9332	15.3065	21.8665
.80			7.2265	9.6354	12.0442	16.8619	24.9885
.85			7.9154	10.5538	13.1923	18.4692	26.3846
.90			8.6234	11.4978	14.3723	20.1212	28.7446
.95			9.3516	12.4688	15.5860	21.8204	31.1720
1.00			10.1000	13.5667	16.8333	23.5667	33.6667
1.05				14.4888	18.1110	25.3554	36.2220
1.10				15.5365	19.4206	27.1888	38.8412
1.15				16.6071	20.7588	29.0624	41.5177
1.20				17.7019	22.1274	30.9784	44.2548
1.25				18.8197	23.5246	32.9344	47.0492
1.30				19.9603	24.9503	34.9305	49.9007
1.35				21.1238	26.4047	36.9666	52.8095
1.40				22.3075	27.8844	39.0382	55.7688
1.45					29.3910	41.1474	58.7820
1.50					30.9245	43.2943	61.8490
1.55					32.4833	45.4766	64.9666
1.60					34.0685	47.6959	68.1370
1.65					35.6782	49.9495	71.3565
1.70					37.3111	52.2355	74.6222
1.75						54.5568	77.9383
1.80						56.9121	81.3030
1.85						59.3008	84.7154
1.90						61.7211	88.1730
1.95						64.1720	91.6743
2.00						66.6560	95.2228

The altitudes of the different points in Nebraska are given in the following tabulated form taken from Bulletin No. 274, of the United States Geological Survey.

NEBRASKA

LOCALITY	AUTHORITY	Elevation
		Feet
Abbott.....	B. & M. R. R. R.	1,901
Able.....	C. & N. W. Rwy.	1,432
Adams.....	B. & M. R. R. R.	1,244
Adella.....	B. & M. R. R. R.	3,717
Agnew.....	U. P. R. R.	1,264
Ainsworth, C. & N. W. Rwy.....	U. S. C. & G. S.	2,525
Do..... B. M. west of section tool house.....	U. S. C. & G. S.	2,525
Albion.....	C. & N. W. Rwy.	1,748
Do.....	U. P. R. R.	1,754
Do.....	Weather Bureau	1,747
Albright.....	C., R. I. & P. Rwy.	1,080
Alda, U. P. R. R.....	U. S. C. & G. S.	1,916
Alden.....	B. & M. R. R. R.	3,656
Alexandria.....	St. J. & G. I. Rwy.	1,403
Alliance.....	B. & M. R. R. R.	3,971
Do.....	Weather Bureau	3,968
Alma.....	B. & M. R. R. R.	1,942
Do.....	Weather Bureau	1,996
Alma Junction.....	B. & M. R. R. R.	1,790
Alvo.....	C., R. I. & P. Rwy.	1,316
Amboy, limestone post on B. & M. R. R. R. right of way adjacent to property of Amboy Milling Co.	U. S. C. & G. S.	1,692
Ames.....	U. P. R. R.	1,231
Amherst.....	U. P. R. R.	2,337
Andrews, C. & N. W. Rwy.....	U. S. C. & G. S.	4,430
Angora.....	B. & M. R. R. R.	4,266
Angus.....	B. & M. R. R. R.	1,623
Anselmo.....	B. & M. R. R. R.	2,608
Ansley.....	B. & M. R. R. R.	2,310
Do.....	Weather Bureau	2,307
Apex.....	C., St. P., M. & O. Rwy.....	1,790
Do..... B. M. near north head block.....	U. S. C. & G. S.	1,786
Appleton.....	B. & M. R. R. R.	1,062
Arabia, C. & N. W. Rwy.....	U. S. C. & G. S.	2,722
Arapahoe.....	B. & M. R. R. R.	2,176
Do.....	Weather Bureau	2,173
Arbor.....	C. & N. W. Rwy.	1,157
Arcadia.....	B. & M. R. R. R.	2,188
Do.....	Weather Bureau	2,186
Archer.....	B. & M. R. R. R.	1,742
Arlington.....	C. & N. W. Rwy.	1,162
Armour.....	B. & M. R. R. R.	1,314
Ashley.....	B. & M. R. R. R.	3,850
Ashland.....	B. & M. R. R. R.	1,086
Do.....	Weather Bureau	1,100
Ashton.....	B. & M. R. R. R.	2,063
Do.....	Weather Bureau	2,061
Atkinson, C. & N. W. Rwy.....	U. S. C. & G. S.	2,110
Do..... B. M. on foundation of water tower.....	U. S. C. & G. S.	2,111
Atlanta.....	B. & M. R. R. R.	2,336
Auburn.....	B. & M. R. R. R.	1,051
Do.....	Weather Bureau	1,051
Aurora.....	B. & M. R. R. R.	1,794

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Do.....	Weather Bureau.....	1,792
Avery.....	U. P. R. R.....	1,019
Avoca.....	M. P. Rwy.....	1,172
Axtell.....	B. & M. R. R. R.....	2,222
Ayr.....	B. & M. R. R. R.....	1,839
Do..... limestone post in park south of station.....	U. S. C. & G. S.....	1,839
Bald Peak, Scotts Bluff County.....	U. S. G. S.....	4,420
Bancroft.....	C., St. P., M. & O. Rwy.....	1,318
Barneston.....	U. P. R. R.....	1,190
Barney.....	B. & M. R. R. R.....	925
Bartley.....	B. & M. R. R. R.....	2,328
Barton.....	U. P. R. R.....	3,414
Bassett, C., & N. W. Rwy.....	U. S. C. & G. S.....	2,326
Do..... B. M. east of station.....	U. S. C. & G. S.....	2,328
Do.....	Weather Bureau.....	2,323
Battle Creek.....	C. & N. W. Rwy.....	1,589
Bayard.....	B. & M. R. R. R.....	3,753
Bay State.....	U. P. R. R.....	1,286
Beatrice.....	B. & M. R. R. R.....	1,247
Do.....	C., R. I. & P. Rwy.....	1,260
Do.....	U. P. R. R.....	1,244
Do.....	Weather Bureau.....	1,235
Beaver City.....	B. & M. R. R. R.....	2,150
Do.....	Weather Bureau.....	2,147
Beaver Crossing.....	C. & N. W. Rwy.....	1,458
Bee.....	C. & N. W. Rwy.....	1,563
Belfast.....	B. & M. R. R. R.....	2,183
Belgrade.....	U. P. R. R.....	1,707
Bellevue.....	B. & M. R. R. R.....	985
Bellwood.....	B. & M. R. R. R.....	1,439
Belmer.....	C. & N. W. Rwy.....	1,341
Belmont.....	B. & M. R. R. R.....	4,496
Belnap.....	B. & M. R. R. R.....	1,119
Belvidere.....	B. & M. R. R. R.....	1,490
Do.....	St. J. & G. I. Rwy.....	1,496
Do, Crossing B. & M. R. R. R.....	St. J. & G. I. Rwy.....	1,498
Benedict.....	B. & M. R. R. R.....	1,679
Benkleman.....	B. & M. R. R. R.....	2,971
Do.....	Weather Bureau.....	2,968
Bennett.....	B. & M. R. R. R.....	1,243
Bennington.....	C. & N. W. Rwy.....	1,088
Benton.....	U. P. R. R.....	1,398
Berea.....	B. & M. R. R. R.....	4,144
Berks.....	B. & M. R. R. R.....	1,416
Berlin.....	M. P. Rwy.....	1,118
Bertrand.....	B. & M. R. R. R.....	2,518
Berwyn.....	B. & M. R. R. R.....	2,377
Beverly.....	B. & M. R. R. R.....	2,662
Bighorn Mountain, Banner County.....	U. S. G. S.....	4,718
Big Spring.....	U. P. R. R.....	3,365
Do..... iron post.....	U. S. G. S.....	3,370
Bingham.....	B. & M. R. R. R.....	3,917
Bird Cape Gap, Cheyenne County.....	U. S. G. S.....	4,028
Birdsell.....	B. & M. R. R. R.....	3,956

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation Feet
Bladen.....	B. & M. R. R. R.....	1,985
Blair.....	C., St. P., M. & O. Rwy.....	1,232
Do..... Missouri River, low water.....	Mo. River Com.....	986
Do..... Missouri River, high water.....	Mo. River Com.....	1,007
Blair.....	Weather Bureau.....	1,240
Bloomfield.....	C., St. P., M. & O. Rwy.....	1,703
Bloomington.....	B. & M. R. R. R.....	1,848
Blue Hill, B. & M. R. R. R.....	U. S. C. & G. S.....	1,970
Do..... square cut on foundation of water tower.....	U. S. C. & G. S.....	1,973
Do.....	Weather Bureau.....	1,967
Blue Hill triangulation station.....	U. S. C. & G. S.....	2,042
Blue Springs.....	B. & M. R. R. R.....	1,259
Bollus.....	U. P. R. R.....	1,920
Bonnér.....	B. & M. R. R. R.....	4,163
Boone.....	U. P. R. R.....	1,699
Bordeaux, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,704
Bostwick, B. & M. R. R. R.....	U. S. C. & G. S.....	1,603
Do..... limestone post west of station.....	U. S. C. & G. S.....	1,605
Bracken.....	B. & M. R. R. R.....	902
Bradish.....	C. & N. W. Rwy.....	1,774
Bradshaw.....	B. & M. R. R. R.....	1,716
Brady Island.....	U. P. R. R.....	2,651
Brainard.....	C. & N. W. Rwy.....	1,674
Do.....	U. P. R. R.....	1,679
Brandon.....	B. & M. R. R. R.....	3,513
Brayton.....	B. & M. R. R. R.....	1,959
Brickton.....	B. & M. R. R. R.....	1,830
Do..... limestone post on siding south of elevator.....	U. S. C. & G. S.....	1,831
Bridgeport.....	B. & M. R. R. R.....	3,653
Brock.....	M. P. Rwy.....	956
Broken Bow.....	B. & M. R. R. R.....	2,480
Do.....	Weather Bureau.....	2,477
Brownson.....	U. P. R. R.....	4,215
Brownville.....	B. & M. R. R. R.....	893
Do..... Missouri River, extreme low water, 1882.....	Mo. River Com.....	875
Do..... Missouri River, extreme high water, 1881.....	Mo. River Com.....	895
Brule.....	U. P. R. R.....	3,287
Bruning.....	B. & M. R. R. R.....	1,584
Bruno.....	C. & N. W. Rwy.....	1,490
Brunswick, G. N. Rwy.....	U. S. C. & G. S.....	1,859
Do..... B. M. southwest of Sidman Grain Co.'s elevator.....	U. S. C. & G. S.....	1,856
Burchard.....	B. & M. R. R. R.....	1,366
Do.....	Weather Bureau.....	1,377
Buda.....	U. P. R. R.....	2,120
Burress.....	B. & M. R. R. R.....	1,619
Burwell.....	B. & M. R. R. R.....	2,182
Do.....	Weather Bureau.....	2,180
Bushnell.....	U. P. R. R.....	4,871
Byron.....	B. & M. R. R. R.....	1,670
Cadams.....	C. & N. W. Rwy.....	1,783
Cairo.....	B. & M. R. R. R.....	1,954
Calhoun.....	C., St. P., M. & O. Rwy.....	1,074
Callaway.....	U. P. R. R.....	2,559

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Callaway.....	Weather Bureau.....	2,555
Cambridge.....	B. & M. R. R. R.....	2,261
Campbell.....	B. & M. R. R. R.....	2,000
Carleton.....	St. J. & G. I. Rwy.....	1,549
Carroll.....	C., St. P., M. & O. Rwy.....	1,553
Carter.....	B. & M. R. R. R.....	2,028
Castle Rock, Banner County.....	U. S. G. S.....	4,472
Castle Rock, Scotts Bluff County.....	U. S. G. S.....	4,473
Cayuga, U. P. R. R.....	U. S. C. & G. S.....	1,470
Cedar Bluffs.....	C. & N. W. Rwy.....	1,300
Cedar Creek.....	B. & M. R. R. R.....	1,008
Cedar Rapids.....	U. P. R. R.....	1,782
Central City.....	B. & M. R. R. R.....	1,697
Do... U. P. R. R.....	U. S. C. & G. S.....	1,702
Do... copper bolt in north wall of courthouse.....	U. S. C. & G. S.....	1,703
Do.....	Weather Bureau.....	1,708
Ceresco.....	C. & N. W. Rwy.....	1,189
Chadron, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,371
Do... B. M. near junction of Main avenue and railroad.....	U. S. C. & G. S.....	3,371
Do... B. M. at front entrance to courthouse.....	U. S. C. & G. S.....	3,394
Chalco.....	B. & M. R. R. R.....	1,073
Chapman, U. P. R. R.....	U. S. C. & G. S.....	1,767
Do... copper bolt in south wall of schoolhouse.....	U. S. C. & G. S.....	1,772
Chappell.....	U. P. R. R.....	3,697
Do... iron post at station.....	U. S. G. S.....	3,696
Charleston.....	C. & N. W. Rwy.....	1,692
Cheney.....	B. & M. R. R. R.....	1,428
Chester.....	B. & M. R. R. R.....	1,620
Do.....	Weather Bureau.....	1,618
Chimney Rock, Cheyenne County.....	U. S. G. S.....	4,242
Clarks, U. P. R. R.....	U. S. C. & G. S.....	1,623
Do... square cut on step at main entrance to schoolhouse.....	U. S. C. & G. S.....	1,627
Clarkson.....	C. & N. W. Rwy.....	1,490
Clay Center.....	B. & M. R. R. R.....	1,781
Claytonia.....	C., R. I. & P. Rwy.....	1,355
Clearwater.....	C. & N. W. Rwy.....	1,793
Clinton, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,738
Coburn, crossing G. N. Rwy.....	C., St. P., M. & O. Rwy.....	1,118
Do... B. M. at intersection of Newcastle Rwy. and C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,105
Cody, B. M. east of coaling station.....	U. S. C. & G. S.....	3,100
Coffman.....	C., St. P., M. & O. Rwy.....	1,082
Coleridge.....	C., St. P., M. & O. Rwy.....	1,552
Colfer.....	B. & M. R. R. R.....	3,187
College View.....	B. & M. R. R. R.....	1,229
Collins.....	B. & M. R. R. R.....	3,986
Colon.....	C. & N. W. Rwy.....	1,249
Colton.....	U. P. R. R.....	3,966
Columbus.....	B. & M. R. R. R.....	1,441
Do.....	U. P. R. R.....	1,448
Do... crossing B. & M. R. R. R.....	U. P. R. R.....	1,440
Do... square cut on foundation of water tower.....	U. S. C. & G. S.....	1,448

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
Columbus square cut on step at south entrance to high school house.	U. S. C. & G. S.	Feet 1,449
Do.	Weather Bureau.	1,442
Comstock.	B. & M. R. R. R.	2,269
Concord.	C., St. P., M. & O. Rwy.	1,485
Cordova.	C. & N. W. Rwy.	1,569
Cornelia.	C. & N. W. Rwy.	1,722
Cortland.	U. P. R. R.	1,442
Courthouse Rock, Cheyenne County.	U. S. G. S.	4,100
Cowles, B. & M. R. R.	U. S. C. & G. S.	1,792
Do. limestone post in park south of station.	U. S. C. & G. S.	1,794
Cozad.	U. P. R. R.	2,486
Crab Orchard.	B. & M. R. R. R.	1,278
Craig.	C., St. P., M. & O. Rwy.	1,261
Crawford.	B. & M. R. R. R.	3,673
Do. C. & N. W. Rwy.	U. S. C. & G. S.	3,681
Do. B. M. on Syndicate Block.	U. S. C. & G. S.	3,680
Creighton.	C. & N. W. Rwy.	1,600
Do.	Weather Bureau.	1,600
Creston.	C. & N. W. Rwy.	1,604
Crete.	B. & M. R. R. R.	1,854
Do.	Weather Bureau.	1,368
Crookston, C. & N. W. Rwy.	U. S. C. & G. S.	2,677
Crowell.	C. & N. W. Rwy.	1,275
Culbertson.	B. & M. R. R. R.	2,568
Do.	Weather Bureau.	2,576
Cullom.	B. & M. R. R. R.	984
Curtis.	B. & M. R. R. R.	2,556
Do. iron post at C., B. & Q. Rwy station.	U. S. G. S.	2,560
Do.	Weather Bureau.	2,553
Cushing.	B. & M. R. R. R.	1,796
Dakota City, C., St. P., M. & O. Rwy.	U. S. C. & G. S.	1,102
Do. iron-pipe post in court-house grounds.	U. S. C. & G. S.	1,099
Dalton.	B. & M. R. R. R.	4,268
Danbury.	B. & M. R. R. R.	2,461
Dannebrog.	U. P. R. R.	1,873
Darr.	U. P. R. R.	2,449
Davenport.	C. & N. W. Rwy.	1,654
Do.	St. J. & G. I. Rwy.	1,655
Do. crossing C. & N. W. Rwy.	St. J. & G. I. Rwy.	1,654
Davey.	C. & N. W. Rwy.	1,261
David City.	B. & M. R. R. R.	1,607
Do.	C. & N. W. Rwy.	1,619
Do.	U. P. R. R.	1,620
Do.	Weather Bureau.	1,619
Dawson.	B. & M. R. R. R.	951
Daykin.	B. & M. R. R. R.	1,527
Deans.	B. & M. R. R. R.	1,771
De Bolt Place.	C. & N. W. Rwy.	1,200
Decatur, Missouri River, low water.	Mo. River Com.	1,033
Do. Missouri River, high water.	Mo. River Com.	1,051
Denton.	B. & M. R. R. R.	1,233
Deshler.	C., R. I. & P. Rwy.	1,544
Deweese.	B. & M. R. R. R.	1,687

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
De Witt.....	B. & M. R. R. R.....	1,289
Do.....	C., R. I. & P. Rwy.....	1,285
Dexter.....	U. P. R. R.....	2,994
Dickens.....	B. & M. R. R. R.....	3,131
Diller.....	B. & M. R. R. R.....	1,346
Dix.....	U. P. R. R.....	4,554
Dodge.....	C. & N. W. Rwy.....	1,395
Dome Rock, Scotts Bluff County.....	U. S. G. S.....	4,560
Doniphan.....	St. J. & G. I. Rwy.....	1,944
Do... square cut on foundation of Bank of Doniphan building.	U. S. C. & G. S.....	1,946
Dooley.....	B. & M. R. R. R.....	4,273
Dorchester.....	B. & M. R. R. R.....	1,486
Dublin.....	U. P. R. R.....	1,879
Dubois.....	C., R. I. & P. Rwy.....	1,069
Dunbar.....	B. & M. R. R. R.....	1,044
Do.....	M. P. Rwy.....	1,047
Duncan.....	U. P. R. R.....	1,495
Do... stone post in park east of station.....	U. S. C. & G. S.....	1,492
Dunning.....	B. & M. R. R. R.....	2,624
Do.....	Weather Bureau.....	2,621
Dwight.....	C. & N. W. Rwy.....	1,626
Eddyville.....	U. P. R. R.....	2,448
Edgar.....	B. & M. R. R. R.....	1,724
Do.....	St. J. & G. I. Rwy.....	1,725
Do.....	Weather Bureau.....	1,722
Edholm.....	B. & M. R. R. R.....	1,362
Edison.....	B. & M. R. R. R.....	2,119
Elba.....	U. P. R. R.....	1,859
Elberson.....	B. & M. R. R. R.....	1,194
Eldorado.....	C. & N. W. Rwy.....	1,774
Elgin.....	C. & N. W. Rwy.....	1,929
Eli, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,194
Elk Creek.....	B. & M. R. R. R.....	1,067
Elkhorn.....	U. P. R. R.....	1,164
Elkhorn Junction.....	C. & N. W. Rwy.....	983
Ellis.....	C., R. I. & P. Rwy.....	1,436
Ellsworth.....	B. & M. R. R. R.....	3,917
Elm Creek.....	U. P. R. R.....	2,266
Elsie.....	B. & M. R. R. R.....	3,385
Elwood.....	B. & M. R. R. R.....	2,765
Elyria.....	B. & M. R. R. R.....	2,103
Emerald.....	B. & M. R. R. R.....	1,196
Emerson, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,426
Do... B. M. on north front of McHenry's grist-mill.	U. S. C. & G. S.....	1,427
Emmet, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,025
Do... B. M. on stone culvert east of station.....	U. S. C. & G. S.....	2,023
Enders.....	B. & M. R. R. R.....	3,076
Endicott.....	St. J. & G. I. Rwy.....	1,287
Do... crossing B. & M. R. R. R.....	St. J. & G. I. Rwy.....	1,286
Ericson.....	B. & M. R. R. R.....	2,081
Do.....	Weather Bureau.....	2,029
Erwin.....	C. & N. W. Rwy.....	3,441

NEBRASKA —(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Eustis.....	B. & M. R. R. R.	2,619
Do... aluminum tablet on water tank.....	U. S. G. S.	2,624
Everson.....	B. & M. R. R. R.	2,074
Ewing.....	C. & N. W. Rwy.	1,880
Do.....	Weather Bureau.	1,888
Exeter.....	B. & M. R. R. R.	1,608
Do.....	C. & N. W. Rwy.	1,607
Fairbury.....	C., R. I. & P. Rwy.	1,317
Do.....	St. J. & G. I. Rwy.	1,311
Do.....	Weather Bureau.	1,316
Fairfield.....	St. J. & G. I. Rwy.	1,779
Fairmont.....	B. & M. R. R. R.	1,643
Do.....	Weather Bureau.	1,652
Falls City.....	B. & M. R. R. R.	900
Do.....	M. P. Rwy.	903
Farnam.....	B. & M. R. R. R.	2,724
Do... iron post at C., B. & Q. Rwy. station.....	U. S. G. S.	2,729
Farwell.....	B. & M. R. R. R.	1,954
Filley.....	B. & M. R. R. R.	1,386
Filley.....	Weather Bureau.	1,397
Firth.....	B. & M. R. R. R.	1,313
Florence.....	C., St. P., M. & O. Rwy.	1,033
Fort Omaha.....	C. & N. W. Rwy.	1,070
Fort Robinson.....	C. & N. W. Rwy.	3,784
Do... B. M. in corner of station pprk.....	U. S. C. & G. S.	3,786
Do.....	Weather Bureau.	3,764
Do... copper bolt in monument in parade ground.....	U. S. G. S.	4,086
Foster, C. & N. W. Rwy.....	U. S. C. & G. S.	1,642
Do... B. M. northwest of Nye & Schneider Co.'s elevator.....	U. S. C. & G. S.	1,640
Franklin.....	B. & M. R. R. R.	1,820
Do.....	Weather Bureau.	1,820
Fremont.....	U. P. R. R.	1,195
Do.....	C. & N. W. Rwy.	1,196
Do.....	Weather Bureau.	1,203
Funnel Rock, Banner County.....	U. S. G. S.	4,502
Friend.....	B. & M. R. R. R.	1,559
Fullerton.....	U. P. R. R.	1,630
Funk.....	B. & M. R. R. R.	2,252
Gabe Rock, Banner County.....	U. S. G. S.	5,006
Gannett.....	U. P. R. R.	2,766
Do... iron post at railroad signpost.....	U. S. G. S.	2,769
Gardiner, U. P. R. R.....	U. S. C. & G. S.	1,515
Garrison.....	B. & M. R. R. R.	1,592
Gates.....	C., R. I. & P. Rwy.	1,000
Geneva.....	B. & M. R. R. R.	1,634
Do.....	C. & N. W. Rwy.	1,644
Do.....	Weather Bureau.	1,633
Genoa.....	U. P. R. R.	1,580
Do.....	Weather Bureau.	1,584
Georgia, C. & N. W. Rwy.....	U. S. C. & G. S.	2,918
Do... B. M. northwest of section house.....	U. S. C. & G. S.	2,917
Gering.....	U. S. G. S.	3,902
Germantown.....	B. & M. R. R. R.	1,568

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Gibbon	U. P. R. R.	2,060
Do	Weather Bureau	2,068
Gilead	C., R. I. & P. Rwy.	1,543
Gilmore	U. P. R. R.	988
Gilmore Junction	B. & M. R. R. R.	999
Giltner	B. & M. R. R. R.	1,835
Girard	B. & M. R. R. R.	4,368
Gladstone	C., R. I. & P. Rwy.	1,536
Glen Rock	M. P. Rwy.	945
Glenville	St. J. & G. I. Rwy.	1,839
Glenwood Park	U. P. R. R.	2,158
Goehner	C. & N. W. Rwy.	1,548
Gordon, B. M. at east end of C. & N. W. Rwy station.	U. S. C. & G. S.	3,556
Do... B. M. at entrance to Maverick Bank building.	U. S. C. & G. S.	3,558
Gothenburg	U. P. R. R.	2,561
Do	Weather Bureau	2,557
Graf	B. & M. R. R. R.	1,222
Grafton	B. & M. R. R. R.	1,686
Grand Island	B. & M. R. R. R.	1,864
Do	St. J. & G. I. Rwy.	1,864
Do... crossing B. & M. R. R. R.	St. J. & G. I. Rwy.	1,864
Do... stone post in park in front of office of U. P. R. R. car shops.	U. S. C. & G. S.	1,858
Do... square cut on column at entrance to Security Bank building.	U. S. C. & G. S.	1,866
Do	Weather Bureau	1,860
Grant	B. & M. R. R. R.	3,408
Greeley	Weather Bureau	2,021
Greeley Center	B. & M. R. R. R.	2,012
Greenwood	B. & M. R. R. R.	1,125
Gresham	C. & N. W. Rwy.	1,623
Gretna	B. & M. R. R. R.	1,247
Guide Rock, B. & M. R. R. R.	U. S. C. & G. S.	1,650
Do... square cut on step at entrance to Bank of Guide Rock building.	U. S. C. & G. S.	1,666
Hadar, C. & N. W. Rwy.	U. S. C. & G. S.	1,557
Do... B. M. on corner of Nye & Schneider Co.'s building.	U. S. C. & G. S.	1,558
Haigler	B. & M. R. R. R.	3,261
Hallam	C., R. I. & P. Rwy.	1,475
Halloran	B. & M. R. R. R.	1,881
Halsey	B. & M. R. R. R.	2,698
Hamlet	B. & M. R. R. R.	2,829
Hampton	B. & M. R. R. R.	1,761
Hanlon	U. P. R. R.	1,210
Hansen, St. J. & G. I. Rwy.	U. S. C. & G. S.	1,945
Do... limestone post opposite station.	U. S. C. & G. S.	1,944
Harbine	C., R. I. & P. Rwy.	1,449
Hardy	B. & M. R. R. R.	1,539
Harrison, C. & N. W. Rwy.	U. S. C. & G. S.	4,857
Do... B. M. on court-house.	U. S. C. & G. S.	4,880
Hartington	C., St. P., M. & O. Rwy.	1,382
Do	Weather Bureau	1,309

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Harvard	B. & M. R. R. R.	1,801
Do	C. & N. W. Rwy.	1,804
Do	Weather Bureau	1,812
Haskins, C., St. P., M. & O. Rwy.	U. S. C. & G. S.	1,666
Hastings	C. & N. W. Rwy.	1,932
Do	St. J. & G. I. Rwy.	1,921
Do... crossing C. & N. W. Rwy.	St. J. & G. I. Rwy.	1,918
Do... crossing B. & M. R. R. R.	St. J. & G. I. Rwy.	1,921
Do... B. & M. R. R. R.	U. S. C. & G. S.	1,985
Do... square cut on railing of court-house steps.	U. S. C. & G. S.	1,932
Do... square cut on step of First National Bank building.	U. S. C. & G. S.	1,933
Do... square cut on coping of foundation of water tower.	U. S. C. & G. S.	1,934
Do	Weather Bureau	1,932
Havelock	B. & M. R. R. R.	1,185
Do	C., R. I. & P. Rwy.	1,153
Havens, U. P. R. R.	U. S. C. & G. S.	1,586
Do... limestone post near railroad signpost	U. S. C. & G. S.	1,586
Hay Springs, C. & N. W. Rwy.	U. S. C. & G. S.	3,831
Do... B. M. in lawn west of station.	U. S. C. & G. S.	3,880
Do	Weather Bureau	3,821
Hazard	B. & M. R. R. R.	2,109
Heartwell	B. & M. R. R. R.	2,097
Hebron	B. & M. R. R. R.	1,460
Do	C., R. I. & P. Rwy.	1,453
Do	Weather Bureau	1,458
Hecla	B. & M. R. R. R.	3,363
Helvey	B. & M. R. R. R.	1,426
Hemingford	B. & M. R. R. R.	4,259
Henderson	C. & N. W. Rwy.	1,725
Hendley	B. & M. R. R. R.	2,234
Herdon	U. P. R. R.	4,318
Herman	C., St. P., M. & O. Rwy.	1,033
Hershey	U. P. R. R.	2,901
Do... aluminum tablet on water tank.	U. S. G. S.	2,906
Hickman	B. & M. R. R. R.	1,241
Do	Weather Bureau	1,252
Hildreth	B. & M. R. R. R.	2,175
Hindrey	U. P. R. R.	2,680
Hoag	B. & M. R. R. R.	1,264
Hogback Mountain, Banner County	U. S. G. S.	5,084
Holbrook	B. & M. R. R. R.	2,209
Holdrege	B. & M. R. R. R.	2,327
Do	Weather Bureau	2,324
Holstein	B. & M. R. R. R.	2,008
Hooper	C. & N. W. Rwy.	1,228
Hope	C., St. P., M. & O. Rwy.	1,553
Do... B. M. near milepost.	U. S. C. & G. S.	1,555
Horace	B. & M. R. R. R.	2,064
Hoskins	C., St. P., M. & O. Rwy.	1,666
Do... B. M. on land owned by J. Foster.	U. S. C. & G. S.	1,668
Houston	C. & N. W. Rwy.	1,646
Howe	M. P. Rwy.	987

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation Feet
Howell.....	C. & N. W. Rwy.....	1,458
Hubbard, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,157
Do... B. M. on property of Peavey Elevator Co..	U. S. C. & G. S.....	1,158
Hubbell.....	B. & M. R. R. R.....	1,458
Humboldt.....	B. & M. R. R. R.....	982
Humphrey.....	C. & N. W. Rwy.....	1,648
Do... U. P. R. R.....	U. S. C. & G. S.....	1,645
Do... copper bolt in east wall of school-house near Catholic Church.	U. S. C. & G. S.....	1,694
Hyannis.....	B. & M. R. R. R.....	3,738
Imperial.....	B. & M. R. R. R.....	3,281
Do.....	Weather Bureau.....	3,278
Inavale.....	B. & M. R. R. R.....	1,728
Indianola.....	B. & M. R. R. R.....	2,375
Do.....	Weather Bureau.....	2,372
Ingham.....	B. & M. R. R. R.....	2,675
Do... iron post at C., B. & Q. Rwy. station.....	U. S. C. & G. S.....	2,679
Inland.....	B. & M. R. R. R.....	1,855
Do.....	C. & N. W. Rwy.....	1,857
Inman.....	C. & N. W. Rwy.....	1,930
Irvington.....	C. & N. W. Rwy.....	1,090
Irwin, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,441
Do... B. M. near post bearing name "Irwin".....	U. S. C. & G. S.....	3,440
Ithaca.....	B. & M. R. R. R.....	1,134
Ives.....	B. & M. R. R. R.....	3,105
Jacinto.....	U. P. R. R.....	4,493
Jackson.....	C., St. P., M. & O. Rwy.....	1,124
Jamaica.....	U. P. R. R.....	1,193
Jansen.....	C., R. I. & P. Rwy.....	1,449
Johnson.....	B. & M. R. R. R.....	1,228
Johnstown, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,604
Josselyn.....	U. P. R. R.....	2,347
Julesburg.....	U. P. R. R.....	3,468
Juniata.....	B. & M. R. R. R.....	1,974
Kansas City & Omaha Junction.....	St. J. & G. I. Rwy.....	1,844
Kearney.....	B. & M. R. R. R.....	2,150
Do.....	U. P. R. R.....	2,150
Do.....	Weather Bureau.....	2,146
Keene.....	B. & M. R. R. R.....	2,211
Kelso.....	B. & M. R. R. R.....	3,062
Kenesaw.....	B. & M. R. R. R.....	2,051
Kent.....	U. P. R. R.....	1,585
Kesterson.....	B. & M. R. R. R.....	1,823
Kimball.....	U. P. R. R.....	4,709
Do.....	Weather Bureau.....	4,697
Knox.....	B. & M. R. R. R.....	1,636
Korty.....	U. P. R. R.....	3,105
Lakeside.....	B. & M. R. R. R.....	3,887
Lambert.....	U. P. R. R.....	1,375
Lancaster.....	B. & M. R. R. R.....	1,178
Lane.....	U. P. R. R.....	1,091
Langs Point, Cheyenne County.....	U. S. G. S.....	4,460
Lanham.....	B. & M. R. R. R.....	1,378
La Platte.....	B. & M. R. R. R.....	970

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Laurel.....	C., St. P., M. & O. Rwy.....	1,473
Do... crossing G. N. Rwy.....	C., St. P., M. & O. Rwy.....	1,475
Lawrence.....	B. & M. R. R. R.....	1,877
Lawton.....	U. P. R. R.....	5,945
Leahy.....	B. & M. R. R. R.....	1,546
Lebanon.....	B. & M. R. R. R.....	2,395
Leigh.....	C. & N. W. Rwy.....	1,592
Leroy.....	B. & M. R. R. R.....	1,800
Lester.....	B. & M. R. R. R.....	1,683
Letan.....	B. & M. R. R. R.....	4,021
Lewiston.....	C., R. I. & P. Rwy.....	1,460
Lexington.....	U. P. R. R.....	2,389
Do.....	Weather Bureau.....	2,385
Liberty.....	B. & M. R. R. R.....	1,269
Lincoln.....	B. & M. R. R. R.....	1,148
Do.....	Weather Bureau.....	1,189
Lindsay.....	C. & N. W. Rwy.....	1,660
Linscott.....	B. & M. R. R. R.....	2,708
Linwood.....	C. & N. W. Rwy.....	1,336
Litchfield.....	B. & M. R. R. R.....	2,165
Lockwood.....	U. P. R. R.....	1,806
Do... limestone post north of station.....	U. S. C. & G. S.....	1,805
Lodgepole.....	U. P. R. R.....	3,832
Do.....	Weather Bureau.....	3,820
Lodi.....	U. P. R. R.....	2,655
Lomax.....	U. P. R. R.....	2,502
Long Pine, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,403
Do... B. M. in lot by station.....	U. S. C. & G. S.....	2,404
Loomis.....	B. & M. R. R. R.....	2,426
Loup City.....	B. & M. R. R. R.....	2,091
Do.....	U. P. R. R.....	2,071
Do.....	Weather Bureau.....	2,067
Lorenzo.....	B. & M. R. R. R.....	4,356
Loretto.....	C. & N. W. Rwy.....	1,834
Louisville.....	M. P. Rwy.....	1,041
Do.....	B. & M. R. R. R.....	1,025
Lowell.....	B. & M. R. R. R.....	2,072
Lushton.....	B. & M. R. R. R.....	1,673
Lyman.....	B. & M. R. R. R.....	1,640
Lyons.....	C., St. P., M. & O. Rwy.....	1,287
Do.....	Weather Bureau.....	1,285
McAlpine.....	B. & M. R. R. R.....	2,132
McCook.....	B. & M. R. R. R.....	2,509
Do.....	Weather Bureau.....	2,506
McCool.....	Weather Bureau.....	1,575
McCool Junction.....	B. & M. R. R. R.....	1,550
Madison, U. P. R. R.....	U. S. C. & G. S.....	1,581
Do... copper bolt in south wall of Madison State Bank building.....	U. S. C. & G. S.....	1,592
Do.....	Weather Bureau.....	1,585
Madrid.....	B. & M. R. R. R.....	3,297
Do.....	Weather Bureau.....	3,294
Magnet.....	C., St. P., M. & O. Rwy.....	1,820
Malcolm.....	B. & M. R. R. R.....	1,280

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Malmö.....	B. & M. R. R. R.	1,246
Mansfield.....	B. & M. R. R. R.	3,620
Mapps.....	B. & M. R. R. R.	1,658
Margate.....	U. P. R. R.	4,150
Marion.....	B. & M. R. R. R.	2,504
Markel.....	U. P. R. R.	2,422
Marlow.....	B. & M. R. R. R.	4,248
Marquette.....	B. & M. R. R. R.	1,821
Do.....	Weather Bureau.....	1,830
Marsland.....	B. & M. R. R. R.	4,159
Martell.....	C., R. I. & P. Rwy.	1,315
Martland.....	C. & N. W. Rwy.	1,643
Mascot.....	B. & M. R. R. R.	2,127
Mason.....	B. & M. R. R. R.	2,260
Max.....	B. & M. R. R. R.	2,889
Maxwell.....	U. P. R. R.	2,711
Do... iron post at station.....	U. S. G. S.	2,714
Mayberry.....	C., R. I. & P. Rwy.	1,310
Maywood.....	B. & M. R. R. R.	2,667
Mead.....	U. P. R. R.	1,210
Meadow.....	C., R. I. & P. Rwy.	1,007
Meadowgrove.....	C. & N. W. Rwy.	1,620
Megeath.....	U. P. R. R.	3,324
Memphis.....	B. & M. R. R. R.	1,087
Mercer.....	U. P. R. R.	1,174
Merchiston.....	U. P. R. R.	1,612
Merna.....	B. & M. R. R. R.	2,671
Merriman.....	C. & N. W. Rwy.	3,259
Milford.....	B. & M. R. R. R.	1,408
Do.....	Weather Bureau.....	1,414
Millard.....	U. P. R. R.	1,068
Miller.....	U. P. R. R.	2,317
Millerton.....	C. & N. W. Rwy.	1,590
Milligan.....	B. & M. R. R. R.	1,601
Minatare.....	B. & M. R. R. R.	3,820
Minden.....	B. & M. R. R. R.	2,165
Do.....	Weather Bureau.....	2,169
Minersville.....	B. & M. R. R. R.	945
Mitchell.....	B. & M. R. R. R.	3,945
Moorefield.....	B. & M. R. R. R.	2,822
Do... iron post at C., B. & Q. Rwy station.....	U. S. G. S.	2,826
Morrill.....	B. & M. R. R. R.	3,986
Morse Bluff.....	C. & N. W. Rwy.	1,278
Motala.....	B. & M. R. R. R.	2,202
Mullen.....	B. & M. R. R. R.	3,202
Munroe.....	U. P. R. R.	1,526
Murdock.....	C., R. I. & P. Rwy.	1,272
Myrtle, iron post in sec. 12, T. 16 N., R. 29 W.....	U. S. G. S.	3,049
Nacora.....	C., St. P., M. & O. Rwy.....	1,417
Do... B. M. on property of H. F. Mosema.....	U. S. C. & G. S.	1,409
Naponee.....	B. & M. R. R. R.	1,877
Natick.....	B. & M. R. R. R.	2,785
Nebraska City.....	B. & M. R. R. R.	961
Do... Missouri River, extreme low water, 1882.....	Mo. River Com.....	907

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Nebraska City.. Missouri R, extreme high water, 1882	Mo. River Com.....	922
Do.....	Weather Bureau.....	941
Neligh.....	C. & N. W. Rwy.....	1,746
Nelson.....	B. & M. R. R. R.....	1,686
Nemaha City.....	B. & M. R. R. R.....	891
Do.....	Weather Bureau.....	902
Nenzil, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,114
Do... B. M. in lot by section house.....	U. S. C. & G. S.....	3,112
Newark.....	B. & M. R. R. R.....	2,108
Newcastle.....	C., St. P., M. & O. Rwy.....	1,284
Newman Grove.....	C. & N. W. Rwy.....	1,746
Newport, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,234
Do... B. M. west of station.....	U. S. C. & G. S.....	2,232
Nichols.....	U. P. R. R.....	2,876
Nickerson.....	C. & N. W. Rwy.....	1,200
Nimburg.....	B. & M. R. R. R.....	1,389
Nora.....	C., R. I. & P. Rwy.....	1,760
Do.....	C. & N. W. Rwy.....	1,754
Norfolk.....	C. & N. W. Rwy.....	1,525
Do.....	U. P. R. R.....	1,521
Do... crossing U. P. R. R.....	C. & N. W. Rwy.....	1,525
Do... C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,521
Do... copper bolt in north wall of Oxnard Hotel.....	U. S. C. & G. S.....	1,525
Do... square cut on step at west entrance to high school house.....	U. S. C. & G. S.....	1,527
Do.....	Weather Bureau.....	1,532
Norfolk Junction.....	C. & N. W. Rwy.....	1,518
Norman.....	B. & M. R. R. R.....	2,008
Do.....	Weather Bureau.....	2,100
North Bend.....	U. P. R. R.....	1,272
North Loup.....	U. P. R. R.....	1,965
Do.....	Weather Bureau.....	1,961
North Platte.....	U. P. R. R.....	2,800
Do... aluminum tablet on foundation of steps of First National Bank building.....	U. S. G. S.....	2,805
Do.....	Weather Bureau.....	2,821
Northport.....	B. & M. R. R. R.....	3,688
Norway.....	B. & M. R. R. R.....	2,913
Oak.....	C. & N. W. Rwy.....	1,592
Oakdale.....	C. & N. W. Rwy.....	1,710
Do.....	Weather Bureau.....	1,722
Oakland.....	C., St. P., M. & O. Rwy.....	1,280
Oconee, U. P. R. R.....	U. S. C. & G. S.....	1,492
Do... stone post at station.....	U. S. C. & G. S.....	1,494
Oconto.....	U. P. R. R.....	2,585
Octavia.....	C. & N. W. Rwy.....	1,407
Odell.....	B. & M. R. R. R.....	1,278
Do.....	Weather Bureau.....	1,278
Odessa.....	U. P. R. R.....	2,223
Ogallala.....	U. P. R. R.....	3,211
Do... iron post at station.....	U. S. G. S.....	3,216
Ohioa.....	B. & M. R. R. R.....	1,589
Olean.....	U. P. R. R.....	2,005
Oliver.....	U. P. R. R.....	4,798

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Olyen Summit.....	C. & N. W. Rwy.....	1,566
Omaha.....	U. P. R. R.....	1,034
Do.....	C., St. P., M. & O. Rwy.....	998
Do... copper bolt in water table at southwest corner of post-office.	U. S. C. & G. S.....	1,041
Do... projection of third course of stone at southeast corner of post-office.	U. S. C. & G. S.....	1,042
Do... copper bolt in pedestal block at west end of Omaha and Council Bluffs wagon bridge.	U. S. C. & G. S.....	983
Do... Missouri River, extreme low water, 1873....	Mo. River Com.....	960
Do... Missouri River, extreme high water, 1881....	Mo. River Com.....	982
Do.....	Weather Bureau.....	1,123
Omaha Heights.....	C. & N. W. Rwy.....	1,097
O'Neill, G. N. Rwy.....	U. S. C. & G. S.....	1,978
Do... C. & N. W. Rwy.....	U. S. C. & G. S.....	1,977
Do... B. M. on step of First National Bank building.	U. S. C. & G. S.....	1,989
Do... limestone post in court-house square.....	U. S. C. & G. S.....	2,002
Do.....	Weather Bureau.....	1,975
Ong.....	B. & M. R. R. R.....	1,680
Orchard, G. N. Rwy.....	U. S. C. & G. S.....	1,945
Do... B. M. between first and second telegraph poles east of station.	U. S. C. & G. S.....	1,943
Ord.....	B. & M. R. R. R.....	2,053
Do.....	U. P. R. R.....	2,051
Do.....	Weather Bureau.....	2,062
Oreapolis.....	B. & M. R. R. R.....	969
Orleans.....	B. & M. R. R. R.....	1,996
Osceola.....	U. P. R. R.....	1,637
Do.....	Weather Bureau.....	1,644
Overton.....	U. P. R. R.....	2,320
Owasco.....	U. P. R. R.....	4,628
Oxford.....	B. & M. R. R. R.....	2,077
Oxford Junction.....	B. & M. R. R. R.....	2,047
Paddock.....	U. P. R. R.....	1,720
Do... limestone post near station.....	U. S. C. & G. S.....	1,723
Page, G. N. Rwy.....	U. S. C. & G. S.....	1,960
Palisade.....	B. & M. R. R. R.....	2,765
Pallas.....	U. P. R. R.....	2,835
Palmer.....	B. & M. R. R. R.....	1,798
Do.....	Weather Bureau.....	1,796
Palmyra.....	B. & M. R. R. R.....	1,142
Papillion.....	U. P. R. R.....	1,025
Parks.....	B. & M. R. R. R.....	3,105
Pauline.....	B. & M. R. R. R.....	1,773
Pawnee, Lincoln County.....	U. P. R. R.....	2,746
Pawnee, iron post near switch.....	U. S. G. S.....	2,747
Pawnee, Pawnee County.....	B. & M. R. R. R.....	1,175
Do.....	C., R. I. & P. Rwy.....	1,195
Paxton.....	U. P. R. R.....	3,054
Do... iron post east of water tank.....	U. S. G. S.....	3,050
Pendar.....	C., St. P., M. & O. Rwy.....	1,326
Perdue.....	U. P. R. R.....	3,773
Perry.....	B. & M. R. R. R.....	2,537

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Peru.....	B. & M. R. R. R.....	902
Petersburg.....	C. & N. W. Rwy.....	1,897
Phillips.....	B. & M. R. R. R.....	1,887
Pickrell.....	U. P. R. R.....	1,316
Pierce, C. & N. W. Rwy.....	U. S. C. & G. S.....	1,583
Do... B. M. on foundation of court-house.....	U. S. C. & G. S.....	1,593
Pilger.....	C. & N. W. Rwy.....	1,410
Plainview, C. & N. W. Rwy.....	U. S. C. & G. S.....	1,683
Do... B. M. on west wall of Farmers' State Bank building.....	U. S. C. & G. S.....	1,699
Do... B. M. on N. M. Nelson's store.....	U. S. C. & G. S.....	1,699
Plano.....	U. P. R. R.....	3,245
Platte Center, U. P. R. R.....	U. S. C. & G. S.....	1,536
Do... square cut on stone supporting water tank.....	U. S. C. & G. S.....	1,539
Platte River.....	C. & N. W. Rwy.....	1,233
Plattsmouth.....	B. & M. R. R. R.....	968
Do... Missouri River, extreme low water, 1880.....	Mo. River Com.....	940
Do... Missouri River, extreme high water, 1881.....	Mo. River Com.....	960
Do.....	Weather Bureau.....	979
Pleasantdale.....	B. & M. R. R. R.....	1,302
Pleasanton.....	U. P. R. R.....	2,088
Plymouth.....	C., R. I. & P. Rwy.....	1,415
Ponca.....	C., St. P., M. & O. Rwy.....	1,145
Portal.....	U. P. R. R.....	1,030
Do... crossing B. & M. R. R. R.....	U. P. R. R.....	1,034
Potter.....	U. P. R. R.....	4,389
Do.....	Weather Bureau.....	4,387
Powells.....	St. J. & G. I. Rwy.....	1,354
Prague.....	B. & M. R. R. R.....	1,335
Prairie Home.....	C., R. I. & P. Rwy.....	1,260
Preston.....	B. & M. R. R. R.....	879
Primrose.....	U. P. R. R.....	1,820
Princeton.....	U. P. R. R.....	1,437
Prospect Hill triangulation station.....	U. S. C. & G. S.....	1,681
Putnam.....	B. & M. R. R. R.....	1,368
Ragan.....	B. & M. R. R. R.....	2,329
Ralton.....	U. P. R. R.....	3,614
Randolph.....	C., St. P., M. & O. Rwy.....	1,654
Ravenna.....	B. & M. R. R. R.....	2,000
Do.....	Weather Bureau.....	1,997
Raymond.....	U. P. R. R.....	1,215
Red Cloud.....	B. & M. R. R. R.....	1,690
Do.....	Weather Bureau.....	1,687
Redington Gap, Cheyenne County.....	U. S. G. S.....	4,205
Red Willow.....	B. & M. R. R. R.....	2,410
Remington.....	B. & M. R. R. R.....	3,652
Reno.....	B. & M. R. R. R.....	3,886
Republican.....	B. & M. R. R. R.....	1,942
Do.....	Weather Bureau.....	1,939
Rescue.....	B. & M. R. R. R.....	1,491
Reynolds.....	B. & M. R. R. R.....	1,386
Richfield.....	C., R. I. & P. Rwy.....	1,100
Ridge, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,516
Rising City.....	U. P. R. R.....	1,592

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Riverdale	U. P. R. R.	2,189
Riverton	B. & M. R. R. R.	1,768
Robinson, C. & N. W. Rwy.	U. S. C. & G. S.	3,784
Roca	B. & M. R. R. R.	1,212
Rockford	B. & M. R. R. R.	1,315
Do.	C., R. I. & P. Rwy.	1,327
Rockville	U. P. R. R.	1,980
Rogers	U. P. R. R.	1,310
Rokeyby	C., R. I. & P. Rwy.	1,226
Roscoe	U. P. R. R.	3,140
Do. . . aluminum tablet on stone at section house	U. S. G. S.	3,145
Roseland	B. & M. R. R. R.	1,967
Rosemont	B. & M. R. R. R.	1,925
Roundhouse Rock, Cheyenne County	U. S. G. S.	4,255
Roundtop, Scotts Bluff County	U. S. G. S.	4,419
Ruby	B. & M. R. R. R.	1,414
Rulo	B. & M. R. R. R.	920
Rushville, C. & N. W. Rwy.	U. S. C. & G. S.	3,741
Do. . . B. M. in park east of station	U. S. C. & G. S.	3,741
Ruskin	C., R. I. & P. Rwy.	1,699
Rutland	B. & M. R. R. R.	4,144
Sacramento	B. & M. R. R. R.	2,256
Saint Edwards	U. P. R. R.	1,653
Saint Libory	U. P. R. R.	1,867
Do.	Weather Bureau	1,887
Saint Michael	B. & M. R. R. R.	1,942
Saint Paul	B. & M. R. R. R.	1,815
Do.	U. P. R. R.	1,800
Do.	Weather Bureau	1,796
Salem	B. & M. R. R. R.	916
Do.	Weather Bureau	909
Salttillo	B. & M. R. R. R.	1,192
Sanberg	U. P. R. R.	1,216
Sargent	B. & M. R. R. R.	2,341
Saronville	B. & M. R. R. R.	1,742
Savage, G. N. Rwy.	U. S. C. & G. S.	1,870
Do. . . B. M. north of water tank	U. S. C. & G. S.	1,869
Sawyer	C. & N. W. Rwy.	1,634
Scio	M. P. Rwy.	1,008
Scotts Bluff	B. & M. R. R. R.	3,880
Schuyler	B. & M. R. R. R.	1,346
Do.	U. P. R. R.	1,350
Do.	Weather Bureau	1,357
Scotia Junction	U. P. R. R.	1,909
Scribner	C. & N. W. Rwy.	1,254
Seneca	B. & M. R. R. R.	2,974
Do.	Weather Bureau	2,971
Seward	B. & M. R. R. R.	1,442
Do.	Weather Bureau	1,435
Sheep Mountain, Banner County	U. S. G. S.	4,507
Shelby	U. P. R. R.	1,648
Shelton	U. P. R. R.	2,020
Shestak	B. & M. R. R. R.	1,333
Shickley	B. & M. R. R. R.	1,650

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Shickley	C. & N. W. Rwy.	1,651
Shubert	B. & M. R. R. R.	1,075
Sidney	B. & M. R. R. R.	4,085
Do	U. P. R. R.	4,102
Signal Butte, Scotts Bluff County	U. S. G. S.	4,583
Silver Creek, U. P. R. R.	U. S. C. & G. S.	1,549
Simla	B. & M. R. R. R.	3,998
Simonds	U. P. R. R.	2,290
Simons	C., St. P., M. & O. Rwy.	1,418
Smartville	B. & M. R. R. R.	1,149
Smeed	U. P. R. R.	4,937
Smithfield	B. & M. R. R. R.	2,647
Smokestack Rock, Banner County	U. S. G. S.	4,326
Smyrna	B. & M. R. R. R.	1,788
Snyder	C. & N. W. Rwy.	1,814
Somerset	B. & M. R. R. R.	2,898
South Bend	B. & M. R. R. R.	1,086
Do	C., R. I. & P. Rwy.	1,045
South Omaha	B. & M. R. R. R.	1,163
Do	C. & N. W. Rwy.	1,124
Do... crossing M. P. Rwy.	C. & N. W. Rwy.	1,124
Do	U. P. R. R.	1,107
South Sioux City	C., St. P., M. & O. Rwy.	1,106
Do... B. M. north of station	U. S. C. & G. S.	1,105
Spalding	U. P. R. R.	1,878
Springfield	M. P. Rwy.	1,064
Spring Ranch	B. & M. R. R. R.	1,712
Spuds, iron post in stock yards	U. S. G. S.	2,852
Stamford	B. & M. R. R. R.	2,053
Stanton	C. & N. W. Rwy.	1,472
Do	Weather Bureau	1,472
Staplehurst	B. & M. R. R. R.	1,472
Steele City	St. J. & G. I. Rwy.	1,264
Steinauer	C., R. I. & P. Rwy.	1,204
Stella	M. P. Rwy.	971
Sterling	B. & M. R. R. R.	1,179
Stewart	C. & N. W. Rwy.	2,156
Stockham	C. & N. W. Rwy.	1,693
Stockville, iron post at court-house	U. S. G. S.	2,482
Stoddard	B. & M. R. R. R.	1,608
Strang	B. & M. R. R. R.	1,628
Do	Weather Bureau	1,638
Stratton	B. & M. R. R. R.	2,796
Do	Weather Bureau	2,804
Stromsburg	U. P. R. R.	1,627
Do	Weather Bureau	1,649
Stuart, C. & N. W. Rwy.	U. S. C. & G. S.	2,156
Do... B. M. west of section tool house	U. S. C. & G. S.	2,157
Sugar Bowl, Hall County	U. S. G. S.	2,040
Summit, Cherry County	C. & N. W. Rwy.	2,752
Sumner	U. P. R. R.	2,375
Sumter	B. & M. R. R. R.	1,988
Sunol	U. P. R. R.	3,924
Do... Superior, B. & M. R. R. R.	U. S. C. & G. S.	1,573

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Sunol... A., T. & S. F. Rwy.....	U. S. C. & G. S.	1,576
Do... square cut on pier of A., T. & S. F. Rwy. bridge over Republican River.	U. S. C. & G. S.	1,552
Do... limestone post in park west of B. & M. R. R. R. station.	U. S. C. & G. S.	1,575
Do.....	Weather Bureau.....	1,574
Surprise.....	C. & N. W. Rwy.....	1,535
Sutherland.....	U. P. R. R.....	2,959
Do... iron post at Iddings's elevator.....	U. S. G. S.....	2,961
Sutton.....	B. & M. R. R. R. R.....	1,678
Do.....	Weather Bureau.....	1,676
Swanton.....	B. & M. R. R. R.....	1,345
Swedeburg.....	C. & N. W. Rwy.....	1,303
Sweetwater.....	B. & M. R. R. R. R.....	2,066
Syracuse.....	B. & M. R. R. R. R.....	1,048
Do.....	Weather Bureau.....	1,059
Table Rock, Pawnee County.....	B. & M. R. R. R. R.....	1,023
Table Rock, Scotts Bluff County.....	U. S. G. S.....	4,319
Tamora.....	B. & M. R. R. R. R.....	1,548
Tarnov, U. P. R. R.....	U. S. C. & G. S.....	1,625
Do... stone post at station.....	U. S. C. & G. S.....	1,626
Tecumseh.....	B. & M. R. R. R. R.....	1,114
Do.....	Weather Bureau.....	1,113
Tekamah.....	C., St. P., M. & O. Rwy.....	1,054
Do.....	Weather Bureau.....	1,060
Thatcher, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,655
Do... B. M. opposite section tool house.....	U. S. C. & G. S.....	2,656
Thayer.....	C. & N. W. Rwy.....	1,586
Theford.....	B. & M. R. R. R. R.....	2,345
Do.....	Weather Bureau.....	2,342
Thompson.....	B. & M. R. R. R. R.....	1,355
Do.....	C., R. I. & P. Rwy.....	1,363
Thummel.....	U. P. R. R.....	1,663
Do... limestone post near railroad signpost.....	U. S. C. & G. S.....	1,660
Thurston.....	C., St. P., M. & O. Rwy.....	1,380
Tilden.....	C. & N. W. Rwy.....	1,679
Tobias.....	B. & M. R. R. R. R.....	1,597
Topeka Peak, Hall County.....	U. S. G. S.....	2,080
Touhy.....	U. P. R. R.....	1,498
Trenton.....	B. & M. R. R. R. R.....	2,680
Trumbull.....	B. & M. R. R. R. R.....	1,882
Turlington.....	B. & M. R. R. R. R.....	1,214
Do.....	Weather Bureau.....	1,214
Twin Mounds, Cheyenne County.....	U. S. G. S.....	4,309
		4,349
Tyson.....	C., St. P., M. & O. Rwy.....	1,019
Ulysses.....	B. & M. R. R. R. R.....	1,513
Unadilla.....	B. & M. R. R. R. R.....	1,078
Upland.....	B. & M. R. R. R. R.....	2,161
Utica.....	B. & M. R. R. R. R.....	1,582
Valentine, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,584
Do... B. M. on step at entrance to court-house.....	U. S. C. & G. S.....	2,587
Do.....	Weather Bureau.....	2,598
Valley.....	U. P. R. R.....	1,140

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Valparaiso.....	U. P. R. R.....	1,308
Vance.....	B. & M. R. R. R.....	3,980
Venango.....	B. & M. R. R. R.....	3,591
Verdigre.....	C. & N. W. Rwy.....	1,345
Verdon.....	B. & M. R. R. R.....	925
Do.....	M. P. Rwy.....	930
Verona.....	B. & M. R. R. R.....	1,771
Vesta.....	B. & M. R. R. R.....	1,228
Violet.....	B. & M. R. R. R.....	1,254
Virginia.....	C., R. I. & P. Rwy.....	1,532
Vista.....	C., St. P., M. & O. Rwy.....	1,168
Vroman.....	U. P. R. R.....	2,602
Waco.....	B. & M. R. R. R.....	1,617
Wahoo.....	B. & M. R. R. R.....	1,187
Wahoo.....	C. & N. W. Rwy.....	1,204
Do.....	U. P. R. R.....	1,175
Wakefield, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,388
Do... B. M. on east front of Collins's clothing store.	U. S. C. & G. S.....	1,415
Do.....	Weather Bureau.....	1,387
Walkers.....	C. & N. W. Rwy.....	1,653
Wallace.....	B. & M. R. R. R.....	3,108
Do.....	Weather Bureau.....	3,116
Warnerville, U. P. R. R.....	U. S. C. & G. S.....	1,602
Warsaw.....	B. & M. R. R. R.....	1,967
Washington.....	C. & N. W. Rwy.....	1,124
Waterloo.....	U. P. R. R.....	1,122
Watertown.....	U. P. R. R.....	2,297
Watsons Ranch.....	U. P. R. R.....	2,191
Wauneta.....	B. & M. R. R. R.....	2,938
Wausa.....	C., St. P., M. & O. Rwy.....	1,780
Waverly.....	B. & M. R. R. R.....	1,121
Wayne, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,455
Do... B. M. on front wall of First National Bank building.	U. S. C. & G. S.....	1,460
Weeping Water.....	M. P. Rwy.....	1,079
Do.....	Weather Bureau.....	1,080
Weir.....	B. & M. R. R. R.....	3,462
Wellfleet.....	B. & M. R. R. R.....	2,806
Western.....	B. & M. R. R. R.....	1,468
West Lawn.....	C. & N. W. Rwy.....	1,035
Weston.....	U. P. R. R.....	1,253
West Point.....	C. & N. W. Rwy.....	1,313
White River summit.....	C. & N. W. Rwy.....	4,848
Whitman.....	B. & M. R. R. R.....	3,591
Do.....	Weather Bureau.....	3,588
Whitney, C. & N. W. Rwy.....	U. S. C. & G. S.....	3,411
Do... B. M. in section-house yard.....	U. S. C. & G. S.....	3,411
Wilber.....	B. & M. R. R. R.....	1,325
Do.....	Weather Bureau.....	1,325
Wilcox.....	B. & M. R. R. R.....	2,229
Wildcat Mountain, Banner County.....	U. S. G. S.....	5,038
Williams.....	B. & M. R. R. R.....	1,425
Williams Gap, Banner County.....	U. S. G. S.....	4,420
Willow Island.....	U. P. R. R.....	2,522

NEBRASKA—(Continued)

LOCALITY	AUTHORITY	Elevation
		Feet
Wilsonville.....	B. & M. R. R. R.....	2,301
Do.....	Weather Bureau.....	2,298
Winneton.....	C. & N. W. Rwy.....	1,645
Winside, C., St. P., M. & O. Rwy.....	U. S. C. & G. S.....	1,565
Do... B. M. in park owned by town.....	U. S. C. & G. S.....	1,565
Wisner.....	C. & N. W. Rwy.....	1,380
Wolbach.....	B. & M. R. R. R.....	1,845
Woodlake, C. & N. W. Rwy.....	U. S. C. & G. S.....	2,690
Woodlawn.....	B. & M. R. R. R.....	1,175
Do.....	Weather Bureau.....	1,186
Wood River.....	U. P. R. R.....	1,967
Do... square cut on brick store building owned by A. C. Murphy.....	U. S. C. & G. S.....	1,967
Woodville.....	U. P. R. R.....	1,643
Wymore.....	B. & M. R. R. R.....	1,222
York.....	B. & M. R. R. R.....	1,634
Do.....	C. & N. W. Rwy.....	1,600
Do.....	Weather Bureau.....	1,642
Yutan.....	U. P. R. R.....	1,185
Zion.....	C., St. P., M. & O. Rwy.....	1,322

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