BULLETIN NO. 7 IOWA HIGHWAY RESEARCH BOARD

DRAINAGE AREAS OF IOWA STREAMS

By

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Prepared by the

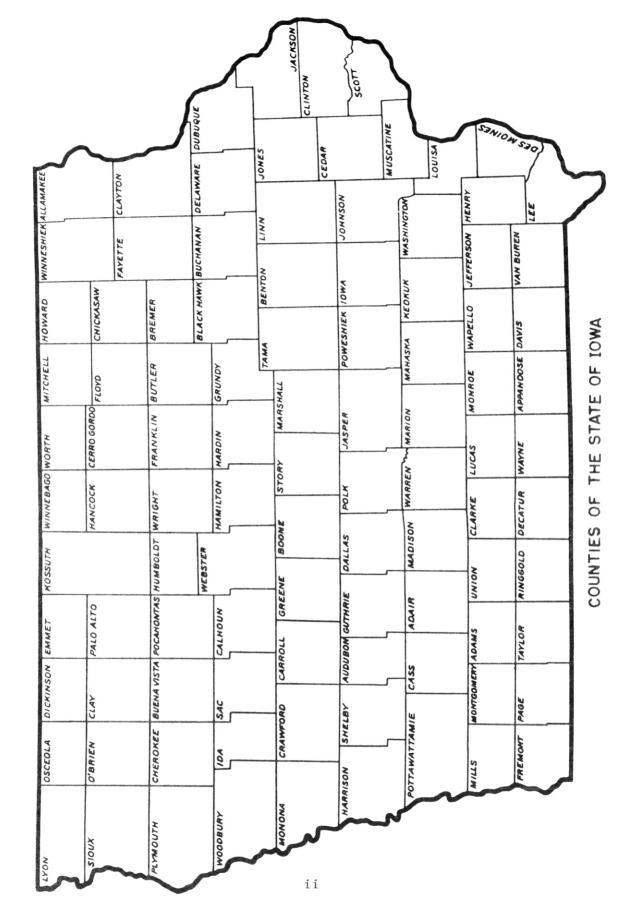
U. S. GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

in cooperation with

THE IOWA STATE HIGHWAY COMMISSION

December, 1957



Revision of Stream Names

Modern topographic maps covering many areas of the state have become available since this report was first printed in 1957. These new maps and the published decisions of the U.S. Board of Geographic Names have been used as the basic authority for revising some of the stream names contained in the original edition of the report. The revisions are listed in the table below.

In the tables comprising the bulk of the report, streams listed in the second column, "Name of stream", to which a name change applies are flagged with a black dot preceding the area number in the first column. No attempt has been made to identify changes applicable to stream names in the third column, "Tributary to".

County	Area Nos.	Old name	New name
Audubon	24,25,26 42 56	Blue Grass Creek Four Mile Creek Little Elkhorn Creek	Bluegrass Creek Fourmile Creek Little Indian Creek
Benton	53 59,60,61,62 63,67 64,65,66	West Blue Creek Wild Cat Creek Opossum Creek Bear Creek	West Branch Blue Creek Wildcat Creek Bear Creek Little Bear Creek
Black Hawk	35,38,39, 42,43 83	Blackhawk Creek Little Spring Creek	Black Hawk Creek East Branch Spring Creek
Boone	36 43 45 46	Peese Creek Caton Creek Eversoll Creek Preston Branch	Peas Creek Eversoll Creek Caton Branch Preston Creek
Bremer	35,36 41	Twomile Creek Twomile Creek	Dry Run Horton Creek
Buchanan	6,7,8 70,71	Coffins Creek Little Spring Creek	Prairie Creek East Branch Spring Creek
Butler	58,59,60 61,62,63,64	Alry Run Dry Run Creek	Dry Creek Beaver Creek
Calhoun	4,6,10	Big Cedar Creek	Cedar Creek

County	Area Nos.	01d name	New name
Cedar	66,67 70,71	Wapsinonoc Creek Wapsinonoc Creek	Unnamed West Branch Wapsinonoc Creek
	76	East Branch Wapsinonoc Creek	Wapsinonoc Creek
Cerro Gordo	43-47,51, 61,76,80, 83,86	Lime Creek	Winnebago River
Cherokee	15 61,62	Gero Creek Pitch Creek	Gere Creek Pitcher Creek
Chickasaw	35,36 66,67	Spring Branch Twomile Creek	Etter Creek Dry Run
Clarke	24-27,36,	Whitebreast Creek	White Breast Creek
	28,31,33- 35	South Whitebreast Creek	South White Breast Creek
Clay	29-31,39	Muddy Creek	Big Muddy Creek
Clayton	8,10,12	Magill Creek Unnamed	Sny Magill Creek North Cedar Creek
	21 32 65 87,88,89	Unnamed Unnamed Spring Creek Cedar Creek	Sand Creek Deer Creek Kleinlein Creek South Cedar
	92 105 108	Prices Branch Unnamed Little York Branch	Creek Joles Creek Bruce Creek Lindsey Creek
Clinton	35	Harts Mill Creek	Little Mill
	36	Remains Harts Mill Creek	Creek
	73 80,81,83, 88,89	Clear Creek Brophys Creek	Crystal Creek Brophy Creek
Crawford	33 34,35 40,41 82	Otter Creek East Otter Creek Buffalo Creek Bee Tree Creek	Unnamed Otter Creek Big Creek Mill Creek
Dallas	17 26,27,28	Unnamed Middle Chequest Creek	Royer Creek Chequest Creek

County	Area Nos.	Old name	New name
Decatur	60,61,63, 65,66	Steele Creek	Steel Creek
Delaware	3	Odell Branch	Fountain Spring Creek
	13,15 14 20-22 45,46	Lindsey Creek East Lindsey Creek Little York Branch Penns Branch	Unnamed Unnamed Lindsey Creek Penn Creek
Des Moines	11.13.16.	Flint River	Flint Creek
	17,20,24, 26,29,32 27,28	Little Flint River	Little Flint Creek
Dickinson	24,25 43-45,48,	Okoboji Lake Outlet Muddy Creek	Milford Creek Big Muddy Creek
Dubuque	32 37	North Fork Catfish Creek Tete des Morts River	Middle Fork Catfish Creek Tete des Morts Creek
Emmet	1,2,4,11, 16,18,21	West Fork Des Moines River	Des Moines River
Fayette	66 79,80	Unnamed Unnamed	Grannis Creek Bruce Creek
Floyd	59,60 67-69	Little Flood Creek Dry Run Creek	Beaver Creek Beaver Creek
Fremont	9,10 35	Knox Creek Coon Run	Copper Creek Canyon Creek
Grundy	27,28,32, 34,37,39,	Blackhawk Creek	Black Hawk Creek
	44,64 47,49,51, 58,59,61,	North Blackhawk Creek	North Fork Black Hawk Creek
	53-57	South Fork Blackhawk Creek	South Fork Black Hawk Creek
Guthrie	14-16 70 71,73,74	Bear Grove Creek Middle River Wolf Creek	Mason Creek Unnamed Middle River

County	Area Nos.	01d name	New name
Hancock	46,48,52-54	Lime Creek	Winnebago River
Harrison	48	Huffman Creek	Hoffman Creek
Henry	1	Flint River	Flint Creek
Humboldt	3,4,7,9,17	West Fork Des Des Moines River	Des Moines River
Iowa	11,12,14, 19,20	Bear Creek	Big Bear Creek
	31 43,44,46, 49,51-56,	Unnamed Old Man Creek	Willow Creek Old Mans Creek
	60 61,66,67, 70,71,81-	North Fork English River	North English River
	83 72-75,79,80	Middle Fork English River	Middle English River
Jackson	1-3,5,6	Tete des Morts River Scrambling Creek	Tete des Morts Creek Schramling Creek
Jasper	2,3,8,26, 33,42,46, 49,51	Skunk River	South Skunk River
	34	Warren Creek	Warren Grove Creek
Jefferson	47,48	Shirtz Creek	Church Creek
Johnson	43,44,49, 52-54,59,	Old Man Creek	Old Mans Creek
	45,46,48	North Fork Old Man Creek	North Branch Old Mans
	50,51	Old Womens Creek	Creek Old Womans
	91	Drainage ditch number 2	Creek Hockeys Slough
Jones	12,13	Wet Creek	Deer Creek

County	Area Nos.	Old name	New name
Keokuk	1,2,4,6-10, 13,14 17,21,22, 27,28,67,	South Fork English River Skunk River	South English River South Skunk River
	71,72 18 19 20 23	Maddox Creek Unnamed Maddox Creek Sugar Creek	Olive Branch Mattix Branch Mattix Branch Waugh Branch Sugar Creek
	24	West Branch Sugar Creek	Sugar Creek
	53	German Creek	Troublesome Creek
	54	Unnamed	German Creek
Lee	15-17,19, 23,28,31	Big Sugar Creek	Sugar Creek
	29,30 32-34 35,36 39 43 56	Panther Creek Little Devils Creek Big Devil Creek Lamalee Creek Mumm Creek Main Creek	Painter Creek Devils Creek Devils Creek Lamalees Creek Grants Creek Barlene Creek
Linn	40,41 88,89	Opossum Creek Crab Apple Creek	Bear Creek Crabapple Creek
Lucas	9,12-14,18, 20,29,30 22,23,26-28	Whitebreast Creek Little Whitebreast Creek	White Breast Creek Little White Breast Creek
Mahaska	4,8,16,19, 20,23-25, 27	Skunk River	South Skunk River
	26 28	Lightner Creek Maddox Branch	Snyder Creek Olive Branch
Marion	40,42-44, 46,49,50, 53	Whitebreast Creek	White Breast Creek
Mills	37,38	Rains Branch	Little Creek
Monona	2 8 9 11	Walnut Creek Wilsey Creek Wilsey Creek McClarey Creek	McMaster Creek Dutch Creek Simmons Creek McCleerey Creek

County	Area Nos.	Old name	New name
Muscatine	3,4	West Branch Pine Creek	Pine Creek
	29,30	Mosquito Creek	Little Mosquito Creek
	31,32	Little Mosquito Creek	Mosquito Creek
	37	Wapsinonoc Creek	West Branch Wapsinonoc Creek
	39,40	East Branch Wapsinonoc Creek	Wapsinonoc Creek
	48,49	Drainage ditch 2	Hockeys Slough
Palo Alto	2,6,14,27, 28,31,51, 56	West Fork Des River	Des Moines River
Plymouth	47,48 75,76,79, 81,82	Deep Creek Big Whiskey Slough	Willow Creek Whiskey Creek
	87,88 109,110	Clear Creek Elliott Creek	Johns Creek Muddy Creek
Pocahontas	2,4,5,18	West Fork Des Moines River	Des Moines River
	55,57,58, 60,65,66, 68,80,83	Big Cedar Creek	Cedar Creek
Pottawattamie	9,10,14,15, 17,19,21	Pidgeon Creek	Pigeon Creek
	17,19,21 11 20 32	Unnamed Little Pidgeon Creek Hencho Creek	Onion Creek Crescent Creek Henchal Creek
Poweshiek	16,18-22, 25,31,36	Bear Creek	Big Bear Creek
	37-41,44, 45,47,48 42,43	North Fork English River Unnamed Middle Fork English River	North English River Dugout Creek Middle English River
Sac	14,16,17 93,94	Big Cedar Creek East Otter Creek	Cedar Creek Otter Creek
Scott	12,14	South Branch Mud	Unnamed
	15,16 17	Creek Slopertown ditch South Branch Mud Creek	Hickory Creek Hickory Creek
	29,30	Unnamed and Glynns Creek	McDonald Creek

County	Area Nos.	Old name	New name
She1by	1 2,3 7,8	Mill Creek Bee Tree Creek Pidgeon Creek	Unnamed Mill Creek Pigeon Creek
Tama	87-90 93 96,97,100- 102,108	Four Mile Creek North Coon Creek Twelve Mile Creek	Fourmile Creek Little Coon Creek Twelvemile Creek
Van Buren	41 42 51,52,54- 56,59, 60 53	Bear Creek Remains Bear Creek Indian Creek South Fork Indian Creek	Unnamed Big Indian Creek Tug Fork Indian Creek
Wapello	37 58	North Avery Creek Coins Creek	Middle Avery Creek Coon Creek
Washington	28 29	Davis Creek Continue Creek	Unnamed Davis Creek
Wayne	1,2 10 11,13-15 20,21 62	Steele Creek East Muddy Creek Big Fork Medicine Creek East Fork Medicine Creek South Walker Branch	Steel Creek Little Muddy Creek East Fork Medicine Creek Unnamed
Winnehago		Section of contrast. An electrical habita in the section of the se	Walker Branch
Winnebago Woodbury	28,31,36 21 25-27 48 67 68	Lime Creek Three Mile Creek Wright Creek Wilsey Creek Elliott Creek Dry Branch	Winnebago River Threemile Creek Coon Creek Dutch Creek Muddy Creek Elliott Creek

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by O. J Larimer

INTRODUCTION

The drainage area of a stream at a specified location ordinarily may be defined as that area, measured in a horizontal plane, which is enclosed by a topographic divide such that direct surface runoff from precipitation would drain by gravity into the river basin above the specified point.

One of the most important factors in the hydrologic computation for the design of structures on or over watercourses is the drainage area upstream from the point under consideration. Other hydrologic studies such as low-flow, flood-frequency analyses, rainfall-runoff correlations, stream density, and area-distance make use of this factor as a basic premise for computation.

In order that the drainage-area information of the interior streams of Iowa be of uniform accuracy and available to all users of these data, this report has been compiled, and the drainage areas of all streams in excess of 5 square mies are listed. For the larger streams, drainage areas have been determined at numerous intermediate points. As a result of this report much basic background material has been compiled that will be useful in future hydrologic studies of drainage basin characteristics.

This publication is limited to the presentation of the drainage-area data for the interior streams of the State. The methods of application of these data to the study of streamflow characteristics, and the design of related structures are properly the function of the design engineer and are not discussed herein.

ADMINISTRATION AND ACKNOWLEDGMENTS

The compilation of the drainage-area data for the streams and rivers of the State is a result of a cooperative agreement between the U. S. Geological Survey and the Iowa State Highway Commission, through the Iowa Highway Research Board, Mark Morris, Director. The board is composed of representatives of the county engineers, Highway Commission engineers, the University of Iowa, and Iowa State College.

Computations were made in the district office of the Water Resources Division of the U. S. Geological Survey at Iowa City, Iowa, under the general direction of V. R. Bennion, district engineer, Surface Water Branch, and is published with the approval of the Director, Geological Survey, United States Department of Interior. The author was aided in the computation and preparation of the data by Samuel Mummey, Jr., hydraulic engineer, and Lois Alteneder, mathematical aid.

A number of other agencies cooperated in furnishing data used in this compilation. The list of these cooperators is as follows: Iowa State Highway Commission, J. G. Butter, Chief Engineer; Iowa Geological Survey, H. G. Hershey, Director and State Geologist; Iowa State Conservation Commission, B. F. Stiles, Director; State Historical Society of Iowa, W. J. Petersen, Superintendent; Agriculture Experiment Station, G. M. Browning, Associate Director; Minnesota State Department of Conservation, Division of Waters, S. A. Frellson, Director; Missouri State Highway Commission, R. M. Whitton, Chief Engineer; Corps of Engineers, Department of the Army; and the Soil Conservation Service, Department of Agriculture.

Assistance in the form of services was given by the U. S. Geological Survey offices in St. Paul, Minnesota, and Rolla, Missouri.

The several county engineers of Iowa gave invaluable assistance in furnishing stream names, checking drainage boundaries and providing drainage maps of their respective counties.

TOPOGRAPHY

Iowa is situated in the Upper Mississippi River drainage basin, bounded on the east by the Mississippi River and on the west by the Missouri and Big Sioux Rivers. It is bordered by the States of Minnesota on the north and Missouri on the south. In general, the surface shows but slight relief with the highest point in the northwest corner of the State in Osceola County (elev. 1,675 feet), and the lowest point near Keokuk in the southeast corner (elev. 480 feet).

The entire State is drained by either the Mississippi River or its tributary, the Missouri River. That portion of the State drained by the Missouri River is 17,379 square miles and that drained by the Mississippi River is 38,860 square miles, a total of 56,239 square miles. The drainage area at the mouth of the major streams in Iowa is listed in the following table:

Mississippi River	Basin	Missouri River Basin		
Stream	Drainage area	Stream	Drai ar	nage ea
Boone River	56 Vi	Boyer River Chariton River		1,188 817
Des Moines River		Floyd River		921
English River	638	Grand River	*	206
Fox River	. * 188	Little River	*	102
Iowa River	12,637	Little Sioux River	4	4,507
Maquoketa River	1,879	Maple River		742
Middle River	. 558	Mosquito Creek		267
North River	400	Nishnabotna River	* 4	2,819
Raccoon River	3,629	Nodaway River	* :	1,182
Skunk River	4,355	Pidgeon Creek	****	165
South River	590	Platte River	*	282
Turkey River	1,684	Rock River		1,688
Upper Iowa River	1,005	Sixmile Creek		108
Wapsipinicon River	2,54 0	Soldier River		445
West Fork Cedar Rive	r 2,639	Tarkio River	*	206
West Fork Shell Rock River	1,783	Thompson River Weldon River		729 240
Whitebreast Creek Yellow River		West Fork Hundred a	and	212

* Drainage area at the State line

Iowa streams entering the Mississippi River flow in a general course from northwest to southeast. The major drainage basins are long and narrow and have fairly regular outlines with the lateral boundaries tending to be parallel (figure A).

The drainage basins of the streams in the western part of the State, which drain into the Missouri River are, as in the eastern portion, relatively

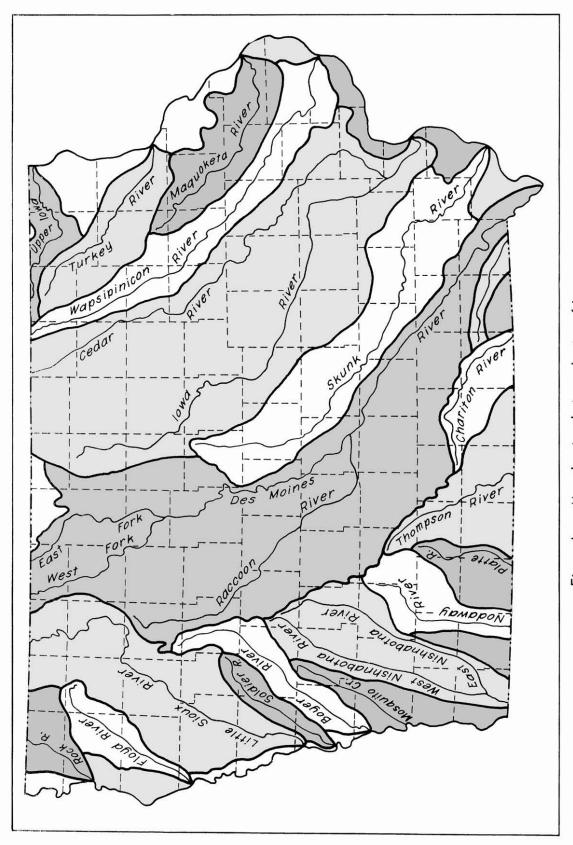


Figure A. Map showing drainage basins of lowa.

long and narrow. Streams tributary to the Missouri River have a general course from northeast to southwest and lie nearly at right angles to those streams tributary to the Mississippi River.

The topography of the State is related very closely to the glacial history of Iowa. Figure B outlines the areal extent of the glacial stages in Iowa. Land forms range from the flat plains of the north central regions (Cary-Mankato) to the narrow valleys of the Nebraskan drift area in the northeast section of the State.

The Nebraskan drift area embraces all or parts of five counties in the northeast corner of the State. The terrain is serrated with deep valleys and dainage is well developed. Parts of the uplands are broad with gentle slopes, but most of the streams extend well back toward the divide leaving long, narrow upland strips. Stream gradients are steep and the rate of runoff is high.

Adjoining this area on the west and covering most of the four southern tiers of counties is the Kansan drift area. The surface here is quite uneven although the hills are rounded and less abrupt than in the Nebraskan drift area. The major streams in this area have broad flood plains flanked by hills and ridges. The part of this area east of the Des Moines River valley, with the exception of the areas close to the main streams, is characterized by broad, open valleys and tabular uplands. Progressing in a westerly direction from the Des Moines River valley, the divides become smaller until in the extreme western counties the divides are merely narrow upland ridges parallel to the streams. This type of topography is known as "washboard topography" and is characteristic of the region. The rate of runoff from the Kansas drift area is high.

The Iowa drift occupies all or parts of 25 counties and is divided by the Cary-Mankato drift lobe. The eastern part has as its center Butler and Buchanan Counties. The streams in this region flow in broad "sags" bordered by irregular hills. The land is gently rolling and well drained. There are no natural lakes in this area; however, small ponds are formed in depressions after heavy or prolonged rains. In the western section of the Iowa drift, comprising parts of eight counties, the land is gently rolling with broad uplands, and the major streams flow in narrow valleys. The rate of runoff from this area is lower than that from the Kansan drift area.

The Cary-Mankato drift comprises all or parts of 29 counties in the north central part of the State. Stream valleys are youthful, and the drainage between the headwaters of these streams is largely indeterminate. The surface is gently undulating with numerous bogs, marshes, ponds and lakes dotting the area. In recent years many drainage projects have

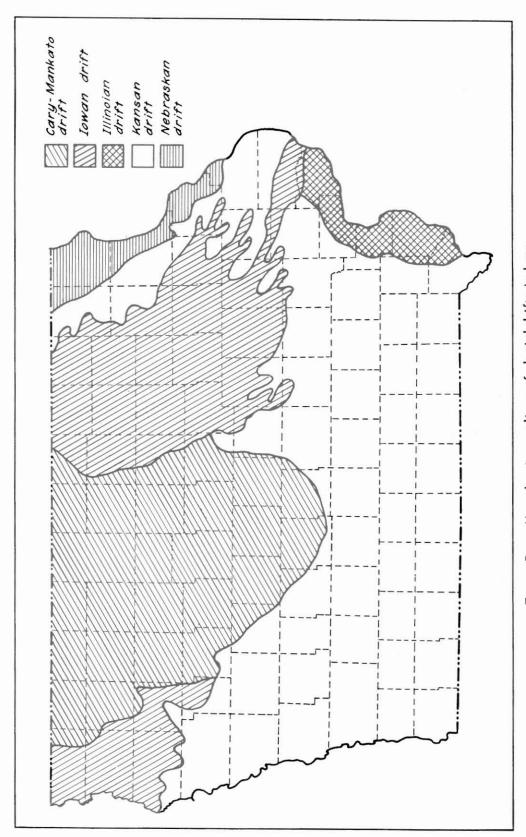


Figure B. Map showing outlines of glacial drifts in lowa.

been completed forming a network of tile lines and ditches which often cross natural divides. The rate of runoff from this region is low.

Drainage in the alluvial plain which borders the Missouri and Mississippi Rivers is largely indeterminate and there are numerous ponds and marshes. It is partly drained by the streams which cross the area but mostly by a system of man-made ditches. The rate of runoff from this area is exceedingly low.

For a more thorough discussion of the geology and topography of the State, see Iowa Geological Survey Annual Report No. 34, the Pleistocene Geology of Iowa, by G. F. Kay and E. T. Appel.

MAPS

The best available maps were used in the determination of the drainage boundaries. The names and types of map used to delineate the drainage boundaries are listed below:

United States Geological Survey Quadrangle Maps

United States Geological Survey Base Maps

United States Department of Agriculture Soil Maps

United States Department of Agriculture Aerial Photographs

United States Corps of Engineers Missouri River Topographic Maps

Iowa Geological Survey County Maps

Iowa State Highway Commission County Base Maps

County Drainage District Maps

Official County Atlases

Minnesota State Department of Conservation County Watershed Maps Missouri Highway Commission County Base Maps

STREAM NAMES

The names of the streams that appear in this report are taken from the maps of Iowa mentioned in the preceding section. In addition to the maps, gazetteers of Iowa streams contained in U. S. Geological Survey Water-Supply Paper 345, and in the Iowa State Planning Board report entitled "Stream Flow Records of Iowa 1872-1932", were consulted. Names from the official county atlases and histories on file with the State Historical Society of Iowa are incorporated in this publication. In some instances, stream names were determined by the various county engineers from a field check or a knowledge of the locality. Drainage district numbers are used to reduce to a minimum the number of unnamed streams in the State. In all instances the drainage district numbers are used to denote the entire drainage basin to the mouth of the stream.

PROCEDURE

The first step in the computation of the area of the drainage basins in the State was a careful determination of the area of the State itself. The area of the State was computed from the Smithsonian Geographic Tables of the areas of quadrilaterals of the earth's surface using coordinates of the State boundaries as determined from the latest and most accurate surveys and maps. The areas of those quadrilaterals overlapping adjacent States were also included, and the areas of those portions of the quadrilaterals outside the State were subtracted from this total. These partial-areas of quadrilaterals were measured by planimeter, and the accuracy of the measurements was checked against the computed values of 5-minute quadrilaterals. The area of the State as found in this manner was 56,239 square miles. This figure was independently checked by a summation of the areas of the 99 counties.

This report lists the drainage areas of all streams in the State having a drainage area of 5 square miles or more. Drainage basins greater than 10 square miles were subdivided at intermediate points. For the major streams, drainage area in general was computed at State and county boundaries, mouths of major tributaries, gaging stations, important towns and cities, and highway crossings.

The drainage basins were outlined and planimetered on county soil maps, and in a few instances on county base maps. Aerial photographs, quadrangle sheets, and county drainage maps were consulted and compared, and the final boundary was based on all available information.

After all the drainage-area boundaries were delineated they were traced on county highway base maps, and these maps were then checked by the county engineers. All changes made by the county engineers were incorporated into the final drainage-area outlines on the soil maps.

Drainage area was computed on a county basis. The large drainage basins were planimetered and adjusted to the area of the county. The smaller areas within the larger drainage basins were then measured and adjusted so that the sum of all the small areas equalled the larger area.

The Minnesota State Department of Conservation, Division of Water, furnished the drainage areas at the Minnesota state line for the streams entering Iowa from the north.

Drainage area for the streams entering Missouri was measured to the State line with the exception of the Des Moines River which was measured to the mouth. For the small streams that enter the Missouri

River flood plain the drainage areas were measured to the bluff line or a nearby road crossing.

Accumulative drainage areas for the Missouri, Big Sioux, and Mississippi Rivers are not listed in this report.

DRAINAGE AREA TABLES AND INDEX MAPS

Each county of the State is considered as an individual drainage unit in this report. The location of the drainage-area determinations are listed in tabular form by counties so as to give both the location of each point and the accumulated square miles of drainage area above that point. The number in the first column is the number of the drainage-area determination and corresponds to the number on the county index map. The following information is also included in the tables: the name of the stream and the stream to which it is tributary, the bank of the stream from which the tributary enters, the description of the point at which the drainage area was measured, including section, township, and range, and the accumulated drainage area in square miles above the point described. The figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

The county index maps indicate the location of the streams in the county and the points on the streams at which the drainage areas have been measured. These points are represented by a circle containing a number corresponding to the area number in the tabular listing of the drainage areas of the county. The position of the circle in relation to the stream denotes whether the drainage-area determination is at the mouth of a tributary to the stream or at a point on the stream. For example, the drainage area of a point on the stream is depicted by a circle bisected by the stream, whereas the drainage area at the mouth of a tributary to that stream is represented by a circle tangent to the stream.

All drainage-area determinations are listed in a downstream order, by counties, in drainage basins in which they occur. For example, in Jones County the Maquoketa River enters the Mississippi River above the Wapsipinicon River, so the drainage-area determinations in the Maquoketa River basin are listed before those in the Wapsipinicon River basin. Further, the drainage area of the Maquoketa River at the north county line is designated as area number 1, and the listing then proceeds in a downstream order until the stream leaves the county. The drainage area locations on a tributary entering between two main-stem determinations are listed between them. A similar order is followed for all tributaries.

A portion of the county index map of Decatur County, Long Creek Township, has been reproduced to aid in the clarification of the proper use of the index maps and tables see figure C. An examination of figure C reveals that the drainage area of Long Creek has been determined at four points (Nos. 13, 15, 18, 22), and that the drainage area has been measured at the mouth of Bee Creek (No. 14), Wolf Creek (No. 16), Redmans Creek (No. 17), and Short Creek (No. 21). Whenever the drainage area of a stream is determined at the mouth of a tributary, that point is listed as below the mouth of the tributary, (Nos. 15, 18, 22). To determine the drainage area above the tributary, subtract the drainage area of the tributary from the drainage area of the main stream below the tributary (No. 18 minus 17). The drainage area at points other than those listed may be estimated by their proximity to points having a known drainage area.

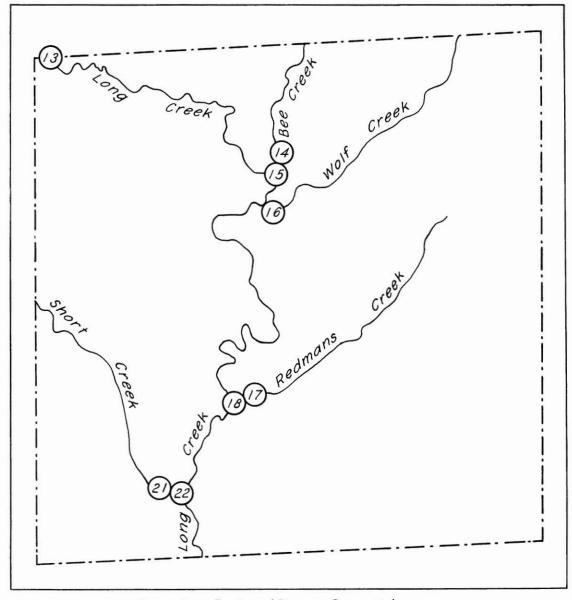


Figure C. Portion of Decatur County index map.

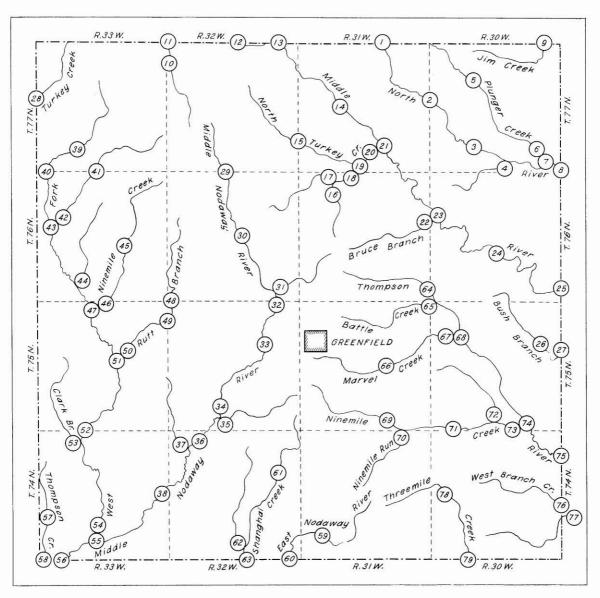


Figure 1. Drainage area index map of Adair County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 1 Adair County

	Name of states	Tallendamida	Bank	Point of determination of drainage area	<u> </u>			Drainage
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	area (sq
1	North River	Des Moines River	R	Road crossing, north (county) line	3	77N	31W	8.18
2	North River	Des Moines River	R	Road crossing, west line	18	77N	30W	17.5
3	North River	Des Moines River	R	Road crossing, west line	28	77N	30W	26.4
4	Unnamed creek	North River	R	At mouth	34	77N	30W	5.35
5	Plunger Creek	North River	L	Road crossing, west line	9	77N	30W	7.75
6	Plunger Creek	North River	L	At mouth	36	77N	30W	17.3
7	North River	Des Moines River	R	Below Plunger Creek	36	77N	30W	54.7
8	North River	Des Moines River	R	Road crossing, east (county) line	36	77N	30W	55.9
9	Jim Creek	North Branch North	1		1	77N	30W	7.51
9	JIII CIEEK	River	L	Road crossing, north (county) line	'	7711	3000	7.51
10	South Fork Middle River	Middle River	R	Road crossing, north line.	7	77N	32W	10.8
11	South Fork Middle River	Middle River	R	North (county) line.	6	77N	32W	16.7
12	South Fork Middle River	Middle River	R	Road crossing, north (county) line	3	77N	32W	29.1
13	Middle River	Des Moines River	R	Road crossing, north (county) line	1	77N	32W	72.8
14	Middle River	Des Moines River	R	Road crossing, north line.	20	77N	31W	81.9
15	North Turkey Creek	Middle River	R	Road crossing, west line	30	77N	31W	8.23
16	Unnamed creek	North Turkey Creek	R	Road crossing, north line.	8	76N	31W	7.61
17	Unnamed creek	Unnamed creek.	L	At mouth.	5	76N	31W	5.63
18	Unnamed creek	North Turkey Creek	R	At mouth.	33	77N	31W	17.4
19	North Turkey Creek	Middle River	R	Below unnamed creek	33	77N	31W	32.4
20	North Turkey Creek	Middle River	R	At mouth.	27	77N	31W	33.7
21	Middle River	Des Moines River	R	Below North Turkey Creek	27	77N	31W	123
22	Bruce Branch.	Middle River	R	At mouth.	18	76N	30W	6.29
23	Middle River	Des Moines River	R	Below Bruce Branch.	18	76N	30W	139
24	Middle River	Des Moines River	R	West line.	22	76N	30W	150
25	Middle River	Des Moines River	R	Road crossing, east (county) line	36	76N	30W	161
26	Bush Branch	Middle River	R	North line.	13	75N	30W	7.76
27	Bush Branch	Middle River	R	East (county) line.	13	75N	30W	14.1
28	Turkey Creek	East Nishnabotna River	L	West (county) line.	18	77N	33W	9.98
29	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	4	76N	32W	5.18
30	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	22	76N	32W	14.7
31	Unnamed creek	Middle Nodaway River	L	At mouth.	36	76N	32W	5.76
32	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	1	75N	32W	27.8
33	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	14	75N	32W	35.6
34	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	33	75N	32W	48.2
35	Unnamed creek.	Middle Nodaway River	L	At mouth.	33	75N	32W	6.78
36	Middle Nodaway River	Nodaway River	L	Road crossing, west line	5	74N	32W	61.7
37	Unnamed creek	Middle Nodaway River	R	At mouth.	6	74N	32W	8.12
38	Middle Nodaway River	Nodaway River	L	Road crossing, north line.	24	74N	33W	79.6

FINAL Drainage Areas of Iowa Streams.xls Table No. 1 Adair County

			, abi	o No. 1 Maan Oounty				
39	West Fork Middle Nodaway	Middle Nodaway River	R	Road crossing, north line.	32	74N	33W	4.98
40	West Fork Middle Nodaway	Middle Nodaway River	R	Road crossing, north line.	6	77N	33W	14.4
41	Unnamed creek	West Fork Middle Nodav	L	Road crossing, north line.	4	76H	33W	9.16
42	Unnamed creek	West Fork Middle Nodav	L	At mouth.	18	76N	33W	15
43	West Fork Middle Nodaway	Middle Nodaway River	R	Below unnamed creek	18	76N	33W	35.8
44	Unnamed creek	West Fork Middle Nodav	L	At mouth.	32	76N	33W	5.39
45	Ninemile Creek	West Fork Middle Nodav	L	Road crossing, west line	23	76N	33W	8.94
46	Ninemile Creek	West Fork Middle Nodav	L	At mouth	4	75N	33W	15.8
47	West Fork Middle Nodaway	Middle Nodaway River	R	Below Ninemile Creek	4	75N	33W	67.9
48	Rutt Branch	West Fork Middle Nodav	L	Road crossing, north line.	6	75N	32W	10.6
49	Rutt Branch	West Fork Middle Nodav	L	West line.	6	75N	32W	16.3
50	Rutt Branch	West Fork Middle Nodav	L	At mouth.	15	75N	33W	25.8
51	West Fork Middle Nodaway	Middle Nodaway River	R	Below Rutt Branch.	15	75N	33W	98.6
52	West Fork Middle Nodaway	Middle Nodaway River	R	Road crossing, north line.	4	74N	33W	109
53	Clark Branch	West Fork Middle Nodav	R	At mouth.	4	74N	33W	7.51
54	West Fork Middle Nodaway	Middle Nodaway River	R	At mouth.	33	74N	33W	129
55	Middle Nodaway River	Nodaway River	L	Below West Fork Middle Nodaway Riv	33	74N	33W	218
56	Middle Nodaway River	Nodaway River	L	South (county) line	31	74N	33W	225
57	Thompson Creek	Middle Nodaway River	R	Road crossing, SW1/4	19	74N	33W	7.04
58	Thompson Creek	Middle Nodaway River	R	South (county) line	31	74N	33W	10.3
59	East Nodaway River	Nodaway River	L	Road crossing, west line.	29	74N	31W	7.6
60	East Nodaway River	Nodaway River	L	Road crossing, wouth (county) line	36	74N	32W	14.2
61	Shanghai Creek	East Nodaway River	R	Road crossing, NW corner	13	74N	32W	6.1
62	Unnamed creek	Shanghai Creek	R	At mouth.	34	74N	32W	7.92
63	Shanghai Creek	East Nodaway River	R	South (county) line	34	74N	32W	21.9
64	Thompson River	Grand River	L	Road crossing, west line.	31	76N	30W	7.49
65	Battle Creek	Thompson River	R	At mouth.	31	76N	30W	7.9
66	Marvel Creek	Thompson River	R	Road crossing, NW corner	23	75N	31W	7.35
67	Marvel Creek	Thompson River	R	At mouth.	8	75N	30W	14.5
68	Thompson River	Grand River	L	Below Marvel Creek	8	75N	30W	33.2
69	Ninemile Creek	Thompson River	R	Road crossing, west line.	35	75N	31W	8.21
70	Ninemile Run	Ninemile Creek	R	At mouth.	2	74N	31W	7.78
71	Ninemile Creek	Thompson River	R	Road crossing, west line.	32	75N	30W	23
72	Unnamed creek	Ninemile Creek	L	At mouth.	34	75N	30W	6.14
73	Ninemile Creek	Thompson River	R	At mouth.	35	75N	30W	37.5
74	Thompson River	Grand River	L	Below Ninemile Creek	35	75N	30W	76.1
75	Thompson River	Grand River	L	East (county) line	12	74N	30W	81.7
76	West Branch Creek	Thompson River	R	East (county) line	24	74N	30W	9.38
77	Unnamed creek	West Branch Creek	R	At mouth.	19	74N	29W	8.82
78	Threemile Creek	Thompson River	R	Road crossing, north line.	19	74N	30W	7
79	Threemile Creek	Thompson River	R	Road crossing, south (county) line	32	74N	30W	13.4

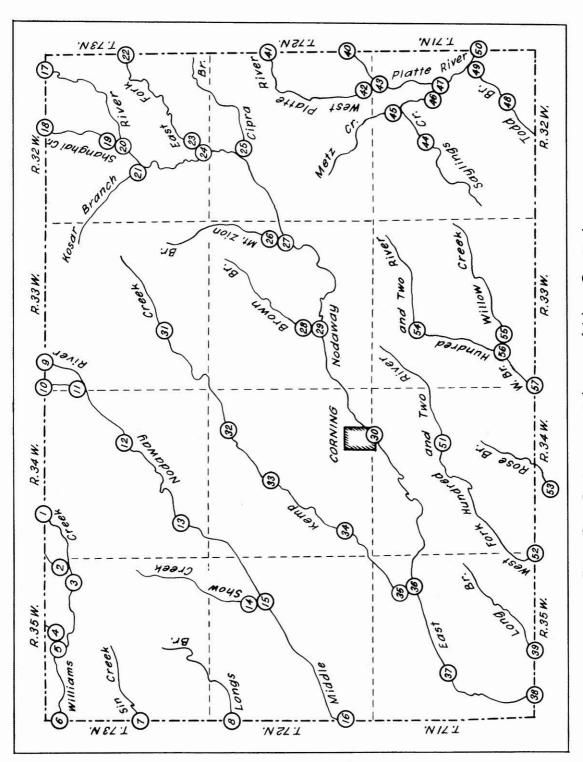


Figure 2. Drainage area index map of Adams County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 2 Adams County

	N. C.	T 11	Bank	Point of determination of drain	Point of determination of drainage area			Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Williams Creek	West Nodaway River	L	North (county) line	5	73N	34W	9.12
2	Moore Creek	Williams Creek	R	At mouth	1	73N	35W	5.47
3	Williams Creek	West Nodaway River	L	Road crossing, SW1/4	1	73N	35W	18.5
4	Petersons Creek	Williams Creek	R	At mouth	4	73N	35W	5.06
5	Williams Creek	West Nodaway River	L	Below Petersons Creek	4	73N	35W	30.7
6	Williams Creek	West Nodaway River	L	West (county) line	6	73N	35W	36.1
7	Sin Creek	West Nodaway River	L	Road crossing, west (county) line	19	73N	35W	8.17
8	Longs Branch	West Nodaway River	L	West (county) line	6	72N	35W	4.97
9	Middle Nodaway River	Nodaway River	L	North (county) line	6	73N	33W	225
10	Thompson Creek	Middle Nodaway River	R	North (county) line	6	73N	33W	10.3
11	Thompson Creek	Middle Nodaway River	R	At mouth	7	73N	33W	11.7
12	Middle Nodaway River	Nodaway River	L	Road crossing, SW1/4	14	73N	34W	256
13	Middle Nodaway River	Nodaway River	L	Road crossing, north line	32	73N	34W	274
14	Show Creek	Middle Nodaway River	R	At mouth	14	72N	34W	10.8
15	Middle Nodaway River	Nodaway River	L	Below Show Creek	14	72N	35W	297
16	Middle Nodaway River	Nodaway River	L	Road crossing, north line	31	72N	35W	318
17	East Nodaway River	Nodaway River	L	Road crossing, north (county) line	1	73N	32W	14.2
18	Shanghai Creek	East Nodaway River	R	Road crossing, north (county) line	3	73N	32W	21.9
19	Shanghai Creek	East Nodaway River	R	At mouth	16	73N	32W	32
20	East Nodaway River	Nodaway River	L	Below Shanghai Creek	16	73N	32W	53
21	Kosar Branch	East Nodaway River	R	At mouth	20	73N	32W	9.97
22	East Fork East Nodaway River	East Nodaway River	L	East (county) line	13	73N	32W	12.9
23	East Fork East Nodaway River	East Nodaway River	L	At mouth	33	73N	32W	22.4
24	East Nodaway River	Nodaway River	L	Below East Fork East Nodaway River	33	73N	32W	90.8
25	Cipra Branch	East Nodaway River	L	At mouth	9	72N	32W	8.78
26	Mt. Zion Branch	East Nodaway River	R	At mouth	13	72N	33W	6.7
27	East Nodaway River	Nodaway River	L	Below Mt. Zion Branch	13	72N	33W	121
28	Brown Branch	East Nodaway River	R	At mouth	28	72N	33W	10.1
29	East Nodaway River	Nodaway River	L	Below Brown Branch	28	72N	33W	149
30	East Nodaway River	Nodaway River	L	Road crossing, NW1/4	2	71N	34W	165
31	Kemp Creek	East Nodaway River	R	Road crossing, west line	28	73N	33W	11.5
32	Kemp Creek	East Nodaway River	R	Road crossing, S 1/2	2	72N	34W	19.6

FINAL Drainage Areas of Iowa Streams.xls Table No. 2 Adams County

33	Kemp Creek	East Nodaway River	R	Road crossing, NE¼	16	72N	34W	30.7
34	Kemp Creek	East Nodaway River	R	Road crossing, north line	31	72N	34W	38.6
35	Kemp Creek	East Nodaway River	R	At mouth	11	71N	35W	46.6
36	East Nodaway River	Nodaway River	L	Below Kemp River	11	71N	35W	230
37	East Nodaway River	Nodaway River	L	Road crossing, SE1/4	17	71N	35W	242
38	East Nodaway River	Nodaway River	L	Road crossing, south (county) line	31	71N	35W	251
39	Long Branch	East Nodaway River	L	Road crossing, south (county) line	33	71N	35W	7.03
40	Platte River	Missouri River	L	Road crossing, east (county) line	36	72N	32W	36.1
41	West Platte River	Platte River	R	East (county) line	13	72N	32W	4.63
42	West Platte River	Platte River	R	At mouth	2	71N	32W	13.6
43	Platte River	Missouri River	L	Below West Platte River	2	71N	32W	51.5
44	Saylings Creek	Platte River	R	Road crossing, north line	16	71N	32W	10.5
45	Metz Creek	Saylings Creek	L	At mouth	10	71N	32W	6.47
46	Saylings Creek	Platte River	R	At mouth	14	71N	32W	22.2
47	Platte River	Missouri River	L	Below Saylings Creek	14	71N	32W	76.5
48	Todd Branch	Platte River	R	Road crossing, north line	35	71N	32W	8.56
49	Todd Branch	Platte River	R	At mouth	24	71N	32W	11.6
50	Platte River	Missouri River	L	Road crossing, east (county) line	24	71N	32W	92.1
51	West Fork Hundred and Two River	Hundred and Two River	R	Road crossing, west line	14	71N	34W	8.91
52	West Fork Hundred and Two River	Hundred and Two River	R	Road crossing, south (county) line	36	71N	35W	17.9
53	Rose Branch	West Fork Hundred and Two River	L	Road crossing, west line	4	70N	34W	7.53
54	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Road crossing, west line	9	71N	33W	6.64
55	Willow Creek	West Branch Hundred and Two River	L	At mouth	29	71N	33W	8.93
56	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Below Willow Creek	29	71N	33W	20.3
57	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Road crossing, south (county) line	31	71N	33W	24.5

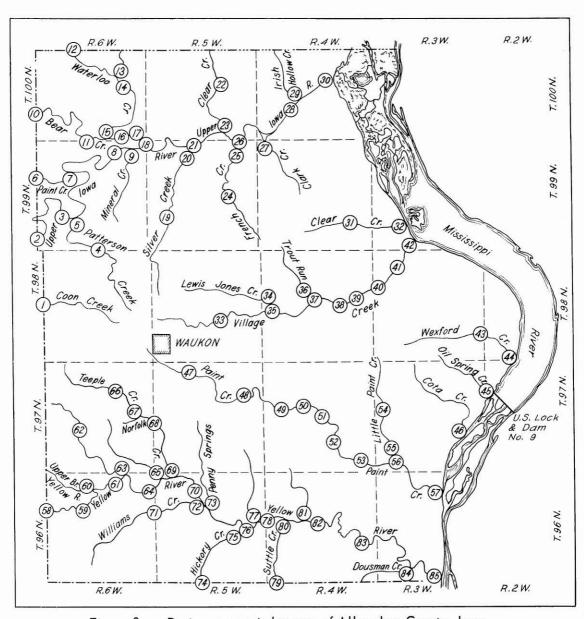


Figure 3. Drainage area index map of Allamakee County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 3 Allamakee County

	Bank Point of determination of drain					area	Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Coon Creek	Upper Iowa River	R	West (county) line	18	98N	6W	11.7
2	Upper Iowa River	Mississippi River	R	West (county) line	31	99N	6W	651
3	Upper Iowa River	Mississippi River	R	Road crossing, NE1/4	29	99N	6W	731
4	Patterson Creek	Upper Iowa River	R	North line	3	98N	6W	8.71
5	Patterson Creek	Upper Iowa River	R	At mouth	29	99n	6W	16.2
6	Paint Creek	Upper Iowa River	L	West (county) line	18	99N	6W	7.45
7	Paint Creek	Upper Iowa River	L	At mouth	9	99N	6W	10.6
8	Upper Iowa River	Mississippi River	R	Road crossing, NW¼ (gage near Dorchester)	1	99N	6W	770
9	Mineral Creek	Upper Iowa River	R	At mouth	1	99N	6W	8.06
10	Bear Creek	Upper Iowa River	L	West (county) line	30	100N	6W	55.4
11	Bear Creek	Upper Iowa River	L	Road crossing, NE1/4	4	99N	6W	67.4
12	Waterloo Creek	Bear Creek	L	North (state) line	9	100N	6W	19
13	Duck Creek	Waterloo Creek	L	At mouth	14	100N	6W	8.21
14	Waterloo Creek	Bear Creek	L	Road crossing, NE1/4	23	100N	6W	34.3
15	Waterloo Creek	Bear Creek	L	At mouth	35	100N	6W	47.7
16	Bear Creek	Upper Iowa River	L	Road crossing, NE¼ (gage near Dorchester)	2	99N	6W	118
17	Bear Creek	Upper Iowa River	L	At mouth	1	99N	6W	118
18	Upper Iowa River	Mississippi River	R	Below Bear Creek	1	99N	6W	896
19	Silver Creek	Upper Iowa River	R	Road crossing, NW1/4	29	99N	5W	9.64
20	Silver Creek	Upper Iowa River	R	At mouth	4	99N	5W	22.4
21	Upper Iowa River	Mississippi River	R	Below Silver Creek	4	99N	5W	927
22	Clear Creek	Upper Iowa River	L	Road crossing, SW corner	14	100N	5W	8.04
23	Clear Creek	Upper Iowa River	L	At mouth	35	100N	5W	15.1
24	French Creek	Upper Iowa River	R	Road crossing, NW1/4	23	99N	5W	11.2
25	French Creek	Upper Iowa River	R	At mouth	1	99N	5W	24
26	Upper Iowa River	Mississippi River	R	Below French Creek	1	99N	5W	970
27	Clark Creek	Upper Iowa River	R	At mouth	6	99N	4W	7.25
28	Upper Iowa River	Mississippi River	R	Road crossing, west line	28	100N	4W	987
29	Irish Hollow Creek	Upper Iowa River	L	At mouth	21	100N	4W	8.91
30	Upper Iowa River	Mississippi River	R	Road crossing, SE1/4	15	100N	4W	1005
31	Clear Creek	Mississippi River	R	West line	25	99N	4W	8.75
32	Clear Creek	Mississippi River	R	At mouth	29	99N	3W	16.2

FINAL Drainage Areas of Iowa Streams.xls Table No. 3 Allamakee County

33	Village Creek	Mississippi River	R	Road crossing, SE1/4	22	98N	5W	7.83
34	Lewis Jones Creek	Village Creek	L	At mouth	19	98N	4W	10.6
35	Village Creek	Mississippi River	R	Below Lewis Jones Creek	19	98N	4W	26.8
36	Trout Run	Village Creek	L	At mouth	16	98N	4W	7.71
37	Village Creek	Mississippi River	R	Below Trout Run	16	98N	4W	40.7
38	Village Creek	Mississippi River	R	Road crossing, SW1/4	14	98N	4W	44.2
39	Village Creek	Mississippi River	R	Road crossing, SE¼	14	98N	4W	51.7
40	Village Creek	Mississippi River	R	Road crossing, NW1/4	18	98N	3W	58.5
41	Village Creek	Mississippi River	R	North line	8	98N	3W	69.2
42	Village Creek	Mississippi River	R	At mouth	33	99N	3W	73.6
43	Wexford Creek	Mississippi River	R	Road crossing, SE1/4	25	98N	3W	11.9
44	Wexford Creek	Mississippi River	R	At mouth	5	97N	2W	15.6
45	Oil Spring Creek	Mississippi River	R	Road crossing, SW1/4	7	97N	2W	4.55
46	Cota Creek	Mississippi River	R	At mouth	26	97N	3W	11.8
47	Paint Creek	Mississippi River	R	Road crossing, SE1/4	5	97N	5W	6.8
48	Paint Creek	Mississippi River	R	Road crossing, west line	12	97N	5W	15.9
49	Paint Creek	Mississippi River	R	Road crossing, west line	17	97N	4W	26.6
50	Paint Creek	Mississippi River	R	Road crossing, NW1/4	16	97N	4W	33.5
51	Paint Creek	Mississippi River	R	Road crossing, NW1/4	22	97N	4W	42.8
51	Faill Creek	Mississippi Kivei	K	(gage at Waterville)	22	9/11	4 V V	42.0
52	Paint Creek	Mississippi River	R	Road crossing, SE1/4	27	97N	4W	49.4
53	Paint Creek	Mississippi River	R	Road crossing, NW1/4	36	97N	4W	56
54	Little Paint Creek	Paint Creek	L	Road crossing, center	18	97N	3W	6.58
55	Little Paint Creek	Paint Creek	L	At mouth	32	97N	3W	13.7
56	Paint Creek	Mississippi River	R	Below Little Paint Creek	32	97N	3W	74.2
57	Paint Creek	Mississippi River	R	At mouth	10	96N	3W	85.5
58	Yellow River	Mississippi River	R	West (county) line	18	96N	6W	35.4
59	Yellow River	Mississippi River	R	Road crossing, NW1/4	16	96N	6W	46.2
60	Upper Branch Yellow River	Yellow River	L	At mouth	4	96N	6W	8.39
61	Yellow River	Mississippi River	R	Road crossing, west line	2	96N	6W	59.6
62	Unnamed creek	Yellow River	L	Road crossing, west line	21	97N	6W	5.73
63	Unnamed creek	Yellow River	L	At mouth	2	96N	6W	15.1
64	Yellow River	Mississippi River	R	Road crossing, NE1/4	12	96N	6W	78.7
65	Unnamed creek	Yellow River	L	At mouth	6	96N	5W	7.1
66	Teeple Creek	Norfolk Creek	L	Road crossing, west line	11	97N	6W	5.22
67	Teeple Creek	Norfolk Creek	L	At mouth	24	97N	6W	12.3
68	Norfolk Creek	Yellow River	L	Road crossing, NW1/4	19	97N	5W	18.6
69	Norfolk Creek	Yellow River	L	At mouth	6	96N	5W	23.4
70	Yellow River	Mississippi River	R	Road crossing, NW1/4	9	96N	5W	115
71	Williams Creek	Yellow River	R	West line	18	96N	5W	8.56

FINAL Drainage Areas of Iowa Streams.xls Table No. 3 Allamakee County

73 Pe				At mouth	9	96N	5W	14.4
	enny Springs	Yellow River	L	At mouth	9	96N	5W	9.62
74 Hic	lickory Creek	Yellow River	R	South (county) line	33	96N	5W	11.8
75 Hic	lickory Creek	Yellow River	R	At mouth	23	96N	5W	23.3
76 Ye	ellow River	Mississippi River	R	Below Hickory Creek	23	96N	5W	168
77 Un	Innamed creek	Yellow River	L	At mouth	13	96N	5W	7.67
78 Ye	ellow River	Mississippi River	R	Road crossing, SW1/4	18	96N	4W	179
79 Su	uttle Creek	Yellow River	R	South (county) line	31	96N	4W	4.76
80 Su	uttle Creek	Yellow River	R	At mouth	18	96N	4W	10.8
81 Un	Innamed creek	Yellow River	L	At mouth	16	96N	4W	6.43
82 Ye	ellow River	Mississippi River	R	Road crossing, SE1/4	16	96N	4W	204
				Road crossing, SW1/4				
83 Ye	ellow River	Mississippi River	R	(discontinued gage near	24	96N	4W	221
				lon)				
84 Do	ousman Creek	Yellow River	R	At mouth	33	96N	3W	8.73
85 Ye	ellow River	Mississippi River	R	At mouth	34	96N	3W	241
83 Ye 84 Do	ellow River Jousman Creek	Mississippi River Yellow River	R R	Road crossing, SW¼ (discontinued gage near lon) At mouth	24 33	96N 96N	4W 3W	2

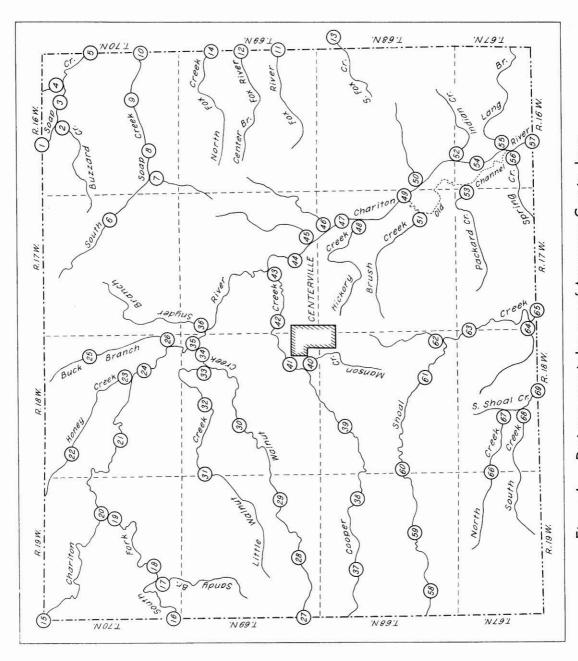


Figure 4. Drainage area index map of Appanoose County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 4 Appanoose County

			Bank	Point of determination of dra	Point of determination of drainage area			
Area No.	Name of stream	e of stream Tributary to Description		Description	Sec	Т	R	Drainage area (sq mi)
1	Soap Creek	Des Moines River	R	North (county) line	4	70N	16W	26.5
2	Buzzard Creek	Soap Creek	R	At mouth	3	70N	16W	5.93
3	Soap Creek	Des Moines River	R	Road crossing, SW1/4	2	70N	16W	34.9
4	Boyd Branch	Soap Creek	L	At mouth	2	70N	16W	9.48
5	Soap Creek	Des Moines River	R	East (county) line	13	70N	16W	51
6	South Soap Creek	Soap Creek	R	North line	23	70N	17W	6.27
7	Unnamed creek	South Soap Creek	R	At mouth	30	70N	16W	8.31
8	South Soap Creek	Soap Creek	R	Road crossing, SE1/4	29	70N	16W	21.7
9	South Soap Creek	Soap Creek	R	Road crossing, NW corner	26	70N	16W	30.7
10	South Soap Creek	Soap Creek	R	East (county) line	25	70N	16W	37.3
11	Fox River	Mississippi River	R	Road crossing, east (county) line	25	69N	16W	10.3
12	Center Branch Fox River	Fox River	L	East (county) line	13	69N	16W	7.21
13	South Fox Creek	Fox River	R	Road crossing, south 1/2	6	68N	15W	8.97
14	North Fox Creek	Fox River	L	East (county) line	12	69N	16W	10.5
15	Chariton River	Missouri River	L	Road crossing, west (county) line	6	70N	19W	248
16	South Fork Chariton River	Chariton River	R	West (county) line	31	70N	19W	208
17	Sandy Branch	South Fork Chariton River	R	At mouth	29	70N	19W	8.42
18	South Fork Chariton River	Chariton River	R	Road crossing, SW corner	28	70N	19W	224
19	South Fork Chariton River	Chariton River	R	At mouth	14	70N	19W	235
20	Chariton River	Missouri River	L	Below South Fork Chariton River	14	70N	19W	501
21	Chariton River	Missouri River	L	Road crossing, north 1/2	20	70N	18W	512
22	Honey Creek	Chariton River	L	West line	8	70N	18W	7.18
23	Honey Creek	Chariton River	L	At mouth	22	70N	18W	14.9
24	Chariton River	Missouri River	L	North line	26	70N	18W	535
25	Buck Branch	Chariton River	L	North line	13	70N	18W	5.58
26	Buck Branch	Chariton River	L	At mouth	36	70N	18W	11.5
27	Walnut Creek	Chariton River	R	Road crossing, west (county) line	31	69N	19W	18.1
28	Walnut Creek	Chariton River	R	Road crossing, north 1/2	33	69N	19W	24.4
29	Walnut Creek	Chariton River	R	Road crossing, west line	25	69N	19W	31.7
30	Walnut Creek	Chariton River	R	Road crossing, W 1/2	16	69N	18W	44.3

FINAL Drainage Areas of Iowa Streams.xls Table No. 4 Appanoose County

31	Little Walnut Creek	Walnut Creek	L	Road crossing, NW1/4	7	69N	18W	11.9
32	Little Walnut Creek	Walnut Creek	L	NW corner	10	69N	18W	18.5
33	Little Walnut Creek	Walnut Creek	L	At mouth	1	69N	18W	22.6
34	Walnut Creek	Chariton River	R	At mouth	1	69N	18W	74
35	Chariton River	Missouri River	L	Below Walnut Creek	1	69N	18W	625
36	Snyder Branch	Chariton River	L	At mouth	12	69N	18W	9.05
37	Cooper Creek	Chariton River	R	Road crossing, west line	9	68N	19W	7.82
38	Cooper Creek	Chariton River	R	Road crossing, west line	12	68N	19W	18.9
39	Cooper Creek	Chariton River	R	Road crossing, west line	9	68N	18W	28
40	Manson Creek	Cooper Creek	R	At mouth	35	69N	18W	5.82
41	Cooper Creek	Chariton River	R	Road crossing, NE1/4	35	69N	18W	41.5
42	Cooper Creek	Chariton River	R	Road crossing, north 1/2	30	69N	17W	47.8
43	Cooper Creek	Chariton River	R	At mouth	21	69N	17W	53.2
44	Chariton River	Missouri River	L	Road crossing, north line (gage near Centerville)	34	69N	17W	708
45	Unnamed creek	Chariton River	L	At mouth	34	69N	17W	7.27
46	Unnamed creek	Chariton River	L	At mouth	2	68N	17W	6.85
47	Chariton River	Missouri River	L	Road crossing, south 1/2	2	68N	17W	725
48	Hickory Creek	Chariton River	R	At mouth	11	68N	17W	5.86
49	Chariton River	Missouri River	L	Road crossing, SE1/4	24	68N	17W	746
50	Unnamed creek	Chariton River	L	At mouth	30	68N	16W	6.29
51	Brush Creek	Chariton River	R	At mouth (old channel)	25	68N	17W	10.5
52	Indian Creek	Chariton River	L	At mouth	32	68N	16W	6.43
53	Packard Creek	Chariton River	R	At mouth (old channel)	6	67N	16W	10.3
54	Chariton River	Missouri River	L	Road crossing, north line	8	67N	16W	789
55	Lang Branch	Chariton River	L	At mouth	17	67N	16W	14.3
56	Spring Creek	Chariton River	R	At mouth	17	67N	16W	7.13
57	Chariton River	Missouri River	L	State line	21	67N	16W	817
58	Shoal Creek	Chariton River	R	Road crossing, west line	29	68N	19W	10.3
59	Shoal Creek	Chariton River	R	Road crossing, north 1/2	27	68N	19W	18.5
60	Shoal Creek	Chariton River	R	Road crossing, west 1/2	19	68N	18W	29.6
61	Shoal Creek	Chariton River	R	West line	26	68N	18W	40.4
62	Unnamed creek	Shoal Creek	L	At mouth	36	68N	18W	5.86
63	Shoal Creek	Chariton River	R	Road crossing, west 1/2	6	67N	17W	56.6
64	Unnamed creek	Shoal Creek	R	At mouth	19	67N	17W	6.15
65	Shoal Creek	Chariton River	R	State line	19	67N	17W	71.5
66	North Creek	South Shoal Creek	R	West line	7	67N	18W	6.56
67	North Creek	South Shoal Creek	R	At mouth	16	67N	18W	11.8
68	South Creek	South Shoal Creek	R	At mouth	16	67N	18W	8.23
69	South Shoal Creek	Shoal Creek	R	State line	22	67N	18W	22.4

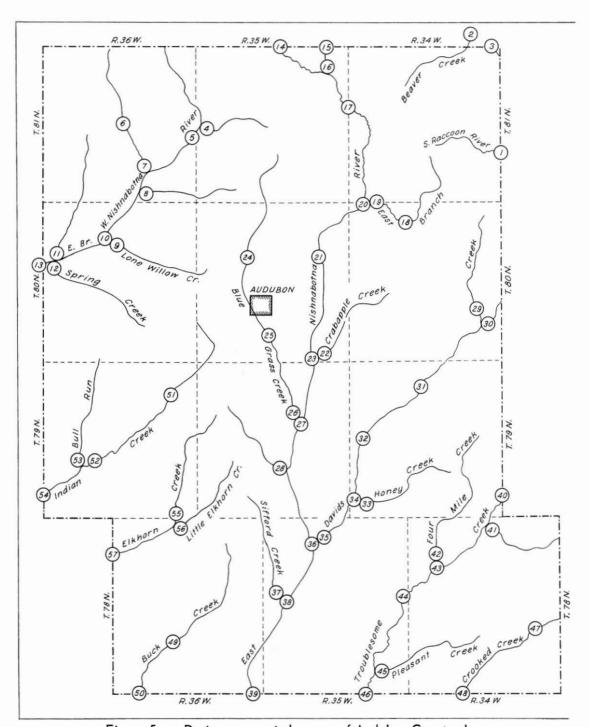


Figure 5. Drainage area index map of Audubon County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 5 Audubon County

	Bank Point of determination of drainage area					Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	South Raccoon River	Raccoon River	R	Road crossing, east	25	81N	34W	7.01
2	Beaver Creek	Brushy Creek	R	(county) line At mouth	36	82N	34W	9.96
		•		Road crossing, north				
3	Brushy Creek	South Raccoon River	L	(county) line	1	81N	34W	83.1
4	Unnamed creek	East Branch West Nishnabotna River	L	At mouth	19	81N	35W	7.53
5	East Branch West Nishnabotna River	West Nishnabotna River	L	Road crossing, west line	19	81N	35W	17.2
6	Unnamed creek	East Branch West Nishnabotna River	R	Road crossing, north line	22	81N	36W	6.36
7	Unnamed creek	East Branch West Nishnabotna River	R	At mouth	26	81N	36W	11.2
8	Unnamed creek	East Branch West Nishnabotna River	L	At mouth	34	81N	36W	6.47
9	Lone Willow Creek	East Branch West Nishnabotna River	L	At mouth	9	80N	36W	11.3
10	East Branch West Nishnabotna River	West Nishnabotna River	L	Below Lone Willow Creek	9	80N	36W	54.2
11	Unnamed creek	East Branch West Nishnabotna River	R	At mouth	18	80N	36W	5.83
12	Spring Creek	East Branch West Nishnabotna River	L	At mouth	18	80N	36W	5.64
13	East Branch West Nishnabotna River	West Nishnabotna River	L	Road crossing, west (county) line	18	80N	36W	70.3
14	East Nishnabotna River	Nishnabotna River	L	North (county) line	3	81N	35W	15.2
15	Unnamed creek	East Nishnabotna River	L	Road crossing, north (county) line	1	81N	35W	6.56
16	Unnamed creek	East Nishnabotna River	L	At mouth	12	81N	35W	10.6
17	East Nishnabotna River	Nishnabotna River	L	Road crossing, west line	18	81N	34W	36.9
18	East Branch East Nishnabotna River	East Nishnabotna River	L	Road crossing, SW1/4	4	80N	34W	7.9
19	East Branch East Nishnabotna River	East Nishnabotna River	L	At mouth	6	80N	34W	13
20	East Nishnabotna River	Nishnabotna River	L	Below East Branch East Nishnabotna River	6	80N	34W	65.4

FINAL Drainage Areas of Iowa Streams.xls Table No. 5 Audubon County

21	East Nishnabotna River	Nishnabotna River	L	Road crossing, north line	14	80N	35W	75.4
22	Crabapple Creek	East Nishnabotna River	L	At mouth	35	80N	35W	5.76
23	East Nishnabotna River	Nishnabotna River	L	Below Crabapple Creek	35	80N	35W	90.5
24	Blue Grass Creek	East Nishnabotna River	R	Road crossing, NW corner	16	80N	35W	8.21
25	Blue Grass Creek	East Nishnabotna River	R	North line	33	80N	35W	16.6
26	Blue Grass Creek	East Nishnabotna River	R	At mouth	14	79N	35W	25
27	East Nishnabotna River	Nishnabotna River	L	Below Blue Grass Creek	14	79N	35W	121
28	Unnamed creek	East Nishnabotna River	R	At mouth	27	79N	35W	5.14
29	Davids Creek	East Nishnabotna River	L	Road crossing, north line	25	80N	34W	10.8
30	Unnamed creek	Davids Creek	L	At mouth	25	80N	34W	5.11
31	Davids Creek	East Nishnabotna River	L	Road crossing, north line (gage near Hamlin)	9	79N	34W	26
32	Davids Creek	East Nishnabotna River	L	Road crossing, north line	19	79N	34W	39.9
33	Honey Creek	Davids Creek	L	At mouth	31	79N	34W	5.16
34	Davids Creek	East Nishnabotna River	L	Below Honey Creek	31	79N	34W	54.7
35	Davids Creek	East Nishnabotna River	L	At mouth	4	78N	35W	61
36	East Nishnabotna River	Nishnabotna River	L	Below Davids Creek	4	78N	35W	195
37	Sifford Creek	East Nishnabotna River	R	At mouth	18	78N	35W	6.68
38	East Nishnabotna River	Nishnabotna River	L	Below Sifford Creek	18	78N	35W	210
39	East Nishnabotna River	Nishnabotna River	L	South (county) line	37	78N	36W	224
40	Troublesome Creek	East Nishnabotna River	L	East (county) line	37	79N	34W	23.9
41	Unnamed creek	Troublesome Creek	L	At mouth	3	78N	34W	6.81
42	Four Mile Creek	Troublesome Creek	R	At mouth	8	78N	34W	7.26
43	Troublesome Creek	East Nishnabotna River	L	Below Four Mile Creek	8	78N	34W	44
44	Troublesome Creek	East Nishnabotna River	L	Road crossing, NE1/4	13	78N	35W	52.4
45	Pleasant Creek	Troublesome Creek	L	At mouth	35	78N	35W	5.8
46	Troublesome Creek	East Nishnabotna River	L	Road crossing, south (county) line	35	78N	35W	68.4
47	Crooked Creek	Troublesome Creek	L	Road crossing, west line	24	78N	34W	9.83
48	Crooked Creek	Troublesome Creek	L	Road crossing, south (county) line	33	78N	34W	19.9
49	Buck Creek	East Nishnabotna River	R	Road crossing, north line	28	78N	36W	10.1
50	Buck Creek	East Nishnabotna River	R	South (county) line	32	78N	36W	19.3
51	Indian Creek	East Nishnabotna River	R	Road crossing, west line	12	79N	36W	12
52	Indian Creek	East Nishnabotna River	R	Road crossing, west line	21	79N	36W	21.5
53	Bull Run	Indian Creek	R	At mouth	20	79N	36W	5.6
54	Indian Creek	East Nishnabotna River	R	Road crossing, west (county) line	31	79N	36W	31.4
55	Elkhorn Creek	Indian Creek	L	Road crossing, north line	4	78N	36W	6.24

FINAL Drainage Areas of Iowa Streams.xls Table No. 5 Audubon County

56	Little Elkhorn Creek	Elkhorn Creek	L	At mouth	4	78N	36W	5.83
57	Elkhorn Creek	Indian Creek	L	Road crossing, west (county) line	6	78N	36W	20.4

DRAINAGE AREAS OF IOWA STREAMS

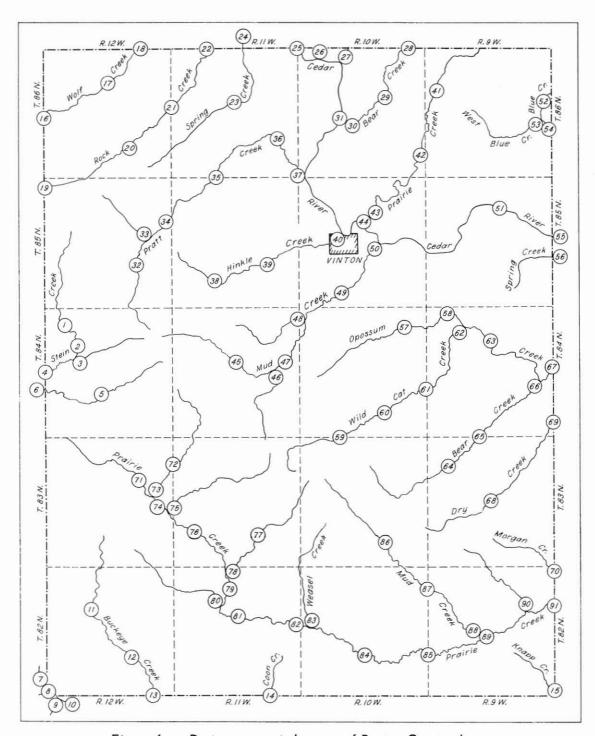


Figure 6. Drainage area index map of Benton County, Iowa.

No. Description Sec T R (Sq No. 1 Stein Creek East Branch Salt Creek L Road crossing, west line 5 84N 12W 2 Stein Creek East Branch Salt Creek L Road crossing, south 1/2 8 84N 12W 3 Unnamed creek Stein Creek L At mouth 17 84N 12W 4 Stein Creek East Branch Salt Creek L Road crossing, west (county) line 18 84N 12W 19 19 19 19 19 19 19 1	Orainage area sq mi) 9.55 14.6 5.91
1 Stein Creek East Branch Salt Creek L Road crossing, west line 5 84N 12W 2 Stein Creek East Branch Salt Creek L Road crossing, south 1/2 8 84N 12W 3 Unnamed creek Stein Creek L At mouth 17 84N 12W 4 Stein Creek East Branch Salt Creek L Road crossing, west (county) line 18 84N 12W 5 Unnamed creek Stein Creek L Road crossing, north line 28 84N 12W 6 Unnamed creek Stein Creek L Road crossing, north line 28 84N 12W 7 Salt Creek Iowa River L At mouth 24 84N 13W 8 Iowa River Mississippi River R Below Salt Creek 31 82N 12W 9 Walnut Creek Iowa River R At mouth 31 82N 12W 10 Iowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 11 Buckeye Creek Iowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek Iowa River L Road crossing, north line 16 82N 12W 13 Buckeye Creek Iowa River L South (county) line 36 82N 12W 14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L South (county) line 35 82N 11W 16 Wolf Creek Cedar River R Road crossing, west 18 86N 12W	14.6
3 Unnamed creek	
4 Stein Creek East Branch Salt Creek L Road crossing, west (county) line 18 84N 12W 5 Unnamed creek Stein Creek L Road crossing, north line 28 84N 12W 6 Unnamed creek Stein Creek L At mouth 24 84N 13W 7 Salt Creek lowa River L At mouth 31 82N 12W 8 lowa River Mississippi River R Below Salt Creek 31 82N 12W 9 Walnut Creek lowa River R At mouth 31 82N 12W 10 lowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 11 Buckeye Creek lowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek lowa River L West line 26 82N 12W 13 Buckeye Creek lowa River L South (county) line 36 82N 12W 14 Coon Creek lowa River L South (county) line 35 82N 11W 15 Knapp Creek lowa River L South (county) line 35 82N 11W 16 Wolf Creek Creek River R Road crossing, west 19 86N 12W	5 01
4 Stein Creek East Branch Salt Creek 5 Unnamed creek Stein Creek Stein Creek L Road crossing, north line R Road crossing, west line (gage near Belle Plaine) L Road crossing, north line L Road crossing, north line R Road crossing, north line L Road crossing, north line R Road crossing, north line L Road crossing, north line R Road crossing, north line L Road crossing, north line L Road crossing, north line L Road crossing, north line R Road crossing, north line L Road crossing, north line L Road crossing, east L Road crossing, east (county) line R Road crossing, east (county) line R Road crossing, east (county) line R Road crossing, west R Road crossing, north line R Road crossing, west R Road crossing, north line R Road crossing, west R Road crossing, north line R Road crossing, west R Road crossing, north line R Road crossing,	5.51
6 Unnamed creek Stein Creek L At mouth 24 84N 13W 7 Salt Creek Iowa River L At mouth 31 82N 12W 8 Iowa River Mississippi River R Below Salt Creek 31 82N 12W 9 Walnut Creek Iowa River R At mouth 31 82N 12W 10 Iowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 5 81N 12W 11 Buckeye Creek Iowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek Iowa River L West line 26 82N 12W 13 Buckeye Creek Iowa River L South (county) line 36 82N 12W 14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L South (county) line 36 82N 9W 16 Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River L South (county) line Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River L South (county) line Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River L South Creek Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road crossing, west 19 86N 12W 14 Coon Creek Iowa River Road Crossing Road Crossing Road Crossing R	23.3
7 Salt Creek lowa River L At mouth 31 82N 12W 8 lowa River Mississippi River R Below Salt Creek 31 82N 12W 9 Walnut Creek lowa River R At mouth 31 82N 12W 10 lowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 5 81N 12W 11 Buckeye Creek lowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek lowa River L West line 26 82N 12W 13 Buckeye Creek lowa River L South (county) line 36 82N 12W 14 Coon Creek lowa River L South (county) line 35 82N 11W 15 Knapp Creek lowa River L South (county) line 36 82N 9W 16 Wolf Creek Codar River Road crossing, west 19 86N 12W 12W 13 Road crossing, west 19 86N 12W 14W 15 Wolf Creek Road crossing, west 19 86N 12W 14W 15 Wolf Creek Road crossing, west 19 86N 12W 14W 15W 15W 15W 15W 15W 15W 15W 15W 15W 15	6.12
8 Iowa River Mississippi River R Below Salt Creek 31 82N 12W 9 Walnut Creek Iowa River R At mouth 31 82N 12W 10 Iowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 5 81N 12W 11 Buckeye Creek Iowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek Iowa River L West line 26 82N 12W 13 Buckeye Creek Iowa River L South (county) line 36 82N 12W 14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	16.2
9 Walnut Creek Iowa River R At mouth 31 82N 12W 10 Iowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 5 81N 12W 11 Buckeye Creek Iowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek Iowa River L West line 26 82N 12W 13 Buckeye Creek Iowa River L South (county) line 36 82N 12W 14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	223
10 Iowa River Mississippi River R Road crossing, west line (gage near Belle Plaine) 11 Buckeye Creek 12 Buckeye Creek 13 Buckeye Creek 14 Coon Creek 15 Iowa River 16 Wolf Creek Mississippi River R Road crossing, west line (gage near Belle Plaine) 16 Road crossing, north line 17 Road crossing, north line 18 Road crossing, north line 19 Road crossing, north line 19 Road crossing, west 19 Road crossing, north line 10 Road crossing, west line 10 Road crossing, west line 11 Road crossing, west line 12 Road crossing, west line 13 Road crossing, west line 14 Road crossing, west line 15 Road crossing, west line 16 Road crossing, west line 17 Road crossing, west line 18 Road crossing, west line 19	2361
10 lowa River Mississippi River R (gage near Belle Plaine) 5 81N 12W 11 Buckeye Creek lowa River L Road crossing, north line 16 82N 12W 12 Buckeye Creek lowa River L West line 26 82N 12W 13 Buckeye Creek lowa River L South (county) line 36 82N 12W 14 Coon Creek lowa River L South (county) line 35 82N 11W 15 Knapp Creek lowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River R Road crossing, west 19 86N 12W	91.3
11 Buckeye Creek	2455
12 Buckeye Creek Iowa River L West line 26 82N 12W 13 Buckeye Creek Iowa River L South (county) line 36 82N 12W 14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	8.41
14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	18.5
14 Coon Creek Iowa River L South (county) line 35 82N 11W 15 Knapp Creek Iowa River L Road crossing, east (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	23.8
15 Knapp Creek lowa River L (county) line 36 82N 9W 16 Wolf Creek Cedar River Road crossing, west 19 86N 12W	5.05
16 Wolf Creek Cedar River Road crossing, west	7.18
(county) line	299
17 Wolf Creek Cedar River R Road crossing, west line 10 86N 12W	314
18 Wolf Creek Cedar River R North (county) line 2 86N 12W	324
19 Rock Creek Cedar River R Road crossing, west (county) line 6 85N 12W	10.4
20 Rock Creek Cedar River R Road crossing, west line 26 86N 12W	21.1
21 Rock Creek Cedar River R Road crossing, west line 18 86N 11W	27.2
22 Rock Creek Cedar River R Road crossing, north 5 86N 11W	32.2
23 Spring Creek Cedar River R Road crossing, west line 15 86N 11W	6.85
24 Spring Creek Cedar River R At mouth 34 87N 11W	14
25 Cedar River Iowa River L NW corner (county line) 6 86N 10W	5814
26 Mud Creek Cedar River L At mouth 5 86N 10W	13.6
27 Lime Creek Cedar River L At mouth 4 86N 10W	41.9
28 Bear Creek Cedar River L North (county) line 1 86N 10W	46.1
29 Bear Creek Cedar River L Road crossing, NW1/4 14 86N 10W	54.6
30 Bear Creek Cedar River L At mouth 21 86N 10W	61.3

31	Cedar River	Iowa River	L	Below Bear Creek	21	86N	10W	5940
32	Pratt Creek	Cedar River	R	Road crossing, north line	26	85N	12W	7.16
33	Unnamed creek	Pratt Creek	L	At mouth	14	85N	12W	8.33
34	Pratt Creek	Cedar River	R	Road crossing, north line	13	85N	12W	23.4
35	Pratt Creek	Cedar River	R	Road crossing, north line	4	85N	11W	33.2
36	Pratt Creek	Cedar River	R	Road crossing, west line	25	86N	11W	42.2
37	Pratt Creek	Cedar River	R	At mouth	6	85N	10W	49.9
38	Hinkle Creek	Cedar River	R	Road crossing, west line	28	85N	11W	7.35
39	Hinkle Creek	Cedar River	R	North line	26	85N	11W	19
40	Hinkle Creek	Cedar River	R	At mouth	16	85N	10W	30.4
41	Prairie Creek	Cedar River	L	Road crossing, north line	18	86N	9W	5.67
42	Prairie Creek	Cedar River	L	Road crossing, north line	36	86N	10W	11.8
43	Prairie Creek	Cedar River	L	At mouth	15	85N	10W	20.2
44	Cedar River	Iowa River	L	Below Prairie Creek	15	85N	10W	6062
45	Mud Creek	Cedar River	R	Road crossing, west line	15	84N	11W	8.6
46	Unnamed creek	Mud Creek	R	At mouth	14	84N	11W	6.61
47	Mud Creek	Cedar River	R	Road crossing, W 1/2	13	84N	11W	21.2
48	Unnamed creek	Mud Creek	L	At mouth	6	84N	10W	5.85
49	Mud Creek	Cedar River	R	Road crossing, west line	33	85N	10W	38.8
50	Mud Creek	Cedar River	R	At mouth	22	85N	10W	45.3
51	Cedar River	Iowa River	L	Road crossing, center	10	85N	9W	6135
52	Blue Creek	Cedar River	L	Road crossing, east 1/2	13	86N	9W	12.7
53	West Blue Creek	Blue Creek	R	At mouth	24	86N	9W	10.5
54	Blue Creek	Cedar River	L	Below West Blue Creek	24	86N	9W	24.4
55	Cedar River	Iowa River	L	Below Blue Creek	18	85N	8W	6206
56	Spring Creek	Cedar River	R	At mouth	19	85N	8W	6.65
57	Opossum Creek	Cedar River	R	Road crossing, west line	1	84N	10W	8.19
58	Opossum Creek	Cedar River	R	Road crossing, west line	5	84N	9W	14.1
59	Wild Cat Creek	Opossum Creek	R	Road crossing, north line	5	83N	10W	10.6
60	Wild Cat Creek	Opossum Creek	R	Road crossing, west line	26	84N	10W	19.3
61	Wild Cat Creek	Opossum Creek	R	Road crossing, west line	19	84N	9W	25.1
62	Wild Cat Creek	Opossum Creek	R	At mouth	5	84N	9W	31.2
63	Opossum Creek	Cedar River	R	Road crossing, west line	10	84N	9W	55.3
64	Bear Creek	Opossum Creek	R	Road crossing, west line	8	83N	9W	10
65	Bear Creek	Opossum Creek	R	Road crossing, north line	4	83N	9W	17.3
66	Bear Creek	Opossum Creek	R	At mouth	24	84N	9W	26.5
67	Opossum Creek	Cedar River	R	East (county) line	13	84N	9W	91.6
68	Dry Creek	Cedar River	R	Road crossing, SW corner	15	83N	9W	8.95

69	Dry Creek	Cedar River	R	Road crossing, east (county) line	36	84N	9W	20.2
70	Morgan Creek	Cedar River	R	Road crossing, east (county) line	1	82N	9W	6.9
71	Prairie Creek	Cedar River	R	Road crossing, north line	14	83N	12W	10.8
72	Unnamed creek	Prairie Creek	L	Road crossing, west line	7	83N	11W	9.19
73	Unnamed creek	Prairie Creek	L	At mouth	13	83N	12W	12.3
74	Prairie Creek	Cedar River	R	Road crossing, north line	24	83N	12W	28.6
75	Unnamed creek	Prairie Creek	L	At mouth	24	83N	12W	10.3
76	Prairie Creek	Cedar River	R	Road crossing, west line	29	83N	11W	46.9
77	Unnamed creek	Prairie Creek	L	Road crossing, west line	26	83N	11W	7.57
78	Unnamed creek	Prairie Creek	L	At mouth	4	82N	11W	12.2
79	Prairie Creek	Cedar River	R	Road crossing, north line	9	82N	11W	64.2
80	Unnamed creek	Prairie Creek	R	At mouth	9	82N	11W	9.63
81	Prairie Creek	Cedar River	R	Road crossing, west line	15	82N	11W	81.6
82	Prairie Creek	Cedar River	R	Road crossing, west line	18	82N	10W	90.6
83	Weasel Creek	Prairie Creek	L	At mouth	18	82N	10W	9.34
84	Prairie Creek	Cedar River	R	Road crossing, NE1/4	28	82N	10W	115
85	Prairie Creek	Cedar River	R	Road crossing, west line	30	82N	9W	126
86	Mud Creek	Prairie Creek	L	Road crossing, west line	26	83N	10W	9
87	Mud Creek	Prairie Creek	L	Road crossing, NW corner	7	82N	9W	18.1
88	Mud Creek	Prairie Creek	L	At mouth	21	82N	9W	26.7
89	Prairie Creek	Cedar River	R	Below Mud Creek	21	82N	9W	159
90	Unnamed creek	Prairie Creek	L	At mouth	14	82N	9W	5.21
91	Prairie Creek	Cedar River	R	Road crossing, east (county) line	12	82N	9W	171

DRAINAGE AREAS OF IOWA STREAMS

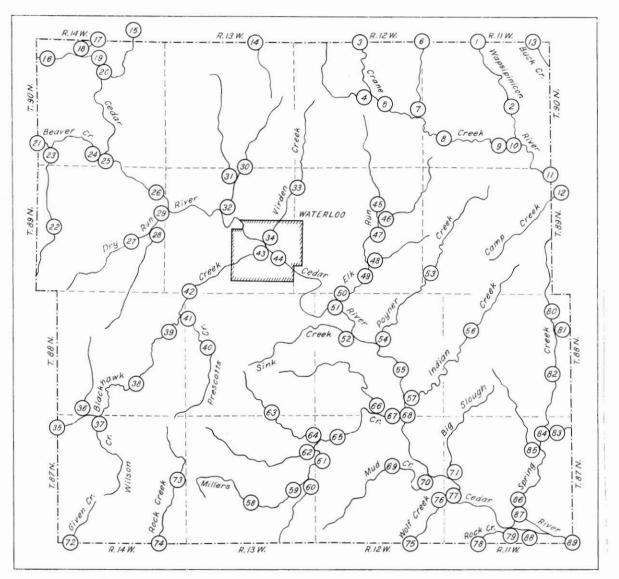


Figure 7. Drainage area index map of Black Hawk County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 7 Black Hawk County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Wapsipinicon River	Mississippi River	R	North (county) line	4	90N	11W	544
2	Wapsipinicon River	Mississippi River	R	Road crossing, NW1/4	23	90N	11W	553
	Crane Creek	Wapsipinicon River	R	Road crossing, north	3	90N	12W	63.6
3				(county) line				
4	Unnamed creek	Crane Creek	R	At mouth	15	90N	12W	8.06
5	Crane Creek	Wapsipinicon River	R	Road crossing, north line	23	90N	12W	81.3
6	Unnamed creek	Crane Creek	L	Road crossing, north (county) line	1	90N	12W	6.6
7	Unnamed creek	Crane Creek	L	At mouth	24	90N	12W	14
8	Crane Creek	Wapsipinicon River	R	Road crossing, west line	29	90N	11W	101
9	Crane Creek	Wapsipinicon River	R	At mouth	26	90N	11W	109
10	Wapsipinicon River	Mississippi River	R	Below Crane Creek	26	90N	11W	671
11	Wapsipinicon River	Mississippi River	R	East (county) line	1	89N	11W	676
12	Camp Creek	Wapsipinicon River	R	At mouth	6	89N	10W	9.09
13	Buck Creek	Little Wapsipinicon River	R	North (county) line	1	90N	11W	46.4
14	Unnamed creek	Quarter Section Run	L	Road crossing, north (county) line	2	90N	13W	4.64
15	Cedar River	Iowa River	L	Gage at Janesville, SW1/4	35	91N	14W	1661
16	West Fork Cedar River	Cedar River	R	Road crossing, south 1/2 (gage at Finchford)	6	90N	14W	846
17	Shell Rock River	West Fork Cedar River	L	Road crossing, north (county) line	4	90N	14W	1782
18	Shell Rock River	West Fork Cedar River	L	At mouth	4	90N	14W	1783
19	West Fork Cedar River	Cedar River	R	At mouth	10	90N	14W	2639
20	Cedar River	Iowa River	L	Below West Fork Cedar River	10	90N	14W	4315
21	Beaver Creek	Cedar River	R	Road crossing, west (county) line	31	90N	14W	369
22	Unnamed creek	Beaver Creek	R	Road crossing, north line	19	89N	14W	7.55
23	Unnamed creek	Beaver Creek	R	At mouth	31	90N	14W	13.9
24	Beaver Creek	Cedar River	R	At mouth	34	90N	14W	391
25	Cedar River	Iowa River	L	Below Beaver Creek	34	90N	14W	4716
26	Cedar River	Iowa River	L	Road crossing, north 1/2	12	89N	14W	4734
27	Dry Run	Cedar River	R	Road crossing, center	23	89N	14W	8.46
28	Unnamed creek	Dry Run	R	At mouth	13	89N	14W	9.82
29	Dry Run	Cedar River	R	At mouth	18	89N	13W	24.2
30	Unnamed creek	Cedar River	L	Road crossing, north line	3	89N	13W	6.31

FINAL Drainage Areas of Iowa Streams.xls Table No. 7 Black Hawk County

31	Unnamed creek	Unnamed creek	R	At mouth	3	89N	13W	9.31
32	Unnamed creek	Cedar River	L	At mouth	16	89N	13W	19.9
33	Virden Creek	Cedar River	L	Road crossing, north line	7	89N	12W	8.48
34	Virden Creek	Cedar River	L	At mouth	23	89N	13W	14.6
35	Blackhawk Creek	Cedar River	R	Road crossing, west (county) line	6	87N	14W	278
36	Unnamed creek	Blackhawk Creek	L	At mouth	32	88N	14W	5.66
37	Wilson Creek	Blackhawk Creek	R	At mouth	5	87N	14W	7.83
38	Blackhawk Creek	Cedar River	R	Road crossing, east 1/2 (gage at Hudson)	27	88N	14W	303
39	Blackhawk Creek	Cedar River	R	Road crossing, north line	13	88N	14W	313
40	Prescotts Creek	Blackhawk Creek	R	Road crossing, west line	17	88N	13W	7.48
41	Prescotts Creek	Blackhawk Creek	R	At mouth	12	88N	14W	12.8
42	Blackhawk Creek	Cedar River	R	Road crossing, SW1/4	32	89N	13W	332
43	Blackhawk Creek	Cedar River	R	At mouth	23	89N	13W	344
44	Cedar River	Iowa River	L	Gage at Waterloo, NW1/4	25	89N	13W	5146
45	Elk Run	Cedar River	L	Road crossing, north line	15	89N	12W	11.1
46	Unnamed creek	Elk Run	L	At mouth	15	89N	12W	7.02
47	Elk Run	Cedar River	L	Road crossing, north line	22	89N	12W	23
48	Unnamed creek	Elk Run	L	At mouth	27	89N	12W	5.72
49	Elk Run	Cedar River	L	Road crossing, north line	34	89N	12W	31.4
50	Elk Run	Cedar River	L	At mouth	6	88N	12W	37.4
51	Cedar River	Iowa River	L	Below Elk Run	6	88N	12W	5203
52	Sink Creek	Cedar River	R	At mouth	17	88N	12W	8.25
53	Poyner Creek	Cedar River	L	Road crossing, north line	31	89N	11W	9.19
54	Poyner Creek	Cedar River	L	At mouth	15	88N	12W	17.3
55	Cedar River	Iowa River	L	Road crossing, SW1/4	23	88N	12W	5234
56	Indian Creek	Cedar River	L	Road crossing, north line	17	88N	11W	9.55
57	Indian Creek	Cedar River	L	At mouth	35	88N	12W	23.2
58	Millers Creek	Cedar River	R	Road crossing, west line	27	87N	13W	8.76
59	Millers Creek	Cedar River	R	Road crossing, west line	24	87N	13W	16
60	Unnamed creek	Millers Creek	R	At mouth	24	87N	13W	8.79
61	Millers Creek	Cedar River	R	Road crossing, north line	18	87N	12W	27.2
62	Unnamed creek	Millers Creek	L	At mouth	7	87N	12W	8.8
63	Unnamed creek	Millers Creek	L	Road crossing, west line	35	88N	13W	7.06
64	Unnamed creek	Millers Creek	L	At mouth	7	87N	12W	12.3
65	Millers Creek	Cedar River	R	Road crossing, SW corner	5	87N	12W	50.7
66	Unnamed creek	Millers Creek	L	At mouth	3	87N	12W	9.68
67	Millers Creek	Cedar River	R	At mouth	35	88N	12W	67.2

FINAL Drainage Areas of Iowa Streams.xls Table No. 7 Black Hawk County

68	Cedar River	Iowa River	L	Below Millers Creek	35	88N	12W	5327
69	Mud Creek	Cedar River	R	Road crossing, NE1/4	15	87N	12W	8.82
70	Mud Creek	Cedar River	R	At mouth	13	87N	12W	14.1
71	Big Slough	Cedar River	L	At mouth	19	87N	11W	6.94
72	Given Creek	Twelve Mile Creek	L	South (county) line	31	87N	14W	3.86
73	Rock Creek	Twelve Mile Creek	L	Road crossing, north line	24	87N	14W	4.4
74	Rock Creek	Twelve Mile Creek	L	South (county) line	35	87N	14W	11.9
75	Wolf Creek	Cedar River	R	South (county) line	35	87N	12W	324
76	Wolf Creek	Cedar River	R	At mouth	19	87N	11W	328
77	Cedar River	Iowa River	L	Below Wolf Creek	19	87N	11W	5683
78	Rock Creek	Cedar River	R	Road crossing, south (county) line	32	87N	11W	32.2
79	Rock Creek	Cedar River	R	At mouth	34	87N	11W	38.4
80	Spring Creek	Cedar River	L	Road crossing, north line	12	88N	11W	8.4
81	Unnamed creek	Spring Creek	L	At mouth	12	88N	11W	8.31
82	Spring Creek	Cedar River	L	Road crossing, north line	25	88N	11W	24.9
83	Little Spring Creek	Spring Creek	L	At mouth	11	87N	11W	14.5
84	Spring Creek	Cedar River	L	Below Little Spring Creek	11	87N	11W	47
85	Unnamed creek	Spring Creek	R	At mouth	11	87N	11W	5.82
86	Spring Creek	Cedar River	L	At mouth	27	87N	11W	60.9
87	Cedar River	Iowa River	L	Below Spring Creek	27	87N	11W	5794
88	Spring Creek	Cedar River	R	At mouth	34	87N	11W	14
89	Cedar River	Iowa River	L	SE corner (county line)	36	87N	11W	5814

DRAINAGE AREAS OF IOWA STREAMS

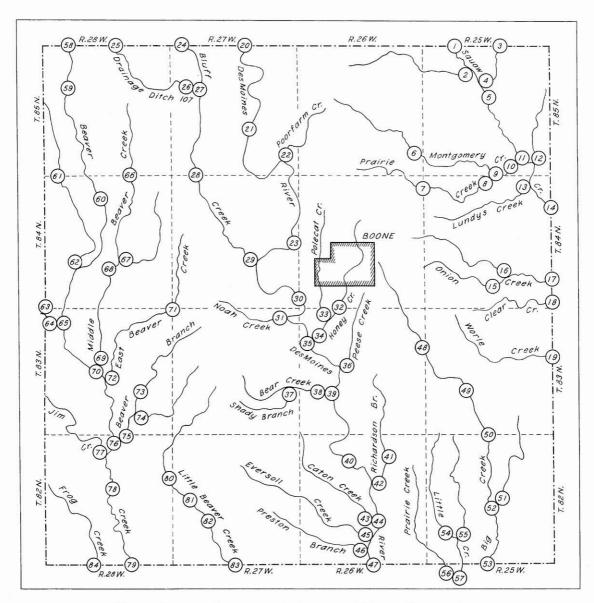


Figure 8. Drainage area index map of Boone County, lowa.

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Squaw Creek	Skunk River	R	Road crossing, north (county) line	4	85N	25W	62.4
2	Unnamed creek	Squaw Creek	R	At mouth	9	85N	25W	9.94
3	Scott Drainage Ditch 292	Squaw Creek	L	Road crossing, north (county) line	3	85N	25W	4.76
4	Scott Drainage Ditch 292	Squaw Creek	L	At mouth	9	85N	25W	8.13
5	Squaw Creek	Skunk River	R	Road crossing, west line	15	85N	25W	88
6	Montgomery Creek	Squaw Creek	R	Road crossing, north line	36	85N	26W	9.93
7	Prairie Creek	Montgomery Creek	R	West line	6	84N	25W	6.28
8	Prairie Creek	Montgomery Creek	R	At mouth	34	85N	25W	13
9	Montgomery Creek	Squaw Creek	R	Below Prairie Creek	34	85N	25W	31.8
10	Montgomery Creek	Squaw Creek	R	At mouth	35	85N	25W	34.2
11	Squaw Creek	Skunk River	R	Below Montgomery Creek	35	85N	25W	130
12	Unnamed creek	Squaw Creek	L	At mouth	36	85N	25W	8.52
13	Lundys Creek	Squaw Creek	R	At mouth	1	84N	25W	8.21
14	Squaw Creek	Skunk River	R	Road crossing, east (county) line	12	84N	25W	150
15	Onion Creek	Squaw Creek	R	Road crossing, north line	34	84N	25W	6.38
16	Unnamed creek	Onion Creek	L	At mouth	27	84N	25W	5.32
17	Onion Creek	Squaw Creek	R	Road crossing, east (county) line	25	84N	25W	15.6
18	Clear Creek	Squaw Creek	R	Road crossing, east (county) line	36	84N	25W	6.62
19	Worle Creek	Squaw Creek	R	Road crossing, east (county) line	13	83N	25W	10.1
20	Des Moines River	Mississippi River	R	North (county) line	3	85N	27W	5461
21	Des Moines River	Mississippi River	R	Road crossing, north line	27	85N	27W	5479
22	Poorfarm Creek	Des Moines River	L	At mouth	36	85N	27W	8.41
23	Des Moines River	Mississippi River	R	At gage near Boone, NE1/4	24	84N	27W	5510
24	Bluff Creek	Des Moines River	R	North (county) line	6	85N	27W	4.36
25	Drainage Ditch 107	Bluff Creek	R	North (county) line	3	85N	28W	3.82
26	Drainage Ditch 107	Bluff Creek	R	At mouth	17	85N	27W	11.6
27	Bluff Creek	Des Moines River	R	Below Drainage Ditch 107	17	85N	27W	21
28	Bluff Creek	Des Moines River	R	North line	5	84N	27W	32.3
29	Bluff Creek	Des Moines River	R	At mouth	22	84N	27W	40.6
30	Des Moines River	Mississippi River	R	Road crossing, E 1/2	36	84N	27W	5563
31	Noah Creek	Des Moines River	R	At mouth	1	83N	27W	7.34
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32	Honey Creek	Des Moines River	L	North line	5	83N	26W	5.87
33	Polecat Creek	Honey Creek	R	At mouth	5	83N	26W	7.75
34	Honey Creek	Des Moines River	L	At mouth	7	83N	26W	15
35	Des Moines River	Mississippi River	R	Below Honey Creek	7	83N	26W	5589
36	Peese Creek	Des Moines River	L	At mouth	16	83N	26W	8.76
37	Shady Branch	Bear Creek	R	At mouth	24	83N	27W	9
38	Bear Creek	Des Moines River	R	At mouth	29	83N	26W	16.6
39	Des Moines River	Mississippi River	R	Below Bear Creek	29	83N	26W	5624
40	Des Moines River	Mississippi River	R	Road crossing, NW1/4	9	82N	26W	5633
41	Richardson Branch	Des Moines River	L	North line	11	82N	26W	5.77
42	Richardson Branch	Des Moines River	L	At mouth	15	82N	26W	11.7
43	Caton Creek	Des Moines River	R	At mouth	27	82N	26W	9.52
44	Des Moines River	Mississippi River	R	Below Caton Creek	27	82N	26W	5658
45	Eversoll Creek	Des Moines River	R	At mouth	27	82N	26W	8.96
46	Preston Branch	Des Moines River	R	At mouth	34	82N	26W	6.5
47	Des Moines River	Mississippi River	R	South (county) line	34	82N	26W	5677
48	Big Creek	Des Moines River	L	Road crossing, north line	13	3N	26W	7.04
49	Big Creek	Des Moines River	L	Road crossing, north line	29	83N	25W	15.9
50	Big Creek	Des Moines River	L	Road crossing, north line	4	82N	25W	21.5
51	Unnamed creek	Big Creek	L	At mouth	22	82N	25W	7.14
52	Big Creek	Des Moines River	L	Below unnamed creek	22	82N	25W	35.6
53	Big Creek	Des Moines River	L	Road crossing, south	33	82N	25W	40.8
55	big Creek	Des Mollies Rivel	L	(county) line	33	OZIN	2300	40.6
54	Little Creek	Big Creek	R	Road crossing, west line	29	82N	25W	4.42
55	Unnamed creek	Little Creek	L	At mouth	29	82N	25W	6.4
56	Prairie Creek	Little Creek	R	At mouth	5	81N	25W	5.89
57	Little Creek	Big Creek	R	Below Prairie Creek	5	81N	25W	18.7
58	Beaver Creek	Des Moines River	R	Road crossing, north	5	85N	28W	4.04
50	Deaver Creek	Des Montes River	11	(county) line	3	0011	2000	4.04
59	Beaver Creek	Des Moines River	R	Road crossing, north line	17	85N	28W	9.97
60	Beaver Creek	Des Moines River	R	Road crossing, north line	9	84N	28W	21
61	Unnamed creek	Beaver Creek	R	Road crossing, north line	6	84N	28W	6.17
62	Unnamed creek	Beaver Creek	R	At mouth	29	84N	28W	11.1
63	Little Beaver Creek	West Beaver Creek	L	At mouth	6	83N	28W	19
64	West Beaver Creek	Beaver Creek	R	At mouth	6	83N	28W	44.8
65	Beaver Creek	Des Moines River	R	Below West Beaver Creek	6	83N	28W	84.5
66	Middle Beaver Creek	Beaver Creek	L	Road crossing, north line	2	84N	28W	5.87
67	Unnamed creek	Middle Beaver Creek	L	At mouth	22	84N	28W	6.42
68	Middle Beaver Creek	Beaver Creek	L	Road crossing, north line	27	84N	28W	18
69	Middle Beaver Creek	Beaver Creek	L	At mouth	21	83N	28W	28.1

70	Beaver Creek	Des Moines River	R	Below Middle Beaver Creek	21	83N	28W	118
71	East Beaver Creek	Beaver Creek	L	Road crossing, west line	6	83N	27W	7.89
72	East Beaver Creek	Beaver Creek	L	At mouth	21	83N	28W	16.7
73	Beaver Branch	Beaver Creek	L	Road crossing, north line	26	83N	28W	4.56
74	Unnamed creek	Beaver Branch	L	At mouth	35	83N	28W	8.01
75	Beaver Branch	Beaver Creek	L	At mouth	3	82N	28W	14.9
76	Beaver Creek	Des Moines River	R	Below Beaver Branch	3	82N	28W	157
77	Jim Creek	Beaver Creek	R	At mouth	4	82N	28W	9.08
78	Beaver Creek	Des Moines River	R	Road crossing, west 1/2	15	82N	28W	175
79	Beaver Creek	Des Moines River	R	South (county) line	35	82N	28W	183
80	Little Beaver Creek	Beaver Creek	L	Road crossing, north line	13	82N	28W	5.63
81	Little Beaver Creek	Beaver Creek	L	Road crossing, north line	19	82N	27W	12.8
82	Little Beaver Creek	Beaver Creek	L	Road crossing, north line	29	82N	27W	18.9
83	Little Beaver Creek	Beaver Creek	L	South (county) line	33	82N	27W	28.4
84	Frog Creek	North Raccoon River	L	South (county) line	33	82N	28W	8.22

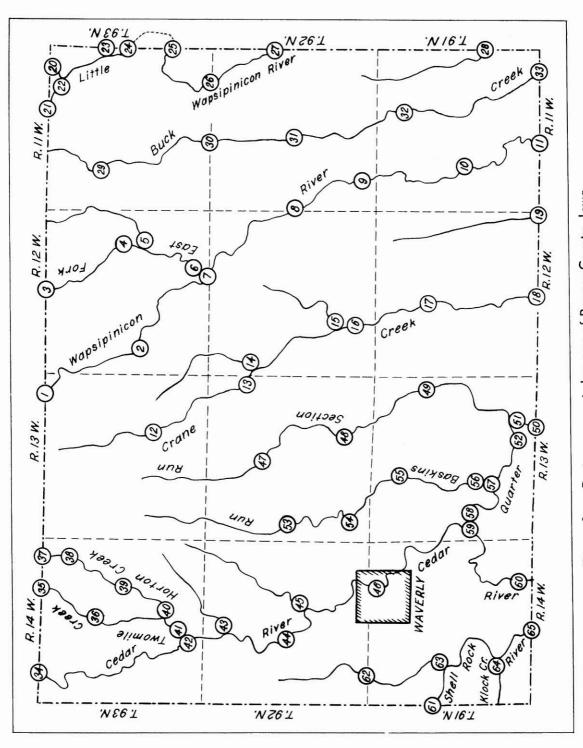


Figure 9. Drainage area index map of Bremer County, lowa.

			Bank	Point of determination of dra		Drainage area		
Area	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
No.				Description				
1	Wapsipinicon River	Mississippi River	R	Road crossing, north (county) line	1	93N	13W	325
2	Wapsipinicon River	Mississippi River	R	Road crossing, east 1/2	19	93N	12W	337
3	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north (county) line	3	93N	12W	123
4	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, NE1/4	23	93N	12W	134
5	Unnamed creek	East Fork Wapsipinicon River	L	At mouth	23	93N	12W	8.84
6	East Fork Wapsipinicon River	Wapsipinicon River	L	At mouth	34	93N	12W	148
7	Wapsipinicon River	Mississippi River	R	Below East Fork Wapsipinicon River	34	93N	12W	493
8	Wapsipinicon River	Mississippi River	R	Road crossing, north line	19	92N	11W	511
9	Wapsipinicon River	Mississippi River	R	Road crossing, west 1/2	32	92N	11W	521
10	Wapsipinicon River	Mississippi River	R	Road crossing, NE1/4	20	91N	11W	535
11	Wapsipinicon River	Mississippi River	R	South (county) line	33	91N	11W	544
12	Crane Creek	Wapsipinicon River	R	Road crossing, north line	27	93N	13W	8.63
13	Crane Creek	Wapsipinicon River	R	Road crossing, west line	7	92N	12W	17.7
14	Unnamed creek	Crane Creek	L	At mouth	7	92N	12W	6.62
15	Unnamed creek	Crane Creek	L	At mouth	29	92N	12W	6.05
16	Crane Creek	Wapsipinicon River	R	Road crossing, north line	32	92N	12W	39.7
17	Crane Creek	Wapsipinicon River	R	Road crossing, north line	16	91N	12W	52
18	Crane Creek	Wapsipinicon River	R	Road crossing, south (county) line	34	91N	12W	63.6
19	Unnamed creek	Crane Creek	L	Road crossing, south (county) line	36	91N	12W	6.6
20	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, west line	1	93N	11W	7.18
21	Spring Creek	Little Wapsipinicon River	R	North (county) line	3	93N	11W	9.02
22	Spring Creek	Little Wapsipinicon River	R	At mouth	2	93N	11W	11.1
23	Unnamed creek	Little Wapsipinicon River	L	At mouth	13	93N	11W	5.63
24	Little Wapsipinicon River	Wapsipinicon River	L	East (county) line	13	93N	11W	26
25	Little Wapsipinicon River	Wapsipinicon River	L	East (county) line	25	93N	11W	41.4
26	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	2	92N	11W	49.9
27	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, east (county) line	13	92N	11W	57.4
28	Unnamed creek	Little Wapsipinicon River	R	Road crossing, east (county) line	24	91N	11W	5.65
29	Buck Creek	Little Wapsipinicon River	R	Road crossing, north line	17	93N	11W	9.83
30	Buck Creek	Little Wapsipinicon River	R	Road crossing, north line	4	92N	11W	18
31	Buck Creek	Little Wapsipinicon River	R	Road crossing, north line	21	92N	11W	28.7
32	Buck Creek	Little Wapsipinicon River	R	Road crossing, north line	10	91N	11W	37.9

33	Buck Creek	Little Wapsipinicon River	R	South (county) line	36	91N	11W 14W	46.4
34	Cedar River	Iowa River	L	North (county) line	5	93N	1400	1443
35	Twomile Creek	Cedar River	L	Road crossing, north (county) line	2	93N	14W	18
36	Twomile Creek	Cedar River	L	Road crossing, north line	15	93N	14W	22.1
37	Horton Creek	Twomile Creek	L	Road crossing, north (county) line	1	93N	14W	6.11
38	Horton Creek	Twomile Creek	L	Road crossing, north line	12	93N	14W	11.1
39	Horton Creek	Twomile Creek	L	Road crossing, north line	23	93N	14W	18.3
40	Horton Creek	Twomile Creek	L	At mouth	33	93N	14W	24.5
41	Twomile Creek	Cedar River	L	At mouth	33	93N	14W	50.8
42	Cedar River	Iowa River	L	Below Twomile Creek	33	93N	14W	1519
43	Unnamed creek	Cedar River	L	At mouth	4	92N	14W	5.63
44	Cedar River	Iowa River	L	Road crossing, north line	21	92N	14W	1534
45	Unnamed creek	Cedar River	L	At mouth	22	92N	14W	7.3
46	Cedar River	Iowa River	L	Dam at Waverly, NW1/4	2	91N	14W	1549
47	Quarter Section Run	Cedar River	L	Road crossing, north line	16	92N	13W	7.88
48	Quarter Section Run	Cedar River	L	Road crossing, north line	34	92N	13W	16.7
49	Quarter Section Run	Cedar River	L	North line	13	91N	13W	27.3
50	Unnamed creek	Quarter Section Run	L	Road crossing, south (county) line	35	91N	13W	4.64
51	Unnamed creek	Quarter Section Run	L	At mouth	35	91N	13W	10.7
52	Quarter Section Run	Cedar River	L	Road crossing, west line	35	91N	13W	49.4
53	Baskins Run	Quarter Section Run	R	Road crossing, north line	19	92N	13W	7.35
54	Baskins Run	Quarter Section Run	R	Road crossing, NE1/4	31	92N	13W	14.2
55	Baskins Run	Quarter Section Run	R	Road crossing, north line	9	91N	13W	19.5
56	Baskins Run	Quarter Section Run	R	At mouth	28	91N	13W	24.4
57	Quarter Section Run	Cedar River	L	Below Baskins Run	28	91N	13W	83.5
58	Quarter Section Run	Cedar River	L	At mouth	19	91N	13W	85.8
59	Cedar River	Iowa River	L	Below Quarter Section Run	19	91N	13W	1653
60	Cedar River	Iowa River	L	Gage at Janesville, SW1/4	35	91N	14W	1661
61	Shell Rock River	West Fork Cedar River	L	West (county) line	18	91N	14W	1752
62	Unnamed creek	Shell Rock River	L	Road crossing, NW corner	5	91N	14W	6.29
60	I Innomed ereals	Chall Dook Divor		At mouth	17	91N	4.4\\/	10.7
63 64	Unnamed creek Klock Creek	Shell Rock River Shell Rock River	L R	At mouth At mouth	17 29	91N 91N	14W 14W	13.7 8.42
64	NIUCK CIEEK	Shell Rock Rivel	ĸ		29	9111	1477	0.42
65	Shell Rock River	West Fork Cedar River	L	Road crossing, south (county) line	33	91N	14W	1782

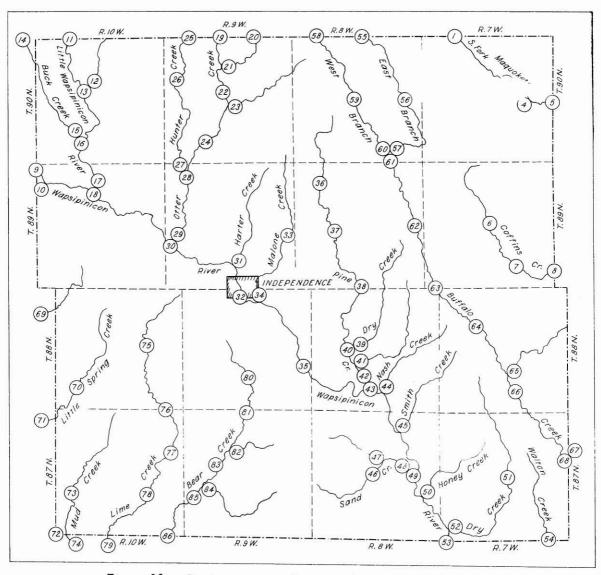


Figure 10. Drainage area index map of Buchanan County, Iowa.

		T 11	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	South Fork Maquoketa River	Maquoketa River	R	Road crossing, north (county) line	5	90N	7W	19.2
2	South Fork Maquoketa River	Maquoketa River	R	Road crossing, west line	14	90N	7W	30.9
3	Unnamed creek	South Fork Maquoketa River	R	Railroad crossing, SE1/4	16	90N	7W	6.66
4	Unnamed creek	South Fork Maquoketa River	R	At mouth	23	90N	7W	12.8
5	South Fork Maquoketa River	Maquoketa River	R	Road crossing, east (county) line	24	90N	7W	52
6	Coffins Creek	Maquoketa River	R	Road crossing, north line	22	89N	7W	6.74
7	Coffins Creek	Maquoketa River	R	North line	35	89N	7W	16.2
8	Coffins Creek	Maquoketa River	R	East (county) line	36	89N	7W	23.8
9	Wapsipinicon River	Mississippi River	R	West (county) line	6	89N	10W	676
10	Camp Creek	Wapsipinicon River	R	At mouth	6	89N	10W	9.09
11	Little Wapsipinicon River	Wapsipinicon River	L	North (county) line	5	90N	10W	125
12	Unnamed creek	Little Wapsipinicon River	L	At mouth	16	90N	10W	7.17
13	Little Wapsipinicon River	Wapsipinicon River	L	Below unnamed creek	16	90N	10W	136
14	Buck Creek	Little Wapsipinicon River	R	North (county) line	1	90N	11W	46.4
15	Buck Creek	Little Wapsipinicon River	R	At mouth	33	90N	10W	57.3
16	Little Wapsipinicon River	Wapsipinicon River	L	Below Buck Creek	33	90N	10W	202
17	Little Wapsipinicon River	Wapsipinicon River	L	At mouth	9	89N	10W	206
18	Wapsipinicon River	Mississippi River	R	Below Little Wapsipinicon River	9	89N	10W	899
19	Otter Creek	Wapsipinicon River	L	Road crossing, north (county) line	4	90N	9W	41.3
20	Unnamed creek	Otter Creek	L	Road crossing, north (county) line	2	90N	9W	4.57
21	Unnamed creek	Otter Creek	L	At mouth	9	90N	9W	9.66
22	Otter Creek	Wapsipinicon River	L	Road crossing, SE1/4	16	90N	9W	55.7
23	Unnamed creek	Otter Creek	L	At mouth	21	90N	9W	5.86
24	Otter Creek	Wapsipinicon River	L	Road crossing, north line	32	90N	9W	71.1
25	Hunter Creek	Otter Creek	R	Road crossing, north (county) line	5	90N	9W	7.52
26	Hunter Creek	Otter Creek	R	Road crossing, north line	18	90N	9W	14.3
27	Hunter Creek	Otter Creek	R	At mouth	6	89N	9W	23.4
28	Otter Creek	Wapsipinicon River	L	Below Hunter Creek	6	89N	9W	100
29	Otter Creek	Wapsipinicon River	L	At mouth	19	89N	9W	107
30	Wapsipinicon River	Mississippi River	R	Below Otter Creek	19	89N	9W	1025

31	Harter Creek	Wapsipinicon River	L	At mouth	27	89N	9W	6.88
32	Wapsipinicon River	Mississippi River	R	At lower dam, SE¼ (gage at Independence)	4	88N	9W	1048
33	Malone Creek	Wapsipinicon River	L	Road crossing, east 1/2	24	89N	9W	5.78
34	Malone Creek	Wapsipinicon River	L	At mouth	3	88N	9W	10.2
35	Wapsipinicon River	Mississippi River	R	North line	25	88N	9W	1076
36	Pine Creek	Wapsipinicon River	L	Road crossing, north line	8	89N	8W	11.7
37	Pine Creek	Wapsipinicon River	L	Road crossing, NE1/4	20	89N	W8	20.3
38	Pine Creek	Wapsipinicon River	L	Railroad crossing, SW1/4	34	89N	W8	28.3
39	Dry Creek	Pine Creek	L	At mouth	21	88N	W8	7.23
40	Pine Creek	Wapsipinicon River	L	Below Dry Creek	21	88N	W8	42.4
41	Unnamed creek	Pine Creek	L	At mouth	21	88N	W8	6.41
42	Pine Creek	Wapsipinicon River	L	At mouth	28	88N	W8	49.7
43	Wapsipinicon River	Mississippi River	R	Below Pine Creek	28	88N	W8	1135
44	Nash Creek	Wapsipinicon River	L	At mouth	27	88N	8W	5.6
45	Smith Creek	Wapsipinicon River	L	At mouth	2	87N	8W	6.45
46	Sand Creek	Wapsipinicon River	R	Road crossing, west line	15	87N	W8	10.7
47	Unnamed creek	Sand Creek	L	At mouth	15	87N	W8	5.9
48	Sand Creek	Wapsipinicon River	R	At mouth	14	87N	W8	19.2
49	Wapsipinicon River	Mississippi River	R	Below Sand Creek	14	87N	W8	1180
50	Honey Creek	Wapsipinicon River	L	At mouth	23	87N	W8	5.37
51	Dry Creek	Wapsipinicon River	L	Road crossing, north line	22	87N	7W	5.9
52	Dry Creek	Wapsipinicon River	L	At mouth	31	87N	7W	11.4
53	Wapsipinicon River	Mississippi River	R	South (county) line	31	87N	7W	1210
54	Walton Creek	Wapsipinicon River	L	Road crossing, south (county) line	36	87N	7W	6.01
55	East Branch Buffalo Creek	Buffalo Creek	L	Road crossing, north (county) line	3	90N	8W	12.9
56	East Branch Buffalo Creek	Buffalo Creek	L	Road crossing, north line	24	90N	W8	21.7
57	East Branch Buffalo Creek	Buffalo Creek	L	At mouth	35	90N	W8	32.2
58	West Branch Buffalo Creek	Buffalo Creek	R	Road crossing, north (county) line	5	90N	8W	9.8
59	West Branch Buffalo Creek	Buffalo Creek	R	Road crossing, north line	21	90N	8W	16.7
60	West Branch Buffalo Creek	Buffalo Creek	R	At mouth	35	90N	8W	21.6
61	Buffalo Creek	Wapsipinicon River	L	Below confluence East and West Branches	35	90N	8W	53.8
62	Buffalo Creek	Wapsipinicon River	L	North line	24	89N	8W	63.8
63	Buffalo Creek	Wapsipinicon River	L	Road crossing, north line	1	88N	8W	71.4
64	Buffalo Creek	Wapsipinicon River	L	North line	17	88N	7W	80.7
65	Unnamed creek	Buffalo Creek	L	At mouth	27	88N	7W	6.61

66	Buffalo Creek	Wapsipinicon River	L	Road crossing, north line	34	88N	7W	96.2
67	Silver Creek	Buffalo Creek	L	At mouth	13	87N	7W	15
68	Buffalo Creek	Wapsipinicon River	L	Below Silver Creek	13	87N	7W	122
69	Unnamed creek	Spring Creek	L	At mouth	12	88N	11W	8.31
70	Little Spring Creek	Spring Creek	L	Road crossing, NW corner	32	88N	10W	7.7
71	Little Spring Creek	Spring Creek	L	At mouth	11	87N	11W	14.5
72	Cedar River	Iowa River	L	SW corner (county) line	31	87N	10W	5814
73	Mud Creek	Cedar River	L	North line	30	87N	10W	8.48
74	Mud Creek	Cedar River	L	At mouth	5	86N	10W	13.6
75	Lime Creek	Cedar River	L	Road crossing, north line	23	88N	10W	9.97
76	Lime Creek	Cedar River	L	Road crossing, north line	1	87N	10W	19.9
77	Lime Creek	Cedar River	L	North line	13	87N	10W	27.7
78	Lime Creek	Cedar River	L	Road crossing, north line	26	87N	10W	35.4
79	Lime Creek	Cedar River	L	At mouth	4	86N	10W	41.9
80	Bear Creek	Cedar River	L	Road crossing, west 1/2	27	88N	9W	8.95
81	Bear Creek	Cedar River	L	Road crossing, west line	3	87N	9W	16.5
82	Unnamed creek	Bear Creek	L	At mouth	9	87N	9W	5.76
83	Bear Creek	Cedar River	L	Road crossing, center	17	87N	9W	28.6
84	Unnamed creek	Bear Creek	L	At mouth	19	87N	9W	8.68
85	Bear Creek	Cedar River	L	Road crossing, north line	30	87N	9W	40.3
86	Bear Creek	Cedar River	L	South (county) line	36	87N	10W	46.1

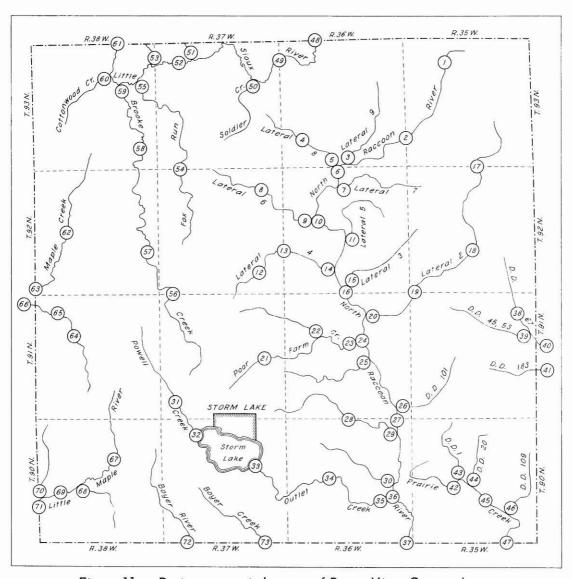


Figure 11. Drainage area index map of Buena Vista County, Iowa.

	N		Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	North Raccoon River	Raccoon River	L	Road crossing, north line	8	93N	35W	6.36
2	North Raccoon River	Raccoon River	L	Road crossing, west line	30	93N	35W	20.4
3	Lateral 9	North Raccoon River	R	At mouth	34	93N	36W	7.23
4	Lateral 8	North Raccoon River	R	Road crossing, west line	29	93N	36W	8.25
5	Lateral 8	North Raccoon River	R	At mouth	33	93N	36W	16.5
6	North Raccoon River	Raccoon River	L	Below Lateral 8	33	93N	36W	47.6
7	Lateral 7	North Raccoon River	L	At mouth	4	92N	36W	6.76
8	Lateral 6	North Raccoon River	R	Road crossing, west line	12	92N	37W	10.5
9	Lateral 6	North Raccoon River	R	At mouth	17	92N	36W	17
10	North Raccoon River	Raccoon River	L	Below Lateral 6	17	92N	36W	76.4
11	Lateral 5	North Raccoon River	L	At mouth	21	92N	36W	5.93
12	Lateral 4	North Raccoon River	R	Road crossing, north line	35	92N	37W	5.78
13	Lateral 4	North Raccoon River	R	Road crossing, west line	19	92N	36W	15.2
14	Lateral 4	North Raccoon River	R	At mouth	28	92N	36W	21.3
15	Lateral 3	North Raccoon River	L	At mouth	33	92N	36W	13.5
16	North Raccoon River	Raccoon River	L	Below Lateral 3	33	92N	36W	122
17	Lateral 2	North Raccoon River	L	Road crossing, north line	3	92N	35W	12.2
18	Lateral 2	North Raccoon River	L	Road crossing, NW corner	27	92N	35W	23.7
19	Lateral 2	North Raccoon River	L	Road crossing, north line	6	91N	35W	30
20	Lateral 2	North Raccoon River	L	At mouth	10	91N	36W	38.8
21	Poor Farm Creek	North Raccoon River	R	Road crossing, west line	24	91N	37W	12.9
22	Unnamed creek	Poor Farm Creek	L	At mouth	17	91N	36W	9.04
23	Poor Farm Creek	North Raccoon River	R	At mouth	15	91N	36W	28.9
24	North Raccoon River	Raccoon River	L	Below Poor Farm Creek	15	91N	36W	193
25	Unnamed creek	North Raccoon River	R	At mouth	22	91N	36W	7.17
26	Drainage Ditch 101	North Raccoon River	L	At mouth	36	91N	36W	8.97
27	North Raccoon River	Raccoon River	L	Road crossing, north line	1	90N	36W	217
28	Unnamed creek	North Raccoon River	R	Road crossing, west line	3	90N	36W	8.27
29	Unnamed creek	North Raccoon River	R	At mouth	1	90N	36W	12
30	Unnamed creek	North Raccoon River	R	At mouth	24	90N	36W	6.41
31	Powell Creek	Storm Lake		Road crossing, NE¼	31	91N	37W	9.22
32	Powell Creek	Storm Lake		Road crossing, SE1/4	5	90N	37W	15.5
33	Outlet Creek	North Raccoon River	R	Dam at outlet to Storm Lake, NW1/4	14	90N	37W	28.3
34	Outlet Creek	North Raccoon River	R	Road crossing, west line	16	90N	36W	35.9

35	Outlet Creek	North Raccoon River	R	At mouth	24	90N	36W	42.8
36	North Raccoon River	Raccoon River	L	Below Outlet Creek	24	90N	36W	282
37	North Raccoon River	Raccoon River	L	Road crossing, south (county) line	36	90N	36W	287
38	Drainage Ditch 67	Little Cedar Creek	R	Road crossing, north line	12	91N	35W	5.78
39	Drainage Ditch 45, 53	Drainage Ditch 67	R	At mouth	13	91N	35W	9.55
40	Drainage Ditch 67	Little Cedar Creek	R	At mouth	18	91N	34W	16.4
41	Drainage Ditch 183	Little Cedar Creek	R	At mouth	19	91N	34W	8.98
42	Prairie Creek	Big Cedar Creek	R	Road crossing, west line	21	90N	35W	5.66
43	Drainage Ditch 1	Prairie Creek	L	At mouth	21	90N	35W	6.55
44	Drainage Ditch 20	Prairie Creek	L	At mouth	21	90N	35W	7.46
45	Prairie Creek	Big Cedar Creek	R	Road crossing, north line	27	90N	35W	20.8
46	Drainage Ditch 109	Prairie Creek	L	At mouth	26	90N	35W	5.51
47	Prairie Creek	Big Cedar Creek	R	South (county) line	35	90N	35W	30.4
48	Little Sioux River	Missouri River	L	North (county) line	5	93N	36W	1507
49	Little Sioux River	Missouri River	L	Road crossing, SE1/4	1	93N	37W	1519
50	Soldier Creek	Little Sioux River	L	At mouth	11	93N	37W	6.55
51	Unnamed creek	Little Sioux River	R	At mouth	8	93N	37W	5.95
52	Little Sioux River	Missouri River	L	Road crossing, SW1/4	5	93N	37W	1548
53	Unnamed creek	Little Sioux River	R	At mouth	12	93N	38W	7.16
54	Fox Run	Little Sioux River	L	Road crossing, north line	5	92N	37W	8.41
55	Fox Run	Little Sioux River	L	At mouth	12	93N	38W	18.6
56	Brooke Creek	Little Sioux River	L	Road crossing, north line	6	91N	37W	10.7
57	Brooke Creek	Little Sioux River	L	Road crossing, north line	25	92N	38W	20.2
58	Brooke Creek	Little Sioux River	L	Road crossing, north line	36	93N	38W	31.4
59	Brooke Creek	Little Sioux River	L	At mouth	11	93N	38W	41.4
60	Cottonwood Creek	Little Sioux River	L	At mouth	10	93N	38W	5.78
61	Little Sioux River	Missouri River	L	North (county) line	2	93N	38W	1629
62	Maple Creek	Maple River	L	Road crossing, north line	20	92N	38W	10.9
63	Maple Creek	Maple River	L	Road crossing, west (county) line	31	92N	38W	17.7
64	Unnamed creek	Maple Creek	L	Road crossing, north line	17	91N	38W	6.18
65	Unnamed creek	Maple Creek	L	Road crossing, west line	5	91N	38W	13.8
66	Unnamed creek	Maple Creek	L	At mouth	1	91N	39W	21.1
67	Little Maple River	Maple River	L	Road crossing, north line	15	90N	38W	9.18
68	Unnamed creek	Little Maple River	L	At mouth	20	90N	38W	5.64
69	Little Maple River	Maple River	L	Road crossing, west line	20	90N	38W	22.2
70	Unnamed creek	Little Maple River	R	At mouth	19	90N	38W	6.11
71	Little Maple River	Maple River	L	Road crossing, west (county) line	30	90N	38W	29.8

72	Boyer River	Missouri River	L	Road crossing, south (county) line	32	90N	37W	8.08
73	Boyer Creek	Boyer River	L	Road crossing, south (county) line	35	90N	37W	6.16

DRAINAGE AREAS OF IOWA STREAMS

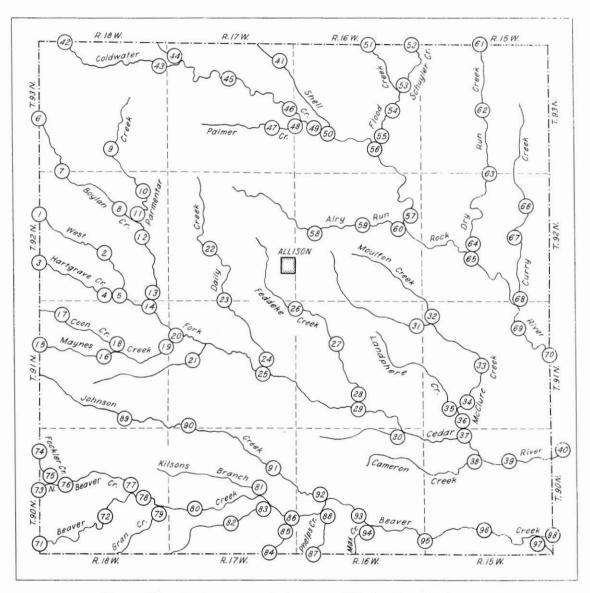


Figure 12. Drainage area index map of Butler County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	West Fork Cedar River	Cedar River	R	Road crossing, west (county) line	7	92N	18W	285
2	West Fork Cedar River	Cedar River	R	Road crossing, SW1/4	22	92N	18W	296
3	Hartgrave Creek	West Fork Cedar River	R	Road crossing, west (county) line	60	92N	18W	176
4	Hartgrave Creek	West Fork Cedar River	R	At mouth	35	92N	18W	185
5	West Fork Cedar River	Cedar River	R	Below Hartgrave Creek	35	92N	18W	484
6	Boylan Creek	West Fork Cedar River	L	Road crossing, west (county) line	19	93N	18W	16.7
7	Boylan Creek	West Fork Cedar River	L	Road crossing, north line	5	92N	18W	24.5
8	Boylan Creek	West Fork Cedar River	L	Road crossing, north line	14	92N	18W	30.8
9	Parmentar Creek	Boylan Creek	L	Road crossing, north line	34	93N	18W	11.2
10	Parmentar Creek	Boylan Creek	L	Road crossing, north line	11	92N	18W	16.8
11	Parmentar Creek	Boylan Creek	L	At mouth	14	92N	18W	21.7
12	Boylan Creek	West Fork Cedar River	L	Road crossing, north line	23	92N	18W	55.7
13	Boylan Creek	West Fork Cedar River	L	At mouth	1	91N	18W	60.1
14	West Fork Cedar River	Cedar River	R	Below Boylan Creek	1	91N	18W	547
15	Maynes Creek	West Fork Cedar River	R	Road crossing, west (county) line	18	91N	18W	115
16	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	15	91N	18W	121
17	Coon Creek	Maynes Creek	L	Road crossing, west line	5	91N	18W	5.33
18	Coon Creek	Maynes Creek	L	At mouth	15	91N	18W	9.84
19	Maynes Creek	West Fork Cedar River	R	At mouth	7	91N	17W	135
20	West Fork Cedar River	Cedar River	R	Below Maynes Creek	7	91N	17W	690
21	Unnamed creek	West Fork Cedar River	R	Road crossing, west line	17	91N	17W	9.06
22	Daily Creek	West Fork Cedar River	L	Road crossing, west line	21	92N	17W	8.62
23	Daily Creek	West Fork Cedar River	L	Road crossing, north line	4	91N	17W	16.5
24	Daily Creek	West Fork Cedar River	L	At mouth	23	91N	17W	24.6
25	West Fork Cedar River	Cedar River	R	Below Daily Creek	23	91N	17W	734
26	Feddeke Creek	West Fork Cedar River	L	Road crossing, west line	6	91N	16W	5.21
27	Feddeke Creek	West Fork Cedar River	L	Road crossing, north line	17	91N	16W	14.7
28	Feddeke Creek	West Fork Cedar River	L	At mouth	33	91N	16W	20.6
29	West Fork Cedar River	Cedar River	R	Below Feddeke Creek	33	91N	16W	770
30	Unnamed creek	West Fork Cedar River	R	At mouth	1	90N	15W	6.55
31	McClure Creek	West Fork Cedar River	L	Road crossing, west line	7	91N	15W	7.98
32	Moulfon Creek	McClure Creek	L	At mouth	7	91N	15W	8.46
33	McClure Creek	West Fork Cedar River	L	Road crossing, north line	21	91N	15W	21.6

34	McClure Creek	West Fork Cedar River	L	Road crossing, north line	32	91N	15W	26.7
35	Landphere Creek	McClure Creek	R	At mouth	32	91N	15W	9.61
36	McClure Creek	West Fork Cedar River	L	At mouth	5	90N	15W	37.6
37	West Fork Cedar River	Cedar River	R	Below McClure Creek	5	90N	15W	824
38	Cameron Creek	West Fork Cedar River	R	At mouth	9	90N	15W	9.8
39	West Fork Cedar River	Cedar River	R	Road crossing, west line	11	90N	15W	841
40	West Fork Cedar River	Cedar River	R	Road crossing, S 1/2 (gage at Finchford) At dam, SW½	6	90N	14W	846
41	Shell Rock River	West Fork Cedar River	L	(discontinued gage at Greene)	1	93N	17W	1357
42	Coldwater Creek	Shell Rock River	R	Road crossing, north (county) line	5	93N	18W	31.2
43	Coldwater Creek	Shell Rock River	R	Road crossing, NW corner	7	93N	17W	43.6
44	Unnamed creek	Coldwater Creek	L	At mouth	6	93N	17W	5.35
45	Coldwater Creek	Shell Rock River	R	Road crossing, west line	10	93N	17W	56.8
46	Coldwater Creek	Shell Rock River	R	Road crossing, NW1/4	19	93N	16W	62.8
47	Palmer Creek	Coldwater Creek	R	Road crossing, SW corner	24	93N	17W	10.5
48	Palmer Creek	Coldwater Creek	R	At mouth	29	93N	16W	17.6
49	Coldwater Creek	Shell Rock River	R	At mouth	29	93N	16W	80.9
50	Shell Rock River	West Fork Cedar River	L	Below Coldwater Creek	29	93N	16W	1454
50 51	Shell Rock River Flood Creek	West Fork Cedar River Shell Rock River		Road crossing, north (county) line			16W 16W	
			L	Road crossing, north	29	93N 93N 93N	16W 16W	1454
51 52 53	Flood Creek Schuyler Creek Schuyler Creek	Shell Rock River Flood Creek Flood Creek	L L	Road crossing, north (county) line Road crossing, north	293114	93N 93N 93N 93N	16W 16W 16W	1454 127 8.51 14.3
51 52 53 54	Flood Creek Schuyler Creek Schuyler Creek Flood Creek	Shell Rock River Flood Creek Flood Creek Shell Rock River	L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line	29 3 1 14 23	93N 93N 93N 93N 93N	16W 16W 16W 16W	1454 127 8.51 14.3 145
51 52 53 54 55	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River	L L L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth	29 3 1 14 23 27	93N 93N 93N 93N 93N 93N	16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152
51 52 53 54	Flood Creek Schuyler Creek Schuyler Creek Flood Creek	Shell Rock River Flood Creek Flood Creek Shell Rock River	L L L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line	29 3 1 14 23	93N 93N 93N 93N 93N	16W 16W 16W 16W	1454 127 8.51 14.3 145
51 52 53 54 55	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River	L L L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth Below Flood Creek Road crossing, north line (discontinued gage near	29 3 1 14 23 27	93N 93N 93N 93N 93N 93N	16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152
51 52 53 54 55 56	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek Shell Rock River Shell Rock River	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River West Fork Cedar River	L L L L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth Below Flood Creek Road crossing, north line (discontinued gage near Clarksville)	29 3 1 14 23 27 27	93N 93N 93N 93N 93N 93N 93N	16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152 1610
51 52 53 54 55 56	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek Shell Rock River	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River West Fork Cedar River West Fork Cedar River	L L L L L	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth Below Flood Creek Road crossing, north line (discontinued gage near Clarksville) Road crossing, west line	29 3 1 14 23 27 27	93N 93N 93N 93N 93N 93N 93N	16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152 1610
51 52 53 54 55 56 57	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek Shell Rock River Shell Rock River	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River West Fork Cedar River West Fork Cedar River Shell Rock River	L L L L R	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth Below Flood Creek Road crossing, north line (discontinued gage near Clarksville) Road crossing, west line Road crossing, NW¼ At mouth	29 3 1 14 23 27 27 13	93N 93N 93N 93N 93N 93N 93N	16W 16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152 1610 1626
51 52 53 54 55 56 57 58 59	Flood Creek Schuyler Creek Schuyler Creek Flood Creek Flood Creek Shell Rock River Shell Rock River Alry Run Alry Run	Shell Rock River Flood Creek Flood Creek Shell Rock River Shell Rock River West Fork Cedar River West Fork Cedar River Shell Rock River Shell Rock River	L L L L R R	Road crossing, north (county) line Road crossing, north (county) line At mouth Road crossing, north line At mouth Below Flood Creek Road crossing, north line (discontinued gage near Clarksville) Road crossing, west line Road crossing, NW1/4	29 3 1 14 23 27 27 13 17 15	93N 93N 93N 93N 93N 93N 92N 92N 92N	16W 16W 16W 16W 16W 16W	1454 127 8.51 14.3 145 152 1610 1626 10.2 17.6

63	Dry Run Creek	Shell Rock River	L	Road crossing, north line	3	92N	15W	43.9
64	Dry Run Creek	Shell Rock River	L	At mouth	28	92N	15W	51.9
65	Shell Rock River	West Fork Cedar River	L	Below Dry Run Creek	28	92N	15W	1714
66	Curry Creek	Shell Rock River	L	Road crossing, east 1/2	11	92N	15W	5.71
67	Curry Creek	Shell Rock River	L	Road crossing, north line	23	92N	15W	11.9
68	Curry Creek	Shell Rock River	L	At mouth	2	91N	15W	18
69	Shell Rock River	West Fork Cedar River	L	N 1/2 (gage at Shell Rock)	11	91N	15W	1746
70	Shell Rock River	West Fork Cedar River	R	East (county) line	13	91N	15W	1752
71	Beaver Creek	Cedar River	R	Road crossing, west (county) line	31	90N	18W	55.5
72	Beaver Creek	Cedar River	R	Road crossing, north line	27	90N	18W	62.6
73	North Beaver Creek	Beaver Creek	L	Road crossing, west (county) line	18	90N	18W	17.5
74	Fockler Creek	North Beaver Creek	L	Road crossing, west (county) line	7	90N	18W	12
75	Fockler Creek	North Beaver Creek	L	At mouth	18	90N	18W	13.6
76	North Beaver Creek	Beaver Creek	L	Road crossing, west line	17	90N	18W	34.9
77	North Beaver Creek	Beaver Creek	L	At mouth	23	90N	18W	44
78	Beaver Creek	Cedar River	R	Road crossing, west line	24	90N	18W	111
79	Gran Creek	Beaver Creek	R	At mouth	24	90N	18W	5.28
80	Beaver Creek	Cedar River	R	Road crossing, SW1/4	20	90N	17W	121
81	Kilsons Branch	Beaver Creek	L	At mouth	23	90N	17W	8.29
82	Unnamed creek	Beaver Creek	R	Road crossing, west line	27	90N	17W	8.61
83	Unnamed creek	Beaver Creek	R	At mouth	23	90N	17W	13.2
84	South Beaver Creek	Beaver Creek	R	Road crossing, south (county) line	35	90N	17W	114
85	South Beaver Creek	Beaver Creek	R	At mouth	25	90N	17W	116
86	Beaver Creek	Cedar River	R	Below South Beaver Creek	25	90N	17W	264
87	Phelps Creek	Beaver Creek	R	Road crossing, south (county) line	31	90N	16W	6.84
88	Phelps Creek	Beaver Creek	R	At mouth	20	90N	16W	9.53
89	Johnson Creek	Beaver Creek	L	Road crossing, west line	35	91N	18W	8.04
90	Johnson Creek	Beaver Creek	L	Road crossing, SW corner	32	91N	17W	17.9
91	Johnson Creek	Beaver Creek	L	Road crossing, SW corner	12	90N	17W	27
92	Johnson Creek	Beaver Creek	L	At mouth	20	90N	16W	34.8
93	Beaver Creek	Cedar River	R	Road crossing, west line	27	90N	16W	314
94	Max Creek	Beaver Creek	R	At mouth	27	90N	16W	6.92
						-		-

95	Beaver Creek	Cedar River	R	West line	31	90N	15W	333
96	Beaver Creek	Cedar River	R	Road crossing, SE¼ (gage at New Hartford)	28	90N	15W	347
97	Hammers Creek	Beaver Creek	R	At mouth	36	90N	15W	11.8
98	Beaver Creek	Cedar River	R	Road crossing, east (county) line	36	90N	15W	369

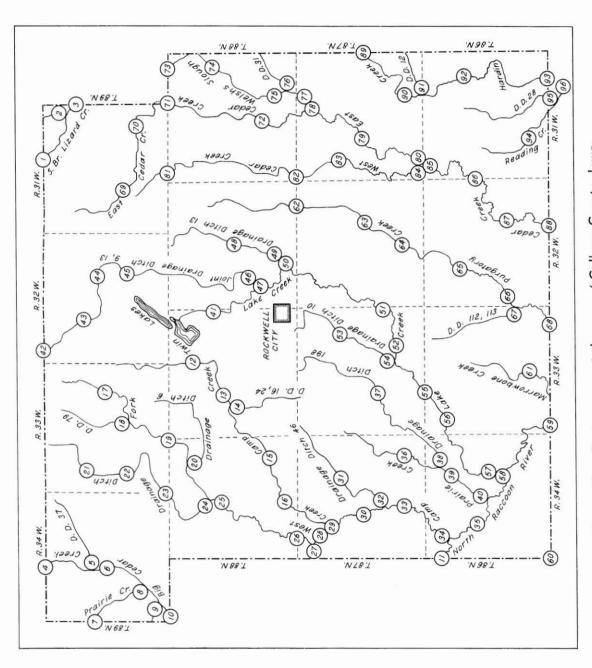


Figure 13. Drainage area index map of Calhoun County, lowa.

		Bank	Point of determination of drainage area				Drainage area
Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
South Branch Lizard Creek	Lizard Creek	R	Road crossing, north	3	89N	31W	78.4
Drainage Ditch 125	South Branch Lizard Creek	L	At mouth	12	89N	31W	7.84
South Branch Lizard Creek	Lizard Creek	R	East (county) line	12	89N	31W	90.8
Big Cedar Creek	North Raccoon River	L	Road crossing, north (county) line	4	89N	34W	217
Drainage Ditch 37	Big Cedar Creek	L	At mouth	16	89N	34W	8.15
	North Raccoon River	L	Road crossing, north line	21	89N	34W	231
Prairie Creek	Big Cedar Creek	R	Road crossing, west (county) line	18	89N	34W	44.1
Prairie Creek	Big Cedar Creek	R	At mouth	29	89N	34W	55.7
Drainage Ditch 81	•	R	At mouth	31	89N	34W	22
	North Raccoon River		South (county) line	31		34W	317
	Raccoon River		, , ,			34W	852
			3 ·				10.7
		L	<u> </u>				17.4
•		L	3 ·			33W	5.86
	•						29.7
							36.3
							3.65
	•		At mouth	27			5.92
			Road crossing, north line	1	88N	34W	16
•	•		At mouth	2	88N	34W	5.78
	•		Road crossing, west line			33W	7.74
			<u> </u>				12.6
	•	R		31	89N	33W	18.8
	•	R	At mouth	10	88N	34W	23.5
		R	Road crossing, north line	15	88N	34W	51.1
•	•	R			87N	34W	62
Crooked Creek	•	R	At mouth		87N	34W	14.3
	•	R	At mouth	8	87N	34W	77.3
Camp Creek	North Raccoon River	L	Below West Fork Camp Creek	8	87N	34W	116
Camp Creek	North Raccoon River	L		21	87N	34W	125
•							5.8
•	•	L	At mouth	21	87N	34W	11.5
	Drainage Ditch 125 South Branch Lizard Creek Big Cedar Creek Drainage Ditch 37 Big Cedar Creek Prairie Creek Prairie Creek Prairie Creek Drainage Ditch 81 Big Cedar Creek North Raccoon River Camp Creek Camp Creek Camp Creek Drainage Ditch 16, 24 Camp Creek Camp Creek Camp Creek Drainage Ditch 79 West Fork Camp Creek Drainage Ditch 6 Drainage Ditch 1 Drainage Ditch 1 Drainage Ditch 1 Drainage Ditch 1 West Fork Camp Creek West Fork Camp Creek West Fork Camp Creek Crooked Creek West Fork Camp Creek	South Branch Lizard Creek Drainage Ditch 125 South Branch Lizard Creek Big Cedar Creek Drainage Ditch 37 Big Cedar Creek Drainage Ditch 37 Big Cedar Creek Prairie Creek Big Cedar Creek Big Cedar Creek Big Cedar Creek Prairie Creek Big Cedar Creek Drainage Ditch 81 Big Cedar Creek North Raccoon River Camp Creek North Raccoon River Camp Creek Camp Creek Drainage Ditch 16, 24 Camp Creek Drainage Ditch 79 West Fork Camp Creek Drainage Ditch 1 Drainage Drai	South Branch Lizard Creek Lizard Creek R Drainage Ditch 125 South Branch Lizard Creek L South Branch Lizard Creek Lizard Creek R Big Cedar Creek North Raccoon River L Drainage Ditch 37 Big Cedar Creek North Raccoon River L Prairie Creek Big Cedar Creek R Prairie Creek North Raccoon River L North Raccoon River L North Raccoon River L North Raccoon River L Camp Creek Camp Creek R Drainage Ditch 79 West Fork Camp Creek R Drainage Ditch 6 West Fork Camp Creek R Drainage Ditch 1 West Fork Camp Creek R West Fork Camp Creek R Drainage Ditch 1 West Fork Camp Creek R West Fork Camp Creek R	Name of stream	Name of stream Tributary to Description Road crossing, north (county) line At mouth 12 South Branch Lizard Creek Lizard Creek Lizard Creek Lizard Creek Lizard Creek Reast (county) line 12 Big Cedar Creek North Raccoon River Drainage Ditch 37 Big Cedar Creek North Raccoon River Lead crossing, north (county) line At mouth 16 Big Cedar Creek North Raccoon River Lead crossing, north line Prairie Creek Big Cedar Creek Big Cedar Creek Read crossing, west (county) line 18 County) line 18	Name of stream Tributary to Description Road crossing, north (county) line Sec T South Branch Lizard Creek Lizard Creek South Branch Lizard Creek Lizard Creek Lizard Creek Lizard Creek Lizard Creek Road crossing, north (county) line 12 89N Big Cedar Creek North Raccoon River L Road crossing, north (county) line Prairiac Creek North Raccoon River L Road crossing, north line Sec	Name of stream

33	Camp Creek	North Raccoon River	L	Road crossing, north line	33	87N	34W	141
34	Camp Creek	North Raccoon River	L	At mouth	8	86N	34W	148
35	North Raccoon River	Raccoon River	L	Road crossing, east 1/2	17	86N	34W	1003
36	Prairie Creek	North Raccoon River	L	Road crossing, north line	36	87N	34W	8.73
37	Drainage Ditch 198	Prairie Creek	L	Road crossing, west line	21	87N	33W	9.43
38	Drainage Ditch 198	Prairie Creek	L	At mouth	2	86N	34W	16.4
39	Prairie Creek	North Raccoon River	L	Road crossing, north line	11	86N	34W	27.6
40	Prairie Creek	North Raccoon River	L	At mouth	16	86N	34W	30.4
41	Lake Creek	North Raccoon River	L	Road crossing, north line	13	88N	33W	8.4
42	Joint Drainage Ditch 9, 13	Lake Creek	L	North (county) line	6	89N	32W	19
43	Joint Drainage Ditch 9, 13	Lake Creek	L	Road crossing, north line	16	89N	32W	28.7
44	Joint Drainage Ditch 9, 13	Lake Creek	L	Road crossing, west line	14	89N	32W	38.6
45	Joint Drainage Ditch 9, 13	Lake Creek	L	Road crossing, north line	26	89N	32W	46.4
46	Joint Drainage Ditch 9, 13	Lake Creek	L	At mouth	29	88N	32W	54.3
47	Lake Creek	North Raccoon River	L	Below Joint Drainage Ditch 9, 13	29	88N	32W	70.4
48	Drainage Ditch 13	Lake Creek	L	Road crossing, north line	22	88N	32W	8.28
49	Drainage Ditch 13	Lake Creek	L	At mouth	33	88N	32W	12.5
50	Lake Creek	North Raccoon River	L	Below Drainage Ditch 13	33	88N	32W	84.8
51	Lake Creek	North Raccoon River	L	Road crossing, north line	25	87N	33W	95.1
52	Lake Creek	North Raccoon River	L	Road crossing, west line	26	87N	33W	102
53	Drainage Ditch 10	Lake Creek	R	Road crossing, north line	14	87N	33W	6.83
54	Drainage Ditch 10	Lake Creek	R	At mouth	27	87N	33W	9.93
55	Lake Creek	North Raccoon River	L	Road crossing, west line	4	86N	33W	114
56	Lake Creek	North Raccoon River	L	Road crossing, NE1/4	7	86N	33W	124
57	Lake Creek	North Raccoon River	L	At mouth	23	86N	34W	129
58	North Raccoon River	Raccoon River	L	Below Lake Creek	23	86N	34W	1173
59	North Raccoon River	Raccoon River	L	South (county) line	31	86N	33W	1182
60	Elk Run	North Raccoon River	R	Road crossing, west (county) line	31	86N	34W	7.19
61	Marrowbone Creek	North Raccoon River	L	Road crossing, north line	33	86N	33W	7.42
62	Purgatory Creek	North Raccoon River	_ L	Road crossing, north line	2	87N	32W	8.71
63	Purgatory Creek	North Raccoon River	Ĺ	Road crossing, west line	23	87N	32W	15.4
64	Purgatory Creek	North Raccoon River	Ĺ	Road crossing, north line	33	87N	32W	25.4
65	Purgatory Creek	North Raccoon River	Ĺ	Road crossing, north line	17	86N	32W	33.7
66	Purgatory Creek	North Raccoon River	Ĺ	Road crossing, north line	30	86N	32W	42.2
67	Drainage Ditch 112, 113	Purgatory Creek	R	At mouth	25	86N	33W	6.44
68	Purgatory Creek	North Raccoon River	L	South (county) line	36	86N	33W	52
69	East Cedar Creek	Cedar Creek	L	Road crossing, west line	21	89N	31W	7.12
70	East Cedar Creek	Cedar Creek Cedar Creek	L	-	25	89N	31W	15.6
70	Lasi Ceuai Cieek	Ceuai Cieek	L	Road crossing, west line	23	OSIN	3177	0.01

				Declaration with				
71	East Cedar Creek	Cedar Creek	L	Road crossing, north (county) line	3	88N	31W	20.8
72	East Cedar Creek	Cedar Creek	L	Road crossing, west line	27	88N	31W	31.1
73	Welsh Slough	East Cedar Creek	L	Road crossing, north (county) line	1	88N	31W	5.6
74	Welsh Slough	East Cedar Creek	L	road crossing, north line	13	88N	31W	8.43
75	Welsh Slough	East Cedar Creek	L	Road crossing, north line	35	88N	31W	16.5
76	Drainage Ditch 31	Welshs Slough	L	At mouth	35	88N	31W	7.1
77	Welsh Slough	East Cedar Creek	L	At mouth	3	87N	31W	25.6
78	East Cedar Creek	Cedar Creek	L	Below Welshs Slough	3	87N	31W	61.7
79	East Cedar Creek	Cedar Creek	L	Road crossing, west line	21	87N	31W	66.5
80	East Cedar Creek	Cedar Creek	L	At mouth	31	87N	31W	72.6
81	West Cedar Creek	Cedar Creek	R	Road crossing, north line	6	88N	31W	6.54
82	West Cedar Creek	Cedar Creek	R	Road crossing, north line	6	87N	31W	16.5
83	West Cedar Creek	Cedar Creek	R	Road crossing, NE corner	18	87N	31W	21.2
84	West Cedar Creek	Cedar Creek	R	At mouth	31	87N	31W	30.2
85	Cedar Creek	North Raccoon River	L	Below confluence East and West Cedar Creeks	31	87N	31W	103
86	Cedar Creek	North Raccoon River	L	Road crossing, west line	18	86N	31W	111
87	Cedar Creek	North Raccoon River	L	Road crossing, north line	26	86N	32W	125
88	Cedar Creek	North Raccoon River	L	Road crossing, south (county) line	34	86N	32W	134
89	Hardin Creek	North Raccoon River	L	Road crossing, east (county) line	24	87N	31W	16.1
90	Hardin Creek	North Raccoon River	L	Road crossing, north line	35	87N	31W	26.3
91	Drainage Ditch 12	Hardin Creek	L	At mouth	35	87N	31W	7.84
92	Hardin Creek	North Raccoon River	L	Road crossing, north line	14	86N	31W	43.7
93	Hardin Creek	North Raccoon River	L	Road crossing, south (county) line	35	86N	31W	50.4
94	Reading Creek	Hardin Creek	R	Road crossing, west line	33	86N	31W	3.98
95	Drainage Ditch 28	Reading Creek	L	At mouth	2	85N	31W	5.65
96	Reading Creek	Hardin Creek	R	At mouth	2	85N	31W	12.8

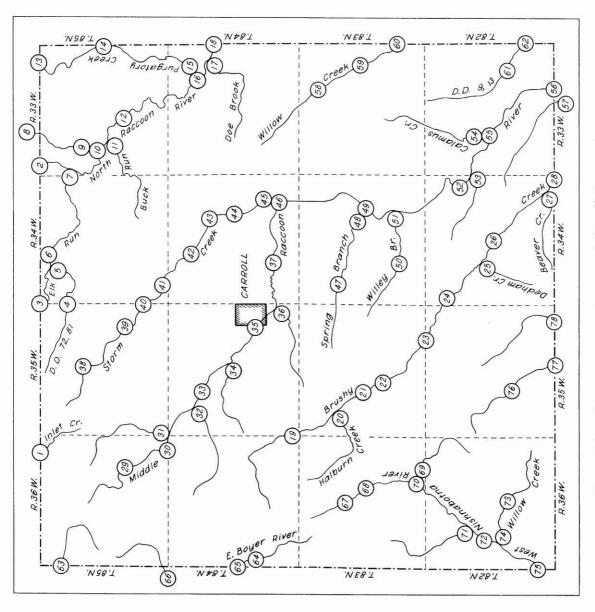


Figure 14. Drainage area index map of Carroll County, lowa.

No. Description Sec T R (sq mi)				Bank	Point of determination of drainage area			Drainage area	
1 Inlet Creek		Name of stream	Tributary to		Description	Sec	Т	R	
North Raccoon River Raccoon River L North (county) line 6 85N 33W 1182		Inlet Creek	Wall Lake	•	•	1	85N	36W	4.42
Description	2	North Raccoon River	Raccoon River	L	North (county) line	6	85N	33W	1182
5 Drainage Ditch 72, 81 Elk Run R At mouth 5 85N 34W 11.9 6 Elk Run North Raccoon River R R nouth 7 85N 33W 38 8 Marrowbone Creek North Raccoon River L Road crossing, north line 33 86N 33W 7.42 9 Marrowbone Creek North Raccoon River L At mouth 7 85N 33W 7.42 9 Marrowbone Creek North Raccoon River L At mouth 70 85N 33W 7.42 9 Marrowbone Creek North Raccoon River L At mouth 70 85N 33W 12.4 10 North Raccoon River L Road crossing, set 17 85N 33W 10.6 12 North Raccoon River L North Raccoon River L North Raccoon River L North Raccoon River L At mouth 12 84N 33W 1344 15	3	Elk Run	North Raccoon River	R		1	85N	35W	7.19
6 Elk Run North Raccoon River R Road crossing, west line 4 85N 34W 23.5 7 Elk Run North Raccoon River R At mouth 7 85N 33W 38 8 Marrowbone Creek North Raccoon River L Road crossing, north line 33 86N 33W 7,42 9 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 13.4 10 North Raccoon River Raccoon River L Below Marrowbone Creek 17 85N 33W 13.4 11 Buck Run North Raccoon River L Raccoon River L Raccoon River L Road crossing, SE½ 21 85N 33W 10.6 12 North Raccoon River Raccoon River L North Raccoon River L North Raccoon River L Road crossing, north line 24 85N 33W 13.6 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 15	4	Drainage Ditch 72, 81	Elk Run	R	Road crossing, west line	7	85N	34W	6.69
7 Elk Run North Raccoon River R At mouth 7 85N 33W 38 8 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 7.42 9 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 13.4 10 North Raccoon River Raccoon River L Below Marrowbone Creek 17 85N 33W 1238 11 Buck Run North Raccoon River Rad At mouth 20 85N 33W 10.6 12 North Raccoon River Raccoon River L Road crossing, SE½ 21 85N 33W 10.6 13 Purgatory Creek North Raccoon River L Road crossing, seE½ 21 85N 33W 52 14 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 35 15 Purgatory Creek Raccoon River L At mouth <	5	Drainage Ditch 72, 81	Elk Run	R	At mouth	5	85N	34W	11.9
8 Marrowbone Creek North Raccoon River L Road crossing, north line 33 86N 33W 7.42 9 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 13.4 10 North Raccoon River R At mouth 17 85N 33W 1238 11 Buck Run North Raccoon River R At mouth 20 85N 33W 10.6 12 North Raccoon River L Road crossing, SE½ 21 85N 33W 1256 13 Purgatory Creek North Raccoon River L North County) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 7.36 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 15 Purgatory Creek North Raccoon River L At mouth 12 84N	6	Elk Run	North Raccoon River	R	Road crossing, west line	4	85N	34W	23.5
9 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 13.4 10 North Raccoon River Raccoon River L Below Marrowbone Creek 17 85N 33W 1238 11 Buck Run North Raccoon River R At mouth 20 85N 33W 10.6 12 North Raccoon River L Road crossing, SE¼ 21 85N 33W 1256 13 Purgatory Creek North Raccoon River L North (county) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 52 14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 73.6 16 North Raccoon River L Below Purgatory Creek 11 84N 33W 13.4 17 Doe Brook North Raccoon River L Below Purgatory Creek	7	Elk Run	North Raccoon River	R	At mouth	7	85N	33W	38
9 Marrowbone Creek North Raccoon River L At mouth 17 85N 33W 13.4 10 North Raccoon River Raccoon River L Below Marrowbone Creek 17 85N 33W 1238 11 Buck Run North Raccoon River R At mouth 20 85N 33W 10.6 12 North Raccoon River L Road crossing, SE½ 21 85N 33W 1256 13 Purgatory Creek North Raccoon River L North County) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 15 Purgatory Creek North Raccoon River L Below Purgatory Creek 11 84N 33W 73.6 16 North Raccoon River R At mouth 11 84N 33W 134 17 Dee Brook North Raccoon River R At mouth 12 84	8	Marrowbone Creek	North Raccoon River	L	Road crossing, north line	33	86N	33W	7.42
11 Buck Run North Raccoon River R At mouth 20 85N 33W 10.6 12 North Raccoon River Raccoon River L Road crossing, SE½ 21 85N 33W 1256 13 Purgatory Creek North Raccoon River L North (county) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 15 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 73.6 16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 1344 17 Doe Brook North Raccoon River R At mouth 12 84N 33W 8.68 18 North Raccoon River Raccoon River L Road crossing, east (county) line 12 84N 33W 1355 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L Road crossing, north line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 28 83N 35W 32.9 24 Brushy Creek South Raccoon River L Road crossing, north line 28 82N 35W 41.2 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L Road crossing, north line 28 82N 34W 5.7 27 Beaver Creek Brushy Creek R At mouth 16 82N 34W 5.7 28 Brushy Creek South Raccoon River L Road crossing, south 16 82N 34W 5.7 29 Middle Raccoon River South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 30 Middle Raccoon River South Raccoon River L Road c	9	Marrowbone Creek	North Raccoon River	L		17	85N	33W	13.4
12 North Raccoon River Raccoon River L Road crossing, SE½ 21 85N 33W 1256 13 Purgatory Creek North Raccoon River L North (county) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 1344 17 Doe Brook North Raccoon River L Below Purgatory Creek 11 84N 33W 1344 18 North Raccoon River L Road crossing, east (county) line 12 84N 33W 1355 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 6.66 21 Brushy Creek South Raccoon R	10	North Raccoon River	Raccoon River	L	Below Marrowbone Creek	17	85N	33W	1238
13 Purgatory Creek North Raccoon River L North (county) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 13.44 17 Doe Brook North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 13.44 18 North Raccoon River Raccoon River Raccoon River L Road crossing, east (county) line 12 84N 33W 13.55 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L Road crossing, west line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 28 83N 35W 32.9 24 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L West line 22 82N 34W 66.7 27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 10.5 32 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 32 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 33 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 34 Unnamed creek Middle Raccoon River L At mouth 8 8	11	Buck Run	North Raccoon River	R	At mouth	20	85N	33W	10.6
13 Purgatory Creek North Raccoon River L North (county) line 1 85N 33W 52 14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 1344 17 Doe Brook North Raccoon River L Road crossing, east (county) line Road crossing, east (county) line Road crossing, west line 31 84N 35W 10.4 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 10 Halburn Creek Brushy Creek R At mouth Road crossing, west line 21 83N 35W 24.1 12 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 28 83N 35W 32.9 24 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L Road crossing, south 16 82N 34W 5.7 27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 66.7 28 Brushy Creek South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 10.5 32 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 32 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 33 Unnamed creek Middle Raccoon River L At mouth 8 84N 35W 10.5 34 Unnamed creek Middle Raccoon River L At mouth 8 84N	12	North Raccoon River	Raccoon River	L	Road crossing, SE1/4	21	85N	33W	1256
14 Purgatory Creek North Raccoon River L Road crossing, north line 24 85N 33W 65 15 Purgatory Creek North Raccoon River L At mouth 11 84N 33W 73.6 16 North Raccoon River R At mouth 11 84N 33W 1344 17 Doe Brook North Raccoon River R At mouth 12 84N 33W 1344 18 North Raccoon River R At mouth 12 84N 33W 1355 19 Brushy Creek South Raccoon River L Road crossing, east (county) line 12 84N 35W 10.4 20 Halburn Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L Road crossing, north	13	Purgatory Creek	North Raccoon River	L		1		33W	52
15		· ·			· • ·				
16 North Raccoon River Raccoon River L Below Purgatory Creek 11 84N 33W 1344 17 Doe Brook North Raccoon River R At mouth 12 84N 33W 8.68 18 North Raccoon River L Road crossing, east (county) line 12 84N 33W 1355 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 6.66 21 Brushy Creek South Raccoon River L North line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 34W 51.8 24 Brushy Creek Brushy Creek R			North Raccoon River						73.6
17 Doe Brook North Raccoon River R At mouth 12 84N 33W 8.68 18 North Raccoon River Raccoon River L Road crossing, east (county) line 12 84N 33W 1355 19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 6.66 21 Brushy Creek South Raccoon River L North line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L Road crossing, north line 21 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 34W 51.8 25 Dedham Creek Brushy Cre				L					
18									
19 Brushy Creek South Raccoon River L Road crossing, west line 31 84N 35W 10.4 20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L North line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L West line 22 82N 34W 66.7 27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road crossing, south (county) line 26 85N 36W 83.1 29 Middle Raccoon River South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27	18	North Raccoon River		L			84N	33W	1355
20 Halburn Creek Brushy Creek R At mouth 8 83N 35W 6.66 21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L North line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L West line 22 82N 34W 9.96 28 Brushy Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road cro	19	Brushy Creek	South Raccoon River	L	•	31	84N	35W	10.4
21 Brushy Creek South Raccoon River L Road crossing, west line 21 83N 35W 24.1 22 Brushy Creek South Raccoon River L North line 28 83N 35W 32.9 23 Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L West line 22 82N 34W 66.7 27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road crossing, south (county) line 36 82N 34W 83.1 29 Middle Raccoon River L Road	20		Brushy Creek			8	83N	35W	6.66
22Brushy CreekSouth Raccoon RiverLNorth line2883N35W32.923Brushy CreekSouth Raccoon RiverLRoad crossing, north line282N35W41.224Brushy CreekSouth Raccoon RiverLRoad crossing, north line782N34W51.825Dedham CreekBrushy CreekRAt mouth1682N34W5.726Brushy CreekSouth Raccoon RiverLWest line2282N34W66.727Beaver CreekBrushy CreekRAt mouth3682N34W9.9628Brushy CreekSouth Raccoon RiverLRoad crossing, south (county) line3682N34W83.129Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line2685N36W6.0330Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line184N36W11.431Unnamed creekMiddle Raccoon RiverLAt mouth684N35W10.532Unnamed creekMiddle Raccoon RiverRAt mouth884N35W8.27	21	Brushy Creek		L	Road crossing, west line	21	83N	35W	24.1
Brushy Creek South Raccoon River L Road crossing, north line 2 82N 35W 41.2 24 Brushy Creek South Raccoon River L Road crossing, north line 7 82N 34W 51.8 25 Dedham Creek Brushy Creek R At mouth 16 82N 34W 5.7 26 Brushy Creek South Raccoon River L West line 22 82N 34W 66.7 27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road crossing, south (county) line 36 82N 34W 83.1 29 Middle Raccoon River South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27		•	South Raccoon River	L				35W	32.9
24Brushy CreekSouth Raccoon RiverLRoad crossing, north line782N34W51.825Dedham CreekBrushy CreekRAt mouth1682N34W5.726Brushy CreekSouth Raccoon RiverLWest line2282N34W66.727Beaver CreekBrushy CreekRAt mouth3682N34W9.9628Brushy CreekSouth Raccoon RiverLRoad crossing, south (county) line3682N34W83.129Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line2685N36W6.0330Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line184N36W11.431Unnamed creekMiddle Raccoon RiverLAt mouth684N35W10.532Unnamed creekMiddle Raccoon RiverRAt mouth884N35W8.27	23		South Raccoon River	L	Road crossing, north line	2	82N	35W	41.2
25Dedham CreekBrushy CreekRAt mouth1682N34W5.726Brushy CreekSouth Raccoon RiverLWest line2282N34W66.727Beaver CreekBrushy CreekRAt mouth3682N34W9.9628Brushy CreekSouth Raccoon RiverLRoad crossing, south (county) line3682N34W83.129Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line2685N36W6.0330Middle Raccoon RiverLRoad crossing, north line184N36W11.431Unnamed creekMiddle Raccoon RiverLAt mouth684N35W10.532Unnamed creekMiddle Raccoon RiverRAt mouth884N35W8.27		•	South Raccoon River	L	•		82N	34W	51.8
26Brushy CreekSouth Raccoon RiverLWest line2282N34W66.727Beaver CreekBrushy CreekRAt mouth3682N34W9.9628Brushy CreekSouth Raccoon RiverLRoad crossing, south (county) line3682N34W83.129Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line2685N36W6.0330Middle Raccoon RiverLRoad crossing, north line184N36W11.431Unnamed creekMiddle Raccoon RiverLAt mouth684N35W10.532Unnamed creekMiddle Raccoon RiverRAt mouth884N35W8.27		•							
27 Beaver Creek Brushy Creek R At mouth 36 82N 34W 9.96 28 Brushy Creek South Raccoon River L Road crossing, south (county) line 36 82N 34W 83.1 29 Middle Raccoon River South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27	26		•	L	West line	22	82N	34W	66.7
28 Brushy Creek South Raccoon River L Road crossing, south (county) line 36 82N 34W 83.1 29 Middle Raccoon River South Raccoon River L Road crossing, north line 26 85N 36W 6.03 30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27		•		R	At mouth		82N	34W	9.96
29Middle Raccoon RiverSouth Raccoon RiverLRoad crossing, north line2685N36W6.0330Middle Raccoon RiverLRoad crossing, north line184N36W11.431Unnamed creekMiddle Raccoon RiverLAt mouth684N35W10.532Unnamed creekMiddle Raccoon RiverRAt mouth884N35W8.27	28	Brushy Creek	•	L	•	36	82N	34W	83.1
30 Middle Raccoon River South Raccoon River L Road crossing, north line 1 84N 36W 11.4 31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27	29	Middle Raccoon River	South Raccoon River	L	` '	26	85N	36W	6.03
31 Unnamed creek Middle Raccoon River L At mouth 6 84N 35W 10.5 32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27					O .				
32 Unnamed creek Middle Raccoon River R At mouth 8 84N 35W 8.27									
	_			L	Road crossing, NW1/4				

FINAL Drainage Areas of Iowa Streams.xls Table No. 14 Carroll County

34 35 36 37 38	Unnamed creek Middle Raccoon River Unnamed creek Middle Raccoon River Storm Creek	Middle Raccoon River South Raccoon River Middle Raccoon River South Raccoon River Middle Raccoon River	R L R L	At mouth Road crossing, north line At mouth Road crossing, west line Road crossing, north line	15 26 25 28 15	84N 84N 84N 84N 85N	35W 35W 35W 34W 35W	5.46 56 8.55 74.3 3.71
39	Storm Creek	Middle Raccoon River	L	Road crossing, NW corner	25	85N	35W	11.2
40 41 42 43 44 45 46	Storm Creek Storm Creek Storm Creek Storm Creek Storm Creek Storm Creek Middle Raccoon River	Middle Raccoon River South Raccoon River		Road crossing, west line Road crossing, west line Road crossing, north line Road crossing, west line Road crossing, north line At mouth Below Storm Creek	30 32 9 11 23 35 35	85N 85N 84N 84N 84N 84N	34W 34W 34W 34W 34W 34W	18.2 24.9 35.9 42.2 50 58.5 138
47	Spring Branch	Middle Raccoon River	R	Road crossing, NW corner	17	83N	34W	7.84
48 49 50 51 52 53 54 55 56 57 58 59	Spring Branch Middle Raccoon River Willey Branch Willey Branch Middle Raccoon River Unnamed creek Calamus Creek Middle Raccoon River Middle Raccoon River Unnamed creek Willow Creek Willow Creek Willow Creek	Middle Raccoon River South Raccoon River Middle Raccoon River Middle Raccoon River South Raccoon River Middle Raccoon River Middle Raccoon River South Raccoon River South Raccoon River South Raccoon River Middle Raccoon River	R	At mouth Below Spring Branch Road crossing, west line At mouth Road crossing, south 1/2 At mouth At mouth Below Calamus Creek South (county) line At mouth Road crossing, north line Road crossing, north line Road crossing, east (county) line	23 23 28 26 12 17 17 34 3 11 23	83N 83N 83N 83N 82N 82N 82N 82N 81N 83N 83N	34W 34W 34W 34W 34W 33W 33W 33W 33W 33W	15.2 177 6.15 12.7 200 6.15 8.09 218 223 7.8 12.5 20.2
61	Drainage Ditch 9, 13	Willow Creek	R	Road crossing, SE1/4	23	82N	33W	8.59
62	Drainage Ditch 9, 13	Willow Creek	R	Road crossing, east (county) line	25	82N	33W	12.2
63	Unnamed creek	Boyer River	L	Road crossing, west (county) line	6	85N	36W	7.73
64	East Boyer River	Boyer River	L	Road crossing, north line	30	84N	36W	6.26
65	East Boyer River	Boyer River	L	Road crossing, west (county) line	19	84N	36W	12.6
66 67	Unnamed creek West Nishnabotna River	East Boyer River Nishnabotna River	R R	North line Road crossing, north line	1 16	84N 83N	37W 36W	9.72 6.88

FINAL Drainage Areas of Iowa Streams.xls Table No. 14 Carroll County

68	West Nishnabotna River	Nishnabotna River	R	Road crossing, north line	22	83N	36W	11.3
69	Unnamed creek	West Nishnabotna River	L	At mouth	34	83N	36W	7.64
70	West Nishnabotna River	Nishnabotna River	R	Below unnamed creek	34	83N	36W	26.1
71	Unnamed creek	West Nishnabotna River	R	At mouth	17	82N	36W	9.51
72	West Nishnabotna River	Nishnabotna River	R	Road crossing, north line	20	82N	36W	43.4
73	Willow Creek	West Nishnabotna River	L	Road crossing, north line	27	82N	36W	5.19
74	Willow Creek	West Nishnabotna River	L	At mouth	20	82N	36W	11.8
75	West Nishnabotna River	Nishnabotna River	R	Road crossing, west (county) line	31	82N	36W	63.4
76	East Nishnabotna River	Nishnabotna River	L	North line	28	82N	35W	7.82
77	East Nishnabotna River	Nishnabotna River	L	South (county) line	34	82N	35W	15.2
78	Unnamed creek	East Nishnabotna River	L	Road crossing, south (county) line	36	82N	35W	6.56

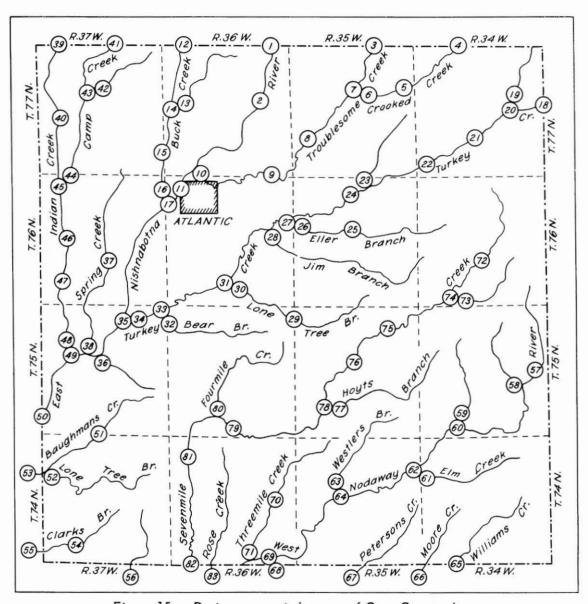


Figure 15. Drainage area index map of Cass County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 15 Cass County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	East Nishnabotna River	Nishnabotna River	L	North (county) line	1	77N	36W	224
2	East Nishnabotna River	Nishnabotna River	L	Road crossing, west line	13	77N	36W	237
3	Troublesome Creek	East Nishnabotna River	L	Road crossing, north (county) line	2	77N	35W	68.4
4	Crooked Creek	Troublesome Creek	L	Road crossing, north (county) line	4	77N	34W	19.9
5	Crooked Creek	Troublesome Creek	L	Road crossing, south 1/2	12	77N	35W	29.7
6	Crooked Creek	Troublesome Creek	L	At mouth	10	77N	35W	32.8
7	Troublesome Creek	East Nishnabotna River	L	Below Crooked Creek	10	77N	35W	109
8	Troublesome Creek	East Nishnabotna River	L	Road crossing, west line	29	77N	35W	118
9	Troublesome Creek	East Nishnabotna River	L	Road crossing, west line	36	77N	36W	124
10	Troublesome Creek	East Nishnabotna River	L	At mouth	32	77N	36W	131
11	East Nishnabotna River	Nishnabotna River	L	Road crossing, SE¼ (gage at Atlantic)	6	76N	36W	382
12	Buck Creek	East Nishnabotna River	R	North (county) line	5	77N	36W	19.3
13	Unnamed creek	Buck Creek	L	At mouth	19	77N	36W	6.65
14	Buck Creek	East Nishnabotna River	R	Below unnamed creek	19	77N	36W	31.5
15	Buck Creek	East Nishnabotna River	R	Road crossing, north line	36	77N	37W	37.6
16	Buck Creek	East Nishnabotna River	R	At mouth	7	76N	36W	42.4
17	East Nishnabotna River	Nishnabotna River	L	Below Buck Creek	7	76N	36W	426
18	Turkey Creek	East Nishnabotna River	L	East (county) line	13	77N	34W	9.98
19	Unnamed creek	Turkey Creek	R	At mouth	23	77N	34W	6.19
20	Turkey Creek	East Nishnabotna River	L	Below unnamed creek	23	77N	34W	19.6
21	Turkey Creek	East Nishnabotna River	L	Road crossing, NE1/4	28	77N	34W	27.3
22	Turkey Creek	East Nishnabotna River	L	Road crossing, center	31	77N	34W	39.4
23	Unnamed creek	Turkey Creek	R	At mouth	3	76N	35W	5.29
24	Turkey Creek	East Nishnabotna River	L	Road crossing, west line	3	76N	35W	52.8
25	Eller Branch	Turkey Creek	L	Road crossing, west line	15	76N	35W	7.61
26	Eller Branch	Turkey Creek	L	At mouth	13	76N	36W	11.1
27	Turkey Creek	East Nishnabotna River	L	Below Eller Branch	13	76N	36W	70.5
28	Jim Branch	Turkey Creek	L	At mouth	14	76N	36W	12.3
29	Lone Tree Branch	Turkey Creek	L	Road crossing, west line	6	75N	35W	7.8
30	Lone Tree Branch	Turkey Creek	L	At mouth	28	76N	36W	18.5
31	Turkey Creek	East Nishnabotna River	L	Below Lone Tree Branch	28	76N	36W	112
32	Bear Creek	Turkey Creek	L	At mouth	1	75N	37W	8.67
33	Turkey Creek	East Nishnabotna River	L	Below Bear Creek	1	75N	37W	131
34	Turkey Creek	East Nishnabotna River	L	At mouth	2	75N	37W	134

FINAL Drainage Areas of Iowa Streams.xls Table No. 15 Cass County

35	East Nishnabotna River	Nishnabotna River	L	Below Turkey Creek	2	75N	37W	573
36	Unnamed creek	East Nishnabotna River	L	At mouth	16	75N	37W	6.04
37	Spring Creek	East Nishnabotna River	R	Road crossing, north line	27	76N	37W	5.47
38	Spring Creek	East Nishnabotna River	R	At mouth	16	75N	37W	10.8
39	Indian Creek	East Nishnabotna River	R	Road crossing, north (county) line	5	77N	37W	117
40	Indian Creek	East Nishnabotna River	R	Railroad crossing, west 1/2	20	77N	37W	127
41	Camp Creek	Indian Creek	L	Road crossing, north (county) line	3	77N	37W	5.57
42	Little Camp Creek	Camp Creek	L	At mouth	16	77N	37W	7.39
43	Camp Creek	Indian Creek	L	Below Little Camp Creek	16	77N	37W	17.4
44	Camp Creek	Indian Creek	L	At mouth	5	76N	37W	25.9
45	Indian Creek	East Nishnabotna River	R	Below Camp Creek	5	76N	37W	159
46	Indian Creek	East Nishnabotna River	R	Road crossing, north line	20	76N	37W	167
47	Indian Creek	East Nishnabotna River	R	Road crossing, north line	32	76N	37W	175
48	Indian Creek	East Nishnabotna River	R	At mouth	17	75N	37W	184
49	East Nishnabotna River	Nishnabotna River	L	Below Indian Creek	17	75N	37W	778
50	East Nishnabotna River	Nishnabotna River	L	West (county) line	31	75N	37W	789
51	Baughmans Creek	East Nishnabotna River	L	Road crossing, north line	4	74N	37W	7.1
52	Lone Tree Branch	Baughmans Creek	L	At mouth	18	74N	37W	6.2
53	Baughmans Creek	East Nishnabotna River	L	At mouth	13	74N	38W	18.6
54	Clarks Branch	East Nishnabotna River	L	Road crossing, north 1/2	32	74N	37W	6.97
55	Clarks Branch	East Nishnabotna River	L	At mouth	36	74N	38W	10.7
56	Tarkio River	Missouri River	L	Road crossing, north line	11	73N	37W	4.72
57	West Nodaway River	Nodaway River	R	Road crossing, north line	24	75N	34W	9.53
58	Unnamed creek	West Nodaway River	R	At mouth	23	75N	34W	5.47
59	Unnamed creek	West Nodaway River	R	At mouth	32	75N	34W	7.86
60	West Nodaway River	Nodaway River	R	Below unnamed creek	32	75N	34W	32.6
61	Elm Creek	West Nodaway River	L	At mouth	12	74N	35W	8.67
62	West Nodaway River	Nodaway River	R	Below Elm Creek	12	74N	35W	49
63	Westlers Branch	West Nodaway River	R	At mouth	16	74N	35W	8.45
64	West Nodaway River	Nodaway River	R	Below Westlers Branch	16	74N	35W	65.9
65	Williams Creek	West Nodaway River	L	South (county) line	32	74N	34W	9.12
66	Moore Creek	Williams Creek	R	At mouth	1	73N	35W	5.47
67	Petersons Creek	Williams Creek	R	At mouth	4	73N	35W	5.06
68	Williams Creek	West Nodaway River	L	At mouth	35	74N	36W	38.4
69	West Nodaway River	Nodaway River	R	Below Williams Creek	35	74N	36W	116
70	Threemile Creek	West Nodaway River	R	Road crossing, west line	13	74N	36W	5.69
71	Threemile Creek	West Nodaway River	R	At mouth	35	74N	36W	11.3

FINAL Drainage Areas of Iowa Streams.xls Table No. 15 Cass County

72	Sevenmile Creek	West Nodaway River	R	Road crossing, west line	22	76N	34W	5.59
73	Unnamed creek	Sevenmile Creek	L	At mouth	32	76N	34W	6.78
74	Sevenmile Creek	West Nodaway River	R	Below unnamed creek	32	76N	34W	19
75	Sevenmile Creek	West Nodaway River	R	Road crossing, north line	11	75N	35W	29.3
76	Sevenmile Creek	West Nodaway River	R	Road crossing, west line	15	75N	35W	36.5
77	Hoyts Branch	Sevenmile Creek	L	At mouth	29	75N	35W	9.25
78	Sevenmile Creek	West Nodaway River	R	Below Hoyts Branch	29	75N	35W	51.9
79	Sevenmile Creek	West Nodaway River	R	Road crossing, west line	34	75N	36W	60.8
80	Fourmile Creek	Sevenmile Creek	R	At mouth	33	75N	36W	7.36
81	Sevenmile Creek	West Nodaway River	R	Road crossing, NW corner	8	74N	36W	84.7
82	Sevenmile Creek	West Nodaway River	R	Road crossing, south (county) line	31	74N	36W	96.3
83	Rose Creek	Sevenmile Creek	L	At mouth	5	73N	36W	9.03

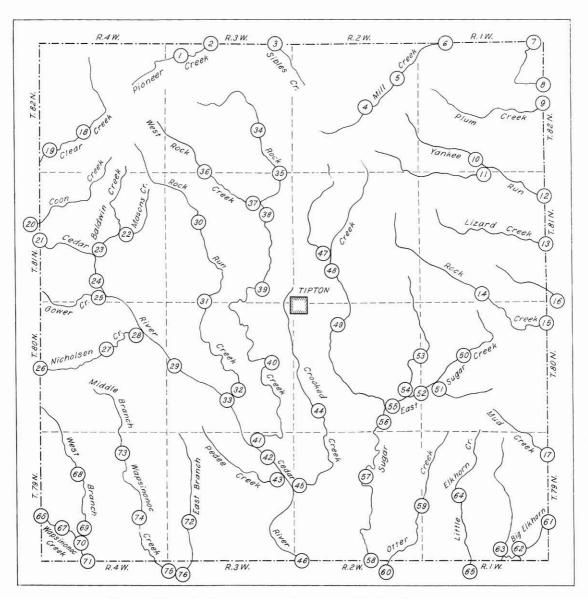


Figure 16. Drainage area index map of Cedar County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 16 Cedar County

		T " · · · ·	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Pioneer Creek	Walnut Creek	R	Road crossing, east 1/2	6	82N	3W	8.17
2	Pioneer Creek	Walnut Creek	R	Road crossing, north (county) line	4	82N	3W	17
3	Sibles Creek	Walnut Creek	R	Road crossing, north (county) line	1	82N	3W	4.77
4	Mill Creek	Wapsipinicon River	R	Road crossing, south 1/2	15	82N	2W	10.2
5	Mill Creek	Wapsipinicon River	R	Road crossing, west line	12	82N	2W	18.2
6	Mill Creek	Wapsipinicon River	R	North (county) line	5	82N	1W	27.8
7	Wapsipinicon River	Mississippi River	R	North (county) line	1	82N	1W	1809
8	Wapsipinicon River	Mississippi River	R	East (county) line	13	82N	1W	1821
9	Plum Creek	Wapsipinicon River	R	Road crossing, east (county) line	13	82N	1W	9.34
10	Yankee Run	Wapsipinicon River	R	Road crossing, east 1/2	33	82N	1W	8.88
11	Unnamed creek	Yankee Run	R	At mouth	34	82N	1W	9.69
12	Yankee Run	Wapsipinicon River	R	East (county) line	12	81N	1W	31.6
13	Lizard Creek	Yankee Run	R	East (county) line	24	81N	1W	10.7
14	Rock Creek	Wapsipinicon River	R	Road crossing, west line	34	81N	1W	12.4
15	Rock Creek	Wapsipinicon River	R	East (county) line	1	80N	1W	21.4
16	Unnamed creek	Rock Creek	L	At mouth	6	80N	1E	7.13
17	Mud Creek	Wapsipinicon River	R	Road crossing, east (county) line	12	79N	1W	8.45
18	Clear Creek	Cedar River	L	Road crossing, NW1/4	28	82N	4W	6.67
19	Clear Creek	Cedar River	L	Road crossing, south 1/2	30	82N	4W	18.3
20	Coon Creek	Cedar River	L	At mouth	13	81N	5W	7.6
21	Cedar River	Iowa River	L	West (county) line	18	81N	4W	7053
22	Masons Creek	Baldwin Creek	L	At mouth	15	81N	4W	5.74
23	Baldwin Creek	Cedar River	L	At mouth	21	81N	4W	10.9
24	Cedar River	Iowa River	L	Road crossing, NE1/4	33	81N	4W	7075
25	Gower Creek	Cedar River	R	At mouth	33	81N	4W	6.2
26	Nicholson Creek	Cedar River	R	Road crossing, west (county) line	19	80N	4W	2.59
27	Nicholson Creek	Cedar River	R	Road crossing, west line	15	80N	4W	13.3
28	Nicholson Creek	Cedar River	R	At mouth	11	80N	4W	18.3
29	Cedar River	Iowa River	L	Road crossing, north 1/2	19	80N	3W	7116
30	Rock Run Creek	Cedar River	L	Road crossing, center	17	81N	3W	8.04
31	Rock Run Creek	Cedar River	L	Road crossing, north line	5	80N	3W	17.2
32	Rock Run Creek	Cedar River	L	At mouth	28	80N	3W	23.3

FINAL Drainage Areas of Iowa Streams.xls Table No. 16 Cedar County

33	Cedar River	Iowa River	L	Below Rock Run Creek	28	80N	3W	7150
34	Rock Creek	Cedar River	L	Road crossing, north line	26	82N	3W	9.91
35	Rock Creek	Cedar River	L	Road crossing, north line	1	81N	3W	19.3
36	West Rock Creek	Rock Creek	R	Road crossing, north line	5	81N	3W	6.24
37	West Rock Creek	Rock Creek	R	At mouth	11	81N	3W	12.4
38	Rock Creek	Cedar River	L	Road crossing, SE1/4	11	81N	3W	35.5
39	Rock Creek	Cedar River	L	Road crossing, north 1/2	35	81N	3W	44.9
40	Rock Creek	Cedar River	L	Road crossing, east 1/2	14	80N	3W	56.1
41	Rock Creek	Cedar River	L	At mouth	2	79N	3W	63.7
42	Cedar River	Iowa River	L	SW¼ (discontinued at Rochester)	2	79N	3W	7218
43	Pedee Creek	Cedar River	R	At mouth	13	79N	3W	5.02
44	Crooked Creek	Cedar River	L	Road crossing, north line	32	80N	2W	8.22
45	Crooked Creek	Cedar River	L	At mouth	13	79N	3W	18.4
46	Cedar River	Iowa River	L	South (county) line	31	79N	2W	7256
47	Unnamed creek	Sugar Creek	R	At mouth	20	81N	2W	8.14
48	Sugar Creek	Cedar River	L	Road crossing, north line	29	81N	2W	19.3
49	Sugar Creek	Cedar River	L	Road crossing, north line	9	80N	2W	31.2
50	East Sugar Creek	Sugar Creek	L	Road crossing, west line	16	80N	1W	10.3
51	Unnamed creek	East Sugar Creek	L	At mouth	30	80N	1W	6.67
52	East Sugar Creek	Sugar Creek	L	Road crossing, west line	30	80N	1W	21.1
53	Unnamed creek	East Sugar Creek	R	Road crossing, west line	18	80N	1W	5.45
54	Unnamed creek	East Sugar Creek	R	At mouth	25	80N	2W	12.3
55	East Sugar Creek	Sugar Creek	L	At mouth	26	80N	2W	34.7
56	Sugar Creek	Cedar River	L	Road crossing, north line	35	80N	2W	80.7
57	Sugar Creek	Cedar River	L	North line	15	79N	2W	89
58	Sugar Creek	Cedar River	L	South (county) line	34	79N	2W	98.4
59	Otter Creek	Sugar Creek	L	Road crossing, west line	19	79N	1W	5.74
60	Otter Creek	Sugar Creek	L	At mouth	3	78N	2W	12.7
61	Big Elkhorn Creek	Mud Creek	R	Road crossing, east (county) line	25	79N	1W	5.67
62	Big Elkhorn Creek	Mud Creek	R	At mouth	35	79N	1W	8.61
63	Unnamed creek	Mud Creek	R	At mouth	34	79N	1W	9.25
64	Little Elkhorn Creek	Mud Creek	R	Road crossing, north line	20	79N	1W	5.66
65	Little Elkhorn Creek	Mud Creek	R	At mouth	4	78N	1W	14.7
66	Wapsinonoc Creek	Cedar River	R	Road crossing, west (county) line	19	79N	4W	11.6
67	Wapsinonoc Creek	Cedar River	R	Road crossing, west line	29	79N	4W	17.7
68	West Branch Wapsinonoc Creek	Wapsinonoc Creek	L	Road crossing, north line	17	79N	4W	8.5

FINAL Drainage Areas of Iowa Streams.xls Table No. 16 Cedar County

69	West Branch Wapsinonoc Creek	Wapsinonoc Creek	L	At mouth	32	79N	4W	15.5
70	Wapsinonoc Creek	Cedar River	R	Below West Branch Wapsinonoc Creek	32	79N	4W	38
71	Wapsinonoc Creek	Cedar River	R	South (county) line	33	79N	4W	42
72	East Branch Wapsinonoc Creek	Wapsinonoc Creek	L	West line	29	79N	3W	10
73	Middle Branch Wapsinonoc Creek	East Branch Wapsinonoc Creek	R	Road crossing, north line	10	79N	4W	8.51
74	Middle Branch Wapsinonoc Creek	East Branch Wapsinonoc Creek	R	Road crossing, north line	26	79N	4W	16.9
75	Middle Branch Wapsinonoc Creek	East Branch Wapsinonoc Creek	R	At mouth	6	78N	3W	25.2
76	East Branch Wapsinonoc Creek	Wapsinonoc Creek	L	Below Middle Branch Wapsinonoc Creek	6	78N	3W	45.7

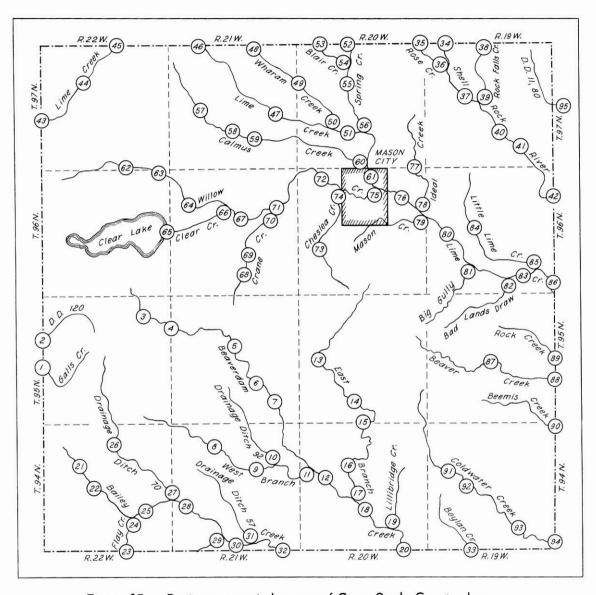


Figure 17. Drainage area index map of Cerro Gordo County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 17 Cerro Gordo County

	N. C.	T. 11	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Galls Creek	East Fork Iowa River	L	Road crossing, west (county) line	19	95N	22W	5.47
2	Drainage Ditch 120	Galls Creek	R	Road crossing, west (county) line	18	95N	22W	3.94
3	Beaverdam Creek	West Fork Cedar River	L	Road crossing, SE1/4	2	95N	22W	7.91
4	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	7	95N	21W	15.4
5	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	15	95N	21W	26.4
6	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	26	95N	21W	34.7
7	Beaverdam Creek	West Fork Cedar River	L	Road crossing, north line	35	95N	21W	39.2
8	West Branch Beaverdam Creek	Beaverdam Creek	R	Road crossing, west line	9	94N	21W	7.55
9	West Branch Beaverdam Creek	Beaverdam Creek	R	Road crossing, west line	14	94N	21W	14.9
10	Drainage Ditch 92	West Branch Beaverdam Creek	L	At mouth	14	94N	21W	5.28
11	West Branch Beaverdam Creek	Beaverdam Creek	R	At mouth	18	94N	20W	23.5
12	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	17	94N	20W	72.4
13	East Branch Beaverdam Creek	Beaverdam Creek	L	Road crossing, north line	19	95N	20W	9.97
14	East Branch Beaverdam Creek	Beaverdam Creek	L	Road crossing, north line	33	95N	20W	19.4
15	East Branch Beaverdam Creek	Beaverdam Creek	L	Road crossing, SW corner	34	95N	20W	28.2
16	East Branch Beaverdam Creek	Beaverdam Creek	L	Road crossing, north line	16	94N	20W	35.3
17	East Branch Beaverdam Creek	Beaverdam Creek	L	At mouth	21	94N	20W	39.7
18	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	27	94N	20W	123
19	Lillibridge Creek	Beaverdam Creek	L	At mouth	35	94N	20W	5.35
20	Beaverdam Creek	West Fork Cedar River	L	South (county) line	35	94N	20W	134
21	Bailey Creek	West Fork Cedar River	R	Road crossing, north line	17	94N	22W	6.56
22	Bailey Creek	West Fork Cedar River	R	Road crossing, north line	21	94N	22W	13.5
23	Flay Creek	Bailey Creek	R	Road crossing, south (county) line	34	94N	22W	8.89
24	Flay Creek	Bailey Creek	R	At mouth	26	94N	22W	13.6
25	Bailey Creek	West Fork Cedar River	R	West line	24	94N	22W	32.2
26	Drainage Ditch 70	Bailey Creek	L	Road crossing, north line	10	94N	22W	10.4
27	Drainage Ditch 70	Bailey Creek	L	At mouth	19	94N	21W	14.7
28	Bailey Creek	West Fork Cedar River	R	Road crossing, north line	30	94N	21W	52.3
29	Ingebretson Creek	Bailey Creek	R	At mouth	33	94N	21W	6.48

FINAL Drainage Areas of Iowa Streams.xls Table No. 17 Cerro Gordo County

30	Bailey Creek	West Fork Cedar River	R	Road crossing, west line	34	94N	21W	64.8
31	Drainage Ditch 57	Bailey Creek	L	At mouth	34	94N	21W	5.08
32	Bailey Creek	West Fork Cedar River	R	Road crossing, south (county) line	36	94N	21W	75.2
33	Boylan Creek	West Fork Cedar River	L	South (county) line	33	94N	19W	3.51
34	Shell Rock River	West Fork Cedar River	L	Road crossing, north (county) line	5	97N	19W	425
35	Rose Creek	Shell Rock River	R	Road crossing, north (county) line	1	97N	20W	25.7
36	Rose Creek	Shell Rock River	R	At mouth	8	97N	19W	28.4
37	Shell Rock River	West Fork Cedar River	L	West line	16	97N	19W	460
38	Rock Falls Creek	Shell Rock River	L	Road crossing, north (county) line	3	97N	19W	6.65
39	Rock Falls Creek	Shell Rock River	L	At mouth	16	97N	19W	16
40	Shell Rock River	West Fork Cedar River	L	Road crossing, east 1/2	27	97N	19W	482
41	Shell Rock River	West Fork Cedar River	R	Road crossing, north line	35	97N	19W	490
42	Shell Rock River	West Fork Cedar River	R	East (county) line	12	96N	19W	499
43	Lime Creek	Shell Rock River	R	Road crossing, west (county) line	19	97N	22W	288
44	Lime Creek	Shell Rock River	R	Road crossing, west line	9	97N	22W	297
45	Lime Creek	Shell Rock River	R	North (county) line	3	97N	22W	304
46	Lime Creek	Shell Rock River	R	Below Willow Creek	32	98N	21W	428
47	Lime Creek	Shell Rock River	R	Road crossing, west line	24	97N	21W	436
48	Wharam Creek	Lime Creek	L	Road crossing, west line	2	97N	21W	12.7
49	Wharam Creek	Lime Creek	L	Road crossing, north line	18	97N	20W	17.6
50	Wharam Creek	Lime Creek	L	At mouth	29	97N	20W	22.2
51	Lime Creek	Shell Rock River	R	Road crossing, north 1/2	28	97N	20W	463
52	Spring Creek	Lime Creek	L	Road crossing, north (county) line	4	97N	20W	13
53	Blair Creek	Spring Creek	R	Road crossing, north (county) line	5	97N	20W	4.67
54	Blair Creek	Spring Creek	R	At mouth	9	97N	20W	6.38
55	Spring Creek	Lime Creek	L	Road crossing, north line	16	97N	20W	28
56	Spring Creek	Lime Creek	L	At mouth	28	97N	20W	33.8
57	Calmus Creek	Lime Creek	R	Road crossing, north 1/2	20	97N	21W	7.51
58	Calmus Creek	Lime Creek	R	Road crossing, west line	27	97N	21W	12.6
59	Calmus Creek	Lime Creek	R	Road crossing, west line	26	97N	21W	18.3
60	Calmus Creek	Lime Creek	R	At mouth	3	96N	20W	25.5
61	Lime Creek	Shell Rock River	R	Gage at Mason City, NW1/4	3	96N	20W	526

FINAL Drainage Areas of Iowa Streams.xls Table No. 17 Cerro Gordo County

00	William One als	Lines One als	ь	Dead session westling	0.5	071	00147	0.40
62	Willow Creek	Lime Creek	R	Road crossing, west line	35	97N	22W	9.49
63	Willow Creek	Lime Creek	R	Road crossing, north 1/2	1	96N	22W	16.6
64	Willow Creek	Lime Creek	R	Road crossing, SE1/4	7	96N	21W	25.4
65	Clear Creek	Willow Creek	R	At outlet of Clear Lake (gage)	24	96N	22W	22.6
66	Clear Creek	Willow Creek	R	At mouth	16	96N	21W	26.6
67	Willow Creek	Lime Creek	R	Road crossing, west line	15	96N	21W	53.6
68	Crane Creek	Willow Creek	R	Road crossing, north line	34	96N	21W	6.58
69	Crane Creek	Willow Creek	R	Road crossing, north line	27	96N	21W	16.1
70	Crane Creek	Willow Creek	R	At mouth	12	96N	21W	19.7
71	Willow Creek	Lime Creek	R	Below Crane Creek	12	96N	21W	77.3
72	Willow Creek	Lime Creek	R	Road crossing, west 1/2	5	96N	20W	86
73	Cheslea Creek	Willow Creek	R	Road crossing, SW corner	20	96N	20W	7.08
74	Cheslea Creek	Willow Creek	R	At mouth	9	96N	20W	13.6
75	Willow Creek	Lime Creek	R	At mouth	3	96N	20W	105
76	<u>Lime Creek</u>	Shell Rock River	R	Road crossing, east 1/2	11	96N	20W	632
77	Ideal Creek	Lime Creek	L	Road crossing, north line	1	96N	20W	3.86
78	Ideal Creek	Lime Creek	L	At mouth	13	96N	19W	11
79	Mason Creek	Lime Creek	R	At mouth	18	96N	19W	8.73
80	Lime Creek	Shell Rock River	R	West line	20	96N	19W	654
81	Big Gully	Lime Creek	R	At mouth	28	96N	19W	9.29
82	Bad Lands Craw	Lime Creek	R	At mouth	35	96N	19W	5.61
83	Lime Creek	Shell Rock River	R	Road crossing, south 1/2	26	96N	19W	677
84	Little Lime Creek	Lime Creek	L	Road crossing, north line	21	96N	19W	6.6
85	Little Lime Creek	Lime Creek	L	At mouth	25	96N	19W	12.3
86	Lime Creek	Shell Rock River	R	Road crossing, east 1/2	36	96N	19W	692
87	Beaver Creek	Shell Rock River	R	Road crossing, west line	22	95N	19W	9.29
88	Beaver Creek	Shell Rock River	R	Road crossing, east (county) line	24	95N	19W	15.4
89	Rock Creek	Beaver Creek	L	Road crossing, east (county) line	13	95N	19W	6.48
90	Beemis Creek	Shell Rock River	R	Road crossing, east (county) line	1	94N	19W	6.13
91	Coldwater Creek	Shell Rock River	R	Road crossing, west line	17	94N	19W	9.39
92	Coldwater Creek	Shell Rock River	R	Road crossing, north line	20	94N	19W	16.3
93	Coldwater Creek	Shell Rock River	R	Road crossing, north line	35	94N	19W	24.2
94	Coldwater Creek	Shell Rock River	R	Road crossing, east (county) line	36	94N	19W	27.4
95	Drainage Ditch 11, 80	Flood Creek	R	At mouth	29	97N	18W	5.47

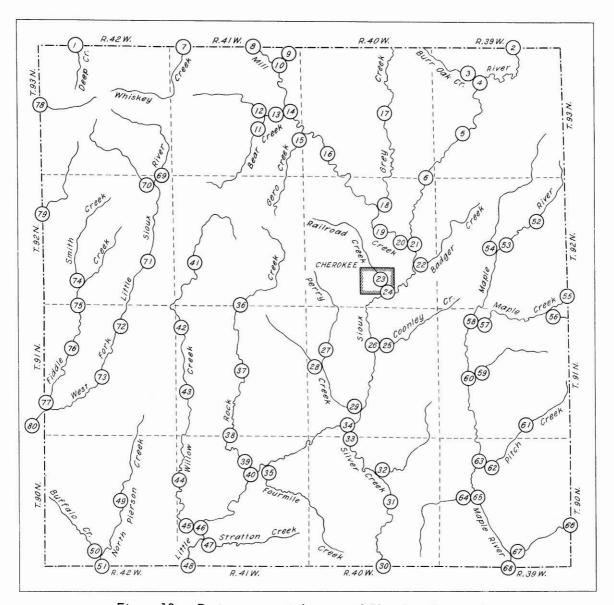


Figure 18. Drainage area index map of Cherokee County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 18 Cherokee County

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Deep Creek	Floyd River	L	Road crossing, north (county) line	5	93N	42W	5.18
2	Little Sioux River	Missouri River	L	North (county) line	3	93N	39W	1813
3	Burr Oak Creek	Little Sioux River	R	At mouth	9	93N	39W	7.26
4	Little Sioux River	Missouri River	L	Below Burr Oak Creek	9	93N	39W	1835
5	Little Sioux River	Missouri River	L	North line	29	93N	39W	1848
6	Little Sioux River	Missouri River	L	Road crossing, north line (gage near Cherokee)	1	92N	40W	1861
7	Whiskey Creek	Mill Creek	R	Road crossing, north (county) line	6	93N	41W	9.58
8	Mill Creek	Little Sioux River	R	North (county) line	3	93N	41W	179
9	Willow Creek	Mill Creek	L	At mouth	1	93N	41W	38.4
10	Mill Creek	Little Sioux River	R	Below Willow Creek	1	93N	41W	221
11	Bear Creek	Mill Creek	R	Road crossing, west line	23	93N	41W	9.64
12	Unnamed creek	Bear Creek	L	At mouth	23	93N	41W	5.97
13	Bear Creek	Mill Creek	R	At mouth	13	93N	41W	16.9
14	Mill Creek	Little Sioux River	R	Below Bear Creek	13	93N	41W	246
15	Gero Creek	Mill Creek	R	At mouth	30	93N	40W	10.7
16	Mill Creek	Little Sioux River	R	Road crossing, north line	32	93N	40W	263
17	Grey Creek	Mill Creek	L	Road crossing, north line	22	93N	40W	10.5
18	Grey Creek	Mill Creek	L	At mouth	10	92N	40W	19.9
19	Mill Creek	Little Sioux River	R	Road crossing, NE¼ (gage near Cherokee)	15	92N	40W	292
20	Mill Creek	Little Sioux River	R	At mouth	13	92N	40W	294
21	Little Sioux River	Missouri River	L	Below Mill Creek	13	92N	40W	2163
22	Badger Creek	Little Sioux River	L	At mouth	25	92N	40W	7.33
23	Railroad Creek	Little Sioux River	R	At mouth	34	92N	40W	7.55
24	Little Sioux River	Missouri River	L	Below Railroad Creek	34	92N	40W	2182
25	Coonley Creek	Little Sioux River	L	At mouth	10	91N	40W	7.74
26	Little Sioux River	Missouri River	Ĺ	Below Coonley Creek	10	91N	40W	2199
27	Perry Creek	Little Sioux River	R	Road crossing, north line	18	91N	40W	6.73
28	Unnamed creek	Perry Creek	R	At mouth	18	91N	40W	5.69
29	Perry Creek	Little Sioux River	R	At mouth	28	91N	40W	19.1
30	Silver Creek	Little Sioux River	L	Road crossing, south (county) line	34	90N	40W	15.9
31	Silver Creek	Little Sioux River	L	Road crossing, north line	22	90N	40W	24.2

FINAL Drainage Areas of Iowa Streams.xls Table No. 18 Cherokee County

32	Unnamed creek	Silver Creek	R	At mouth	10	90N	40W	9.01
33	Silver Creek	Little Sioux River	L	At mouth	32	91N	40W	41.6
34	Little Sioux River	Missouri River	L	Below Silver Creek	32	91N	40W	2269
35	Fourmile Creek	Little Sioux River	L	At mouth	11	90N	41W	8.54
36	Rock Creek	Little Sioux River	R	Road crossing, west line	34	92N	41W	7.9
37	Rock Creek	Little Sioux River	R	Road crossing, north line	22	91N	41W	17.9
38	Rock Creek	Little Sioux River	R	Road crossing, NW1/4	4	90N	41W	26.2
39	Rock Creek	Little Sioux River	R	At mouth	10	90N	41W	31.4
40	Little Sioux River	Missouri River	L	Below Rock Creek	10	90N	41W	2323
41	Willow Creek	Little Sioux River	R	Road crossing, north line	30	92N	41W	9.62
42	Willow Creek	Little Sioux River	R	Road crossing, north line	7	91N	41W	17.8
43	Willow Creek	Little Sioux River	R	Road crossing, north line	30	91N	41W	26.6
44	Willow Creek	Little Sioux River	R	Road crossing, north line	18	90N	41W	36.1
45	Willow Creek	Little Sioux River	R	At mouth	30	90N	41W	43.7
46	Little Sioux River	Missouri River	L	Below Willow Creek	30	90N	41W	2377
47	Stratton Creek	Little Sioux River	L	At mouth	29	90N	41W	5.27
48	Little Sioux River	Missouri River	L	South (county) line	31	90N	41W	2385
49	North Pierson Creek	Pierson Creek	L	Road crossing, north line	22	90N	42W	8.38
50	Buffalo Creek	North Pierson Creek	R	At mouth	33	90N	42W	5.67
51	North Pierson Creek	Pierson Creek	L	Road crossing, south	33	90N	42W	20.4
			_	(county) line				
52	Maple River	Little Sioux River	L	Road crossing, north line	14	92N	39W	10.4
53	Maple River	Little Sioux River	L	Road crossing, west line	22	92N	39W	18
54	Unnamed creek	Maple River	R	At mouth	21	92N	39W	9.42
55	Maple Creek	Maple River	L	Road crossing, east	36	92N	39W	17.7
EC	Linnamad aradı	Manla Craak		(county) line	4	04N	2014/	24.4
56	Unnamed creek	Maple Creek	L	At mouth	1	91N	39W	21.1
57	Maple Creek	Maple River	L	At mouth	5	91N	39W	46
58	Maple River	Little Sioux River	L	Below Maple Creek	5	91N	39W	82.7
59	Unnamed creek	Maple River	L	At mouth	20	91N	39W	6.84
60	Maple River	Little Sioux River	L	Below unnamed creek	20	91N	39W	94.3
61	Pitch Creek	Maple River	L	Road crossing, west line	35	91N	39W	8.15
62	Pitch Creek	Maple River	L	At mouth	8	90N	39W	18.7
63	Maple River	Little Sioux River	L	Below Pitch Creek	8	90N	39W	125
64	Unnamed creek	Maple River	R	At mouth	17	90N	39W	8.35
65	Maple River	Little Sioux River	R	Below unnamed creek	17	90N	39W	137
66	Little Maple River	Maple River	L	Road crossing, east (county) line	25	90N	39W	29.8
67	Little Maple River	Maple River	L	At mouth	34	90N	39W	35.7
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FINAL Drainage Areas of Iowa Streams.xls Table No. 18 Cherokee County

68	Maple River	Little Sioux River	L	Road crossing, south (county) line	34	90N	39W	182
69	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	1	92N	42W	9.54
70	Unnamed creek	West Fork Little Sioux River	R	At mouth	1	92N	42W	8.32
71	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	26	92N	42W	27.4
72	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	10	91N	42W	34.9
73	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	29	91N	42W	45.8
74	Smith Creek	Fiddle Creek	R	At mouth	29	92N	42W	5.53
75	Fiddle Creek	West Fork Little Sioux River	R	Road crossing, north line	5	91N	42W	14.1
76	Fiddle Creek	West Fork Little Sioux River	R	Road crossing, north line	17	91N	42W	19.9
77	Fiddle Creek	West Fork Little Sioux River	R	At mouth	31	91N	42W	24.8
78	Big Whiskey Slough	West Fork Little Sioux River	R	Road crossing, west (county) line	18	93N	42W	3.24
79	Unnamed creek	Big Whiskey Slough	L	Road crossing, west (county) line	7	92N	42W	6.84
80	West Fork Little Sioux River	Little Sioux River	R	Below Big Whiskey Slough	36	91N	43W	134

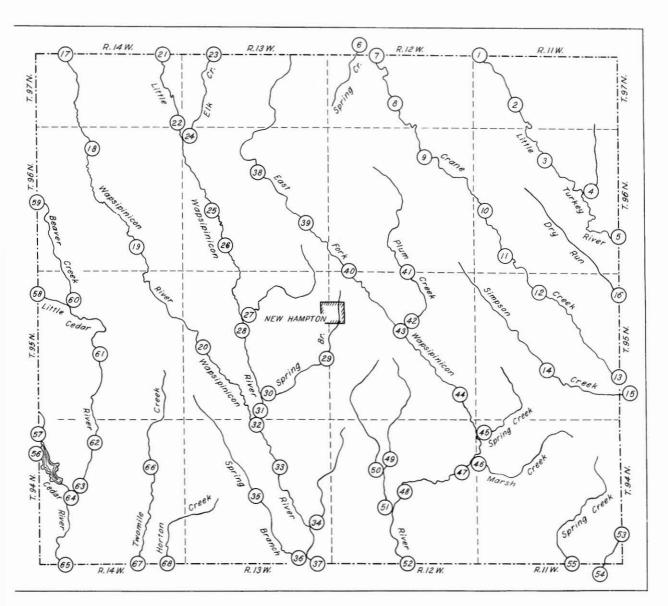


Figure 19. Drainage area index map of Chickasaw County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 19 Chickasaw County

	N. C.	T. 11	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Little Turkey River	Turkey River	R	Road crossing, north (county) line	19	97N	11W	30.5
2	Little Turkey River	Turkey River	R	Road crossing, north line	32	97N	11W	37.9
3	Little Turkey River	Turkey River	R	Road crossing, west line	10	96N	11W	54.7
4	Unnamed creek	Little Turkey River	L	At mouth	14	96N	11W	6.38
5	Little Turkey River	Turkey River	R	East (county) line	25	96N	11W	72.4
6	Spring Creek	Crane Creek	R	At mouth	17	97N	12W	5.39
7	Crane Creek	Little Turkey River	R	Road crossing, north (county) line	21	97N	12W	90.5
8	Crane Creek	Little Turkey River	R	Road crossing, north line	33	97N	12W	97.7
9	Crane Creek	Little Turkey River	R	Road crossing, west line	11	96N	12W	108
10	Crane Creek	Little Turkey River	R	Road crossing, center	19	96N	11W	119
11	Crane Creek	Little Turkey River	R	Road crossing, NW1/4	32	96N	11W	128
12	Crane Creek	Little Turkey River	R	Road crossing, SE1/4	4	95N	11W	135
13	Crane Creek	Little Turkey River	R	East (county) line	25	95N	11W	148
14	Simpson Creek	Crane Creek	R	Road crossing, west line	22	95N	11W	7.58
15	Simpson Creek	Crane Creek	R	At mouth	30	95N	10W	14.6
16	Dry Run	Crane Creek	L	East (county) line	1	95N	11W	5.05
17	Wapsipinicon River	Mississippi River	R	Road crossing, north (county) line	20	97N	14W	102
18	Wapsipinicon River	Mississippi River	R	Road crossing, north line	9	96N	14W	120
19	Wapsipinicon River	Mississippi River	R	Road crossing, north line	35	96N	14W	138
20	Wapsipinicon River	Mississippi River	R	Road crossing, north line	19	95N	13W	155
21	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north (county) line	24	97N	14W	45.7
22	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	1	96N	14W	50.9
23	Elk Creek	Little Wapsipinicon River	L	Road crossing, north (county) line	20	97N	13W	5.96
24	Elk Creek	Little Wapsipinicon River	L	At mouth	6	96N	13W	17.7
25	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, west 1/2	20	96N	13W	79
26	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	32	96N	13W	89.3
27	Unnamed creek	Little Wapsipinicon River	L	At mouth	9	95N	13W	8.39
28	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	16	95N	13W	105
29	Spring Branch	Little Wapsipinicon River	L	Road crossing, east 1/2	24	95N	13W	5.12
30	Spring Branch	Little Wapsipinicon River	L	At mouth	34	95N	13W	14.4
31	Little Wapsipinicon River	Wapsipinicon River	L	At mouth	3	94N	13W	125

FINAL Drainage Areas of Iowa Streams.xls Table No. 19 Chickasaw County

32	Wapsipinicon River	Mississippi River	R	Below Little Wapsipinicon River	3	94N	13W	287
33	Wapsipinicon River	Mississippi River	R	Road crossing, north line	15	94N	13W	296
34	Unnamed creek	Wapsipinicon River	L	At mouth	25	94N	13W	6.56
35	Spring Branch	Wapsipinicon River	R	Road crossing, west line	22	94N	13W	6.93
36	Spring Branch	Wapsipinicon River	R	At mouth	36	94N	13W	15.3
37	Wapsipinicon River	Mississippi River	R	Road crossing, south (county) line	36	94N	13W	325
38	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	15	96N	13W	11.1
39	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	25	96N	13W	21.8
40	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	6	95N	12W	31.3
41	Plum Creek	East Fork Wapsipinicon River	L	Road crossing, north line	3	95N	12W	7.28
42	Plum Creek	East Fork Wapsipinicon River	L	At mouth	16	95N	12W	14.5
43	East Fork Wapsipinicon River	Wapsipinicon River	L	Below Plum Creek	16	95N	12W	51.9
44	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	36	95N	12W	62.2
45	Spring Creek	East Fork Wapsipinicon River	L	At mouth	6	94N	11W	5.84
46	Marsh Creek	East Fork Wapsipinicon River	L	At mouth	12	94N	12W	9.27
47	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	13	94N	12W	83.5
48	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	21	94N	12W	97.1
49	Unnamed creek	East Fork Wapsipinicon River	R	Road crossing, north line	16	94N	12W	7.17
50	Unnamed creek	Unnamed creek	R	At mouth	16	94N	12W	6.15
51	Unnamed creek	East Fork Wapsipinicon River	R	At mouth	21	94N	12W	15.8
52	East Fork Wapsipinicon River	Wapsipinicon River	L	Road crossing, south (county) line	34	94N	12W	123
53	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, east (county) line	25	94N	11W	2.82
54	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, west line	1	93N	11W	7.18
55	Spring Creek	Little Wapsipinicon River	R	South (county) line	34	94N	11W	9.02
56	Cedar River	Iowa River	L	West (county) line	7	94N	14W	1080
57	Gizzard Creek	Cedar River	L	At mouth	7	94N	14W	24.4
58	Little Cedar River	Cedar River	L	West (county) line	6	95N	14W	279
59	Beaver Creek	Little Cedar River	L	West (county) line	19	96N	14W	8.49
60	Beaver Creek	Little Cedar River	L	At mouth	8	95N	14W	18
61	Little Cedar River	Cedar River	L	Road crossing, NE¼ (gage near Ionia)	21	95N	14W	306
62	Little Cedar River	Cedar River	L	North line	9	94N	14W	314
63	Little Cedar River	Cedar River	L	At mouth	20	94N	14W	323
64	Cedar River	Iowa River	L	Below Little Cedar River	20	94N	14W	1436
65	Cedar River	Iowa River	L	South (county) line	32	94N	14W	1443
66	Twomile Creek	Cedar River	L	Road crossing, north line	14	94N	14W	8.2

FINAL Drainage Areas of Iowa Streams.xls Table No. 19 Chickasaw County

67	Twomile Creek	Cedar River	L	Road crossing, south (county) line	35	94N	14W	18
68	Horton Creek	Twomile Creek	L	Road crossing, south (county) line	36	94N	14W	6.11

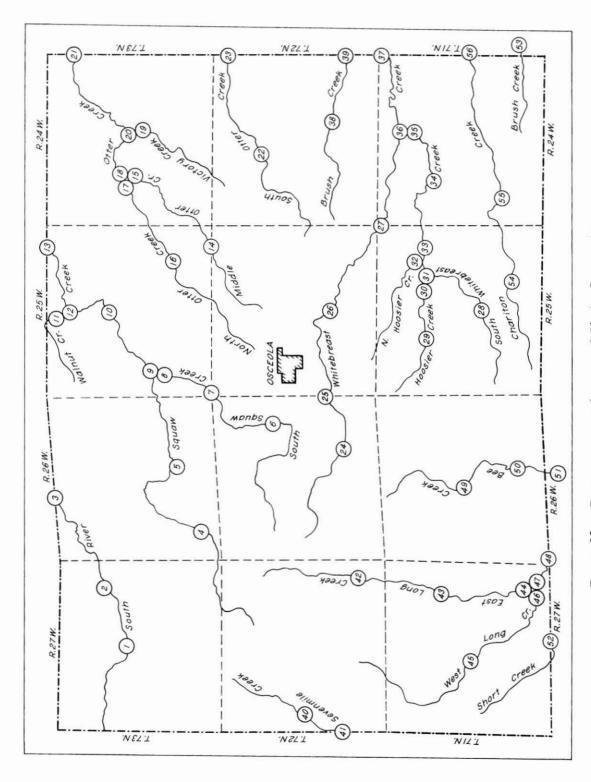


Figure 20. Drainage area index map of Clarke County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 20 Clarke County

			Bank	Point of determination of dra	inage a	ırea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	South River	Des Moines River	R	Road crossing, west line	15	73N	27W	13.4
2	South River	Des Moines River	R	Road crossing, SW1/4	12	73N	27W	23.6
3	South River	Des Moines River	R	North (county) line	4	73N	26W	36.6
4	Squaw Creek	South River	R	Road crossing, NW1/4	32	73N	26W	9.9
5	Squaw Creek	South River	R	Road crossing, south 1/2	27	73N	26W	21
6	South Squaw Creek	Squaw Creek	R	Road crossing, NW1/4	13	72N	26W	9.5
7	South Squaw Creek	Squaw Creek	R	Road crossing, NW1/4	6	72N	25W	15.6
8	South Squaw Creek	Squaw Creek	R	At mouth	19	73N	25W	22.3
9	Squaw Creek	South River	R	Below South Squaw Creek	19	73N	25W	51.5
10	Squaw Creek	South River	R	Road crossing, west line	15	73N	25W	60.8
11	Walnut Creek	Squaw Creek	L	At mouth	3	73N	25W	7.15
12	Squaw Creek	South River	R	Below Walnut Creek	3	73N	25W	74
13	Squaw Creek	South River	R	Road crossing, north (county) line	1	73N	25W	79.6
14	Middle Otter Creek	Otter Creek	R	North line	1	72N	25W	7.65
15	Middle Otter Creek	Otter Creek	R	At mouth	17	73N	24W	14.8
16	North Otter Creek	Otter Creek	L	Road crossing, SE1/4	26	73N	25W	6.71
17	North Otter Creek	Otter Creek	_ L	At mouth	17	73N	24W	11.5
18	Otter Creek	South River	R	Below confluence North and Middle Otter Creeks	17	73N	24W	26.3
19	Victory Creek	Otter Creek	R	At mouth	15	73N	24W	8.75
20	Otter Creek	South River	R	Below Victory Creek	15	73N	24W	39.4
21	Otter Creek	South River	R	East (county) line	12	73N	24W	46.5
22	South Otter Creek	Otter Creek	R	Road crossing, S 1/2	9	72N	24W	9.22
23	South Otter Creek	Otter Creek	R	Road crossing, east (county) line	1	72N	24W	19.1
24	Whitebreast Creek	Des Moines River	R	Road crossing, SW1/4	26	72N	26W	8.25
25	Whitebreast Creek	Des Moines River	R	West line	30	72N	25W	15.9
26	Whitebreast Creek	Des Moines River	R	West line	27	72N	25W	25.1
27	Whitebreast Creek	Des Moines River	R	West line	6	71N	24W	35.2
28	South Whitebreast Creek	Whitebreast Creek	R	Road crossing, west line	22	71N	25W	6
29	Hoosier Creek	South Whitebreast Creek	L	Road crossing, west line	9	71N	25W	6.67
30	Hoosier Creek	South Whitebreast Creek	L	At mouth	11	71N	25W	11.6
31	South Whitebreast Creek	Whitebreast Creek	R	Below Hoosier Creek	11	71N	25W	22.3
32	North Hoosier Creek	South Whitebreast Creek	L	At mouth	11	71N	25W	5.34

FINAL Drainage Areas of Iowa Streams.xls Table No. 20 Clarke County

33	South Whitebreast Creek	Whitebreast Creek	R	Road crossing, west line	12	71N	25W	28
34	South Whitebreast Creek	Whitebreast Creek	R	Road crossing, SE1/4	8	71N	24W	34.1
35	South Whitebreast Creek	Whitebreast Creek	R	At mouth	3	71N	24W	40.6
36	Whitebreast Creek	Des Moines River	R	Below South Whitebreast Creek	3	71N	24W	81.2
37	Whitebreast Creek	Des Moines River	R	East (county) line	1	71N	24W	88.9
38	Brush Creek	Whitebreast Creek	L	Road crossing, N 1/2	27	72N	24W	5.44
39	Brush Creek	Whitebreast Creek	L	East (county) line	25	72N	24W	10.7
40	Sevenmile Creek	Thompson River	L	Road crossing, north line	19	72N	27W	6.74
41	Sevenmile Creek	Thompson River	L	West (county) line	30	72N	27W	12.5
42	East Long Creek	Long Creek	L	Road crossing, north line	36	71N	27W	10.1
43	East Long Creek	Long Creek	L	Road crossing, north line	14	71N	27W	21
44	East Long Creek	Long Creek	L	At mouth	36	71N	27W	32.7
45	West Long Creek	Long Creek	R	Road crossing, north line	21	71N	27W	8.39
46	West Long Creek	Long Creek	R	At mouth	36	71N	27W	13.4
47	Long Creek	Thompson River	L	Below confluence East and West Long Creeks	36	71N	27W	46.1
48	Long Creek	Thompson River	L	South (county) line	31	71N	26W	51.2
49	Bee Creek	Long Creek	L	Road crossing, north line	21	71N	26W	10.7
50	Bee Creek	Long Creek	L	Road crossing, N 1/2	34	71N	26W	18.1
51	Bee Creek	Long Creek	L	At mouth	9	70N	26W	21.2
52	Short Creek	Long Creek	R	South (county) line	34	71N	27W	4.38
53	Brush Creek	Chariton River	L	At mouth	30	71N	23W	6.09
54	Chariton Creek	Chariton River	L	West line	26	71N	25W	3.64
55	Chariton Creek	Chariton River	L	West line	29	71N	24W	12.4
56	Chariton Creek	Chariton River	L	At mouth	19	71N	23W	19.8

DRAINAGE AREAS OF IOWA STREAMS

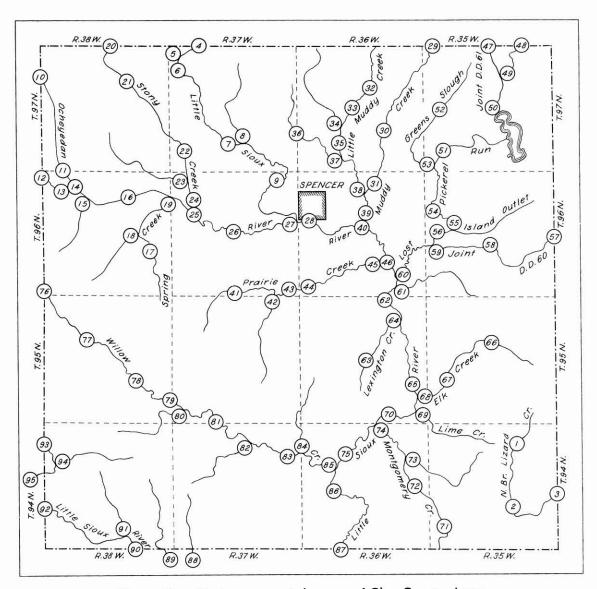


Figure 21. Drainage area index map of Clay County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 21 Clay County

	N. C.	T "	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	11	94N	35W	6.07
2	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	27	94N	35W	10.9
3	North Branch Lizard Creek	Lizard Creek	L	Road crossing, east (county) line	24	94N	35W	16.7
4	Little Sioux River	Missouri River	L	North (county) line	5	97N	37W	513
5	Drainage Ditch 52	Little Sioux River	R	At mouth	6	97N	37W	10.4
6	Little Sioux River	Missouri River	L	Road crossing, north line	7	97N	37W	527
7	Little Sioux River	Missouri River	L	Road crossing, west line	27	97N	37W	534
8	Unnamed creek	Little Sioux River	L	At mouth	27	97N	37W	6.24
9	Little Sioux River	Missouri River	L	Road crossing, west line	1	96N	37W	546
10	Ocheyedan River	Little Sioux River	R	West (county) line	7	97N	38W	249
11	Ocheyedan River	Little Sioux River	R	Road crossing, north line	6	96N	38W	266
12	Sewer Creek	Ocheyedan River	R	Road crossing, west (county) line	6	96N	38W	18
13	Sewer Creek	Ocheyedan River	R	At mouth	8	96N	38W	24.5
14	Ocheyedan River	Little Sioux River	R	Below Sewer Creek	8	96N	38W	293
15	Unnamed creek	Ocheyedan River	R	At mouth	9	96N	38W	5.67
16	Ocheyedan River	Little Sioux River	R	Road crossing, west line	11	96N	38W	302
17	Spring Creek	Ocheyedan River	R	Road crossing, west line	24	96N	38W	7.76
18	Unnamed creek	Spring Creek	L	At mouth	23	96N	38W	7.25
19	Spring Creek	Ocheyedan River	R	At mouth	7	96N	37W	20.3
20	Stony Creek	Ocheyedan River	L,	Road crossing, north (county) line	3	97N	38W	58.8
21	Stony Creek	Ocheyedan River	L	Road crossing, west line	11	97N	38W	70.5
22	Stony Creek	Ocheyedan River	L	Road crossing, north line	31	97N	37W	79.1
23	Unnamed creek	Stony Creek	R	At mouth	7	96N	37W	9.32
24	Stony Creek	Ocheyedan River	L	At mouth	7	96N	37W	91.5
25	Ocheyedan River	Little Sioux River	R	Below Stony Creek	7	96N	37W	417
26	Ocheyedan River	Little Sioux River	R	Road crossing, west line	15	96N	37W	426
27	Ocheyedan River	Little Sioux River	R	At mouth	13	96N	37W	434
				Road crossing, NW1/4				
28	Little Sioux River	Missouri River	L	(discontinued gage at Spencer)	18	96N	36W	990
29	Muddy Creek	Little Sioux River	L	Road crossing, north (county) line	6	97N	35W	51.4
30	Muddy Creek	Little Sioux River	L	Road crossing, north line	26	97N	36W	59.7
31	Muddy Creek	Little Sioux River	L	Road crossing, north line	10	96N	36W	66.6

FINAL Drainage Areas of Iowa Streams.xls Table No. 21 Clay County

32	Little Muddy Creek	Muddy Creek	R	North line	15	97N	36W	6.14
33	Little Muddy Creek	Muddy Creek	R	Road crossing, north line	21	97N	36W	13.1
34	Unnamed creek	Little Muddy Creek	R	At mouth	21	97N	36W	5.54
35	Little Muddy Creek	Muddy Creek	R	Road crossing, north line	32	97N	36W	20.6
36	Unnamed creek	Little Muddy Creek	R	Road crossing, west line	30	97N	36W	5.5
37	Unnamed creek	Little Muddy Creek	R	At mouth	33	97N	36W	10.9
38	Little Muddy Creek	Muddy Creek	R	At mouth	10	96N	36W	35.1
39	Muddy Creek	Little Sioux River	L	At mouth	15	96N	36W	103
40	Little Sioux River	Missouri River	L	Below Muddy Creek	15	96N	36W	1102
41	Prairie Creek	Little Sioux River	R	Road crossing, west line	34	96N	37W	9.96
42	Unnamed creek	Prairie Creek	R	At mouth	35	96N	37W	7.64
43	Prairie Creek	Little Sioux River	R	Road crossing, south 1/2	36	96N	37W	22.3
44	Prairie Creek	Little Sioux River	R	Road crossing, south 1/2	31	96N	36W	32.3
45	Prairie Creek	Little Sioux River	R	At mouth	26	96N	36W	42.8
46	Little Sioux River	Missouri River	L	Below Prairie Creek	26	96N	36W	1149
47	Joint Drainage Ditch 61	Trumbull Lake		Road crossing, north	3	97N	35W	26.2
47	Joint Drainage Ditch 61	Trumbuli Lake		(county) line	3	9711	3344	20.2
40	laint Drainaga Ditab 2	Joint Drainage Ditch 61		Road crossing, north	2	97N	25///	0.60
48	Joint Drainage Ditch 3	Joint Drainage Ditch 61	L	(county) line	2	9/11	35W	8.68
49	Joint Drainage Ditch 3	Joint Drainage Ditch 61	L	At mouth	10	97N	35W	13.2
50	Joint Drainage Ditch 61	Trumbull Lake		At mouth (Trumbull Lake)	22	97N	35W	45.6
51	Pickerel Run	Lost Island Outlet	R	Road crossing, west line	32	97N	35W	80.7
52	Greens Slough	Pickerel Run	R	Road crossing, NE1/4	19	97N	35W	6.17
53	Greens Slough	Pickerel Run	R	At mouth	31	97N	35W	11.4
54	Pickerel Run	Lost Island Outlet	R	Road crossing, north line	18	96N	35W	96.7
55	Pickerel Run	Lost Island Outlet	R	At mouth	17	96N	35W	103
56	Lost Island Outlet	Little Sioux River	L	Road crossing, west line	17	96N	35W	123
57	Joint Drainage Ditch 60	Lost Island Outlet	L	Road crossing, east	24	96N	35W	6.14
31	Joint Drainage Ditch 60	Lost Island Odnet	L	(county) line	24	3011	3377	0.14
58	Joint Drainage Ditch 60	Lost Island Outlet	L	Road crossing, west line	22	96N	35W	23.7
59	Joint Drainage Ditch 60	Lost Island Outlet	L	At mouth	19	96N	35W	26.6
60	Lost Island Outlet	Little Sioux River	L	At mouth	35	96N	36W	156
61	Unnamed creek	Little Sioux River	L	At mouth	35	96N	36W	6.3
62	Little Sioux River	Missouri River	L	Road crossing, north line	2	95N	36W	1312
63	Lexington Creek	Little Sioux River	R	Road crossing, north line	22	95N	36W	5.6
64	Lexington Creek	Little Sioux River	R	At mouth	11	95N	36W	10.1
65	Little Sioux River	Missouri River	L	Road crossing, west 1/2	25	95N	36W	1334
66	Elk Creek	Little Sioux River	L	Road crossing, west line	15	95N	35W	9.34
67	Elk Creek	Little Sioux River	L	Road crossing, SE1/4	19	95N	35W	15.4
68	Elk Creek	Little Sioux River	L	At mouth	36	95N	36W	20.6

FINAL Drainage Areas of Iowa Streams.xls Table No. 21 Clay County

69	Lime Creek	Little Sioux River	L	At mouth	36	95N	36W	7.78
70	Little Sioux River	Missouri River	L	Road crossing, west line	35	95N	36W	1366
71	Montgomery Creek	Little Sioux River	L	North line	31	94N	35W	5.79
72	Montgomery Creek	Little Sioux River	L	Road crossing, north line	24	94N	36W	13.2
73	Unnamed creek	Montgomery Creek	R	At mouth	11	94N	36W	5.85
74	Montgomery Creek	Little Sioux River	L	At mouth	3	94N	36W	22.5
75	Little Sioux River	Missouri River	L	Road crossing, west line	9	94N	36W	1399
76	Willow Creek	Little Sioux River	R	Road crossing, west (county) line	31	96N	38W	8.7
77	Willow Creek	Little Sioux River	R	Road crossing, west line	16	95N	38W	18.2
78	Willow Creek	Little Sioux River	R	Road crossing, north line	26	95N	38W	29.7
79	Willow Creek	Little Sioux River	R	Road crossing, west line	30	95N	37W	40.5
80	Unnamed creek	Willow Creek	R	At mouth	31	95N	37W	5.97
81	Willow Creek	Little Sioux River	R	Road crossing, NE corner	5	94N	37W	59.1
82	Unnamed creek	Willow Creek	R	At mouth	10	94N	37W	9.03
83	Willow Creek	Little Sioux River	R	Road crossing, south 1/2	12	94N	37W	78.6
84	Unnamed creek	Willow Creek	L	At mouth	7	94N	36W	6.28
85	Willow Creek	Little Sioux River	R	At mouth	17	94N	36W	92.1
86	Little Sioux River	Missouri River	L	Road crossing, NE¼	20	94N	36W	1494
87	Little Sioux River	Missouri River	L	South (county) line	32	94N	36W	1507
88	Unnamed creek	Little Sioux River	R	At mouth	8	93N	37W	5.95
89	Unnamed creek	Little Sioux River	R	At mouth	12	93N	38N	7.16
90	Little Sioux River	Missouri River	L	South (county) line	35	94N	38W	1629
91	Unnamed creek	Little Sioux River	R	At mouth	34	94N	38W	6.99
92	Little Sioux River	Missouri River	L	West (county) line	30	94N	38W	1644
93	Henry Creek	Little Sioux River	R	West (county) line	7	94N	38W	6.93
94	Unnamed creek	Henry Creek	L	At mouth	7	94N	38W	6.15
95	Henry Creek	Little Sioux River	R	At mouth	24	94N	39W	16.9

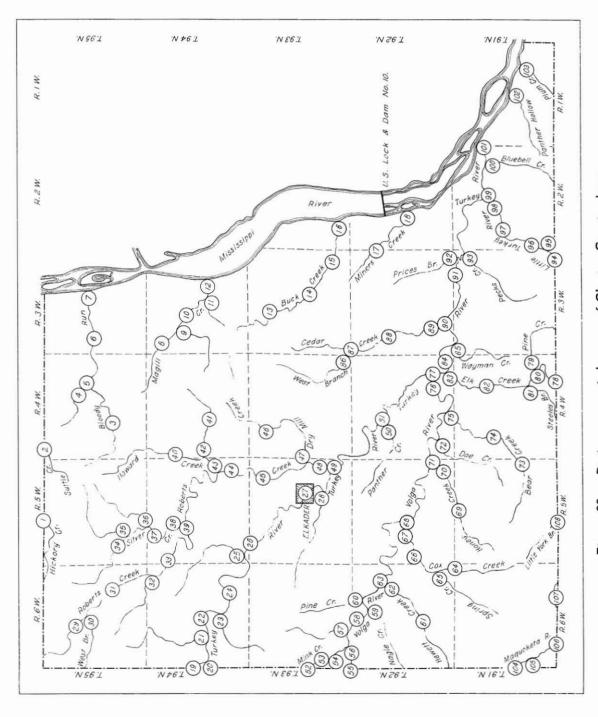


Figure 22. Drainage area index map of Clayton County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 22 Clayton County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Hickory Creek	Yellow River	R	North (county) line	4	95N	5W	11.8
2	Suttle Creek	Yellow River	R	North (county) line	6	95N	4W	4.76
3	Bloody Run	Mississippi River	R	Road crossing, west line	28	95N	4W	5.26
4	Unnamed creek	Bloody Run	L	At mouth	14	95N	4W	7.4
5	Bloody Run	Mississippi River	R	Below unnamed creek	14	95N	4W	20.4
6	Bloody Run	Mississippi River	R	Road crossing, NE1/4	19	95N	3W	29.5
7	Bloody Run	Mississippi River	R	At mouth	15	95N	3W	37.6
8	Magill Creek	Mississippi River	R	Road crossing, SE1/4	6	94N	3W	9.66
9	Unnamed creek	Magill Creek	R	At mouth	8	94N	3W	5.53
10	Magill Creek	Mississippi River	R	Road crossing, SW1/4	8	94N	3W	22.7
11	Unnamed creek	Magill Creek	R	At mouth	22	94N	3W	5.91
12	Magill Creek	Mississippi River	R	At mouth	23	94N	3W	35.6
13	Buck Creek	Mississippi River	R	Road crossing, NW1/4	9	93N	3W	10.1
14	Buck Creek	Mississippi River	R	Road crossing, SW1/4	22	93N	3W	19.5
15	Buck Creek	Mississippi River	R	Road crossing, SW1/4	25	93N	3W	27.3
16	Buck Creek	Mississippi River	R	At mouth	32	93N	2W	35
17	Miners Creek	Mississippi River	R	Road crossing, east 1/2	12	92N	3W	4.44
18	Miners Creek	Mississippi River	R	At mouth	21	92N	2W	12.1
19	Turkey River	Mississippi River	R	West (county) line	18	94N	6W	814
20	Beaver Creek	Turkey River	R	At mouth	19	94N	6W	7.23
21	Unnamed creek	Turkey River	L	At mouth	20	94N	6W	7.58
22	Turkey River	Mississippi River	R	West line	21	94N	6W	837
23	Unnamed creek	Turkey River	R	At mouth	27	94N	6W	7.19
24	Turkey River	Mississippi River	R	Road crossing, SW1/4	26	94N	6W	852
25	Unnamed creek	Turkey River	L	At mouth	31	94N	5W	9.01
26	Turkey River	Mississippi River	R	North line	5	93N	5W	875
				At dam, west 1/2				
27	Turkey River	Mississippi River	R	(discontinued gage at Elkader)	23	93N	5W	891
28	Unnamed creek	Turkey River	R	At mouth	36	93N	5W	11
29	Roberts Creek	Turkey River	L	Road crossing, north line	16	95N	6W	8.39
30	West Branch Roberts Creek	Roberts Creek	R	At mouth	16	95N	6W	5.25
31	Roberts Creek	Turkey River	L	Road crossing, north 1/2	26	95N	6W	19.2
32	Unnamed creek	Roberts Creek	R	At mouth	1	94N	6W	6.51
33	Roberts Creek	Turkey River	L	Road crossing, NW1/4	7	94N	5W	31
34	Silver Creek	Roberts Creek	_ L	Road crossing, SW1/4	29	95N	5W	5.83
			_					

FINAL Drainage Areas of Iowa Streams.xls Table No. 22 Clayton County

35	Unnamed creek	Silver Creek	L	At mouth	29	95N	5W	9.78
36	Unnamed creek	Silver Creek	L	At mouth	4	94N	5W	6.65
37	Silver Creek	Roberts Creek	L	Road crossing, center	5	94N	5W	25.2
38	Silver Creek	Roberts Creek	L	At mouth	17	94N	5W	27.8
39	Roberts Creek	Turkey River	L	Below Silver Creek	17	94N	5W	63.5
40	Howard Creek	Roberts Creek	L	Road crossing, SW1/4	7	94N	4W	10.4
41	Unnamed creek	Howard Creek	L	West line	21	94N	4W	8.45
42	Unnamed creek	Howard Creek	L	At mouth	24	94N	5W	11.6
43	Howard Creek	Roberts Creek	L	At mouth	25	94N	5W	30.2
44	Roberts Creek	Turkey River	L	Road crossing, west 1/2	25	94N	5W	101
45	Roberts Creek	Turkey River	L	Road crossing, SE1/4	2	93N	5W	111
46	Dry Mill Creek	Roberts Creek	L	Road crossing, north line	8	93N	4W	11.5
47	Dry Mill Creek	Roberts Creek	L	At mouth	25	93N	5W	22.1
48	Roberts Creek	Turkey River	L	At mouth	25	93N	5W	140
49	Turky River	Mississippi River	R	Below Roberts Creek	25	92N	5W	1047
50	Panther Creek	Turkey River	R	At mouth	9	92N	4W	6.81
51	Turkey River	Mississippi River	R	Below Panther Creek	9	93N	4W	1072
52	Mink Creek	Volga River	L	West (county) line	19	93N	6W	15.5
53	Mink Creek	Volga River	L	At mouth	30	93N	6W	18.9
54	Volga River	Turkey River	R	Below Mink Creek	30	93N	6W	238
55	Deep Creek	Volga River	R	West (county) line	31	93N	6W	6.5
56	Deep Creek	Volga River	R	At mouth	32	93N	6W	9.2
57	Unnamed creek	Volga River	L	At mouth	33	93N	6W	5.32
58	Volga River	Turkey River	R	Road crossing, north line	10	92N	6W	261
59	Nagle Creek	Volga River	R	At mouth	10	92N	6W	6.92
60	Pine Creek	Volga River	L	At mouth	2	92N	6W	8.25
61	Hewett Creek	Volga River	R	Road crossing, NE¼	28	92N	6W	9.29
62	Hewett Creek	Volga River	R	At mouth	12	92N	6W	16.2
63	Volga River	Turkey River	R	Below Hewett Creek	12	92N	6W	296
64	Cox Creek	Volga River	R	Road crossing, north 1/2	36	92N	6W	10.4
65	Spring Creek	Cox Creek	L	At mouth	36	92N	6W	8.23
66	Cox Creek	Volga River	R	Road crossing, SW1/4	19	92N	5W	22.5
67	Cox Creek	Volga River	R	At mouth	21	92N	5W	27.8
68	Volga River	Turkey River	R	Below Cox Creek	21	92N	5W	337
69	Honey Creek	Volga River	R	Road crossing, west line	3	91N	5W	6.19
70	Honey Creek	Volga River	R	At mouth	25	92N	5W	13.4
71	Volga River	Turkey River	R	Below Honey Creek	25	92N	5W	362
72	Doe Creek	Volga River	R	At mouth	32	92N	4W	8.37
73	Bear Creek	Volga River	R	North line	25	91N	5W	7.78
74	Bear Creek	Volga River	R	Road crossing, NW1/4	17	91N	4W	15.8

FINAL Drainage Areas of Iowa Streams.xls Table No. 22 Clayton County

75	Bear Creek	Volga River	R	At mouth	33	92N	4W	22.1
76	Volga River	Turkey River	R	At mouth	35	92N	4W	403
77	Turkey River	Mississippi River	R	Below Volga River	35	92N	4W	1482
78	Elk Creek	Turkey River	R	South (county) line	35	91N	4W	26.7
79	Pine Creek	Elk Creek	R	At mouth	26	91N	4W	10.9
80	Elk Creek	Turkey River	R	Below Pine Creek	26	91N	4W	40.9
81	Steeles Branch	Elk Creek	L	At mouth	26	91N	4W	9.29
82	Elk Creek	Turkey River	R	Road crossing, SW1/4	11	91N	4W	56.6
83	Elk Creek	Turkey River	R	At mouth	36	92N	4W	63.3
84	Turkey River	Mississippi River	R	Road crossing, south 1/2 (gage at Garber)	36	92N	4W	1545
85	Wayman Creek	Turkey River	R	At mouth	36	92N	4W	6.98
86	West Branch Cedar Creek	Cedar Creek	R	At mouth	6	92N	3W	8.35
87	Cedar Creek	Turkey River	L	Below West Branch Cedar Creek	6	92N	3W	14.4
88	Cedar Creek	Turkey River	L	West line	17	92N	3W	24.8
89	Cedar Creek	Turkey River	L	At mouth	33	92N	3W	36.6
90	Turkey River	Mississippi River	R	Below Cedar Creek	33	92N	3W	1595
91	Turkey River	Mississippi River	R	Road crossing, NE¼	2	91N	3W	1606
92	Prices Branch	Turkey River	L	At mouth	1	91N	3W	6.43
93	Pecks Creek	Turkey River	R	At mouth	1	91N	3W	9.36
94	Little Turkey River	Turkey River	R	South (county) line	36	91N	3W	9.22
95	Point Hollow Creek	Little Turkey River	R	At mouth	31	91N	2W	9.95
96	Little Turkey River	Turkey River	R	Road crossing, SW1/4	30	91N	2W	25.5
97	Little Turkey River	Turkey River	R	Road crossing, NW1/4	20	91N	2W	29.4
98	Little Turkey River	Turkey River	R	At mouth	15	91N	2W	38.4
99	Turkey River	Mississippi River	R	Below Little Turkey River	15	91N	2W	1671
100	Bluebell Creek	Turkey River	R	At mouth	11	91N	2W	7.35
101	Turkey River	Mississippi River	R	At mouth	7	91N	1W	1684
102	Panther Hollow	Mississippi River	R	At mouth	22	91N	1W	7.52
103	Plum Creek	Mississippi River	R	At mouth	23	91N	1W	7.12
104	Maquoketa River	Mississippi River	R	West (county) line	19	91N	6W	19
105	Unnamed creek	Maquoketa River	R	At mouth	30	91N	6W	10.9
106	Maquoketa River	Mississippi River	R	Road crossing, south (county) line	32	91N	6W	42.6
107	Fenchel Creek	Maquoketa River	L	Road crossing, west line	35	91N	6W	7.92
108	Little York Branch	Honey Creek	R	Road crossing, south (county) line	33	91N	5W	4.38

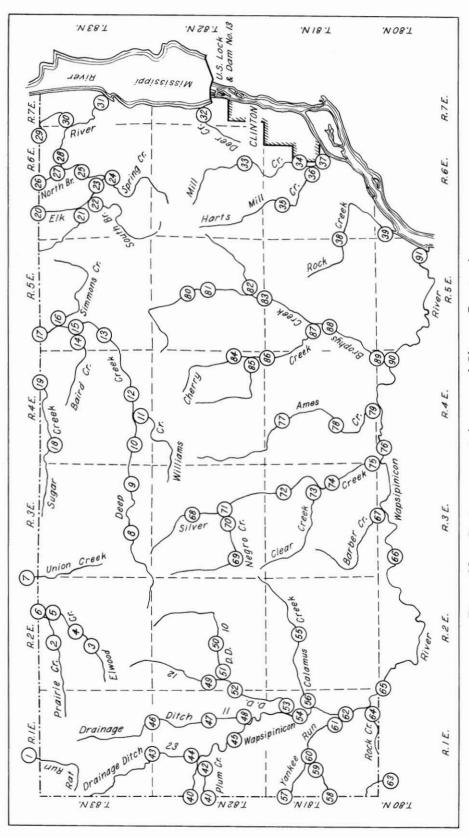


Figure 23. Drainage area index map of Clinton County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 23 Clinton County

	Name of stream	Tributary to	Bank	Point of determination of drainage area				Drainage area	
Area No.				Description	Sec	Т	R	(sq mi)	
1	Rat Run	Bear Creek	R	At mouth	33	84N	1E	7.35	
2	Prairie Creek	Maquoketa River	R	Road crossing, south 1/2	4	83N	2E	6.52	
3	Elwood Creek	Prairie Creek	R	Road crossing, SW1/4	16	83N	2E	7.18	
4	Elwood Creek	Prairie Creek	R	Road crossing, north line	15	83N	2E	13.9	
5	Elwood Creek	Prairie Creek	R	At mouth	2	83N	2E	23.9	
6	Prairie Creek	Maquoketa River	R	Road crossing, north (county) line	2	83N	2E	33.2	
7	Union Creek	Prairie Creek	R	At mouth	36	84N	2E	6.93	
8	Deep Creek	Maquoketa River	R	Road crossing, SW1/4	28	83N	3E	9.74	
9	Deep Creek	Maquoketa River	R	Road crossing, west line	25	83N	3E	19.7	
10	Deep Creek	Maquoketa River	R	Road crossing, west line	32	83N	4E	29.6	
11	Williams Creek	Deep Creek	R	At mouth	28	83N	4E	8.74	
12	Deep Creek	Maquoketa River	R	Road crossing, SE1/4	27	83N	4E	41.9	
13	Deep Creek	Maquoketa River	R	Road crossing, east 1/2	19	83N	5E	57	
14	Baird Creek	Deep Creek	L	At mouth	8	83N	5E	8.29	
15	Deep Creek	Maquoketa River	R	Below Baird Creek	8	83N	5E	76.7	
16	Simmons Creek	Deep Creek	R	At mouth	8	83N	5E	8.57	
17	Deep Creek	Maquoketa River	R	North (county) line	6	83N	5E	88.3	
18	Sugar Creek	Deep Creek	L	Road crossing, west line	5	83N	4E	9.07	
19	Sugar Creek	Deep Creek	L	North (county) line	2	83N	4E	19.5	
20	Elk River	Mississippi River	R	Road crossing, north (county) line	5	83N	6E	6.12	
21	Unnamed creek	Elk River	R	At mouth	17	83N	6E	5.9	
22	South Branch Elk River	Elk River	R	At mouth	16	83N	6E	11.8	
23	Elk River	Mississippi River	R	Road crossing, north 1/2	21	83N	6E	28	
24	Spring Creek	Elk River	R	At mouth	21	83N	6E	7.86	
25	Elk River	Mississippi River	R	Road crossing, north 1/2	15	83N	6E	36.8	
26	North Branch Elk River	Elk River	L	Road crossing, north (county) line	4	83N	6E	11.1	
27	North Branch Elk River	Elk River	L	At mouth	10	83N	6E	14.3	
28	Elk River	Mississippi River	R	Road crossing, NW1/4	11	83N	6E	54.4	
29	Scrambling Creek	Elk River	L	Road crossing, north (county) line	1	83N	6E	5.06	
30	Scrambling Creek	Elk River	L	At mouth	7	83N	7E	11.3	
31	Elk River	Mississippi River	R	At mouth	20	83N	7E	76.9	
32	Deer Creek	Mississippi River	R	At mouth	18	82N	7E	5.84	
02	Door Orook	Wildelight Mivel	11	/ K IIIOGUI	.0	0211	, _	0.04	

FINAL Drainage Areas of Iowa Streams.xls Table No. 23 Clinton County

33	Mill Creek	Mississippi River	R	Road crossing, north line	35	82N	6E	9.7
34	Mill Creek	Mississippi River	R	Road crossing, north line	14	81N	6E	21.6
35	Harts Mill Creek	Mill Creek	R	Road crossing, north line	8	81N	6E	5.25
36	Harts Mill Creek	Mill Creek	R	At mouth	15	81N	6E	15
37	Mill Creek	Mississippi River	R	At mouth	23	81N	6E	40
38	Rock Creek	Mississippi River	R	Road crossing, west line	30	81N	6E	12.4
39	Rock Creek	Mississippi River	R	At mouth	7	80N	6E	23.9
40	Wapsipinicon River	Mississippi River	R	West (county) line	18	82N	1E	1821
41	Plum Creek	Wapsipinicon River	R	Road crossing, west (county) line	18	82N	1E	9.34
42	Plum Creek	Wapsipinicon River	R	At mouth	17	82N	1E	11.4
43	Drainage Ditch 23	Wapsipinicon River	L	Road crossing, north line	4	82N	1E	7.12
44	Drainage Ditch 23	Wapsipinicon River	L	At mouth	16	82N	1E	12.3
45	Wapsipinicon River	Mississippi River	R	Road crossing, NW1/4	27	82N	1E	1850
46	Drainage Ditch 11	Wapsipinicon River	L	Road crossing, north line	2	82N	1E	11.8
47	Drainage Ditch 11	Wapsipinicon River	L	Road crossing, north line	23	82N	1E	20.9
48	Drainage Ditch 11	Wapsipinicon River	L	At mouth	35	82N	1E	24.3
49	Drainage Ditch 12	Wapsipinicon River	L	Road crossing, north line	19	82N	2E	9.14
50	Drainage Ditch 10	Drainage Ditch 12	L	Road crossing, center	21	82N	2E	7.45
51	Drainage Ditch 10	Drainage Ditch 12	L	At mouth	19	82N	2E	15.8
52	Drainage Ditch 12	Wapsipinicon River	L	Road crossing, west line	30	82N	2E	32.6
53	Drainage Ditch 12	Wapsipinicon River	L	At mouth	11	81N	1E	38.2
54	Wapsipinicon River	Mississippi River	R	Road crossing, south 1/2	11	81N	1E	1927
55	Calamus Creek	Wapsipinicon River	L	Road crossing, west line	10	81N	2E	10.4
56	Calamus Creek	Wapsipinicon River	L	At mouth	13	81N	1E	18.1
57	Yankee Run	Wapsipinicon River	R	West (county) line	7	81N	1E	31.6
58	Lizard Creek	Yankee Run	R	West (county) line	19	81N	1E	10.7
59	Lizard Creek	Yankee Run	R	At mouth	16	81N	1E	14.6
60	Yankee Run	Wapsipinicon River	R	Below Lizard Creek	16	81N	1E	50.1
61	Yankee Run	Wapsipinicon River	R	At mouth	26	81N	1E	56.4
62	Wapsipinicon River	Mississippi River	R	Below Yankee Run	26	81N	1E	2009
63	Unnamed creek	Rock Creek	L	At mouth	6	80N	1E	7.13
64	Rock Creek	Wapsipinicon River	R	At mouth	36	81N	1E	39
65	Wapsipinicon River	Mississippi River	R	Road crossing, west line	6	80N	2E	2053
66	Wapsipinicon River	Mississippi River	R	Below Mud Creek	6	80N	3E	2224
67	Barber Creek	Wapsipinicon River	L	At mouth	3	80N	3E	15.4
68	Silver Creek	Wapsipinicon River	L	Road crossing, NW1/4	15	82N	3E	9.08
69	Negro Creek	Silver Creek	R	Road crossing, west line	29	82N	3E	6.18
70	Negro Creek	Silver Creek	R	At mouth	22	82N	3E	14.6
71	Silver Creek	Wapsipinicon River	L	Below Negro Creek	22	82N	3E	29.8

72	Silver Creek	Wapsipinicon River	L	North line	11	81N	3E	41.1
73	Clear Creek	Silver Creek	R	At mouth	23	81N	3E	10.2
74	Silver Creek	Wapsipinicon River	L	Road crossing, NE¼	23	81N	3E	56.5
75	Silver Creek	Wapsipinicon River	L	At mouth	6	80N	4E	62.8
76	Wapsipinicon River	Mississippi River	R	Road crossing, NE¼ (gage near Dewitt)	6	80N	4E	2330
77	Ames Creek	Wapsipinicon River	L	North line	9	81N	4E	13.8
78	Ames Creek	Wapsipinicon River	L	Road crossing, west line	21	81N	4E	22.3
79	Ames Creek	Wapsipinicon River	L	At mouth	4	80N	4E	29
80	Brophys Creek	Wapsipinicon River	L	Road crossing, west line	10	82N	5E	10.4
81	Brophys Creek	Wapsipinicon River	L	Road crossing, north line	22	82N	5E	19.8
82	Unnamed creek	Brophys Creek	L	At mouth	34	82N	5E	6.43
83	Brophys Creek	Wapsipinicon River	L	Road crossing, north line	4	81N	5E	34.7
84	Cherry Creek	Brophys Creek	R	North line	36	82N	4E	9.83
85	Unnamed creek	Cherry Creek	R	At mouth	36	82N	4E	7.33
86	Cherry Creek	Brophys Creek	R	Road crossing, north line	1	81N	4E	21.3
87	Cherry Creek	Brophys Creek	R	At mouth	17	81N	5E	30.3
88	Brophys Creek	Wapsipinicon River	L	Road crossing, north line	20	81N	5E	72.8
89	Brophys Creek	Wapsipinicon River	L	At mouth	1	80N	4E	85.7
90	Wapsipinicon River	Mississippi River	R	Below Brophys Creek	1	80N	4E	2482
91	Wapsipinicon River	Mississippi River	R	At mouth	13	80N	5E	2540

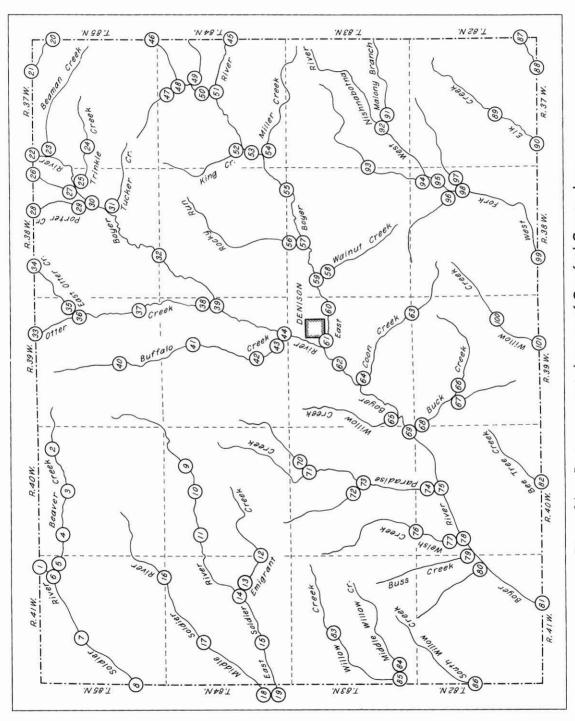


Figure 24. Drainage area index map of Crawford County, lowa.

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to		December	Sec	Т	R	(sq mi)
No.	Soldier River	Missour River	<u> </u>	Description		OENI	41W	<u>59.1</u>
1	Beaver Creek	Soldier River	L	North (county) line	1	85N		
2	Beaver Creek	Soldier River	L	Road crossing, west line	1	85N	40W	4.89
3	Beaver Creek	Soldier River	L	Road crossing, west line	10	85N	40W	14.2
4	Beaver Creek	Soldier River	L	Road crossing, west line	8	85N	40W	23.6
5	Beaver Creek	Soldier River	L	At mouth	1	85N	41W	30.2
6	Soldier River	Missour River	L	Below Beaver Creek	1	85N	41W	90.5
7	Soldier River	Missour River	L	Road crossing, north line	16	85N	41W	105
8	Soldier River	Missour River	L	West (county) line	30	85N	41W	117
9	East Soldier River	Soldier River	L	Road crossing, north line	11	84N	40W	10.4
10	East Soldier River	Soldier River	L	Road crossing, west line	10	84N	40W	18.5
11	East Soldier River	Soldier River	L	Road crossing, west line	8	84N	40W	27.8
12	Emigrant Creek	East Soldier River	L	Road crossing, west line	30	84N	40W	7.74
13	Emigrant Creek	East Soldier River	L	At mouth	23	84N	41W	13.6
14	East Soldier River	Soldier River	L	Below Emigrant Creek	23	84N	41W	49.6
15	East Soldier River	Soldier River	L	Road crossing, west line	28	84N	41W	56.7
16	Middle Soldier River	East Soldier River	R	Road crossing, NW corner	1	84N	41W	6.9
17	Middle Soldier River	East Soldier River	R	Road crossing, west line	9	84N	41W	16.1
18	Middle Soldier River	East Soldier River	R	At mouth	36	84N	42W	24.6
19	East Soldier River	Soldier River	L	Below Middle Soldier River	36	84N	42W	91.1
20	Unnamed creek	Boyer River	L	Road crossing, east (county) line	1	85N	37W	7.73
21	Unnamed creek	Boyer River	L	Road crossing, north (county) line	2	85N	37W	11
22	Boyer River	Missour River	L	Road crossing, north (county) line	6	85N	37W	210
23	Beaman Creek	Boyer River	L	At mouth	6	85N	37W	8.48
24	Trinkle Creek	Boyer River	L	Road crossing, west line	17	85N	37W	7.93
25	Trinkle Creek	Boyer River	L	At mouth	14	85N	38W	11
26	Wheeler Creek	Boyer River	R	Road crossing, north (county) line	1	85N	38W	5.68
27	Wheeler Creek	Boyer River	R	At mouth	14	85N	38W	8.71
28	Porter Creek	Boyer River	R	North (county) line	3	85N	38W	12.9
29	Porter Creek	Boyer River	R	At mouth	14	85N	38W	17.1
30	Boyer River	Missour River	L	Below Porter Creek	14	85N	38W	259

31	Tucker Creek	Boyer River	L	At mouth	23	85N	38W	5.73
32	Boyer River	Missour River	L	North line	5	84N	38W	280
33	Otter Creek	Boyer River	R	Road crossing, north (county) line	2	85N	39W	5.48
34	East Otter Creek	Otter Creek	L	Road crossing, north (county) line	5	85N	38W	11
35	East Otter Creek	Otter Creek	L	At mouth	13	85N	39W	17.1
36	Otter Creek	Boyer River	R	Below East Otter Creek	13	85N	39W	28
37	Otter Creek	Boyer River	R	Road crossing, north line	36	85N	39W	37.2
38	Otter Creek	Boyer River	R	At mouth	13	84N	39W	45.5
39	Boyer River	Missour River	L	Below Otter Creek	13	84N	39W	338
40	Buffalo Creek	Boyer River	R	Road crossing, north line	28	85N	39W	6.94
41	Buffalo Creek	Boyer River	R	Road crossing, east 1/2	10	84N	39W	15.5
42	Buffalo Creek	Boyer River	R	Road crossing, west 1/2	27	84N	39W	23.9
43	Buffalo Creek	Boyer River	R	At mouth	35	84N	39W	31.6
44	Boyer River	Missour River	L	Below Buffalo Creek	35	84N	39W	380
45	East Boyer River	Boyer River	L	Road crossing, east (county) line	24	84N	37W	12.6
46	Unnamed creek	East Boyer River	R	North line	1	84N	37W	9.72
47	Unnamed creek	Unnamed creek	R	At mouth	10	84N	37W	8.11
48	Unnamed creek	East Boyer River	R	Below unnamed creek	10	84N	37W	24.5
49	Unnamed creek	Unnamed creek	L	At mouth	15	84N	37W	5.43
50	Unnamed creek	East Boyer River	R	At mouth	15	84N	37W	31
51	East Boyer River	Boyer River	L	Below unnamed creek	15	84N	37W	49.1
52	King Creek	East Boyer River	R	At mouth	30	84N	37W	6.1
53	East Boyer River	Boyer River	L	Road crossing, east 1/2	30	84N	37W	65.4
54	Miller Creek	East Boyer River	L	At mouth	30	84N	37W	10.1
55	East Boyer River	Boyer River	L	North line	2	83N	38W	81.3
56	Rocky Run	East Boyer River	R	At mouth	4	83N	38W	10.9
57	East Boyer River	Boyer River	L	Below Rocky Run	4	83N	38W	106
58	Walnut Creek	East Boyer River	L	At mouth	7	83N	38W	8.93
59	East Boyer River	Boyer River	L	Below Walnut Creek	7	83N	38W	120
60	East Boyer River	Boyer River	L	Road crossing, north 1/2 (gage near	13	83N	39W	127
61	East Boyer River	Boyer River	L	At mouth	10	83N	39W	131
62	Boyer River	Missour River	L	Road crossing, east 1/2 (gage near Dennison)	16	83N	39W	517
63	Coon Creek	Boyer River	L	Road crossing, north line	1	82N	39W	5.86
64	Coon Creek	Boyer River	L	At mouth	20	83N	39W	15.9
65	Willow Creek	Boyer River	R	At mouth	31	83N	39W	6.33

66	Buck Creek	Boyer River	L	Road crossing, north line	17	82N	39W	9.08
67	Unnamed creek	Buck Creek	L	At mouth	8	82N	39W	6.12
68	Buck Creek	Boyer River	L	At mouth	36	83N	40W	20.8
69	Boyer River	Missour River	L	Below Buck Creek	36	83N	40W	572
70	Unnamed creek	Paradise Creek	L	At mouth	3	83N	40W	6.68
71	Paradise Creek	Boyer River	R	Below unnamed creek	3	83N	40W	17.5
72	Unnamed creek	Paradise Creek	R	At mouth	22	83N	40W	7.78
73	Paradise Creek	Boyer River	R	Below unnamed creek	22	83N	40W	32
74	Paradise Creek	Boyer River	R	At mouth	10	82N	40W	37.9
75	Boyer River	Missour River	L	Below Paradise Creek	10	82N	40W	623
76	Welsh Creek	Boyer River	R	North line	5	82N	40W	8.4
77	Welsh Creek	Boyer River	R	At mouth	18	82N	40W	13.5
78	Boyer River	Missour River	L	Below Welsh Creek	18	82N	40W	646
79	Buss Creek	Boyer River	R	At mouth	18	82N	40W	5.57
80	Unnamed creek	Boyer River	R	At mouth	24	82N	41W	5.61
81	Boyer River	Missour River	L	South (county) line	34	82N	41W	678
82	Bee Tree Creek	Mill Creek	R	Road crossing, south (county) line	34	82N	40W	6.21
83	Willow Creek	Boyer River	R	Road crossing, north line	16	83N	41W	7.11
84	Middle Willow Creek	Willow Creek	L	At mouth	31	83N	41W	8.56
85	Willow Creek	Boyer River	R	Below Middle Willow Creek	31	83N	41W	22.1
86	South Willow Creek	Willow Creek	L	Road crossing, west (county) line	18	82N	41W	8.66
87	West Nishnabotna River	Nishnabotna River	R	Road crossing, east (county) line	36	82N	37W	63.4
88	West Nishnabotna River	Nishnabotna River	R	Road crossing, south (county) line	35	82N	37W	70.6
89	Elk Creek	West Nishnabotna River	R	Road crossing, north line	28	82N	37W	9.57
90	Elk Creek	West Nishnabotna River	R	South (county) line	32	82N	37W	17.1
91	Malony Branch	West Fork West Nishnabotna River	L	At mouth	29	83N	37W	10.3
92	West Fork West Nishnabotna River	West Nishnabotna River	R	Below Malony Branch	29	83N	37W	20.7
93	Unnamed creek	West Fork West Nishnabotna River	R	Road crossing, NW corner	30	83N	37W	6.86
94	Unnamed creek	West Fork West Nishnabotna River	R	At mouth	1	82N	38W	14.2
95	West Fork West Nishnabotna River	West Nishnabotna River	R	Road crossing, north line	12	82N	38W	40.3

96	Unnamed creek	West Fork West Nishnabotna River	R	At mouth	11	82N	38W	6.27
97	Unnamed creek	West Fork West Nishnabotna River	L	At mouth	14	82N	38W	5.71
98	West Fork West Nishnabotna River	West Nishnabotna River	R	Below unnamed creek	14	82N	38W	54.6
99	West Fork West Nishnabotna River	West Nishnabotna River	R	Road crossing, south (county) line	32	82N	38W	71.5
100	Willow Creek	West Fork West Nishnabotna River	R	Road crossing, north line	26	82N	39W	7.25
101	Willow Creek	West Fork West Nishnabotna River	R	South (county) line	34	82N	39W	11.5

DRAINAGE AREAS OF IOWA STREAMS

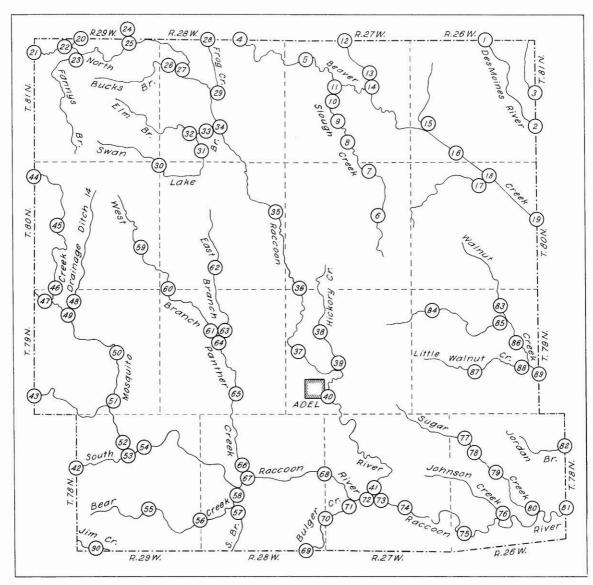


Figure 25. Drainage area index map of Dallas County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 25 Dallas County

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to			Sec	Т	R	(sq mi)
No.				Description				` ' '
1	Des Moines River	Mississippi River	R	North (county) line	3	81N	26W	5677
2	Des Moines River	Mississippi River	R	West (county) line	25	81N	26W	5695
3	Mosquito Creek	Des Moines River	L	Road crossing, east (county) line	13	81N	26W	2.8
4	Beaver Creek	Des Moines River	R	North (county) line	3	81N	28W	183
5	Beaver Creek	Des Moines River	R	Road crossing, NW corner	8	81N	27W	193
6	Slough Creek	Beaver Creek	R	Road crossing, center	14	80N	27W	5.58
7	Slough Creek	Beaver Creek	R	Road crossing, west line	2	80N	27W	13.5
8	Slough Creek	Beaver Creek	R	Road crossing, NW corner	34	81N	27W	22.4
9	Slough Creek	Beaver Creek	R	Road crossing, north line	28	81N	27W	30.3
10	Slough Creek	Beaver Creek	R	At mouth	16	81N	27W	35.8
11	Beaver Creek	Des Moines River	R	Below Slough Creek	16	81N	27W	235
12	Little Beaver Creek	Beaver Creek	L	North (county) line	4	81N	27W	28.4
13	Little Beaver Creek	Beaver Creek	L	At mouth	14	81N	27W	38.8
14	Beaver Creek	Des Moines River	R	Below Little Beaver Creek	14	81N	27W	276
15	Unnamed creek	Beaver Creek	L	At mouth	30	81N	26W	7.07
16	Beaver Creek	Des Moines River	R	Road crossing, west line	33	81N	26W	295
17	Unnamed creek	Beaver Creek	R	At mouth	3	80N	26W	8.94
18	Beaver Creek	Des Moines River	R	Below unnamed creek	3	80N	26W	312
19	Beaver Creek	Des Moines River	R	East (county) line	13	80N	26W	324
20	North Raccoon River	Raccoon River	L	North (county) line	5	81N	29W	2045
21	Greenbrier Creek	North Raccoon River	R	West (county) line	6	81N	29W	66.4
22	Greenbrier Creek	North Raccoon River	R	At mouth	5	81N	29W	69.1
23	Fannys Branch	North Raccoon River	R	At mouth	4	81N	29W	8.34
24	Snake Creek	North Raccoon River	L	At mouth	2	81N	29W	17.3
25	North Raccoon River	Raccoon River	L	Below Snake Creek	2	81N	29W	2150
26	Bucks Branch	North Raccoon River	R	At mouth	8	81N	28W	6.25
27	North Raccoon River	Raccoon River	L	Below Bucks Branch	8	81N	28W	2167
28	Frog Creek	North Raccoon River	L	North (county) line	4	81N	28W	8.22
29	Frog Creek	North Raccoon River	L	At mouth	16	81N	28W	15
30	Swan Lake Branch	North Raccoon River	R	Road crossing, west line	6	80N	28W	6.85
31	Swan Lake Branch	North Raccoon River	R	Road crossing, north line	33	81N	28W	14.6
32	Elm Branch	Swan Lake Branch	L	At mouth	28	81N	28W	9.3
33	Swan Lake Branch	North Raccoon River	R	At mouth	28	81N	28W	26.2
34	North Raccoon River	Raccoon River	L	Below Swan Lake Branch	28	81N	28W	2215

FINAL Drainage Areas of Iowa Streams.xls Table No. 25 Dallas County

35	North Raccoon River	Raccoon River	L	Road crossing, NE1/4	13	80N	28W	2229
36	North Raccoon River	Raccoon River	L	Road crossing, north 1/2	6	79N	27W	2242
37	North Raccoon River	Raccoon River	L	North line	19	79N	27W	2250
38	Hickory Creek	North Raccoon River	L	Road crossing, north line	17	79N	27W	5.34
39	Hickory Creek	North Raccoon River	L	At mouth	21	79N	27W	12.3
40	North Raccoon River	Raccoon River	L	Road crossing, NE1/4	32	79N	27W	2281
41	North Raccoon River	Raccoon River	L	At mouth	21	78N	27W	2298
42	South Raccoon River	Raccoon River	R	West (county) line	7	78N	29W	370
43	Middle Raccoon River	South Raccoon River	L	West (county) line	31	79N	29W	484
44	Mosquito Creek	Middle Raccoon River	L	West (county) line	6	80N	29W	58.3
45	Mosquito Creek	Middle Raccoon River	L	Road crossing, north line	20	80N	29W	65.8
46	Mosquito Creek	Middle Raccoon River	L	Road crossing, north line	6	79N	29W	74.5
47	Cass Creek	Mosquito Creek	R	At mouth	6	79N	29W	7.3
48	Drainage Ditch 14	Mosquito Creek	L	At mouth	8	79N	29W	9.96
49	Mosquito Creek	Middle Raccoon River	L	Below Drainage Ditch 14	8	79N	29W	95.9
50	Mosquito Creek	Middle Raccoon River	L	Road crossing, SE1/4	15	79N	29W	107
51	Mosquito Creek	Middle Raccoon River	L	At mouth	34	79N	29W	113
52	Middle Raccoon River	South Raccoon River	L	At mouth	9	78N	29W	609
53	South Raccoon River	Raccoon River	R	Below Middle Raccoon River	9	78N	29W	986
54	South Raccoon River	Raccoon River	R	Road crossing, SW¼ (gage near Redfield)	3	78N	29W	988
55	Bear Creek	South Raccoon River	R	Road crossing, south 1/2	22	78N	29W	8.02
56	Bear Creek	South Raccoon River	R	Road crossing, west line	30	78N	28W	16.5
57	South Branch Bear Creek	Bear Creek	R	At mouth	20	78N	28W	5.88
58	Bear Creek	South Raccoon River	R	At mouth	17	78N	28W	25.4
59	West Branch Panther Creek	Panther Creek	R	Road crossing, north line	25	80N	29W	7.41
60	West Branch Panther Creek	Panther Creek	R	Road crossing, north line	6	79N	28W	20.1
61	West Branch Panther Creek	Panther Creek	R	At mouth	16	79N	28W	29.6
62	East Branch Panther Creek	Panther Creek	L	Road crossing, north line	33	80N	28W	6.93
63	East Branch Panther Creek	Panther Creek	L	At mouth	16	79N	28W	15.3
64	Panther Creek	South Raccoon River	R	Below confluence East and West Branches	16	79N	28W	44.9
65	Panther Creek	South Raccoon River	R	Road crossing, north line	34	79N	28W	56
66	Panther Creek	South Raccoon River	R	At mouth	16	78N	28W	64.5
67	South Raccoon River	Raccoon River	R	Below Panther Creek	16	78N	28W	1100
68	South Raccoon River	Raccoon River	R	Road crossing, west line	18	78N	27W	1116
69	Bulger Creek	South Raccoon River	R	South (county) line	36	78N	28W	8.95
70	Bulger Creek	South Raccoon River	R	Road crossing, west line	30	78N	27W	16.6
71	Bulger Creek	South Raccoon River	R	At mouth	20	78N	27W	23.2

FINAL Drainage Areas of Iowa Streams.xls Table No. 25 Dallas County

72	South Raccoon River	Raccoon River	R	At mouth	21	78N	27W	1143
73	Raccoon River	Des Moines River	R	Below confluence North and South Raccoon Rivers	21	78N	27W	3440
74	Racoon River	Des Moines River	R	Road crossing, SW¼ (Gage at Van Meter)	22	78N	27W	3441
75	Raccoon River	Des Moines River	R	West line	32	78N	26W	3457
76	Johnson Creek	Raccoon River	L	At mouth	27	78N	26W	5.76
77	Sugar Creek	Raccoon River	L	Road crossing, SW1/4	5	78N	26W	6.93
78	Sugar Creek	Raccoon River	L	Road crossing, north line	8	78N	26W	13.3
79	Sugar Creek	Raccoon River	L	Road crossing, north 1/2	16	78N	26W	17.8
80	Sugar Creek	Raccoon River	L	At mouth	26	78N	26W	24.2
81	Raccoon River	Des Moines River	R	East (county) line	25	78N	26W	3498
82	Jordan Branch	Raccoon River	L	Road crossing, east (county) line	12	78N	26W	3.24
83	Walnut Creek	Raccoon River	L	Road crossing, north line	11	79N	26W	12.4
84	Unnamed creek	Walnut Creek	R	Road crossing, west line	5	79N	26W	6.12
85	Unnamed creek	Walnut Creek	R	At mouth	11	79N	26W	16.4
86	Walnut Creek	Raccoon River	L	Road crossing, west line	13	79N	26W	32.6
87	Little Walnut Creek	Walnut Creek	R	Road crossing, NW corner	27	79N	26W	8.1
88	Little Walnut Creek	Walnut Creek	R	At mouth	24	79N	26W	13.5
89	Walnut Creek	Raccoon River	L	Road crossing, east (county) line	25	79N	26W	48.3
90	Jim Creek	North Branch North River	L	Road crossing, west line	32	78N	29W	10.1

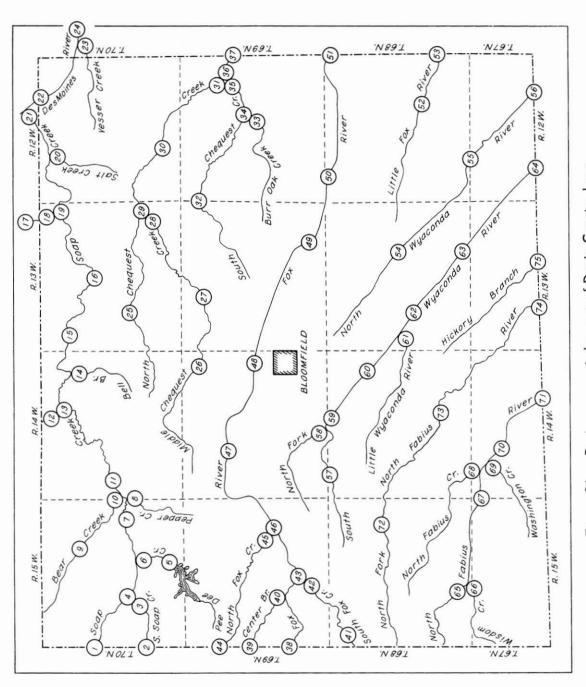


Figure 26. Drainage area index map of Davis County, lowa.

			Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Soap Creek	Des Moines River	R	West (county) line	18	70N	15W	51
2	South Soap Creek	Soap Creek	R	West (county) line	30	70N	15W	37.3
3	South Soap Creek	Soap Creek	R	At mouth	21	70N	15W	42
4	Soap Creek	Des Moines River	R	Below South Soap Creek	21	70N	15W	97.3
5	Pee Dee Creek	Soap Creek	R	At dam, NW¼ (gage, Lake Wapello near Drakesville)	34	70N	15W	7.75
6	Pee Dee Creek	Soap Creek	R	At mouth	22	70N	15W	10.7
7	Soap Creek	Des Moines River	R	Road crossing, W 1/2	24	70N	15W	114
8	Pepper Creek	Soap Creek	R	At mouth	24	70N	15W	5.71
9	Bear Creek	Soap Creek	L	West line	11	70N	15W	10.1
10	Bear Creek	Soap Creek	L	At mouth	19	70N	14W	15.8
11	Soap Creek	Des Moines River	R	Road crossing, NE1/4	19	70N	14W	136
12	Brush Creek	Soap Creek	L	At mouth	10	70N	14W	17.6
13	Soap Creek	Des Moines River	R	Below Brush Creek	10	70N	14W	168
14	Bell Branch	Soap Creek	R	At mouth	12	70N	14W	6.9
15	Soap Creek	Des Moines River	R	Road crossing, NE1/4	7	70N	13W	182
16	Soap Creek	Des Moines River	R	Road crossing, west line	15	70N	13W	191
17	Little Soap Creek	Soap Creek	L	Road crossing, west line	35	71N	13W	37.7
18	Little Soap Creek	Soap Creek	L	At mouth	1	70N	13W	42.4
19	Soap Creek	Des Moines River	R	Below Little Soap Creek	1	70N	13W	240
20	Salt Creek	Soap Creek	R	At mouth	4	70N	12W	7.69
21	Soap Creek	Des Moines River	R	At mouth	35	71N	12W	253
22	Des Moines River	Mississippi River	R	North (county) line	2	70N	12W	13722
23	Vesser Creek	Des Moines River	R	At mouth	7	70N	11W	7.23
24	Des Moines River	Mississippi River	R	Road crossing, NW1/4	17	70N	11W	13739
25	North Chequest Creek	Chequest Creek	L	Road crossing, south 1/2	20	70N	13W	5.37
26	Middle Chequest Creek	North Chequest Creek	R	Road crossing, south 1/2	1	69N	14W	9.32
27	Middle Chequest Creek	North Chequest Creek	R	Road crossing, SW1/4	4	69N	13W	15.3
28	Middle Chequest Creek	North Chequest Creek	R	At mouth	25	70N	13W	24.9
29	North Chequest Creek	Chequest Creek	L	Below Middle Chequest Creek	25	70N	13W	35
30	North Chequest Creek	Chequest Creek	L	Road crossing, NW1/4	33	70N	12W	41
31	North Chequest Creek	Chequest Creek	L	At mouth	12	69N	12W	53.2
32	South Chequest Creek	Chequest Creek	R	Road crossing, west line	6	69N	12W	10
33	Burr Oak Creek	South Chequest Creek	R	At mouth	15	69N	12W	11

34	South Chequest Creek	Chequest Creek	R	Below Burr Oak Creek	15	69N	12W	28.5
35	South Chequest Creek	Chequest Creek	R	At mouth	12	69N	12W	31.7
				Below confluence North				
36	Chequest Creek	Des Moines River	R	and South Chequest	12	69N	12W	85
				Creeks				
37	Chequest Creek	Des Moines River	R	East (county) line	12	69N	12W	85.5
38	Fox River	Mississippi River	R	West (county) line	30	69N	15W	10.3
39	Center Branch Fox River	Fox River	L	West (county) line	18	69N	15W	7.21
40	Center Branch Fox River	Fox River	L	At mouth	28	69N	15W	10.4
41	South Fox Creek	Fox River	R	Road crossing, south 1/2	6	68N	15W	8.97
42	South Fox Creek	Fox River	R	At mouth	28	69N	15W	15.5
43	Fox River	Mississippi River	R	Below South Fox Creek	28	69N	15W	40.2
44	North Fox Creek	Fox River	L	West (county) line	7	69N	15W	10.5
45	North Fox Creek	Fox River	L	At mouth	23	69N	15W	16.9
46	Fox River	Mississippi River	R	Below North Fox Creek	23	69N	15W	62
47	Fox River	Mississippi River	R	Road crossing, west line	9	69N	14W	75.5
48	Fox River	Mississippi River	R	Road crossing, north 1/2	24	69N	14W	87.7
49	Fox River	Mississippi River	R	Road crossing, NW1/4	35	69N	13W	103
50	Fox River	Mississippi River	R	Road crossing, west line	5	68N	12W	117
51	Fox River	Mississippi River	R	East (county) line	1	68N	12W	134
52	Little Fox River	Fox River	R	Road crossing, NW corner	26	68N	12W	7.53
52 53	Little Fox River Little Fox River	Fox River Fox River	R R	Road crossing, NW corner East (county) line	26 25	68N 68N	12W 12W	7.53 16.9
				G.				
53	Little Fox River	Fox River	R	East (county) line	25	68N	12W	16.9
53 54	Little Fox River North Wyaconda River	Fox River Wyaconda River	R L	East (county) line West line	25 23	68N 68N	12W 13W	16.9 6.86
53 54 55	Little Fox River North Wyaconda River North Wyaconda River	Fox River Wyaconda River Wyaconda River	R L L	East (county) line West line Road crossing, north line	25 23 5	68N 68N 67N	12W 13W 12W	16.9 6.86 17
53 54 55 56 57	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River	R L L R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line	25 23 5 14 5	68N 68N 67N 67N 68N	12W 13W 12W 12W 14W	16.9 6.86 17 25 4.69
53 54 55 56 57 58	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River	R L L R L	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth	25 23 5 14 5	68N 68N 67N 67N 68N	12W 13W 12W 12W 14W	16.9 6.86 17 25 4.69 6.41
53 54 55 56 57 58	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River	R L L R L R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW1/4	25 23 5 14 5 3	68N 68N 67N 67N 68N 68N	12W 13W 12W 12W 14W 14W	16.9 6.86 17 25 4.69 6.41 14.2
53 54 55 56 57 58 59 60	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River	R L L R L R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW1/4 Road crossing, SW1/4	25 23 5 14 5 3	68N 68N 67N 67N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W	16.9 6.86 17 25 4.69 6.41 14.2 19.1
53 54 55 56 57 58 59 60 61	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River	R L L R L R R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth	25 23 5 14 5 3 3 12	68N 68N 67N 67N 68N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W 14W 13W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3
53 54 55 56 57 58 59 60 61 62	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River	R L L R R R R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2	25 23 5 14 5 3 3 12 19 20	68N 68N 67N 67N 68N 68N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W 14W 13W 13W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4
53 54 55 56 57 58 59 60 61 62 63	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River South Wyaconda River South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River	R L L R R R R R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line	25 23 5 14 5 3 12 19 20 35	68N 67N 67N 68N 68N 68N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W 13W 13W 13W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3
53 54 55 56 57 58 59 60 61 62 63 64	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River Wyaconda River	R L L R R R R R R R R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line Road crossing, state line	25 23 5 14 5 3 3 12 19 20 35 17	68N 68N 67N 68N 68N 68N 68N 68N 68N 68N 67N	12W 13W 12W 12W 14W 14W 14W 13W 13W 13W 12W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3 53.1
53 54 55 56 57 58 59 60 61 62 63 64 65	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River North Fabius River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River Fabius River	R L L L R R R R R R L	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line Road crossing, state line Road crossing, center	25 23 5 14 5 3 12 19 20 35 17 33	68N 68N 67N 68N 68N 68N 68N 68N 68N 67N 68N	12W 13W 12W 14W 14W 14W 14W 13W 13W 13W 12W 15W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3 53.1 10.8
53 54 55 56 57 58 59 60 61 62 63 64 65 66	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River North Fabius River Wisdom Creek	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River Fabius River North Fabius River	R L L R R R R R R L R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line Road crossing, state line Road crossing, center At mouth	25 23 5 14 5 3 12 19 20 35 17 33 33	68N 68N 67N 68N 68N 68N 68N 68N 68N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W 13W 13W 13W 12W 15W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3 53.1 10.8 6.12
53 54 55 56 57 58 59 60 61 62 63 64 65 66 67	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River North Fabius River Wisdom Creek North Fabius River	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River Fabius River North Fabius River Fabius River	RLLLR L RRRRRRLRL	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line Road crossing, state line Road crossing, center At mouth Road crossing, west line	25 23 5 14 5 3 12 19 20 35 17 33 33 6	68N 67N 67N 68N 68N 68N 68N 68N 67N 68N 68N 67N	12W 13W 12W 12W 14W 14W 14W 13W 13W 13W 12W 15W 15W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3 53.1 10.8 6.12 25.6
53 54 55 56 57 58 59 60 61 62 63 64 65 66	Little Fox River North Wyaconda River North Wyaconda River North Wyaconda River South Wyaconda River North Fork South Wyaconda River South Wyaconda River South Wyaconda River Little Wyaconda River South Wyaconda River North Fabius River Wisdom Creek	Fox River Wyaconda River Wyaconda River Wyaconda River Wyaconda River South Wyaconda River Wyaconda River Wyaconda River South Wyaconda River South Wyaconda River Wyaconda River Wyaconda River Wyaconda River Fabius River North Fabius River	R L L R R R R R R L R	East (county) line West line Road crossing, north line South (state) line Road crossing, west line At mouth Road crossing, NW¼ Road crossing, SW¼ At mouth Road crossing, south 1/2 West line Road crossing, state line Road crossing, center At mouth	25 23 5 14 5 3 12 19 20 35 17 33 33	68N 68N 67N 68N 68N 68N 68N 68N 68N 68N 68N 68N	12W 13W 12W 12W 14W 14W 14W 13W 13W 13W 12W 15W	16.9 6.86 17 25 4.69 6.41 14.2 19.1 10.3 36.4 45.3 53.1 10.8 6.12

70	North Fabius River	Fabius River	L	Road crossing, west line	9	67N	14W	42.2
71	North Fabius River	Fabius River	L	State line	15	67N	14W	49.1
72	North Fork North Fabius River	North Fabius River	L	Road crossing, west line	13	68N	15W	11.6
73	North Fork North Fabius River	North Fabius River	L	Road crossing, south 1/2	27	68N	14W	24.2
74	North Fork North Fabius River	North Fabius River	L	Road crossing, state line	17	67N	13W	38.2
75	Hickory Branch	North Fork North Fabius River	L	State line	15	67N	13W	7.47

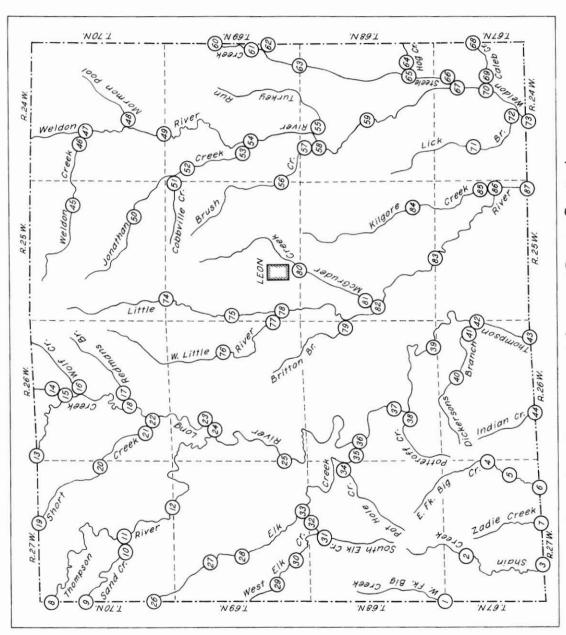


Figure 27. Drainage area index map of Decatur County, lowa.

			Bank	Point of determination of drainage area				Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)	
1	West Fork Big Creek	Big Creek	R	Road crossing, west (county) line	31	68N	27W	5.29	
2	Shain Creek	West Fork Big Creek	L	Road crossing, north line	8	67N	27W	4.68	
3	Shain Creek	West Fork Big Creek	L	State line	29	67N	27W	11.4	
4	East Fork Big Creek	Big Creek	L	Road crossing, north line	13	67N	27W	4.8	
5	East Fork Big Creek	Big Creek	L	Road crossing, north line	24	67N	27W	10.6	
6	East Fork Big Creek	Big Creek	L	Road crossing, state line	26	67N	27W	13.4	
7	Zadie Creek	East Fork Big Creek	R	Road crossing, state line	27	67N	27W	3.58	
8	Thompson River	Grand River	L	West (county) line	6	70N	27W	393	
9	Sand Creek	Thompson River	R	West (county) line	18	70N	27W	26.1	
10	Sand Creek	Thompson River	R	At mouth	21	70N	27W	32.3	
11	Thompson River	Grand River	L	Below Sand Creek	21	70N	27W	438	
12	Thompson River	Grand River	L	North line	2	69N	27W	446	
13	Long Creek	Thompson River	L	North (county) line	6	70N	26W	51.2	
14	Bee Creek	Long Creek	Ĺ	At mouth	9	70N	26W	21.2	
15	Long Creek	Thompson River	Ĺ	Below Bee Creek	9	70N	26W	79.6	
16	Wolf Creek	Long Creek	Ĺ	At mouth	9	70N	26W	8.33	
17	Redmans Branch	Long Creek	L	At mouth	28	70N	26W	6.04	
18	Long Creek	Thompson River	Ĺ	Below Redmans Branch	28	70N	26W	98.9	
19	Short Creek	Long Creek	R	North (county) line	3	70N	27W	4.38	
20	Short Creek	Long Creek	R	Road crossing, SE¼	13	70N	27W	9.66	
21	Short Creek	Long Creek	R	At mouth	32	70N	26W	16.9	
22	Long Creek	Thompson River	L	Below Short Creek	32	70N	26W	117	
23	Long Creek	Thompson River	L	At mouth	8	69N	26W	124	
24	Thompson River	Grand River	Ĺ	Below Long Creek	8	69N	26W	583	
25	Thompson River	Grand River	L L	Road crossing, SE1/4	25	69N	27W	597	
26	Elk Creek	Thompson River	R	Road crossing, west (county) line	31	70N	27W	7.27	
27	Elk Creek	Thompson River	R	Road crossing, E 1/2	8	69N	27W	13.3	
28	Elk Creek	Thompson River	R	North line	20	69N	27W	19.1	
29	West Elk Creek	Elk Creek	R	West line	29	69N	27W	11.7	
30	West Elk Creek	Elk Creek	R	Road crossing, NE1/4	32	69N	27W	18.9	
31	South Elk Creek	West Elk Creek	R	At mouth	3	68N	27W	6.89	
32	West Elk Creek	Elk Creek	R	At mouth	34	69N	27W	28.6	
33	Elk Creek	Thompson River	R	Below West Elk Creek	34	69N	27W	52.3	
34	Pot Hole Creek	Elk Creek	R	At mouth	12	68N	27W	8.62	
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35	Elk Creek	Thompson River	R	At mouth	18	68N	26W	66.1
36	Thompson River	Grand River	L	Below Elk Creek	18	68N	26W	675
37	Thompson River	Grand River	L	North line	28	68N	26W	684
38	Potteroff Creek	Thompson River	R	At mouth	28	68N	26W	4.9
39	Thompson River	Grand River	L	Road crossing, SE¼ (gage at Davis City)	35	68N	26W	701
40	Dickersons Branch	Thompson River	R	Road crossing, SE1/4	3	67N	26W	5.55
41	Dickersons Branch	Thompson River	R	At mouth	12	67N	26W	12.2
42	Thompson River	Grand River	L	Below Dickersons Branch	12	67N	26W	718
43	Thompson River	Grand River	L	State line	25	67N	26W	729
44	Indian Creek	Thompson River	R	Road crossing, state line	28	67N	26W	5.27
45	Weldon Creek	Weldon River	R	Road crossing, west line	12	70N	25W	8.6
46	Weldon Creek	Weldon River	R	At mouth	16	70N	24W	14
47	Weldon River	Thompson River	L	Below Weldon Creek	16	70N	24W	20.8
48	Mormon Pool	Weldon River	L	At mouth	28	70N	24W	5.08
49	Weldon River	Thompson River	L	Road crossing, north line	4	69N	24W	36.5
50	Jonathan Creek	Weldon River	R	Road crossing, center	26	70N	25W	8.15
51	Cobbville Creek	Jonathan Creek	R	At mouth	6	69N	24W	5.08
52	Jonathan Creek	Weldon River	R	North line	7	69N	24W	19.2
53	Jonathan Creek	Weldon River	R	At mouth	20	69N	24W	24.5
54	Weldon River	Thompson River	L	Below Jonathan Creek	20	69N	24W	72.4
55	Turkey Run	Weldon River	L	At mouth	5	68N	24W	5.73
56	Brush Creek	Weldon River	R	West line	31	69N	24W	8.03
57	Brush Creek	Weldon River	R	At mouth	5	68N	24W	16.3
58	Weldon River	Thompson River	L	Below Brush Creek	5	68N	24W	99
59	Weldon River	Thompson River	L	North line	21	68N	24W	107
60	Steele Creek	Weldon River	L	East (county) line	13	69N	24W	15.6
61	Steele Creek	Weldon River	L	North line	25	69N	24W	22.6
62	Hunter Creek	Steele Creek	L	At mouth	25	69N	24W	8.12
63	Steele Creek	Weldon River	L	NW corner	1	68N	24W	36.4
64	Hog Creek	Steele Creek	L	At mouth	26	68N	24W	7.78
65	Steele Creek	Weldon River	L	Below Hog Creek	26	68N	24W	53.1
66	Steele Creek	Weldon River	L	At mouth	11	67N	24W	56.9
67	Weldon River	Thompson River	L	Below Steele Creek	11	67N	24W	174
68	Caleb Creek	Weldon River	L	East (county) line	12	67N	24W	45.9
69	Caleb Creek	Weldon River	L	At mouth	15	67N	24W	49.4
70	Weldon River	Thompson River	L	Below Caleb Creek	15	67N	24W	226
71	Lick Branch	Weldon River	R	North line	17	67N	24W	5.16
72	Lick Branch	Weldon River	R	At mouth	21	69N	24W	11.6
73	Weldon River	Thompson River	L	State line	28	69N	24W	240
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74	Little River	Weldon River	R	Road crossing, north line	6	69N	25W	7.4
75	Little River	Weldon River	R	Road crossing, north line	19	69N	25W	17.3
76	West Little River	Little River	R	Road crossing, E 1/2	14	69N	26W	6.81
77	West Little River	Little River	R	At mouth	31	69N	25W	13.6
78	Little River	Weldon River	R	Below West Little River	31	69N	25W	35.3
79	Britton Branch	Little River	R	At mouth	18	68N	25W	6.63
80	McGruder Creek	Little River	L	North line	4	68N	25W	10.1
81	McGruder Creek	Little River	L	At mouth	19	68N	25W	14.2
82	Little River	Weldon River	R	Below McGruder Creek	19	68N	25W	62.6
83	Little River	Weldon River	R	North line	4	67N	25W	75
84	Kilgore Creek	Little River	L	Road crossing, north line	35	68N	25W	9.15
85	Kilgore Creek	Little River	L	At mouth	13	67N	25W	16.1
86	Little River	Weldon River	R	Below Kilgore Creek	13	67N	25W	99.2
87	Little River	Weldon River	R	Road crossing, state line	25	67N	25W	102

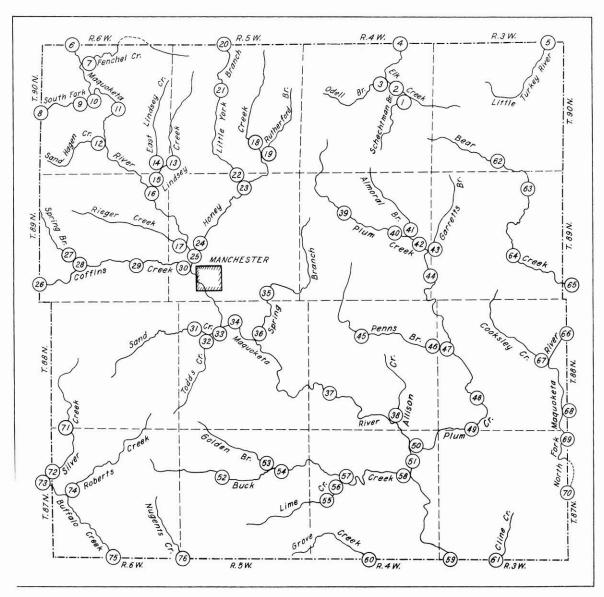


Figure 28. Drainage area index map of Delaware County, Iowa.

	N	- "	Bank	Point of determination of dra	ainage a	rea		Drainage area (sq mi) 7.13 14.3 7.66 26.7 9.22 42.6 12.8
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	
1	Schechtman Branch	Elk Creek	L	At mouth	14	90N	4W	7.13
2	Elk Creek	Turkey River	R	North line	14	90N	4W	14.3
3	Odell Branch	Elk Creek	L	At mouth	10	90N	4W	7.66
4	Elk Creek	Turkey River	R	North (county) line	2	90N	4W	26.7
5	Little Turkey River	Turkey River	R	North (county) line	1	90N	3W	9.22
6	Maquoketa River	Mississippi River	R	Road crossing, north (county) line	5	90N	6W	42.6
7	Fenchel Creek	Maquoketa River	L	At mouth	5	90N	6W	12.8
8	South Fork Maquoketa River	Maquoketa River	R	Road crossing, west (county) line	19	90N	6W	52
9	South Fork Maquoketa River	Maquoketa River	R	At mouth	16	90N	6W	56.7
10	Maquoketa River	Mississippi River	R	Below South Fork Maguoketa River	16	90N	6W	118
11	Maquoketa River	Mississippi River	R	Road crossing, north line	22	90N	6W	120
12	Sand Hagen Creek	Maquoketa River	R	At mouth	28	90N	6W	6.98
13	Lindsey Creek	Maquoketa River	L	Road crossing, west 1/2	31	90N	5W	6.16
14	East Lindsey Creek	Lindsey Creek	R	At mouth	1	89N	6W	6.67
15	Lindsey Creek	Maquoketa River	L	At mouth	1	89N	6W	15.2
16	Maquoketa River	Mississippi River	R	Road crossing, SW1/4	1	89N	6W	153
17	Rieger Creek	Maquoketa River	R	At mouth	19	89N	5W	5.62
18	Honey Creek	Maquoketa River	L	Road crossing, west line	26	90N	5W	6.22
19	Rutherford Branch	Honey Creek	L	At mouth	26	90N	5W	5.96
20	Little York Branch	Honey Creek	R	Road crossing, north (county) line	4	90N	5W	4.38
21	Little York Branch	Honey Creek	R	Road crossing, NW1/4	16	90N	5W	10.7
22	Little York Branch	Honey Creek	R	At mouth	3	89N	5W	18.9
23	Honey Creek	Maquoketa River	L	Below Little York Branch	3	89N	5W	36.7
24	Honey Creek	Maquoketa River	L	At mouth	20	89N	5W	47.8
25	Maquoketa River	Mississippi River	R	Below Honey Creek	20	89N	5W	213
26	Coffins Creek	Maquoketa River	R	West (county) line	31	89N	6W	23.8
27	Spring Branch	Coffins Creek	L	At mouth	29	89N	6W	8.54
28	Coffins Creek	Maquoketa River	R	Below Spring Branch	29	89N	6W	39.2
29	Coffins Creek	Maquoketa River	R	Road crossing, center	26	89N	6W	48.6
30	Coffins Creek	Maquoketa River	R	At mouth	30	89N	5W	54.7
31	Sand Creek	Maquoketa River	R	Road crossing, west line	8	88N	5W	12.3
32	Todds Creek	Sand Creek	R	At mouth	8	88N	5W	11.8

33	Sand Creek	Maquoketa River	R	At mouth	9	88N	5W	24.7
34	Maquoketa River	Mississippi River	R	Gage near Manchester, NE ¹ / ₄	9	88N	5W	305
35	Spring Branch	Maquoketa River	L	Road crossing, center	35	89N	5W	10.9
36	Spring Branch	Maquoketa River	L	At mouth Road crossing, NW1/4	10	88N	5W	18.8
37	Maquoketa River	Mississippi River	R	(discontinued gage near Delhi)	29	88N	4W	347
38	Allison Creek	Maquoketa River	L	At mouth	34	88N	4W	8.07
39	Plum Creek	Maquoketa River	L	SW corner	9	89N	4W	9.62
40	Plum Creek	Maquoketa River	L	Road crossing, west line	24	89N	4W	16.6
41	Almoral Branch	Plum Creek	L	At mouth	24	89N	4W	6.86
42	Plum Creek	Maquoketa River	L	Road crossing, west 1/2	24	89N	4W	25
43	Garretts Branch	Plum Creek	L	At mouth	24	89N	4W	8.1
44	Plum Creek	Maquoketa River	L	Road crossing, west line	30	89N	3W	37.9
45	Penns Branch	Plum Creek	R	Road crossing, center	9	88N	4W	6.53
46	Penns Branch	Plum Creek	R	At mouth	18	88N	3W	16.9
47	Plum Creek	Maquoketa River	L	Below Penns Branch	18	88N	3W	65.5
48	Plum Creek	Maquoketa River	L	Road crossing, east 1/2	29	88N	3W	74.3
49	Plum Creek	Maquoketa River	L	Road crossing, north line	5	87N	3W	81.9
50	Plum Creek	Maquoketa River	L	At mouth	11	87N	4W	88.8
51	Maquoketa River	Mississippi River	R	Road crossing, NE1/4	11	87N	4W	454
52	Buck Creek	Maquoketa River	R	Road crossing, west line	16	87N	5W	12.4
53	Golden Branch	Buck Creek	L	At mouth	11	87N	5W	5.52
54	Buck Creek	Maquoketa River	R	Road crossing, SE1/4	11	87N	5W	23
55	Lime Creek	Buck Creek	R	Road crossing, NE1/4	19	87N	4W	7.27
56	Lime Creek	Buck Creek	R	At mouth	17	87N	4W	13.4
57	Buck Creek	Maquoketa River	R	Below Lime Creek	17	87N	4W	44
58	Buck Creek	Maquoketa River	R	At mouth	11	87N	4W	51.9
59	Maquoketa River	Mississippi River	R	South (county) line	31	87N	3W	526
60	Grove Creek	Silver Creek	L	Road crossing, south (county) line	34	87N	4W	8.02
61	Cline Creek	Maquoketa River	L	Road crossing, south (county) line	33	87N	3W	5.46
62	Bear Creek	North Fork Maquoketa River	R	Road crossing, west line	34	90N	3W	10.2
63	Bear Creek	North Fork Maquoketa River	R	North line	11	89N	3W	19.4
64	Bear Creek	North Fork Maquoketa River	R	North line	27	89N	3W	29.5
65	Bear Creek	North Fork Maquoketa River	R	At mouth	31	89N	2W	37
66	North Fork Maquoketa River	Maquoketa River	L	East (county) line	12	88N	3W	125
67	Cooksley Creek	North Fork Maquoketa River	R	At mouth	13	88N	3W	9.97
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68	Durion Branch	North Fork Maquoketa River	L	At mouth	36	88N	3W	10.5
69	North Fork Maquoketa River	Maquoketa River	L	East (county) line	1	87N	3W	158
70	North Fork Maquoketa River	Maquoketa River	L	East (county) line	13	87N	3W	168
71	Silver Creek	Buffalo Creek	L	Road crossing, north line	6	87N	6W	7.55
72	Silver Creek	Buffalo Creek	L	At mouth	13	87N	7W	15
73	Buffalo Creek	Wapsipinicon River	L	Below Silver Creek	13	87N	7W	122
74	Roberts Creek	Buffalo Creek	L	At mouth	19	87N	6W	7.41
75	Buffalo Creek	Wapsipinicon River	L	Road crossing, south (county) line	33	87N	6W	142
76	Nugents Creek	Buffalo Creek	L	Road crossing, south (county) line	31	87N	5W	5.38

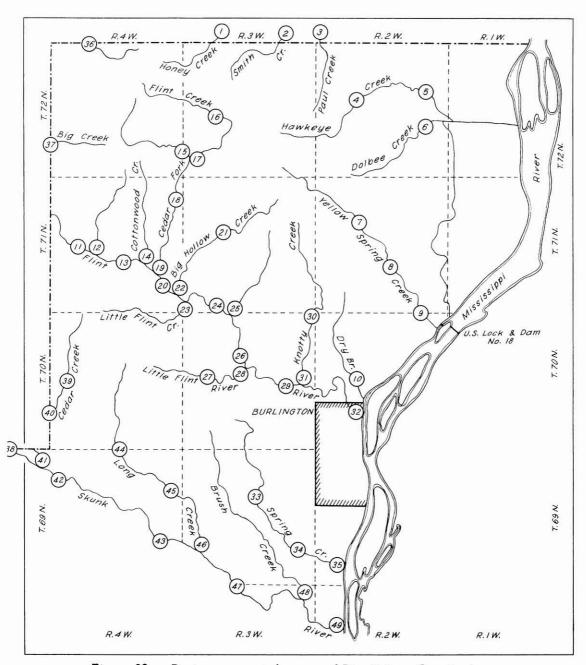


Figure 29. Drainage area index map of Des Moines County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 29 Des Moines County

			Bank	Point of determination of dra	Point of determination of drainage area			Drainage area (sq mi) 6.47 7.93 8.62 6.87 15 8.73 10.8 20.4 27 8.21 6.52 7.75 23.4 4.58 8.97 4.88 14.1 26.9 31.6 63.3 6.1 14.7 10.4 93.4 5.49 107 8.34 12.6 125 9.8
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Honey Creek	Otter Creek	R	Road crossing, NE corner	32	73N	3W	6.47
2	Smith Creek	Iowa River	R	Road crossing, west line	36	73N	3W	7.93
3	Paul Creek	Smith Creek	R	At mouth	31	73N	2W	8.62
4	Hawkeye Creek	Mississippi River	R	Road crossing, east 1/2	17	72N	2W	6.87
5	Hawkeye Creek	Mississippi River	R	Road crossing, west line	13	72N	2W	15
6	Dolbee Creek	Mississippi River	R	Road crossing, SW1/4	24	72N	2W	8.73
7	Yellow Spring Creek	Mississippi River	R	North line	16	71N	2W	10.8
8	Yellow Spring Creek	Mississippi River	R	Road crossing, south 1/2	22	71N	2W	20.4
9	Yellow Spring Creek	Mississippi River	R	Road crossing, north line	2	70N	2W	27
10	Dry Branch	Mississippi River	R	Road crossing, NW1/4	21	70N	2W	8.21
11	Flint River	Mississippi River	R	Road crossing, north line	20	71N	4W	6.52
12	Unnamed creek	Flint River	L	At mouth	21	71N	4W	7.75
13	Flint River	Mississippi River	R	Road crossing, SW1/4	22	71N	4W	
14	Cottonwood Creek	Flint River	L	At mouth	23	71N	4W	
15	Cedar Fork	Flint River	L	Road crossing, north line	31	72N	3W	
16	Flint Creek	Cedar Fork	L	Road crossing, north 1/2	20	72N	3W	
17	Flint Creek	Cedar Fork	L	At mouth	31	72N	3W	
18	Cedar Fork	Flint River	L	Road crossing, north line	12	71N	4W	
19	Cedar Fork	Flint River	L	At mouth	26	71N	4W	
20	Flint River	Mississippi River	R	Road crossing, west 1/2	25	71N	4W	
21	Big Hollow Creek	Flint River	L	Road crossing, NE1/4	17	71N	3W	
22	Big Hollow Creek	Flint River	L	At mouth	25	71N	4W	
23	Little Flint Creek	Flint River	R	At mouth	31	71N	3W	
24	Flint River	Mississippi River	R	Road crossing, SE1/4	32	71N	3W	
25	Unnamed creek	Flint River	L	At mouth	32	71N	3W	
26	Flint River	Mississippi River	R	Road crossing, NE1/4	16	70N	3W	
27	Little Flint River	Flint River	R	Road crossing, SW1/4	17	70N	3W	
28	Little Flint River	Flint River	R	At mouth	16	70N	3W	
29	Flint River	Mississippi River	R	Road crossing, NW1/4	24	70N	3W	
30	Knotty Creek	Flint River	L	North line	1	70N	3W	
31	Knotty Creek	Flint River	_ L	At mouth	24	70N	3W	13.9
32	Flint River	Mississippi River	R	At mouth	28	70N	2W	148
33	Spring Creek	Mississippi River	R	Road crossing, NW1/4	15	69N	3W	10
34	Spring Creek	Mississippi River	R	Road crossing, west 1/2	25	69N	3W	14.8
35	Spring Creek	Mississippi River	R	At mouth	32	69N	2W	22.5

FINAL Drainage Areas of Iowa Streams.xls Table No. 29 Des Moines County

36	East Fork Crooked Creek	Crooked Creek	L	Road crossing, north (county) line	5	72N	4W	8.28
37	Big Creek	Skunk River	L	Road crossing, west (county) line	30	72N	4W	2.87
38	Skunk River	Mississippi River	R	North (county) line	2	69N	5W	4258
39	Cedar Creek	Skunk River	L	Road crossing, north line	19	70N	4W	5.27
40	Cedar Creek	Skunk River	L	West (county) line	30	70N	4W	11.9
41	Cedar Creek	Skunk River	L	At mouth	1	69N	5W	16
42	Skunk River	Mississippi River	R	Road crossing, north 1/2	7	69N	4W	4281
43	Skunk River	Mississippi River	R	Gage at Augusta, NE1/4	26	69N	4W	4303
44	Long Creek	Skunk River	L	Road crossing, north line	3	69N	4W	8.87
45	Long Creek	Skunk River	L	North line	13	69N	4W	15.3
46	Long Creek	Skunk River	L	At mouth	30	69N	3W	21.6
47	Skunk River	Mississippi River	R	Road crossing, SW1/4	33	69N	3W	4334
48	Brush Creek	Skunk River	L	At mouth	1	68N	3W	11.1
49	Skunk River	Mississippi River	R	At mouth	8	68N	2W	4355

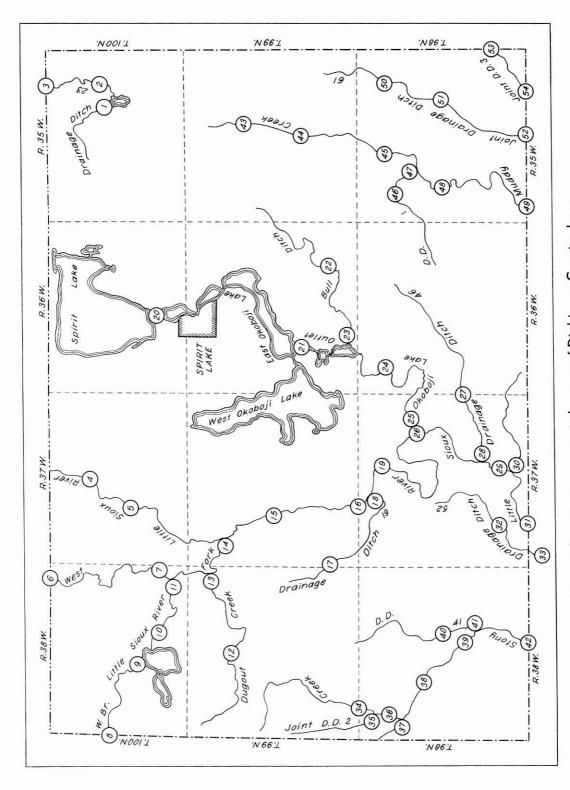


Figure 30. Drainage area index map of Dickinson County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 30 Dickinson County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Drainage Ditch 23	West Fork Des Moines River	R	Road crossing, SW1/4	23	100N	35W	10.6
2	Drainage Ditch 23	West Fork Des Moines River	R	Road crossing, NE1/4	23	100N	35W	15.8
	•			Road crossing, north				
3	Drainage Ditch 23	West Fork Des Moines River	R	(state) line	11	100N	35W	19.2
4	Little Sioux River	Missouri River	L	Road crossing, west line	15	100N	37W	103
5	Little Sioux River	Missouri River	L	Road crossing, north line	32	100N	37W	116
6	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north (state) line	12	100N	38W	115
7	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	36	100N	38W	123
8	West Branch Little Sioux River	West Fork Little Sioux River	R	Road crossing, west (county) line	19	100N	38W	7.67
9	West Branch Little Sioux River	West Fork Little Sioux River	R	An inlet to Silver Lake	28	100N	38W	16.3
10	West Branch Little Sioux River	West Fork Little Sioux River	R	Road crossing, north line	34	100N	38W	25.3
11	West Branch Little Sioux River	West Fork Little Sioux River	R	At mouth	36	100N	38W	33.8
12	Dugout Creek	West Fork Little Sioux River	R	Road crossing, west line	10	99N	38W	7.33
13	Dugout Creek	West Fork Little Sioux River	R	At mouth	1	99N	38W	14
14	West Fork Little Sioux River	Little Sioux River	R	At mouth	7	99N	37W	175
15	Little Sioux River	Missouri River	L	Road crossing, north line	20	99N	37W	301
16	Little Sioux River	Missouri River	L	Road crossing, north line	4	98N	37W	310
17	Drainage Ditch 19	Little Sioux River	R	Road crossing, north line	31	99N	37W	8.47
18	Drainage Ditch 19	Little Sioux River	R	At mouth	4	98N	37W	16.5
19	Little Sioux River	Missouri River	L	Road crossing, north line	10	98N	37W	328
20	Spirit Lake Outlet	Little Sioux River	L	Road crossing, SW¼ (gage near Orleans)	27	100N	36W	75.6
21	Okoboji Lake Outlet	Little Sioux River	L	Road crossing, north line (gage near Milford)	29	99N	36W	125
22	Bull Ditch	Okoboji Lake Outlet	L	Road crossing, north line	35	99N	36W	5.89
23	Bull Ditch	Okoboji Lake Outlet	L	At mouth	32	99N	36W	14.4
24	Okoboji Lake Outlet	Little Sioux River	L	Road crossing, NE corner	7	98N	36W	145
25	Okoboji Lake Outlet	Little Sioux River	L	At mouth	14	98N	37W	151
26	Little Sioux River	Missouri River	L	Below Okoboji Lake Outlet	14	98N	37W	485
27	Drainage Ditch 46	Little Sioux River	L	Road crossing, west line	19	98N	36W	6.91
28	Drainage Ditch 46	Little Sioux River	L	At mouth	27	98N	37W	12.8
29	Little Sioux River	Missouri River	L	Road crossing, north line	34	98N	37W	502
30	Unnamed creek	Little Sioux River	L	At mouth	34	98N	37W	6.29
31	Little Sioux River	Missouri River	L	South (county) line	32	98N	37W	513
32	Drainage Ditch 52	Little Sioux River	R	Road crossing, north line	32	98N	37W	7.76

FINAL Drainage Areas of Iowa Streams.xls Table No. 30 Dickinson County

33	Drainage Ditch 52	Little Sioux River	R	At mouth	6	97N	37W	10.4
34	Stony Creek	Ocheyedan River	L	Road crossing, north line	5	98N	38W	10
35	Joint Drainage Ditch 2	Stony Creek	R	At mouth	6	98N	38W	5.89
36	Stony Creek	Ocheyedan River	L	Road crossing, north line	7	98N	38W	17.2
37	Joint Drainage Ditch 3	Stony Creek	R	At mouth	7	98N	38W	10.4
38	Stony Creek	Ocheyedan River	L	Road crossing, west line	16	98N	38W	35.2
39	Stony Creek	Ocheyedan River	L	Road crossing, north line	27	98N	38W	41.8
40	Drainage Ditch 41	Stony Creek	L	Road crossing, north line	22	98N	38W	5.79
41	Drainage Ditch 41	Stony Creek	L	At mouth	27	98N	38W	12.6
42	Stony Creek	Ocheyedan River	L	Road crossing, south (county) line	34	98N	38W	58.8
43	Muddy Creek	Little Sioux River	L	Road corssing, north line	15	99N	35W	7.1
44	Muddy Creek	Little Sioux River	L	Road corssing, north line	27	99N	35W	15.4
45	Muddy Creek	Little Sioux River	L	Road corssing, north line	9	98N	35W	27.2
46	Drainage Ditch 19	Muddy Creek	R	Road crossing, west line	8	98N	35W	9.69
47	Drainage Ditch 19	Muddy Creek	R	At mouth	17	98N	35W	15.2
48	Muddy Creek	Little Sioux River	L	Road crossing, north line	20	98N	35W	44.8
49	Muddy Creek	Little Sioux River	L	Road crossing, south (county) line	31	98N	35W	51.4
50	Joint Drainage Ditch 61	Trumbull Lake		Road crossing, north line	11	98N	35W	6.93
51	Joint Drainage Ditch 61	Trumbull Lake		Road crossing, north line	23	98N	35W	19
52	Joint Drainage Ditch 61	Trumbull Lake		Road crossing, south (county) line	34	98N	35W	26.2
53	Joint Drainage Ditch 3	Joint Drainage Ditch 61	L	Road crossing, east (county) line	25	98N	35W	5.18
54	Joint Drainage Ditch 3	Joint Drainage Ditch 61	L	Road crossing, south (county) line	35	98N	35W	8.68

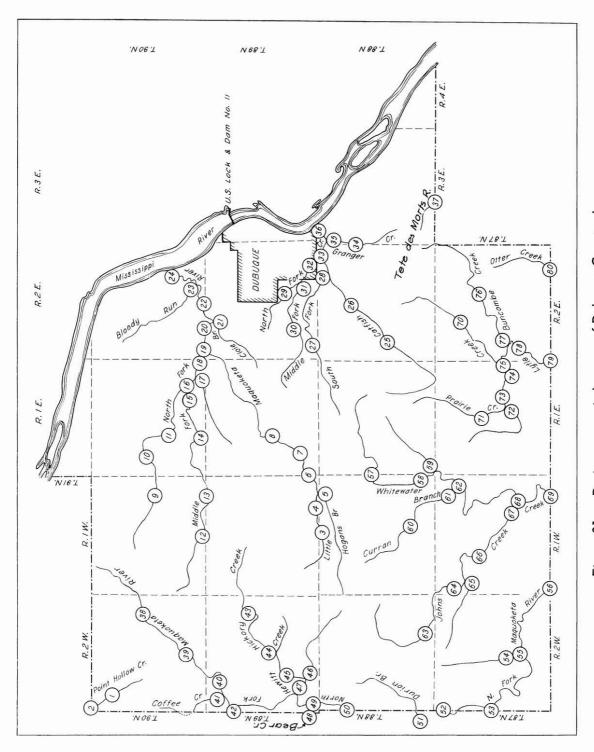


Figure 31. Drainage area index map of Dubuque County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 31 Dubuque County

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Point Hollow Creek	Little Turkey River	R	North line	7	90N	2W	7.39
2	Point Hollow Creek	Little Turkey River	R	At mouth	31	91N	2W	9.95
3	Little Maquoketa River	Mississippi River	R	Road crossing, NW1/4	3	88N	1W	6.14
4	Little Maquoketa River	Mississippi River	R	Road crossing, SW1/4	36	89N	1W	12.7
5	Hogans Branch	Little Maquoketa River	R	At mouth	36	89N	1W	8.93
6	Little Maquoketa River	Mississippi River	R	West line	31	89N	1E	25.3
7	Little Maquoketa River	Mississippi River	R	Road crossing, NW1/4	32	89N	1E	31
8	Little Maquoketa River	Mississippi River	R	Road crossing, SE1/4	20	89N	1E	41.8
9	North Fork Little Maquoketa River	Little Maquoketa River	L	Road crossing, west line	24	90N	1W	6.83
10	North Fork Little Maquoketa River	Little Maquoketa River	L	West line	17	90N	1E	15.6
11	North Fork Little Maquoketa River	Little Maquoketa River	L	Road crossing, NW1/4	28	90N	1E	22.8
12	Middle Fork Little Maquoketa River	North Fork Little Maquoketa River	R	West line	34	90N	1W	9.66
13	Middle Fork Little Maquoketa River	North Fork Little Maquoketa River	R	Road crossing, NW1/4	1	89N	1W	20.1
14	Middle Fork Little Maquoketa River	North Fork Little Maquoketa River	R	Road crossing, west line	33	90N	1E	30
15	Middle Fork Little Maquoketa River	North Fork Little Maquoketa River	R	At mouth	35	90N	1E	33.2
16	North Fork Little Maquoketa River	Little Maquoketa River	L	Below Middle Fork Little Maquoketa River	35	90N	1E	63.2
17	Unnamed creek	North Fork Little Maquoketa River	R	At mouth	36	90N	1E	5.3
18	North Fork Little Maquoketa River	Little Maquoketa River	L	At mouth	31	90N	2E	70
19	Little Maquoketa River	Mississippi River	R	Below North Fork Little Maquoketa River	31	90N	2E	124
20	Little Maquoketa River	Mississippi River	R	Road crossing, NE¼ (gage near Durango)	5	89N	2E	130
21	Cloie Branch	Little Maquoketa River	R	At mouth	5	89N	2E	6.47
22	Little Maquoketa River	Mississippi River	R	Road crossing, SW1/4	34	90N	2E	139
23	Bloody Run	Little Maquoketa River	L	At mouth	34	90N	2E	8.85
24	Little Maquoketa River	Mississippi River	R	At mouth	26	90N	2E	157
25	Catfish Creek	Mississippi River	R	West line	20	88N	2E	11.7
						55.1		

FINAL Drainage Areas of Iowa Streams.xls Table No. 31 Dubuque County

26	Catfish Creek	Mississippi River	R	Road crossing, west line	10	88N	2E	18.6
27	South Fork Catfish Creek	Catfish Creek	L	Road crossing, SE1/4	31	89N	2E	10.9
28	South Fork Catfish Creek	Catfish Creek	L	At mouth	1	88N	2E	17.4
29	North Fork Catfish Creek	Catfish Creek	L	Road crossing, NE1/4	27	89N	2E	2.95
30	Middle Fork Catfish Creek	North Fork Catfish Creek	R	Road crossing, south 1/2	29	89N	2E	6.47
31	Middle Fork Catfish Creek	North Fork Catfish Creek	R	At mouth	35	89N	2E	8.54
32	North Fork Catfish Creek	Catfish Creek	L	At mouth	1	88N	2E	14
33	Catfish Creek	Mississippi River	R	Below North Fork Catfish Creek	1	88N	2E	54.5
34	Granger Creek	Catfish Creek	R	Road crossing, NW1/4	13	88N	2E	7.15
35	Granger Creek	Catfish Creek	R	At mouth	6	88N	3E	15
36	Catfish Creek	Mississippi River	R	At mouth	6	88N	3E	70.6
37	Tete des Morts River	Mississippi River	R	South (county) line	33	88N	3E	4.9
38	North Fork Maquoketa River	Maquoketa River	L	West line	13	90N	2W	10.6
39	North Fork Maquoketa River	Maquoketa River	L	North line	33	90N	2W	18.9
40	North Fork Maquoketa River	Maquoketa River	L	Road crossing, SW1/4	5	89N	2W	28.6
41	Coffee Creek	North Fork Maquoketa River	R	At mouth	6	89N	2W	5.56
42	North Fork Maquoketa River	Maquoketa River	L	Road crossing, west 1/2	7	89N	2W	36
43	Hickory Creek	Hewitt Creek	R	Road crossing, NW1/4	13	89N	2W	8.79
44	Hickory Creek	Hewitt Creek	R	At mouth	21	89N	2W	19.6
45	Hewitt Creek	North Fork Maquoketa River	L	West line	28	89N	2W	27.1
46	Unnamed creek	Hewitt Creek	L	At mouth	32	89N	2W	8.55
47	Hewitt Creek	North Fork Maquoketa River	L	At mouth	29	89N	2W	36.6
48	Bear Creek	North Fork Maquoketa River	R	At mouth	31	89N	2W	37
49	North Fork Maquoketa River	Maquoketa River	L	Below Bear Creek	31	88N	2W	118
50	North Fork Maquoketa River	Maquoketa River	L	West (county) line	7	88N	2W	125
51	Durion Branch	North Fork Maquoketa River	L	At mouth	36	88N	3W	10.5
52	North Fork Maquoketa River	Maquoketa River	L	West (county) line	6	87N	2W	158
53	North Fork Maquoketa River	Maquoketa River	L	West (county) line	18	87N	2W	168
54	Unnamed creek	North Fork Maquoketa River	L	At mouth	28	87N	2W	8.21
55	North Fork Maquoketa River	Maquoketa River	L	West line	27	87N	2W	193
56	North Fork Maquoketa River	Maquoketa River	L	South (county) line	31	88N	1W	207
57	Whitewater Creek	North Fork Maquoketa River	L	Road crossing, west line	18	88N	1E	9.64
58	Whitewater Creek	North Fork Maquoketa River	L	Road crossing, NE1/4	36	88N	1W	16.8
59	Unnamed creek	Whitewater Creek	L	At mouth	31	88N	1E	6.72
60	Curran Branch	Whitewater Creek	R	Road crossing, south 1/2	27	88N	1W	7.05
61	Curran Branch	Whitewater Creek	R	At mouth	12	87N	1W	15.1
62	Whitewater Creek	North Fork Maquoketa River	L	Below Curran Branch	12	87N	1W	44
63	Johns Creek	Whitewater Creek	R	Road crossing, west line	35	88N	2W	9.42
64	Johns Creek	Whitewater Creek	R	Road crossing, center	7	87N	1W	18

FINAL Drainage Areas of Iowa Streams.xls Table No. 31 Dubuque County

65	Unnamed creek	Johns Creek	R	At mouth	7	87N	1W	5.06
66	Johns Creek	Whitewater Creek	R	Road crossing, NE¼	17	87N	1W	28
67	Johns Creek	Whitewater Creek	R	At mouth	26	87N	1W	35.1
68	Whitewater Creek	North Fork Maquoketa River	L	Below Johns Creek	26	87N	1W	91.9
69	Whitewater Creek	North Fork Maquoketa River	L	South (county) line	35	87N	1W	98.8
70	Lytle Creek	North Fork Maquoketa River	L	Road crossing, NW1/4	9	87N	2E	8.98
71	Prairie Creek	Lytle Creek	R	Road crossing, east 1/2	16	87N	1E	8.45
72	Unnamed creek	Prairie Creek	R	At mouth	22	87N	1E	9.22
73	Prairie Creek	Lytle Creek	R	Road crossing, west 1/2	23	87N	1E	19.6
74	Prairie Creek	Lytle Creek	R	At mouth	24	87N	1E	23.9
75	Lytle Creek	North Fork Maquoketa River	L	Below Prairie Creek	24	87N	1E	41.8
76	Buncombe Creek	Lytle Creek	L	Road crossing, north 1/2	15	87N	2E	8.31
77	Buncombe Creek	Lytle Creek	L	At mouth	19	87N	2E	14.6
78	Lytle Creek	North Fork Maquoketa River	L	Road crossing, NE¼	30	87N	2E	57.3
79	Lytle Creek	North Fork Maquoketa River	L	South (county) line	31	87N	2E	62.7
80	Otter Creek	Lytle Creek	L	Road crossing, south (county) line	35	87N	2E	6.88

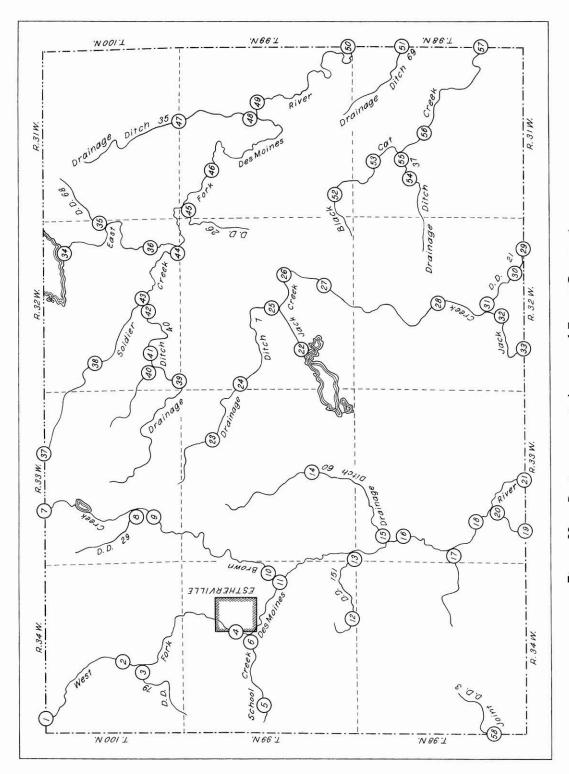


Figure 32. Drainage area index map of Emmet County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 32 Emmet County

	Name of stream	Tributary to	Bank	Point of determination of drainage area			Drainage area	
Area No.				Description	Sec	Т	R	(sq mi)
1	West Fork Des Moines River	Des Moines River	R	North (state) line	7	100N	34W	1340
2	West Fork Des Moines River	Des Moines River	R	Road crossing, north line	28	100N	34W	1353
3	Drainage Ditch 79	West Fork Des Moines River	R	At mouth	28	100N	34W	7.89
4	West Fork Des Moines River	Des Moines River	R	Gage at Estherville, south 1/2	10	99N	34W	1372
5	School Creek	West Fork Des Moines River	R	Road crossing, west line	17	99N	34W	7.56
6	School Creek	West Fork Des Moines River	R	At mouth	15	99N	34W	15
7	Brown Creek	West Fork Des Moines River	L	Road crossing, north (state) line	8	100N	33W	15
8	Drainage Ditch 29	Brown Creek	R	At mouth	29	100N	33W	5.6
9	Brown Creek	West Fork Des Moines River	L	Road crossing, north line	32	100N	33W	26.2
10	Brown Creek	West Fork Des Moines River	L	At mouth	24	99N	34W	36.6
11	West Fork Des Moines River	Des Moines River	R	Below Brown Creek	24	99N	34W	1429
12	Drainage Ditch 151	West Fork Des Moines River	R	Road crossing, west line	35	99N	34W	10.1
13	Drainage Ditch 151	West Fork Des Moines River	R	At mouth	31	99N	33W	15.3
14	Drainage Ditch 60	West Fork Des Moines River	L	Road crossing, west 1/2	27	99N	33W	8.35
15	Drainage Ditch 60	West Fork Des Moines River	L	At mouth	7	98N	33W	14.9
16	West Fork Des Moines River	Des Moines River	R	Road crossing, SE1/4	7	98N	33W	1469
17	Unnamed creek	West Fork Des Moines River	R	At mouth	19	98N	33W	6.48
18	West Fork Des Moines River	Des Moines River	R	Road crossing, NE1/4	29	98N	33W	1485
19	Joint Drainage Ditch 2	West Fork Des Moines River	R	Road crossing, south (county) line	32	98N	33W	6.94
20	Joint Drainage Ditch 2	West Fork Des Moines River	R	At mouth	29	98N	33W	8.14
21	West Fork Des Moines River	Des Moines River	R	South (county) line	33	98N	33W	1519
22	Jack Creek	West Fork Des Moines River	L	Road crossing, NW1/4	29	99N	32W	8.33
23	Drainage Ditch 7	Jack Creek	L	Road crossing, north line	11	99N	33W	4.84
24	Drainage Ditch 7	Jack Creek	L	Road crossing, north line	18	99N	32W	11
25	Drainage Ditch 7	Jack Creek	L	At mouth	21	99N	32W	20.3
26	Jack Creek	West Fork Des Moines River	L	West line	23	99N	32W	31.8
27	Jack Creek	West Fork Des Moines River	L	Road crossing, north line	34	99N	32W	39.5
28	Jack Creek	West Fork Des Moines River	L	Road crossing, north line	22	98N	32W	50.1
29	Drainage Ditch 21	Jack Creek	L	South (county) line	35	98N	32W	5.4
30	Drainage Ditch 21	Jack Creek	L	Road crossing, west line	35	98N	32W	12.9
31	Drainage Ditch 21	Jack Creek	L	At mouth	28	98N	32W	18.7
32	Jack Creek	West Fork Des Moines River	L	Road crossing, north line	33	98N	32W	74.8
33	Jack Creek	West Fork Des Moines River	L	South (county) line	32	98N	32W	82.7

FINAL Drainage Areas of Iowa Streams.xls Table No. 32 Emmet County

34	East Fork Des Moines River	Des Moines River	L	Road crossing, SE¼ (discontinued gage near	11	100N	32W	194
				Dolliver)				
35	Drainage Ditch 68	East Fork Des Moines River	L	At mouth	24	100N	32W	5.47
36	East Fork Des Moines River	Des Moines River	L	Road crossing, north line	35	100N	32W	205
37	Soldier Creek	East Fork Des Moines River	R	Road crossing, north (state) line	10	100N	33W	12.4
38	Soldier Creek	East Fork Des Moines River	R	Road crossing, north line	20	100N	32W	22.3
39	Drainage Ditch 40	Soldier Creek	R	Road crossing, north line	6	99N	32W	6.41
40	Unnamed creek	Drainage Ditch 40	L	At mouth	30	100N	32W	6.11
41	Drainage Ditch 40	Soldier Creek	R	Road crossing, west line	29	100N	32W	13.5
42	Drainage Ditch 40	Soldier Creek	R	At mouth	27	100N	32W	19.6
43	Soldier Creek	East Fork Des Moines River	R	Below Drainage Ditch 40	27	100N	32W	45.7
44	Soldier Creek	East Fork Des Moines River	R	At mouth	36	100N	32W	51.8
45	Drainage Ditch 26	East Fork Des Moines River	R	At mouth	6	99N	31W	6.6
46	East Fork Des Moines River	Des Moines River	L	Road crossing, north line	8	99N	31W	268
47	Drainage Ditch 35	East Fork Des Moines River	L	Road crossing, north line	3	99N	31W	9.19
48	Drainage Ditch 35	East Fork Des Moines River	L	At mouth	15	99N	31W	13.2
49	East Fork Des Moines River	Des Moines River	L	Road crossing, west line	14	99N	31W	290
50	East Fork Des Moines River	Des Moines River	L	Road crossing, east (county) line	36	99N	31W	297
51	Drainage Ditch 69	East Fork Des Moines River	R	Road crossing, east (county) line	12	98N	31W	7.21
52	Black Cat Creek	East Fork Des Moines River	R	Railroad crossing, NE1/4	31	99N	31W	6.29
53	Black Cat Creek	East Fork Des Moines River	R	Road crossing, west line	4	98N	31W	11.2
54	Drainage Ditch 37	Black Cat Creek	R	Road crossing, north line	17	98N	31W	4.78
55	Drainage Ditch 37	Black Cat Creek	R	At mouth	9	98N	31W	11.7
56	Black Cat Creek	East Fork Des Moines River	R	Road crossing, west line	15	98N	31W	25.4
57	Black Cat Creek	East Fork Des Moines River	R	Road crossing, east (county) line	25	98N	31W	35.5
58	Joint Drainage Ditch 3	Joint Drainage Ditch 61	L	Road crossing, west (county) line	30	98N	34W	5.18

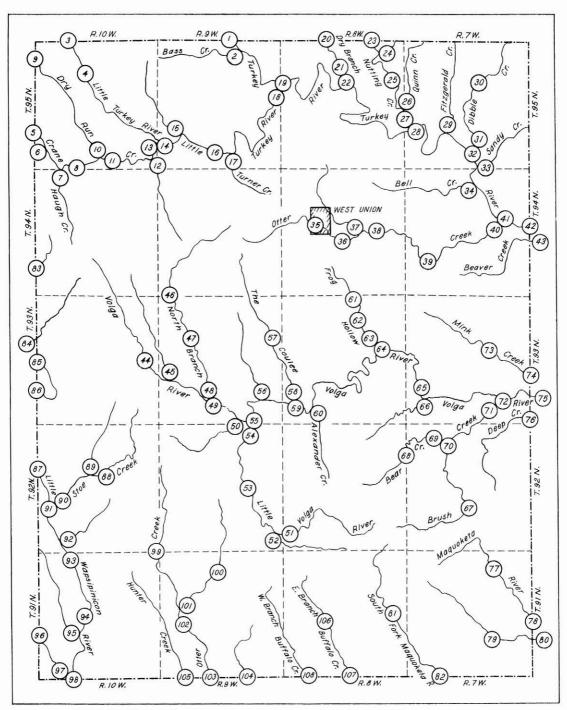


Figure 33. Drainage area index map of Fayette County, Iowa.

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Turkey River	Mississippi River	R	North (county) line	3	95N	9W	264
2	Bass Creek	Turkey River	R	At mouth	3	95N	9W	8.37
3	Little Turkey River	Turkey River	R	North (county) line	5	95N	10W	80.7
4	Little Turkey River	Turkey River	R	Road crossing, south 1/2	9	95N	10W	90.1
5	Crane Creek	Little Turkey River	R	West (county) line	30	95N	10W	148
6	Simpson Creek	Crane Creek	R	At mouth	30	95N	10W	14.6
7	Haugh Creek	Crane Creek	R	At mouth	5	95N	10W	8.07
8	Crane Creek	Little Turkey River	R	Road crossing, SE1/4	32	95N	10W	176
9	Dry Run	Crane Creek	L	West (county) line	6	95N	10W	5.05
10	Dry Run	Crane Creek	L	At mouth	34	95N	10W	12.2
11	Dry Run	Little Turkey River	R	Road crossing, south 1/2	34	95N	10W	196
12	Unnamed creek	Crane Creek	R	At mouth	36	95N	10W	7.97
13	Crane Creek	Little Turkey River	R	At mouth	31	95N	9W	214
14	Little Turkey River	Turkey River	R	Below Crane Creek	31	95N	9W	318
15	Unnamed creek	Little Turkey River	L	At mouth	29	95N	9W	5.42
16	Little Turkey River	Turkey River	R	Road crossing, NW1/4	34	95N	9W	335
17	Turner Creek	Little Turkey River	R	At mouth	34	95N	9W	5.59
18	Little Turkey River	Turkey River	R	At mouth	18	95N	8W	355
19	Turkey River	Mississippi River	R	Below Little Turkey River	18	95N	8W	635
20	Dry Branch	Turkey River	L	North (county) line	4	95N	8W	14.9
21	Dry Branch	Turkey River	L	At mouth	15	95N	8W	21.9
22	Turkey River	Mississippi River	R	Below Dry Branch	15	95N	8W	665
23	Nutting Creek	Turkey River	L	North (county) line	2	95N	8W	9.76
24	Unnamed creek	Nutting Creek	L	At mouth	2	95N	8W	5.34
25	Nutting Creek	Turkey River	L	Road crossing, SW1/4	12	95N	8W	18.8
26	Quinn Creek	Nutting Creek	L	At mouth	24	95N	8W	6.43
27	Nutting Creek	Turkey River	L	At mouth	19	95N	7W	27.3
28	Turkey River	Mississippi River	R	Below Nutting Creek	19	95N	7W	709
29	Fitzgerald Creek	Turkey River	L	At mouth	28	95N	7W	9.6
30	Dibble Creek	Turkey River	L	North line	15	95N	7W	10.7
31	Dibble Creek	Turkey River	Ĺ	At mouth	34	95N	7W	18
32	Turkey River	Mississippi River	R	Below Dibble Creek	34	95N	7W	745
33	Sandy Creek	Turkey River	L	At mouth	34	95N	7W	6.37
34	Bell Creek	Turkey River	R	At mouth	10	94N	7W	7.6
35	Otter Creek	Turkey River	R	Road crossing, south 1/2	17	94N	8W	9.35
36	Otter Creek	Turkey River	R	Road crossing, NW1/4	22	94N	8W	16

37	Unnamed creek	Otter Creek	L	At mouth	22	94N	8W	6.93
38	Otter Creek	Turkey River	R	Road crossing, north 1/2	23	94N	8W	27.9
39	Otter Creek	Turkey River	R	West line	29	94N	7W	36.7
40	Otter Creek	Turkey River	R	At mouth	13	94N	7W	46.9
41	Turkey River	Mississippi River	R	Below Otter Creek	13	94N	7W	813
42	Turkey River	Mississippi River	R	East (county) line	13	94N	7W	814
43	Beaver Creek	Turkey River	R	At mouth	19	94N	6W	7.23
44	Volga River	Turkey River	R	Road crossing, north line	24	93N	10W	9.25
45	Unnamed creek	Volga River	L	At mouth	19	93N	9W	5.01
46	North Branch Volga River	Volga River	L	Road crossing, north line	6	93N	9W	10.5
47	North Branch Volga River	Volga River	L	Road crossing, north line	17	93N	9W	19.2
48	North Branch Volga River	Volga River	L	At mouth	33	93N	9W	25.2
49	Volga River	Turkey River	R	Below North Branch Volga River	33	93N	9W	51.2
50	Unnamed creek	Volga River	R	At mouth	2	92N	9W	7.97
51	Little Volga River	Volga River	R	Road crossing, west line	31	92N	8W	10.2
52	Unnamed creek	Little Volga River	L	At mouth	36	92N	9W	7.05
53	Little Volga River	Volga River	R	Road crossing, north line	23	92N	9W	25.5
54	Little Volga River	Volga River	R	At mouth	2	92N	9W	31
55	Volga River	Turkey River	R	Below Little Volga River	2	92N	9W	92.1
56	Unnamed creek	Volga River	L	At mouth	25	93N	9W	5.76
57	The Coulee	Volga River	L	Road crossing, north line	13	93N	9W	9.07
58	The Coulee	Volga River	L	At mouth	31	93N	W8	13.6
59	Volga River	Turkey River	R	Below The Coulee	31	93N	W8	121
60	Alexander Creek	Volga River	R	At mouth	32	93N	W8	7.58
61	Frog Hollow	Volga River	L	Road crossing, north 1/2	3	93N	W8	3.71
62	Frog Hollow	Volga River	L	Road crossing, NE1/4	10	93N	W8	10.7
63	Frog Hollow	Volga River	L	At mouth	14	93N	W8	16.8
64	Volga River	Turkey River	R	Below Frog Hollow	14	93N	W8	157
65	Volga River	Turkey River	R	Road crossing, SE1/4	30	93N	7W	167
66	Unnamed creek	Volga River	R	At mouth	30	93N	7W	5.87
67	Brush Creek	Volga River	R	Road crossing, north line	28	92N	7W	8.61
68	Bear Creek	Brush Creek	L	Road crossing, east 1/2	12	92N	W8	6.74
69	Bear Creek	Brush Creek	L	At mouth	8	92N	7W	12.3
70	Brush Creek	Volga River	R	Below Bear Creek	8	92N	7W	29
71	Brush Creek	Volga River	R	At mouth	26	93N	7W	34.5
72	Volga River	Turkey River	R	Below Brush Creek	26	93N	7W	217
73	Mink Creek	Volga River	L	Road crossing, west line	14	93N	7W	9.45
74	Mink Creek	Volga River	L	East (county) line	24	93N	7W	15.5
75	Volga River	Turkey River	R	Below Mink Creek	30	93N	6W	238

76	Deep Creek	Volga River	R	East (county) line	36	93N	7W	6.5
77	Maquoketa River	Mississippi River	R	Road crossing, west line	2	91N	7W	8.62
78	Maquoketa River	Mississippi River	R	East (county) line	24	91N	7W	19
79	Unnamed creek	Maquoketa River	R	Road crossing, west line	26	91N	7W	7.85
80	Unnamed creek	Maquoketa River	R	At mouth	30	91N	6W	10.9
81	South Fork Maquoketa River	Maquoketa River	R	Road crossing, north line	24	91N	W8	9.74
82	South Fork Maquoketa River	Maquoketa River	R	Road crossing, south (county) line	32	91N	7W	19.2
83	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, west (county) line	30	94N	10W	2.82
84	Unnamed creek	Little Wapsipinicon River	L	At mouth	13	93N	11W	5.63
85	Little Wapsipinicon River	Wapsipinicon River	L	West (county) line	18	93N	10W	26
86	Little Wapsipinicon River	Wapsipinicon River	L	West (county) line	30	93N	10W	41.4
87	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, west (county) line	18	92N	10W	57.4
88	Stoe Creek	Little Wapsipinicon River	L	Road crossing, west line	15	92N	10W	10.2
89	Unnamed creek	Stoe Creek	R	At mouth	16	92N	10W	5.52
90	Stoe Creek	Little Wapsipinicon River	L	At mouth	19	92N	10W	20.3
91	Little Wapsipinicon River	Wapsipinicon River	L	Below Stoe Creek	19	92N	10W	81
92	Unnamed creek	Little Wapsipinicon River	L	At mouth	32	92N	10W	6.44
93	Little Wapsipinicon River	Wapsipinicon River	L	North line	5	91N	10W	91.4
94	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	21	91N	10W	99.2
95	Unnamed creek	Little Wapsipinicon River	R	At mouth	28	91N	10W	6.13
96	Unnamed creek	Little Wapsipinicon River	R	Road crossing, west (county) line	19	91N	10W	5.65
97	Unnamed creek	Little Wapsipinicon River	R	At mouth	32	91N	10W	8.84
98	Little Wapsipinicon River	Wapsipinicon River	L	South (county) line	32	91N	10W	125
99	Otter Creek	Wapsipinicon River	L	Road crossing, north line	1	91N	10W	6.58
100	Unnamed creek	Otter Creek	L	Road crossing, north line	9	91N	9W	9.72
101	Unnamed creek	Otter Creek	L	At mouth	18	91N	9W	17.2
102	Otter Creek	Wapsipinicon River	L	Road crossing, north line	19	91N	9W	32.6
103	Otter Creek	Wapsipinicon River	L	Road crossing, south (county) line	33	91N	9W	41.3
104	Unnamed creek	Otter Creek	L	Road crossing, south (county) line	35	91N	9W	4.57
105	Hunter Creek	Otter Creek	R	Road crossing, south (county) line	32	91N	9W	7.52
106	East Branch Buffalo Creek	Buffalo Creek	R	Road crossing, south (county) line	32	91N	8W	9.8
107	East Branch Buffalo Creek	Buffalo Creek	L	Road crossing, west line	21	91N	W8	4.36

108 West Branch Buffalo Creek Buffalo Creek L Road crossing, south (county) line 34 91N 8W 12.9

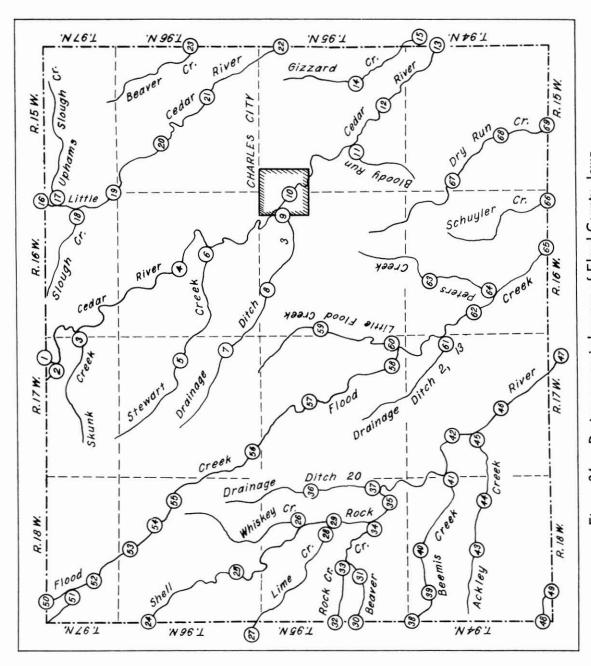


Figure 34. Drainage area index map of Floyd County, lowa.

			Bank	Point of determination of dra	Point of determination of drainage area				
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	Drainage area (sq mi)	
1	Cedar River	Iowa River	L	North (county) line	24	97N	17W	888	
2	Rock Creek	Cedar River	R	At mouth	24	97N	17W	69.7	
3	Skunk Creek	Cedar River	R	At mouth	30	97N	16W	9.41	
4	Cedar River	Iowa River	L	Road crossing, SE1/4	16	96N	16W	990	
5	Stewart Creek	Cedar River	R	Road crossing, west line	13	96N	17W	7.38	
6	Stewart Creek	Cedar River	R	At mouth	22	96N	16W	14.3	
7	Drainage Ditch 3	Cedar River	R	Road crossing, east 1/2	25	96N	17W	7.1	
8	Drainage Ditch 3	Cedar River	R	Road crossing, west line	4	95N	16W	13.1	
9	Drainage Ditch 3	Cedar River	R	At mouth	1	95N	16W	20.7	
	3			Road crossing, NE1/4					
10	Cedar River	Iowa River	L	(discontinued gage at Charles City)	12	95N	16W	1054	
11	Bloody Run	Cedar River	R	At mouth	20	95N	15W	5.74	
12	Cedar River	Iowa River	L	Road crossing, NE1/4	34	95N	15W	1075	
13	Cedar River	Iowa River	L	East (county) line	12	94N	15W	1080	
14	Gizzard Creek	Cedar River	L	Road crossing, north line	26	95N	15W	13.7	
15	Gizzard Creek	Cedar River	L	At mouth	7	94N	14W	24.4	
16	Little Cedar River	Cedar River	L	Road crossing, north (county) line	24	97N	16W	227	
17	Uphams Slough Creek	Little Cedar River	L	At mouth	24	97N	16W	7.32	
18	Slough Creek	Little Cedar River	R	At mouth	25	97N	16W	7.82	
19	Little Cedar River	Cedar River	L	Road crossing, west line	31	97N	15W	250	
20	Little Cedar River	Cedar River	L	Road crossing, west line	9	96N	15W	259	
21	Little Cedar River	Cedar River	L	Road crossing, SE1/4	22	96N	15W	270	
22	Little Cedar River	Cedar River	L	East (county) line	1	95N	15W	279	
23	Beaver Creek	Little Cedar River	L	East (county) line	24	96N	15W	8.49	
24	Shell Rock River	West Fork Cedar River	L	West (county) line	7	96N	18W	499	
25	Shell Rock River	West Fork Cedar River	_ L	Road crossing, north line	33	96N	18W	517	
26	Whiskey Creek	Shell Rock River	L	At mouth	10	95N	18W	5.64	
27	Lime Creek	Shell Rock River	- R	Road crossing, east 1/2	36	96N	19W	692	
28	Lime Creek	Shell Rock River	R	At mouth	14	95N	18W	700	
29	Shell Rock River	West Fork Cedar River	L	Below Lime Creek	14	95N	18W	1229	
30	Beaver Creek	Shell Rock River	- R	Road crossing, west (county) line	19	95N	18W	15.4	
31	Beaver Creek	Shell Rock River	R	Road crossing, south 1/2	21	95N	18W	18.8	

				Des Lesses de la contraction d				
32	Rock Creek	Beaver Creek	L	Road crossing, west (county) line	19	95N	18W	6.48
33	Rock Creek	Beaver Creek	L	At mouth	21	95N	18W	11.6
34	Beaver Creek	Shell Rock River	R	At mouth	26	95N	18W	35.8
35	Shell Rock River	West Fork Cedar River	L	Road crossing, west line	36	95N	18W	1267
36	Drainage Ditch 20	Shell Rock River	L	Road crossing, north line	13	95N	18W	6.75
37	Drainage Ditch 20	Shell Rock River	L	At mouth	25	95N	18W	13
38	Beemis Creek	Shell Rock River	R	Road crossing, west (county) line	6	94N	18W	6.13
39	Beemis Creek	Shell Rock River	R	Road crossing, north line	8	94N	18W	13.4
40	Beemis Creek	Shell Rock River	R	Road crossing, west line	3	94N	18W	17.7
41	Beemis Creek	Shell Rock River	R	At mouth	7	94N	17W	24.8
• •	20010 0.001.		• •	At dam, SE¼	•	•		
42	Shell Rock River	West Fork Cedar River	L	(discontinued gage at Marble Rock)	8	94N	17W	1318
43	Ackley Creek	Shell Rock River	R	Road crossing, west line	15	94N	18W	8.95
44	Ackley Creek	Shell Rock River	R	Road crossing, west line	24	94N	18W	14.4
45	Ackley Creek	Shell Rock River	R	At mouth	17	94N	17W	18.9
46	Shell Rock River	West Fork Cedar River	L	Road crossing, north line	28	94N	17W	1341
			_	At dam, SW1/4		•		
47	Shell Rock River	West Fork Cedar River	L	(discontinued gage at Greene)	1	93N	17W	1357
48	Coldwater Creek	Shell Rock River	R	Road crossing, west	31	94N	18W	27.4
				(county) line				
49	Coldwater Creek	Shell Rock River	R	Road crossing, south (county) line	32	94N	18W	31.2
50	Flood Creek	Shell Rock River	L	Road crossing, north (county) line	19	97N	18W	5.85
51	Drainage Ditch 11, 80	Flood Creek	R	At mouth	29	97N	18W	5.47
52	Flood Creek	Shell Rock River	L	Road crossing, north line	32	97N	18W	15.8
53	Flood Creek	Shell Rock River	L	Road crossing, west line	3	96N	18W	21.3
54	Flood Creek	Shell Rock River	L	Road crossing, west line	11	96N	18W	27
55	Flood Creek	Shell Rock River	L	Road crossing, west line	13	96N	18W	37.8
56	Flood Creek	Shell Rock River	L	Road crossing, SW1/4	32	96N	17W	47.9
57	Flood Creek	Shell Rock River	L	Road crossing, north line	15	95N	17W	59.3
58	Flood Creek	Shell Rock River	L	Road crossing, west line	36	95N	17W	67.9
59	Little Flood Creek	Flood Creek	L	Road crossing, west 1/2	18	95N	16W	9.08
60	Little Flood Creek	Flood Creek	L	At mouth	36	95N	17W	15.8
61	Drainage Ditch 2, 13	Flood Creek	R	At mouth	12	94N	17W	10.7
62	Flood Creek	Shell Rock River	L	Road crossing, west line	17	94N	16W	102
				=				

63	Peters Creek	Flood Creek	L	Road crossing, north line	9	94N	16W	7.66
64	Peters Creek	Flood Creek	L	At mouth	20	94N	16W	12.4
65	Flood Creek	Shell Rock River	L	Road crossing, south (county) line	34	94N	16W	127
66	Schuyler Creek	Flood Creek	L	Road crossing, south (county) line	36	94N	16W	8.51
67	Dry Run Creek	Shell Rock River	L	Road crossing, north line	18	94N	15W	7.5
68	Dry Run Creek	Shell Rock River	L	Road crossing, north line	28	94N	15W	18.4
69	Dry Run Creek	Shell Rock River	L	Road crossing, south (county) line	33	94N	15W	24.2

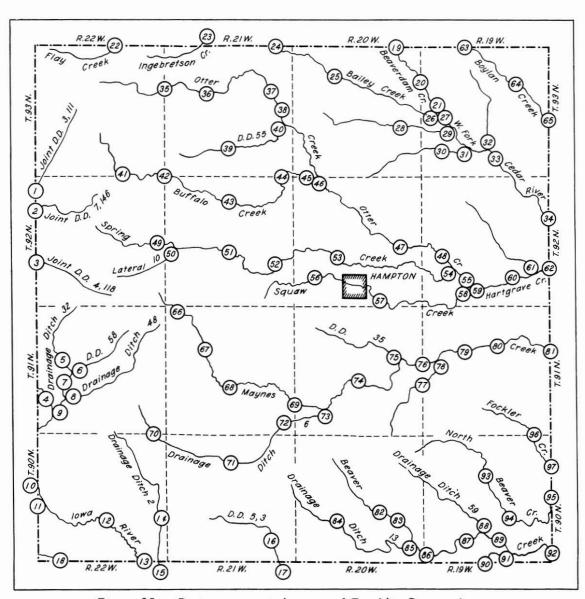


Figure 35. Drainage area index map of Franklin County, Iowa.

			Bank	Point of determination of dra	Drainage ar			
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Joint Drainage Ditch 3, 111	Luicks Creek	L	Road crossing, west (county) line	6	92N	22W	7.2
2	Joint Drainage Ditch 7, 146	Iowa River	L	Road crossing, west (county) line	7	92N	22W	8.08
3	Joint Drainage Ditch 4, 118	Joint Drainage Ditch 7, 146	L	Road crossing, west (county) line	30	92N	22W	6.01
4	Iowa River	Mississippi River	R	Road crossing, NW1/4	30	91N	22W	523
5	Drainage Ditch 32	Iowa River	L	Road crossing, north line	20	91N	22W	6.77
6	Drainage Ditch 58	Drainage Ditch 32	L	At mouth	20	91N	22W	6.3
7	Drainage Ditch 32	Iowa River	L	Road crossing, north line	29	91N	22W	13.8
8	Drainage Ditch 48	Drainage Ditch 32	L	At mouth	29	91N	22W	7.7
9	Drainage Ditch 32	Iowa River	L	At mouth	30	91N	22W	22.8
10	Iowa River	Mississippi River	R	Road crossing, east 1/2	13	90N	23W	570
11	Sheldon Creek	Iowa River	R	At mouth	19	90N	22W	19.7
12	Iowa River	Mississippi River	R	Road crossing, NW1/4	27	90N	22W	607
13	Iowa River	Mississippi River	R	South (county) line	35	90N	22W	614
14	Drainage Ditch 2	Iowa River	L	Road crossing, north line	25	90N	22W	5.46
15	Drainage Ditch 2	Iowa River	L	At mouth	1	89N	22W	11.6
16	Drainage Ditch 5, 3	Elk Run	L	Road crossing, north line	35	90N	21W	7.34
17	Drainage Ditch 5, 3	Elk Run	_ L	At mouth	2	89N	21W	9.57
18	South Fork Iowa River	Iowa River	R	Road crossing, south (county) line	32	90N	22W	33.8
19	Beaverdam Creek	West Fork Cedar River	L	North (county) line	2	93N	20W	134
20	Beaverdam Creek	West Fork Cedar River	L	Road crossing, west line	7	93N	19W	140
21	Beaverdam Creek	West Fork Cedar River	L	At mouth	19	93N	19W	145
22	Flay Creek	Bailey Creek	R	Road crossing, north (county) line	3	93N	22W	8.89
23	Ingebretson Creek	Bailey Creek	R	At mouth	33	94N	21W	6.48
24	Bailey Creek	West Fork Cedar River	R	Road crossing, north (county) line	1	93N	21W	75.2
25	Bailey Creek	West Fork Cedar River	R	Road crossing, west line	9	93N	20W	85.8
26	Bailey Creek	West Fork Cedar River	R	At mouth	19	93N	19W	94.8
	•			Below confluence of				
27	West Fork Cedar River	Cedar River	R	Beaverdam and Bailey Creeks	19	93N	19W	239
28	Unnamed creek	West Fork Cedar River	R	Road crossing, west line	25	93N	20W	4.56
29	Unnamed creek	West Fork Cedar River	R	At mouth	29	93N	19W	10.6

30 31	Unnamed creek Unnamed creek	West Fork Cedar River West Fork Cedar River	R R	Road crossing, west line At mouth	29 28	93N 93N	19W 19W	4.41 11.6
32	Unnamed creek	West Fork Cedar River	L	At mouth	27	93N	19W	8.64
33	West Fork Cedar River	Cedar River	R	Road crossing, north line	34	93N	19W	273
				Road crossing, east				
34	West Fork Cedar River	Cedar River	R	(county) line	12	93N	19W	285
35	Otter Creek	Hartgrave Creek	L	Road crossing, west line	7	93N	21W	6.61
36	Otter Creek	Hartgrave Creek	L	Road crossing, west line	16	93N	21W	12.3
37	Otter Creek	Hartgrave Creek	L	Road crossing, NW corner	13	93N	21W	18.1
38	Otter Creek	Hartgrave Creek	L	Road crossing, north line	24	93N	21W	23.5
39	Drainage Ditch 55	Otter Creek	R	Road crossing, west line	27	93N	21W	8.29
40	Drainage Ditch 55	Otter Creek	R	At mouth	24	93N	21W	13.1
41	Buffalo Creek	Otter Creek	R	Road crossing, west line	35	93N	22W	5.4
42	Buffalo Creek	Otter Creek	R	Road crossing, west line	31	93N	21W	11.4
43	Buffalo Creek	Otter Creek	R	Road crossing, west line	10	92N	21W	20.2
44	Buffalo Creek	Otter Creek	R	Road crossing, north line	1	92N	21W	26
45	Buffalo Creek	Otter Creek	R	At mouth	5	92N	20W	30.1
46	Otter Creek	Hartgrave Creek	L	Below Buffalo Creek	5	92N	20W	72.6
47	Otter Creek	Hartgrave Creek	L	Road crossing, west line	24	92N	20W	84
48	Otter Creek	Hartgrave Creek	L	Road crossing, north line	29	92N	19W	92
49	Spring Creek	Otter Creek	R	Road crossing, west line	19	92N	21W	8.31
50	Lateral 10	Spring Creek	R	At mouth	19	92N	21W	5.29
51	Spring Creek	Otter Creek	R	Road crossing, west line	21	92N	21W	17.4
52	Spring Creek	Otter Creek	R	Road crossing, north line	25	92N	21W	24.8
53	Spring Creek	Otter Creek	R	Road crossing, west line	21	92N	20W	32.4
54	Spring Creek	Otter Creek	R	At mouth	29	92N	19W	40.7
55	Otter Creek	Hartgrave Creek	L	At mouth	28	92N	19W	135
56	Squaw Creek	Hartgrave Creek	R	Road crossing, west line	29	92N	20W	9.54
57	Squaw Creek	Hartgrave Creek	R	Road crossing, west line	35	92N	20W	15.8
58	Squaw Creek	Hartgrave Creek	R	At mouth	28	92N	19W	24.7
59	Hartgrave Creek	West Fork Cedar River	R	Below confluence of Squaw and Otter Creeks	28	92N	19W	160
60	Hartgrave Creek	West Fork Cedar River	R	Road crossing, center	26	92N	19W	168
61	Unnamed creek	Hartgrave Creek	L	At mouth	25	92N	19W	7.24
62	Hartgrave Creek	West Fork Cedar River	R	Road crossing, east (county) line	25	92N	19W	176
63	Boylan Creek	West Fork Cedar River	L	North (county) line	4	93N	19W	3.51
64	Boylan Creek	West Fork Cedar River	L	Road crossing, south 1/2	11	93N	19W	9.65

65	Boylan Creek	West Fork Cedar River	L	Road crossing, east (county) line	24	93N	19W	16.7
66	Maynes Creek	West Fork Cedar River	R	Road crossing, north 1/2	6	91N	21W	4.19
67	Maynes Creek	West Fork Cedar River	R	Road crossing, north line	17	91N	21W	12.9
68	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	22	91N	21W	23.1
69	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	30	91N	20W	33.6
70	Drainage Ditch 6	Maynes Creek	R	Road crossing, north line	1	90N	22W	7.14
71	Drainage Ditch 6	Maynes Creek	R	Road crossing, west line	10	90N	21W	16.6
72	Drainage Ditch 6	Maynes Creek	R	Road crossing, center	36	91N	21W	25.5
73	Drainage Ditch 6	Maynes Creek	R	At mouth	29	91N	20W	29.6
74	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	22	91N	20W	71
75	Drainage Ditch 35	Maynes Creek	L	At mouth	14	91N	20W	6.03
76	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	18	91N	19W	82.5
77	Unnamed creek	Maynes Creek	R	Road crossing, west line	19	91N	19W	8.78
78	Unnamed creek	Maynes Creek	R	At mouth	18	91N	19W	11.9
79	Maynes Creek	West Fork Cedar River	R	Road crossing, west line	16	91N	19W	102
80	Maynes Creek	West Fork Cedar River	R	Road crossing, south 1/2	10	91N	19W	110
81	Maynes Creek	West Fork Cedar River	R	Road crossing, east (county) line	13	91N	19W	115
82	Beaver Creek	Cedar River	R	Road crossing, west line	23	90N	20W	7.8
83	Beaver Creek	Cedar River	R	Road crossing, north line	26	90N	20W	12.3
84	Drainage Ditch 13	Beaver Creek	R	Road crossing, west line	28	90N	20W	5.56
85	Drainage Ditch 13	Beaver Creek	R	At mouth	36	90N	20W	13.7
86	Beaver Creek	Cedar River	R	Road crossing, west line	31	90N	19W	27.5
87	Beaver Creek	Cedar River	R	Road crossing, west line	28	90N	19W	36.5
88	Drainage Ditch 59	Beaver Creek	L	At mouth	27	90N	19W	7.44
89	Beaver Creek	Cedar River	R	Road crossing, north line	34	90N	19W	45.3
90	Drainage Ditch 148	Beaver Creek	R	Road crossing, south (county) line	33	90N	19W	5.51
91	Drainage Ditch 148	Beaver Creek	R	At mouth	34	90N	19W	6.58
92	Beaver Creek	Cedar River	R	Road crossing, east (county) line	36	90N	19W	55.5
93	North Beaver Creek	Beaver Creek	L	Road crossing, north line	16	90N	19W	6.75
94	North Beaver Creek	Beaver Creek	L	Road crossing, north line	27	90N	19W	13
95	North Beaver Creek	Beaver Creek	L	Road crossing, east (county) line	13	90N	19W	17.5
96	Fockler Creek	North Beaver Creek	L	Road crossing, north line	1	90N	19W	5.63
97	Fockler Creek	North Beaver Creek	L	Road crossing, east (county) line	12	90N	19W	12

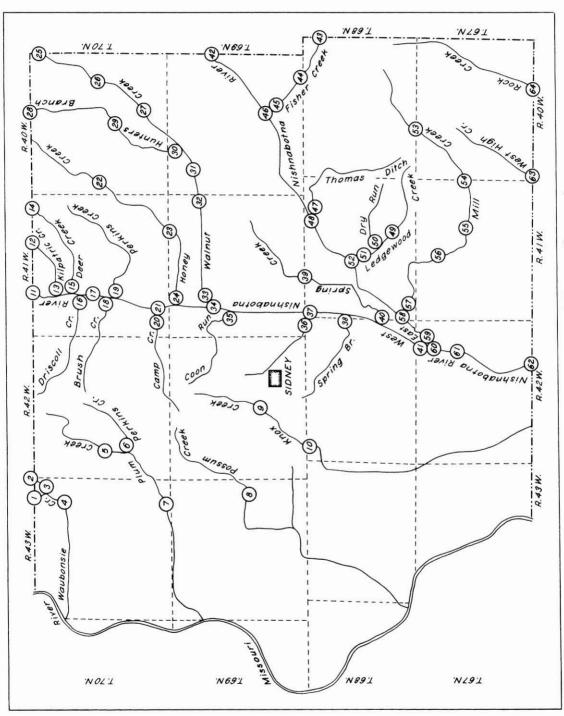


Figure 36. Drainage area index map of Fremont County, lowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Waubonsie Creek	Missouri River	L	North (county) line	1	70N	43W	20.9
2	McPherson Creek	Waubonsie Creek	L	North (county) line	1	70N	43W	5.78
3	McPherson Creek	Waubonsie Creek	L	At mouth	1	70N	43W	8.77
4	Waubonsie Creek	Missouri River	L	Road crossing, NE¼ (gage near Bartlett)	11	70N	43W	30.4
5	Plum Creek	Missouri River	L	Road crossing, north line	20	70N	42W	7.65
6	Perkins Creek	Plum Creek	L	At mouth	20	70N	42W	5.91
7	Plum Creek	Missouri River	L	Road crossing, SE1/4	35	70N	43W	22.1
8	Possum Creek	Missouri River	L	Road crossing, NW1/4	24	69N	43W	7.25
9	Knox Creek	Missouri River	L	Road crossing, north line	28	69N	42W	5.2
10	Knox Creek	Missouri River	L	Road crossing, NE1/4	7	68N	42W	9.76
11	West Nishnabotna River	Nishnabotna River	R	Road crossing, north (county) line	5	70N	41W	1281
12	Kilpatric Creek	West Nishnabotna River	L	Road crossing, north (county) line	3	70N	41W	4.34
13	Kilpatric Creek	West Nishnabotna River	L	At mouth	8	70N	41W	6.18
14	Deer Creek	West Nishnabotna River	L	Road crossing, north (county) line	1	70N	41W	27.7
15	Deer Creek	West Nishnabotna River	L	At mouth	8	70N	41W	34.5
16	Driscoll Creek	West Nishnabotna River	R	At mouth	8	70N	41W	4.95
17	West Nishnabotna River	Nishnabotna River	R	Road crossing, north line (gage at Randolph)	17	70N	41W	1326
18	Brush Creek	West Nishnabotna River	R	At mouth	20	70N	41W	5.35
19	Perkins Creek	West Nishnabotna River	L	At mouth	20	70N	41W	5.97
20	Camp Creek	West Nishnabotna River	R	At mouth	32	70N	41W	10.1
21	West Nishnabotna River	Nishnabotna River	R	Below Camp Creek	32	70N	41W	1356
22	Honey Creek	West Nishnabotna River	L	Road crossing, north line	19	70N	40W	6.79
23	Honey Creek	West Nishnabotna River	L	Road crossing, north line	2	69N	41W	13.8
24	Honey Creek	West Nishnabotna River	L	At mouth	5	69N	41W	18.1
25	Walnut Creek	West Nishnabotna River	L	East (county) line	1	70N	40W	161
26	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	23	70N	40W	170
27	Walnut Creek	West Nishnabotna River	L	Road crossing, south 1/2	27	70N	40W	177
28	Hunters Branch	Walnut Creek	R	Road crossing, north (county) line	3	70N	40W	7.59
29	Hunters Branch	Walnut Creek	R	Road crossing, west line	22	70N	40W	13.7
30	Hunters Branch	Walnut Creek	R	At mouth	5	69N	40W	20.1
31	Walnut Creek	West Nishnabotna River	L	Road crossing, east line (gage near Randolph)	7	69N	40W	206

32	Walnut Creek	West Nishnabotna River	L	Road crossing, NE1/4	12	69N	41W	215
33	Walnut Creek	West Nishnabotna River	L	At mouth	8	69N	41W	223
34	West Nishnabotna River	Nishnabotna River	R	Below Walnut Creek	8	69N	41W	1601
35	Coon Run	West Nishnabotna River	R	At mouth	17	69N	41W	6.21
36	Unnamed creek	West Nishnabotna River	R	At mouth	7	68N	41W	6.6
37	West Nishnabotna River	Nishnabotna River	R	Below unnamed creek	7	68N	41W	1625
38	Spring Branch	West Nishnabotna River	R	At mouth	18	68N	41W	6.91
39	Spring Creek	West Nishnabotna River	L	North line	8	68N	41W	4.38
40	Spring Creek	West Nishnabotna River	L	At mouth	25	68N	42W	10.3
41	West Nishnabotna River	Nishnabotna River	R	At mouth	2	67N	42W	1649
42	East Nishnabotna River	Nishnabotna River	L	Road crossing, east (county) line	13	69N	40W	1019
43	Fisher Creek	East Nishnabotna River	L	Road crossing, east (county) line	12	68N	40W	10.4
44	Fisher Creek	East Nishnabotna River	L	Road crossing, west line	36	69N	40W	18.9
45	Fisher Creek	East Nishnabotna River	L	At mouth	27	69N	40W	23.5
46	East Nishnabotna River	Nishnabotna River	L	Below Fisher Creek	27	69N	40W	1059
47	Thomas Ditch	East Nishnabotna River	L	At mouth	11	68N	41W	9.06
48	East Nishnabotna River	Nishnabotna River	L	Below Thomas Ditch	11	68N	41W	1087
49	Ledgewood Creek	East Nishnabotna River	L	Road crossing, north line	34	68N	41W	5.02
50	Dry Run	Ledgewood Creek	R	At mouth	21	68N	41W	6.21
51	Ledgewood Creek	East Nishnabotna River	L	At mouth	21	68N	41W	12.6
52	East Nishnabotna River	Nishnabotna River	L	Below Ledgewood Creek	21	68N	41W	1104
53	Mill Creek	East Nishnabotna River	L	Road crossing, north line	4	67N	40W	8.17
54	Mill Creek	East Nishnabotna River	L	Road crossing, west line	18	67N	40W	16.1
55	Mill Creek	East Nishnabotna River	L	Road crossing, west line	14	67N	41W	21.7
56	Mill Creek	East Nishnabotna River	L	Road crossing, NE1/4	9	67N	41W	30.3
57	Mill Creek	East Nishnabotna River	L	At mouth	31	68N	41W	37.3
58	East Nishnabotna River	Nishnabotna River	L	Below Mill Creek	31	68N	41W	1145
59	East Nishnabotna River	Nishnabotna River	L	At mouth	2	67N	42W	1148
				Below confluence East				
60	Nishnabotna River	Missouri River	L	and West Nishnabotna Rivers	2	67N	42W	2797
61	Nishnabotna River	Missouri River	L	Gage above Hamburg, SE1/4	11	67N	42W	2806
62	Nishnabotna River	Missouri River	L	State line	35	67N	42W	2819
63	West High Creek	High Creek	R	Road crossing, state line	31	67N	40W	8.71
64	Rock Creek	Nishnabotna River	L	State line	34	67N	40W	9.55

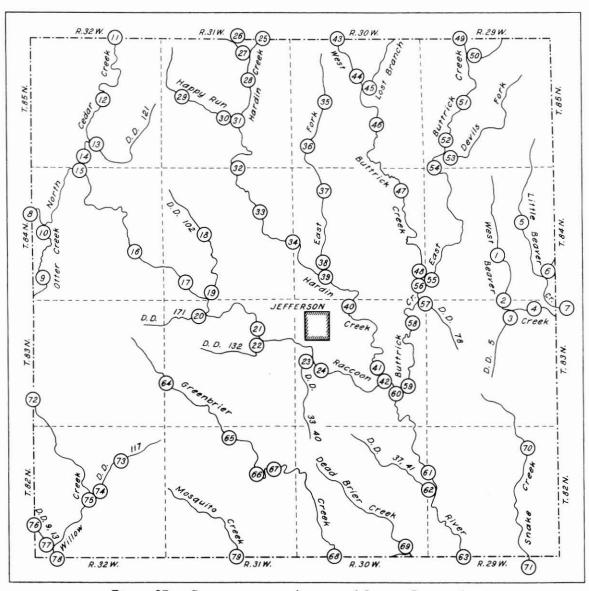


Figure 37. Drainage area index map of Greene County, Iowa.

Area Name of stream Tributary to Description Sec 1 West Beaver Creek Beaver Creek R Road crossing, north line 27	84N	R	Drainage area (sq mi)
	84N		(,
		29W	6.07
2 West Beaver Creek Beaver Creek R Road crossing, NE1/4 3	83N	29W	14.3
3 Drainage Ditch 5 West Beaver Creek R At mouth 3	83N	29W	6.97
4 West Beaver Creek Beaver Creek R Road crossing, west line 1	83N	29W	22.9
5 Little Beaver Creek West Beaver Creek L Road crossing, center 14	84N	29W	8.24
6 Unnamed creek Little Beaver Creek L At mouth 36	84N	29W	6.88
7 Little Beaver Creek West Beaver Creek L At mouth 6	83N	28W	19
8 North Raccoon River Raccoon River L Road crossing, west (county) line 7	84N	32W	1355
9 Otter Creek North Raccoon River R Road crossing, north line 31	84N	32W	8.69
10 Otter Creek North Raccoon River R At mouth 18	84N	32W	17.2
11 Cedar Creek North Raccoon River L Road crossing, north (county) line 3	85N	32W	134
12 Cedar Creek North Raccoon River L Road crossing, SW1/4 15	85N	32W	144
13 Drainage Ditch 121 Cedar Creek L At mouth 33	85N	32W	9.34
14 Cedar Creek North Raccoon River L At mouth 33	85N	32W	162
15 North Raccoon River Raccoon River L Below Cedar Creek 33	85N	32W	1540
16 North Raccoon River Raccoon River L Road crossing, SE1/4 23	84N	32W	1552
17 North Raccoon River Raccoon River L Road crossing, NE1/4 31	84N	31W	1564
18 Drainage Ditch 102 North Raccoon River L Road crossing, north line 20	84N	31W	10.4
19 Drainage Ditch 102 North Raccoon River L At mouth 33	84N	31W	18.2
20 Drainage Ditch 171 North Raccoon River R At mouth 5 Road crossing, SW1/4	83N	31W	5.28
21 North Raccoon River Raccoon River L (discontinued gage near 11 Jefferson)	83N	31W	1596
22 Drainage Ditch 132 North Raccoon River R At mouth 11	83N	31W	6.07
23 Drainage Ditch 33, 40 North Raccoon River R At mouth 19	83N	30W	8.39
24 North Raccoon River Raccoon River Raccoon River L Road crossing, west line (gage near Jefferson)	83N	30W	1619
25 Hardin Creek North Raccoon River L Road crossing, north (county) line 2	85N	31W	50.4
26 Drainage Ditch 28 Reading Creek L At mouth 2	85N	31W	5.65
27 Reading Creek Hardin Creek R At mouth 2	85N	31W	12.8
28 Hardin Creek North Raccoon River L Road crossing, north line 14	85N	31W	70.7
29 Happy Run Hardin Creek R Road crossing, west line 17	85N	31W	7.58
30 Happy Run Hardin Creek R At mouth 22	85N	31W	11.5

31	Hardin Creek	North Raccoon River	L	Below Happy Run	22	85N	31W	87
32	Hardin Creek	North Raccoon River	L	Road crossing, north line	3	84N	31W	96.8
33	Hardin Creek	North Raccoon River	L	Road crossing, north line	14	84N	31W	101
34	Hardin Creek	North Raccoon River	L	Road crossing, west line	19	84N	30W	107
35	East Fork Hardin Creek	Hardin Creek	L	Road crossing, north line	20	85N	30W	7.57
36	East Fork Hardin Creek	Hardin Creek	L	Road crossing, north line	31	85N	30W	16.4
37	East Fork Hardin Creek	Hardin Creek	L	Road crossing, north line (gage near Churdan)	8	84N	30W	24
38	East Fork Hardin Creek	Hardin Creek	L	At mouth	32	84N	30W	34.2
39	Hardin Creek	North Raccoon River	L	Below East Fork Hardin Creek	32	84N	30W	151
40	Hardin Creek	North Raccoon River	L	Road crossing, north 1/2	4	83N	30W	159
41	Hardin Creek	North Raccoon River	L	At mouth	23	83N	30W	168
42	North Raccoon River	Raccoon River	L	Below Hardin Creek	23	83N	30W	1794
43	West Buttrick Creek	Buttrick Creek	R	Road crossing, north (county) line	4	85N	30W	80.1
44	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	15	85N	30W	83.4
45	Lost Branch	West Buttrick Creek	L	At mouth	15	85N	30W	8.02
46	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	27	85N	30W	96.4
47	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	11	84N	30W	107
48	West Buttrick Creek	Buttrick Creek	R	At mouth	30	84N	29W	116
49	East Buttrick Creek	Buttrick Creek	L	Road crossing, north (county) line	5	85N	29W	27.9
50	Lost Grove Creek	East Buttrick Creek	L	At mouth	4	85N	29W	10.1
51	East Buttrick Creek	Buttrick Creek	L	Road crossing, north line	20	85N	29W	51.3
52	East Buttrick Creek	Buttrick Creek	L	Road crossing, NW1/4	32	85N	29W	60.8
53	Devils Fork	East Buttrick Creek	L	At mouth	31	85N	29W	9.52
54	East Buttrick Creek	Buttrick Creek	L	Road crossing, north line	6	84N	29W	71.4
55	East Buttrick Creek	Buttrick Creek	L	At mouth	30	84N	29W	80.8
56	Buttrick Creek	North Raccoon River	L	Below confluence East and West Buttrick Creeks	30	84N	29W	196
57	Drainage Ditch 78	Buttrick Creek	L	At mouth	1	83N	30W	5.99
58	Buttrick Creek	North Raccoon River	L	Road crossing, NW1/4	12	83N	30W	210
59	Buttrick Creek	North Raccoon River	L	At mouth	26	83N	30W	218
60	North Raccoon River	Raccoon River	L	Below Buttrick Creek	26	83N	30W	2012
61	North Raccoon River	Raccoon River	L	Road crossing, west 1/2	18	82N	29W	2027
62	Drainage Ditch 37, 41	North Raccoon River	R	At mouth	19	82N	29W	9.42
63	North Raccoon River	Raccoon River	L	South (county) line	32	82N	29W	2045
64	Greenbrier Creek	North Raccoon River	R	Road crossing, north line	30	83N	31W	10.1
65	Greenbrier Creek	North Raccoon River	R	Road crossing, west line	3	82N	31W	19.3

66	Greenbrier Creek	North Raccoon River	R	Road crossing, NW corner	14	82N	31W	26.3
67	Greenbrier Creek	North Raccoon River	R	Road crossing, west line	12	82N	31W	33.4
68	Greenbrier Creek	North Raccoon River	R	Road crossing, south (county) line	32	82N	30W	43.9
69	Dead Brier Creek	Greenbrier Creek	L	At mouth	36	82N	30W	10.4
70	Snake Creek	North Raccoon River	L	Road crossing, north line	11	82N	29W	9.4
71	Snake Creek	North Raccoon River	L	At mouth	2	81N	29W	17.3
72	Willow Creek	Middle Raccoon River	L	Road crossing, west (county) line	30	83N	32W	35.9
73	Drainage Ditch 117	Willow Creek	L	Road crossing, west line	11	82N	32W	5.44
74	Drainage Ditch 117	Willow Creek	L	At mouth	21	82N	32W	14.6
75	Willow Creek	Middle Raccoon River	L	Below Drainage Ditch 117	21	82N	32W	66.5
76	Drainage Ditch 9, 13	Willow Creek	R	Road crossing, west (county) line	30	82N	32W	12.2
77	Drainage Ditch 9, 13	Willow Creek	R	At mouth	31	82N	32W	17.3
78	Willow Creek	Middle Raccoon River	L	South (county) line	31	82N	32W	92.1
79	Mosquito Creek	Middle Raccoon River	L	Road crossing, south (county) line	34	82N	31W	10.2

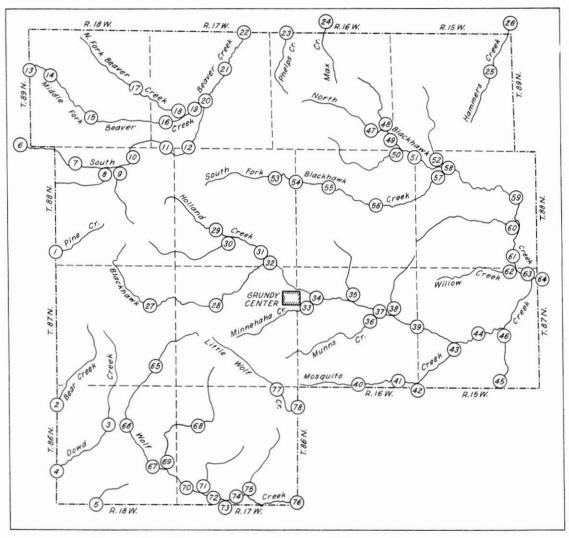


Figure 38. Drainage area index map of Grundy County, Iowa.

			Bank	Point of determination of drainage area				Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)	
1	Pine Creek	Iowa River	L	Road crossing, west (county) line	31	88N	18W	7.24	
2	Bear Creek	Iowa River	L	Road crossing, west (county) line	6	86N	18W	7.18	
3	Dowd Creek	Iowa River	L	Road crossing, north line	16	86N	18W	6.31	
4	Dowd Creek	Iowa River	L	Road crossing, west (county) line	30	86N	18W	16.6	
5	Unnamed creek	Asher Creek	R	Road crossing, south (county) line	33	86N	18W	4.51	
6	South Beaver Creek	Beaver Creek	R	Road crossing, north line	3	88N	19W	10.7	
7	South Beaver Creek	Beaver Creek	R	Road crossing, west line	5	88N	18W	19.6	
8	Unnamed creek	South Beaver Creek	R	At mouth	9	88N	18W	6.98	
9	Unnamed creek	South Beaver Creek	R	At mouth	9	88N	18W	6.04	
10	South Beaver Creek	Beaver Creek	R	Road crossing, east 1/2	3	88N	18W	36.7	
11	South Beaver Creek	Beaver Creek	R	Road crossing, north line	1	88N	18W	43.1	
12	South Beaver Creek	Beaver Creek	R	Road crossing, north line	6	88N	17W	48.6	
13	Middle Fork Beaver Creek	South Beaver Creek	L	Road crossing, west (county) line	18	89N	18W	4.3	
14	Middle Fork Beaver Creek	South Beaver Creek	L	Road crossing, west line	17	89N	18W	10.9	
15	Middle Fork Beaver Creek	South Beaver Creek	L	Road crossing, west line	27	89N	18W	21.4	
16	Middle Fork Beaver Creek	South Beaver Creek	L	Road crossing, west line	29	89N	17W	27.5	
17	North Fork Beaver Creek	Middle Fork Beaver Creek	L	Road crossing, north line	24	89N	18W	6.78	
18	North Fork Beaver Creek	Middle Fork Beaver Creek	L	At mouth	28	89N	17W	12.2	
19	Middle Fork Beaver Creek	South Beaver Creek	L	At mouth	28	89N	17W	40.8	
20	South Beaver Creek	Beaver Creek	R	Below Middle Fork Beaver Creek	28	89N	17W	96.1	
21	South Beaver Creek	Beaver Creek	R	Road crossing, north line	15	89N	17W	105	
22	South Beaver Creek	Beaver Creek	R	Road crossing, north (county) line	2	89N	17W	114	
23	Phelps Creek	Beaver Creek	R	Road crossing, north (county) line	6	89N	16W	6.84	
24	Max Creek	Beaver Creek	R	At mouth	27	90N	16W	6.92	
25	Hammers Creek	Beaver Creek	R	Road crossing, north line	14	89N	15W	7.96	
26	Hammers Creek	Beaver Creek	R	At mouth	36	90N	15W	11.8	
27	Blackhawk Creek	Cedar River	R	Road crossing, north line	14	87N	18W	11.7	
28	Blackhawk Creek	Cedar River	R	West line	9	87N	17W	21.2	

29	Holland Creek	Blackhawk Creek	L	Road crossing, west line	28	88N	17W	8.25
30	Unnamed creek	Holland Creek	R	At mouth	27	88N	17W	6.57
31	Holland Creek	Blackhawk Creek	L	At mouth	35	88N	17W	21.6
32	Blackhawk Creek	Cedar River	R	Below Holland Creek	35	88N	17W	51.7
33	Minnehaha Creek	Blackhawk Creek	R	At mouth	77	87N	16W	10.5
34	Blackhawk Creek	Cedar River	R	Below Minnehaha Creek	77	87N	16W	69.6
35	Unnamed creek	Blackhawk Creek	L	At mouth	9	87N	16W	6.51
36	Munns Creek	Blackhawk Creek	R	At mouth	14	87N	16W	7.57
37	Blackhawk Creek	Cedar River	R	Below Munns Creek	14	87N	16W	90
38	Unnamed creek	Blackhawk Creek	L	At mouth	14	87N	16W	6.84
39	Blackhawk Creek	Cedar River	R	Road crossing, west line	18	87N	15W	103
40	Mosquito Creek	Blackhawk Creek	R	Road crossing, west line	34	87N	16W	7.97
41	Mosquito Creek	Blackhawk Creek	R	Road crossing, west line	36	87N	16W	10.2
42	Unnamed creek	Mosquito Creek	R	At mouth	31	87N	15W	5.8
43	Mosquito Creek	Blackhawk Creek	R	At mouth	20	87N	15W	24
44	Blackhawk Creek	Cedar River	R	Road crossing, west line	22	87N	15W	135
45	Unnamed creek	Blackhawk Creek	R	Road crossing, west line	35	87N	15W	4.08
46	Unnamed creek	Blackhawk Creek	R	At mouth	14	87N	15W	10.5
47	North Blackhawk Creek	Blackhawk Creek	L	Road crossing, west line	36	89N	16W	7.94
48	Unnamed creek	North Blackhawk Creek	L	At mouth	36	89N	16W	8
49	North Blackhawk Creek	Blackhawk Creek	L	Road crossing, west line	31	89N	15W	18
50	Unnamed creek	North Blackhawk Creek	R	At mouth	31	89N	15W	5.84
51	North Blackhawk Creek	Blackhawk Creek	L	Road crossing, west line	6	89N	15W	25.4
52	Unnamed creek	North Blackhawk Creek	L	At mouth	5	88N	15W	7.21
53	South Fork Blackhawk Creek	North Blackhawk Creek	R	Road crossing, west line	12	88N	17W	8
54	South Fork Blackhawk Creek	North Blackhawk Creek	R	Road crossing, west line	7	88N	16W	14.8
55	South Fork Blackhawk Creek	North Blackhawk Creek	R	North line	17	88N	16W	21.8
56	South Fork Blackhawk Creek	North Blackhawk Creek	R	Road crossing, west line	14	88N	16W	31.9
57	South Fork Blackhawk Creek	North Blackhawk Creek	R	At mouth	8	88N	15W	41
58	North Blackhawk Creek	Blackhawk Creek	L	Below South Fork Blackhawk Creek	8	88N	15W	76.3
59	North Blackhawk Creek	Blackhawk Creek	L	West line	13	88N	15W	86.6
60	Unnamed creek	North Blackhawk Creek	R	At mouth	24	88N	15W	8.7
61	North Blackhawk Creek	Blackhawk Creek	L	Road crossing, east 1/2	35	88N	15W	107
62	Willow Creek	North Blackhawk Creek	R	At mouth	1	87N	15W	9.61
63	North Blackhawk Creek	Blackhawk Creek	L	At mouth	1	87N	15W	119
64	Blackhawk Creek	Cedar River	R	Road crossing, east (county) line	1	87N	15W	278
65	Wolf Creek	Cedar River	R	Road crossing, NE corner	35	87N	18W	8.27
66	Wolf Creek	Cedar River	R	Road crossing, north line	15	86N	18W	12.9
				<u> </u>				

67	Wolf Creek	Cedar River	R	Road crossing, west line	25	86N	18W	16.7
68	Unnamed creek	Wolf Creek	L	Road crossing, NW corner	17	86N	17W	8.98
69	Unnamed creek	Wolf Creek	L	At mouth	2	86N	15W	17.2
70	Wolf Creek	Cedar River	R	Road crossing, north 1/2	31	86N	17W	36.8
71	Unnamed creek	Wolf Creek	L	At mouth	32	86N	17W	6.74
72	Wolf Creek	Cedar River	R	Road crossing, west line	33	86N	17W	46.6
73	Unnamed creek	Wolf Creek	R	At mouth	33	86N	17W	5.94
74	Wolf Creek	Cedar River	R	Road crossing, west line	34	86N	17W	53.9
75	Unnamed creek	Wolf Creek	L	At mouth	34	86N	17W	5.25
76	Wolf Creek	Cedar River	R	East (county) line	36	86N	17W	64.2
77	Little Wolf Creek	Wolf Creek	L	Road crossing, west line	1	86N	17W	5.43
78	Little Wolf Creek	Wolf Creek	L	East (county) line	12	86N	17W	10.6

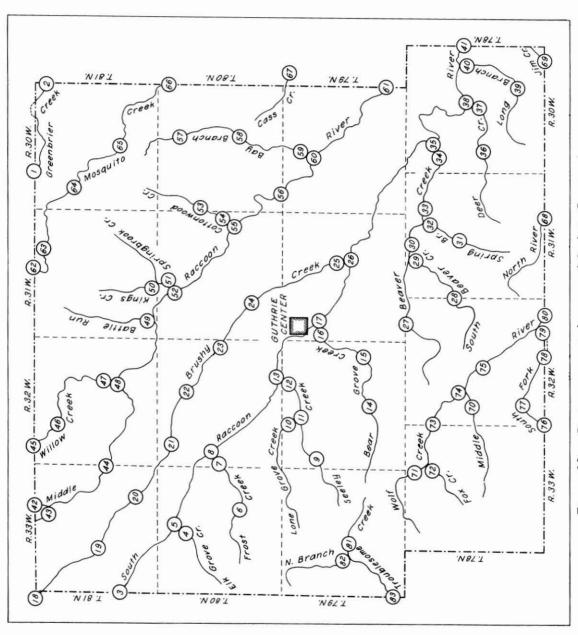


Figure 39. Drainage area index map of Guthrie County, lowa.

			Bank	Point of determination of drainage area Drainage area				
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Greenbrier Creek	North Raccoon River	R	Road crossing, north (county) line	5	81N	30W	43.9
2	Greenbrier Creek	North Raccoon River	R	East (county) line	1	81N	30W	66.4
3	South Raccoon River	Raccoon River	R	Road crossing, west (county) line	30	81N	33W	7.01
4	Elk Grove Creek	South Raccoon River	R	At mouth	3	80N	33W	7.25
5	South Raccoon River	Raccoon River	R	Below Elk Grove Creek	3	80N	33W	22.3
6	Frost Creek	South Raccoon River	R	Road crossing, west line	23	80N	33W	5.26
7	Frost Creek	South Raccoon River	R	At mouth	18	80N	32W	12.7
8	South Raccoon River	Raccoon River	R	Below Frost Creek	18	80N	32W	41.4
9	Seeley Creek	South Raccoon River	R	Road crossing, center	7	79N	32W	6.74
10	Lone Grove Creek	Seeley Creek	L	At mouth	4	79N	32W	6.3
11	Seeley Creek	South Raccoon River	R	Below Lone Grove Creek	4	79N	32W	16.5
12	Seeley Creek	South Raccoon River	R	At mouth	35	80N	32W	22.2
13	South Raccoon River	Raccoon River	R	Below Seeley Creek	35	80N	32W	75.7
14	Bear Grove Creek	South Raccoon River	R	Road crossing, west line	27	79N	32W	10
15	Bear Grove Creek	South Raccoon River	R	North line	25	79N	32W	20.9
16	Bear Grove Creek	South Raccoon River	R	At mouth	7	79N	31W	28.4
17	South Raccoon River	Raccoon River	R	Below Bear Grove Creek	7	79N	31W	112
18	Brushy Creek	South Raccoon River	L	Road crossing, north (county) line	1	81N	34W	83.1
19	Brushy Creek	South Raccoon River	L	Road crossing, west line	21	81N	33W	95.5
20	Brushy Creek	South Raccoon River	L	Road crossing, north line	35	81N	33W	102
21	Brushy Creek	South Raccoon River	L	Road crossing, west line	5	80N	32W	108
22	Brushy Creek	South Raccoon River	L	Road crossing, north 1/2	10	80N	32W	116
23	Brushy Creek	South Raccoon River	L	North line	24	80N	32W	125
24	Brushy Creek	South Raccoon River	L	Road crossing, NE1/4	29	80N	31W	131
25	Brushy Creek	South Raccoon River	L	At mouth	22	79N	31W	142
26	South Raccoon River	Raccoon River	R	Below Brushy Creek	22	79N	31W	264
27	Beaver Creek	South Raccoon River	R	Road crossing, north line	2	78N	32W	6.4
28	South Beaver Creek	Beaver Creek	R	West line	7	78N	31W	6.09
29	South Beaver Creek	Beaver Creek	R	At mouth	4	78N	31W	12.2
30	Beaver Creek	South Raccoon River	R	Road crossing, NW1/4	4	78N	31W	25.5
31	Spring Branch	Beaver Creek	R	Rorad crossing, SE1/4	9	78N	31W	7.4
32	Spring Branch	Beaver Creek	R	At mouth	3	78N	31W	10.8
33	Beaver Creek	South Raccoon River	R	Road crossing, west line	2	78N	31W	39.1
34	Beaver Creek	South Raccoon River	R	At mouth	5	78N	30W	46.8

35	South Raccoon River	Raccoon River	R	Below Beaver Creek	5	78N	30W	330
36	Deer Creek	South Raccoon River	R	Road crossing, NE corner	19	78N	30W	9.59
37	Deer Creek	South Raccoon River	R	At mouth	15	78N	30W	14.2
38	South Raccoon River	Raccoon River	R	Below Deer Creek	15	78N	30W	351
39	Long Branch	South Raccoon River	R	Road crossing, west line	36	78N	30W	5.22
40	Long Branch	South Raccoon River	R	At mouth	12	78N	30W	13.8
41	South Raccoon River	Raccoon River	R	East (county) line	13	78N	30W	370
42	Middle Raccoon River	South Raccoon River	L	North (county) line	3	81N	33W	223
43	Unnamed creek	Middle Raccoon River	R	At mouth	3	81N	33W	7.8
44	Middle Raccoon River	South Raccoon River	L	West line	19	81N	32W	241
45	Willow Creek	Middle Raccoon River	L	North (county) line	6	81N	32W	92.1
46	Willow Creek	Middle Raccoon River	L	West line	9	81N	32W	97.9
47	Willow Creek	Middle Raccoon River	L	At mouth	27	81N	32W	114
48	Middle Raccoon River	South Raccoon River	L	Below Willow Creek	27	81N	32W	367
49	Battle Run	Middle Raccoon River	L	At mouth	31	81N	31W	8.47
50	Kings Creek	Springbrook Creek	R	At dam, NW¼ (gage near Guthrie Center)	4	80N	31W	5.18
51	Springbrook Creek	Middle Raccoon River	L	At mouth	4	80N	31W	12.4
52	Middle Raccoon River	South Raccoon River	L	Below Springbrook Creek	4	80N	31W	398
53	Cottonwood Creek	Middle Raccoon River	L	Road crossing, north line	18	80N	30W	5.93
54	Cottonwood Creek	Middle Raccoon River	L	At mouth	24	80N	31W	12.2
55	Middle Raccoon River	South Raccoon River	L	Below Cottonwood Creek	24	80N	31W	423
56	Middle Raccoon River	South Raccoon River	L	Road crossing, north line	6	79N	30W	434
57	Bay Branch	Middle Raccoon River	L	North line	10	80N	30W	5.93
58	Bay Branch	Middle Raccoon River	L	Road crossing, north line	27	80N	30W	14.9
59	Bay Branch	Middle Raccoon River	L	At mouth	9	79N	30W	21.9
60	Middle Raccoon River	South Raccoon River	L	Below Bay Branch	9	79N	30W	468
61	Middle Raccoon River	South Raccoon River	L	East (county) line	36	79N	30W	484
62	Mosquito Creek	Middle Raccoon River	L	Road crossing, north (county) line	3	81N	31W	10.2
63	Mosquito Creek	Middle Raccoon River	L	Road crossing, west line	2	81N	31W	25.3
64	Mosquito Creek	Middle Raccoon River	L	Road crossing, north line	17	81N	30W	35
65	Mosquito Creek	Middle Raccoon River	L	Road crossing, west line	27	81N	30W	45.7
66	Mosquito Creek	Middle Raccoon River	L	East (county) line	1	80N	30W	58.3
67	Cass Creek	Mosquito Creek	R	At mouth	6	79N	29W	7.3
68	North River	Des Moines River	R	Road crossing, south (county) line	34	78N	31W	8.18
69	Jim Creek	North Branch North River	L	Road crossing, south (county) line	36	78N	30W	7.51
70	Middle River	Des Moines River	R	Road crossing, west line	17	78N	32W	7.54

71	Wolf Creek	Middle River	L	Road crossing, west line	2	78N	33W	6.44
72	Fox Creek	Wolf Creek	R	At mouth	2	78N	33W	5.71
73	Wolf Creek	Middle River	L	Road crossing, west line	6	78N	32W	16.2
74	Wolf Creek	Middle River	L	At mouth	17	78N	32W	19.4
75	Middle River	Des Moines River	R	Road crossing, north line	21	78N	32W	30.8
76	South Fork Middle River	Middle River	R	South (county) line	31	78N	32W	16.7
77	South Fork Middle River	Middle River	R	Road crossing, west line	32	78N	32W	24
78	South Fork Middle River	Middle River	R	Road crossing, south (county) line	34	78N	32W	29.1
79	South Fork Middle River	Middle River	R	At mouth	35	78N	32W	35.8
80	Middle River	Des Moines River	R	Road crossing, south (county) line	36	78N	32W	72.8
81	Troublesome River	East Nishnabotna River	L	Road crossing, west line	21	79N	33W	7.29
82	North Branch Troublesome River	Troublesome Creek	R	At mouth	20	79N	33W	11.2
83	Troublesome River	East Nishnabotna River	L	West (county) line	31	79N	33W	23.9

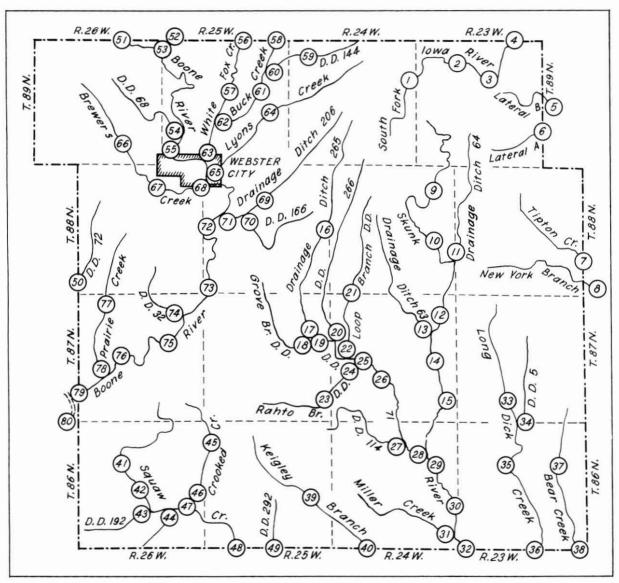


Figure 40. Drainage area index map of Hamilton County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 40 Hamilton County

		-	Bank	Point of determination of dra	rea		Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	South Fork Iowa River	Iowa River	R	Road crossing, north line	13	89N	24W	7.5
2	South Fork Iowa River	Iowa River	R	Road crossing, west line	9	89N	23W	13.8
3	South Fork Iowa River	Iowa River	R	Road crossing, south 1/2	10	89N	23W	26.8
4	South Fork Iowa River	Iowa River	R	Road crossing, north (county) line	2	89N	23W	30
5	Big 4 Drainage Ditch, Lateral B	South Fork Iowa River	R	At mouth	20	89N	22W	8.46
6	Big 4 Drainage Ditch, Lateral A	South Fork Iowa River	R	Road crossing, east (county) line	25	89N	23W	4.62
7	Tipton Creek	South Fork Iowa River	R	East (county) line	25	88N	23W	12.4
8	New York Branch	Tipton Creek	R	At mouth	32	88N	22W	13.2
9	Skunk River	Mississippi River	R	Road crossing, west line	12	88N	24W	10.3
10	Skunk River	Mississippi River	R	Road crossing, west line	24	88N	24W	17.3
11	Tuttle Drainage Ditch 64	Skunk River	L	At mouth	25	88N	24W	9.43
12	Skunk River	Mississippi River	R	Road crossing, north line	12	87N	24W	33.2
13	Pettinger Drainage Ditch 63	Skunk River	R	At mouth	11	87N	24W	8.9
14	Skunk River	Mississippi River	R	Road crossing, west line	24	87N	24W	44.7
15	Skunk River	Mississippi River	R	Road crossing, north line	36	87N	24W	54.9
16	Fonken Drainage Ditch 265	Mud Lake Drainage Ditch 71	L	Road crossing, north line	24	88N	25W	8.05
17	Fonken Drainage Ditch 265	Mud Lake Drainage Ditch 71	L	At mouth	13	87N	25W	12.6
18	Grove Branch Drainage Ditch	Mud Lake Drainage Ditch 71	R	At mouth Below confluence Grove	13	87N	25W	10
19	Mud Lake Drainage Ditch 71	Skunk River	R	Branch and Fonken 265 Drainage Ditches	13	87N	25W	22.6
20	Van Langen Drainage Ditch 266	Mud Lake Drainage Ditch 71	L	At mouth	18	87N	24W	7.52
21	Loop Branch Drainage Ditch	Mud Lake Drainage Ditch 71	L	Road crossing, north line	5	87N	24W	7.14
22	Loop Branch Drainage Ditch	Mud Lake Drainage Ditch 71	L	At mouth	18	87N	24W	12.4
23	Rahto Branch Drainage Ditch	Mud Lake Drainage Ditch 71	R	Road crossing, north line	36	87N	25W	5.84
24	Rahto Branch Drainage Ditch	Mud Lake Drainage Ditch 71	R	At mouth	18	87N	24W	13.9
25	Mud Lake Drainage Ditch 71	Skunk River	R	Below Rahto Branch Drainage Ditch	18	87N	24W	57.7
26	Mud Lake Drainage Ditch 71	Skunk River	R	Road crossing, north line	28	87N	24W	64.1
27	Drainage Ditch 114	Mud Lake Drainage Ditch 71	R	At mouth	10	86N	24W	10.5
28	Mud Lake Drainage Ditch 71	Skunk River	R	At mouth	11	86N	24W	83.9
29	Skunk River	Mississippi River	R	Road crossing, north line	14	86N	24W	149

FINAL Drainage Areas of Iowa Streams.xls Table No. 40 Hamilton County

30 31	Skunk River Miller Creek	Mississippi River Skunk River	R R	Road crossing, north line At mouth	25 36	86N 86N	24W 24W	160 10.6
32	Skunk River	Mississippi River	R	Road crossing, south (county) line	31	86N	23W	173
33	Long Dick Creek	Skunk River	L	Road crossing, north line	33	87N	23W	6.08
34	Drainage Ditch 5	Long Dick Creek	L	At mouth	4	86N	23W	7.69
35	Long Dick Creek	Skunk River	L	Road crossing, north line	16	86N	23W	20
36	Long Dick Creek	Skunk River	L	Road crossing, south (county) line	34	86N	23W	25.2
37	Bear Creek	Skunk River	L	Road crossing, north line	23	86N	23W	5.17
38	Bear Creek	Skunk River	L	Road crossing, south (county) line	36	86N	23W	11.5
39	Keigley Branch	Skunk River	R	Road crossing, west line	24	86N	25W	9.39
40	Keigley Branch	Skunk River	R	Road crossing, south (county) line	32	86N	24W	18.1
41	Squaw Creek	Skunk River	R	Road crossing, north line	16	86N	26W	10.2
42	Squaw Creek	Skunk River	R	Road crossing, west line	22	86N	26W	19.8
43	Crim Joint Drainage Ditch 192	Squaw Creek	R	At mouth	27	86N	26W	7.25
44	Drainage Ditch 245	Squaw Creek	R	At mouth	26	86N	26W	6.09
45	Crooked Creek	Squaw Creek	L	Road crossing, north line	7	86N	25W	7.69
46	Crooked Creek	Squaw Creek	L	At mouth	25	86N	26W	17.7
47	Squaw Creek	Skunk River	R	Below Crooked Creek	25	86N	26W	55.1
48	Squaw Creek	Skunk River	R	Road crossing, south (county) line	32	86N	25W	62.6
49	Scott Drainage Ditch 292	Squaw Creek	L	Road crossing, south (county) line	34	86N	25W	4.76
50	Drainage Ditch 72	Brushy Creek	L	Road crossing, west (county) line	31	88N	26W	4.36
51	Boone River	Des Moines River	L	Road crossing, north (county) line	3	89N	26W	531
52	Eagle Creek	Boone River	L	At mouth	6	89N	25W	108
53	Boone River	Des Moines River	L	Below Eagle Creek	6	89N	25W	642
54	Drainage Ditch 68	Boone River	R	At mouth	30	89N	25W	9.12
55	Boone River	Des Moines River	L	Road crossing, north line	31	89N	25W	660
56	White Fox Creek	Boone River	L	North (county) line	3	89N	25W	76.4
57	White Fox Creek	Boone River	L	Road crossing, west 1/2	15	89N	25W	82.7
58	Buck Creek	White Fox Creek	L	North (county) line	1	89N	25W	10.2
59	Hunter Joint Drainage Ditch 144	Buck Creek	L	Road crossing, west line	5	89N	24W	4.66

FINAL Drainage Areas of Iowa Streams.xls Table No. 40 Hamilton County

60	Hunter Joint Drainage Ditch 144	Buck Creek	L	At mouth	11	89N	25W	8.78
61	Buck Creek	White Fox Creek	L	Road crossing, east 1/2	14	89N	25W	22.4
62	Buck Creek	White Fox Creek	L	At mouth	28	89N	25W	24.7
63	White Fox Creek	Boone River	L	At mouth	33	89N	25W	112
64	Lyons Creek	Boone River	L	Road crossing, west 1/2	24	89N	25W	8.7
65	Lyons Creek	Boone River	L	At mouth	6	88N	25W	18.4
66	Brewers Creek	Boone River	R	Road crossing, north line	35	89N	26W	9.43
67	Brewers Creek	Boone River	R	Road crossing, north line	10	88N	26W	17.1
68	Brewers Creek	Boone River	R	At mouth	6	88N	25W	22.5
69	Drainage Ditch 206	Boone River	L	Road crossing, west line	10	88N	25W	6.57
70	Drainage Ditch 166	Drainage Ditch 206	L	At mouth	17	88N	25W	10.3
71	Drainage Ditch 206	Boone River	L	At mouth	18	88N	25W	23.1
72	Boone River	Des Moines River	L	Road crossing, SE¼ (gage near Webster City)	18	88N	25W	844
73	Boone River	Des Moines River	L	Road crossing, SW1/4	31	88N	25W	856
74	Drainage Ditch 32	Boone River	R	At mouth	12	87N	26W	6.45
75	Boone River	Des Moines River	L	Road crossing, north 1/2	14	87N	26W	879
76	Boone River	Des Moines River	L	Road crossing, SW1/4	16	87N	26W	887
77	Prairie Creek	Boone River	R	Road crossing, center	5	87N	26W	7.99
78	Prairie Creek	Boone River	R	At mouth	20	87N	26W	12.8
79	Boone River	Des Moines River	L	At mouth	36	87N	27W	906
80	Des Moines River	Mississippi River	R	Road crossing, north line	1	86N	27W	5403

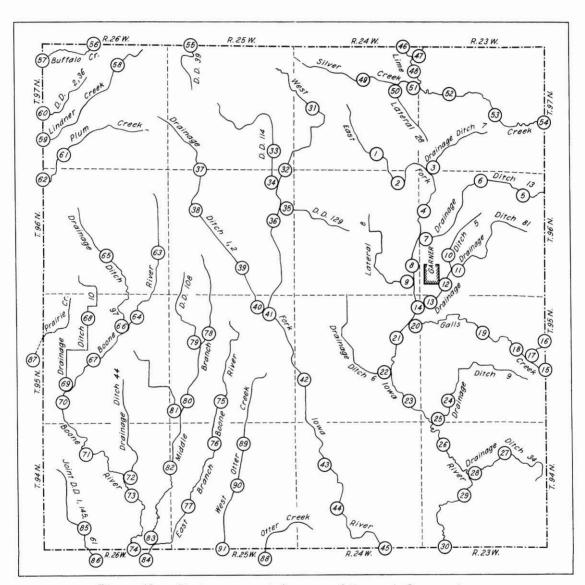


Figure 41. Drainage area index map of Hancock County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 41 Hancock County

		Bank Point of determination of drainage area			Drainage area			
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	East Fork Iowa River	Iowa River	L	Road crossing, west line	35	97N	24W	7.94
2	East Fork Iowa River	Iowa River	L	Road crossing, west line	1	96N	24W	14.7
3	Drainage Ditch 7	East Fork Iowa River	L	At mouth	6	96N	23W	5.85
4	East Fork Iowa River	Iowa River	L	Road crossing, north line	18	96N	23W	25.1
5	Drainage Ditch 13	East Fork Iowa River	L	Road crossing, west line	12	96N	23W	3.55
6	Drainage Ditch 13	East Fork Iowa River	L	Road crossing, south 1/2	4	96N	23W	11
7	Drainage Ditch 13	East Fork Iowa River	L	At mouth	24	96N	24W	14.9
8	East Fork Iowa River	Iowa River	L	Road crossing, east 1/2	25	96N	24W	45.1
9	Lateral 8	East Fork Iowa River	R	At mouth	25	96N	24W	9.33
10	Drainage Ditch 5	East Fork Iowa River	L	Road crossing, center	29	96N	23W	2.29
11	Drainage Ditch 81	Drainage Ditch 5	L	At mouth	29	96N	23W	6.56
12	Drainage Ditch 5	East Fork Iowa River	L	Road crossing, west 1/2	32	96N	23W	14.9
13	Drainage Ditch 5	East Fork Iowa River	L	At mouth	1	95N	24W	21.7
14	East Fork Iowa River	Iowa River	L	Below Drainage Ditch 5	1	95N	24W	78.8
15	Galls Creek	East Fork Iowa River	L	Road crossing, east (county) line	24	95N	23W	5.47
16	Drainage Ditch 120	Galls Creek	R	Road crossing, east (county) line	13	95N	23W	3.94
17	Drainage Ditch 120	Galls Creek	R	At mouth	13	95N	23W	7.76
18	Galls Creek	East Fork Iowa River	L	Road crossing, west line	13	95N	23W	13.9
19	Galls Creek	East Fork Iowa River	L	Road crossing, west line	10	95N	23W	21.3
20	Galls Creek	East Fork Iowa River	L	At mouth	12	95N	24W	25
21	East Fork Iowa River	Iowa River	L	Road crossing, north line	14	95N	24W	113
22	Drainage Ditch 6	East Fork Iowa River	R	At mouth	23	95N	24W	9.02
23	East Fork Iowa River	Iowa River	L	Road crossing, NW¼ (gage near Klemme)	36	95N	24W	133
24	Drainage Ditch 9	East Fork Iowa River	L	Road crossing, north line	32	95N	23W	10.5
25	Drainage Ditch 9	East Fork Iowa River	L	At mouth	6	94N	23W	14.4
26	East Fork Iowa River	Iowa River	L	Road crossing, west line	8	94N	23W	161
27	Drainage Ditch 34	East Fork Iowa River	L	Road crossing, west line	11	94N	23W	5.23
28	Drainage Ditch 34	East Fork Iowa River	L	At mouth	16	94N	23W	10.6
29	East Fork Iowa River	Iowa River	L	Road crossing, west line	21	94N	23W	179
30	East Fork Iowa River	Iowa River	L	South (county) line	32	94N	23W	188
31	West Fork Iowa River	Iowa River	R	Road crossing, NE corner	19	97N	24W	13.1
32	West Fork Iowa River	Iowa River	R	North line	1	96N	25W	26

FINAL Drainage Areas of Iowa Streams.xls Table No. 41 Hancock County

Drainage Ditch 114 West Fork Iowa River R At mouth 1 96N 25W West Fork Iowa River Iowa River R Road crossing, north line 13 96N 25W Iowa River R Road crossing, north line 13 96N 25W Iowa River R Road crossing, north line 13 96N 25W Iowa River R Road crossing, north line Indicate In	9.06
36West Fork lowa Riverlowa RiverRRoad crossing, north line1396N25W37Drainage Ditch 1, 2, West MainWest Fork lowa RiverRRoad crossing, north line596N25W38Drainage Ditch 1, 2, West MainWest Fork lowa RiverRRoad crossing, north line1796N25W39Drainage Ditch 1, 2, West MainWest Fork lowa RiverRRoad crossing, south 1/22796N25W40Drainage Ditch 1, 2, West MainWest Fork lowa RiverRAt mouth295N25W41West Fork lowa Riverlowa RiverRBelow Drainage Ditch 1, 2, West Main295N25W42West Fork lowa Riverlowa RiverRRoad crossing, north line3095N24W43West Fork lowa Riverlowa RiverRRoad crossing, north line (gage near Klemme)1794N24W44West Fork lowa Riverlowa RiverRRoad crossing, NE corner2994N24W	12.5
Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, north line 5 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, north line 17 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, south 1/2 27 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R At mouth 2 95N 25W West Fork Iowa River Iowa River R Road crossing, north line 30 95N 25W West Fork Iowa River Iowa River R Road crossing, north line 30 95N 24W West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) West Fork Iowa River Iowa River R Road crossing, NE corner 29 94N 24W	12.4
Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, north line 17 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, south 1/2 27 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R At mouth 2 95N 25W West Fork Iowa River Iowa River R Below Drainage Ditch 1, 2, West Main 2 95N 25W West Main 3 95N 25W West Fork Iowa River Iowa River R Road crossing, north line 30 95N 24W West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) West Fork Iowa River Iowa River R Road crossing, NE corner 29 94N 24W	55.6
Drainage Ditch 1, 2, West Main West Fork Iowa River R Road crossing, south 1/2 27 96N 25W Drainage Ditch 1, 2, West Main West Fork Iowa River R At mouth 2 95N 25W West Fork Iowa River Iowa River R Below Drainage Ditch 1, 2, West Main 2 95N 25W R Road crossing, north line 30 95N 24W West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) West Fork Iowa River Iowa River R Road crossing, NE corner 29 94N 24W	5.5
40 Drainage Ditch 1, 2, West Main West Fork Iowa River R At mouth 2 95N 25W 41 West Fork Iowa River Iowa River R Below Drainage Ditch 1, 2, West Main 2 95N 25W 42 West Fork Iowa River Iowa River R Road crossing, north line 30 95N 24W 43 West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) 17 94N 24W 44 West Fork Iowa River Iowa River R Road crossing, NE corner 29 94N 24W	15.7
41 West Fork Iowa River Iowa River R Below Drainage Ditch 1, 2, West Main 2 95N 25W 42 West Fork Iowa River Iowa River R Road crossing, north line 30 95N 24W 43 West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) 17 94N 24W 44 West Fork Iowa River R Road crossing, NE corner 29 94N 24W	21.2
West Fork lowa River lowa River R Road crossing, north line 30 95N 24W West Fork lowa River lowa River R Road crossing, north line (gage near Klemme) West Main R Road crossing, north line (gage near Klemme) R Road crossing, NE corner 29 94N 24W	25.6
43 West Fork Iowa River Iowa River R Road crossing, north line (gage near Klemme) 17 94N 24W 44 West Fork Iowa River R Road crossing, NE corner 29 94N 24W	90.6
43 West Fork lowa River lowa River (gage near Klemme) 44 West Fork lowa River lowa River R Road crossing, NE corner 29 94N 24W	99.3
0 '	112
45 West Fork Iowa River Iowa River R South (county) line 35 94N 24W	122
10 Trock of the transfer for the transfe	132
46 <u>Lime Creek</u> Shell Rock River R North (county) line 1 97N 24W	234
47 Bear Creek Lime Creek L At mouth 1 97N 24W	13.4
48 <u>Lime Creek</u> Shell Rock River R Road crossing, north line 12 97N 24W	249
49 Silver Creek Lime Creek R Road crossing, south 1/2 10 97N 24W	4.53
50 Lateral 28 Silver Creek R At mouth 12 97N 24W	8.95
51 Silver Creek Lime Creek R At mouth 12 97N 24W	18.6
52 <u>Lime Creek</u> Shell Rock River R Road crossing, center 17 97N 23W	273
53 <u>Lime Creek</u> Shell Rock River R Road crossing, NE1/4 22 97N 23W	280
54 <u>Lime Creek</u> Shell Rock River R Road crossing, east (county) line 24 97N 23W	288
55 Drainage Ditch 39 Buffalo Creek L North (county) line 5 97N 25W	7.47
56 Buffalo Creek East Fork Des Moines River L North (county) line 4 97N 26W	38.3
57 Buffalo Creek East Fork Des Moines River L Road crossing, west (county) line 6 97N 26W	43.6
58 Lindner Creek East Fork Des Moines River L Road crossing, north line 10 97N 26W	5.64
59 Lindner Creek East Fork Des Moines River L West (county) line 30 97N 26W	14.3
60 Drainage Ditch 2, 36 Lindner Creek R Road crossing, west (county) line 19 97N 26W	3.87
61 Plum Creek East Fork Des Moines River L Road crossing, west line 32 97N 26W	9.49
62 Plum Creek East Fork Des Moines River L West (county) line 6 96N 26W	16.7

FINAL Drainage Areas of Iowa Streams.xls Table No. 41 Hancock County

63 64 65 66 67	Boone River Boone River Drainage Ditch 97 Drainage Ditch 97 Boone River	Des Moines River Des Moines River Boone River Boone River Des Moines River	L L R R L	Road crossing, north line Road crossing, north line Road crossing, west line At mouth Road crossing, north line	25 11 27 10 21	96N 95N 96N 95N 95N	26W 26W 26W 26W 26W	6.29 11.4 8.83 14.4 30.1
68	Drainage Ditch 10	Boone River	R	Road crossing, NW corner	9	95N	26W	5.57
69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	Drainage Ditch 10 Boone River Boone River Drainage Ditch 44 Boone River Boone River Boone River East Branch Boone River East Branch Boone River East Branch Boone River Middle Branch Boone River Drainage Ditch 108 Middle Branch Boone River West Main Middle Branch Boone River Middle Branch Boone River Middle Branch Boone River Middle Branch Boone River East Branch Boone River	Boone River Des Moines River Boone River Des Moines River Des Moines River Des Moines River Des Moines River Boone River Boone River Boone River East Branch Boone River Middle Branch Boone River East Branch Boone River Boone River	R	At mouth Road crossing, north line Road crossing, west line At mouth Road crossing, north line South (county) line Road crossing, north line Road crossing, north line Road crossing, north line Road crossing, north line At mouth At mouth	29 31 9 15 22 35 33 9 30 17 17 31 31 18 36 2	95N 95N 94N 94N 94N 95N 95N 95N 95N 95N 95N 94N 94N 94N	26W 26W 26W 26W 26W 25W 25W 25W 25W 25W 25W 25W 25W 25W 25	11.1 45.3 51.8 8.06 64.2 73.3 5.33 11 16.1 3.89 9.2 17 8.18 29.9 34 55.1
85	Joint Drainage Ditch 1, 145, 61	Boone River	R	Road crossing, north line	32	94N	26W	5.94
86 87 88 89 90	Joint Drainage Ditch 1, 145, 61 Prairie Creek Otter Creek West Otter Creek West Otter Creek West Otter Creek	Boone River Boone River Boone River Otter Creek Otter Creek Otter Creek	R R L R R	At mouth Road crossing, north line Road crossing, west line Road crossing, north line Road crossing, north line Road crossing, south (county) line	9 24 2 10 22 33	93N 95N 93N 94N 94N 94N	26W 27W 25W 25W 25W 25W	9.35 7.24 5.66 6.08 14.9 20.6

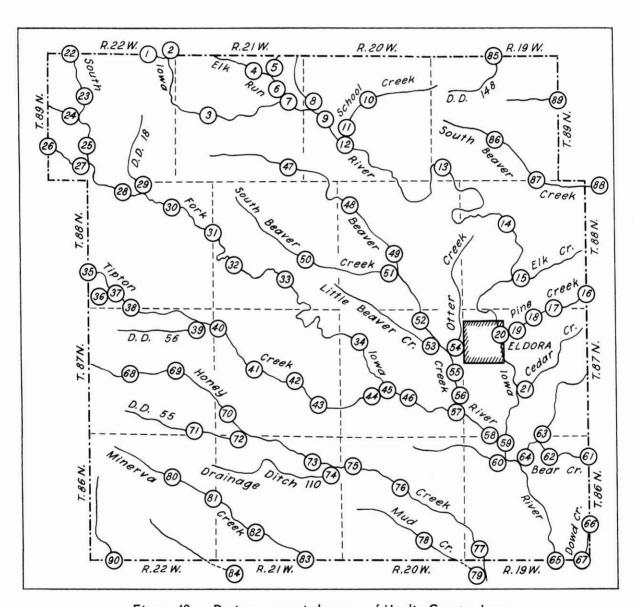


Figure 42. Drainage area index map of Hardin County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 42 Hardin County

	N	T "	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description Sec T			R	(sq mi)
1	Iowa River	Mississippi River	R	North (county) line	2	89N	22W	614
2	Drainage Ditch 2	Iowa River	L	At mouth	1	89N	22W	11.6
3	Iowa River	Mississippi River	R	Road crossing, south 1/2	17	89N	21W	638
4	Elk Run	Iowa River	L	Road crossing, west line	2	89N	21W	6.23
5	Drainage Ditch 3, 5	Elk Run	L	At mouth	2	89N	21W	9.57
6	Elk Run	Iowa River	L	At mouth	13	89N	21W	18.1
7	Iowa River	Mississippi River	R	Below Elk Run	13	89N	21W	665
8	Rock Run	Iowa River	L	At mouth	18	89N	20W	8.67
				road crossing, SW1/4				
9	Iowa River	Mississippi River	R	(discontinued gage at Iowa Falls)	17	89N	20W	679
10	School Creek	Iowa River	L	Road crossing, west line	15	89N	20W	8.86
11	School Creek	Iowa River	L	At mouth	29	89N	20W	15.8
12	Iowa River	Mississippi River	R	Below School Creek	29	89N	20W	698
13	Iowa River	Mississippi River	R	Road crossing, north 1/2	31	89N	19W	714
14	Iowa River	Mississippi River	R	North line	16	88N	19W	730
15	Elk Creek	Iowa River	L	At mouth	28	88N	19W	6.75
16	Pine Creek	Iowa River	L	Road crossing, east (county) line	36	88N	19W	7.24
17	Pine Creek	Iowa River	L	Dam at Upper Pine Lake (gage)	4	87N	19W	14.9
18	Pine Creek	Iowa River	L	Dam at Lower Pine Lake (gage)	9	87N	19W	15.9
19	Pine Creek	Iowa River	L	At mouth	8	87N	19W	16
20	Iowa River	Mississippi River	R	Below Pine Creek	8	87N	19W	764
21	Cedar Creek	Iowa River	L	At mouth	21	87N	19W	9.05
22	South Fork Iowa River	Iowa River	R	Road crossing, north (county) line	5	89N	22W	33.8
23	South Fork Iowa River	Iowa River	R	Road crossing, north line	17	89N	22W	42.6
24	Big 4 Drainage Ditch Lateral B	South Fork Iowa River	R	At mouth	20	89N	22W	8.46
25	South Fork Iowa River	Iowa River	R	Road crossing, north line	32	89N	22W	58.9
26	Big 4 Drainage Ditch Lateral A	South Fork Iowa River	R	Road crossing, west (county) line	30	89N	22W	4.62
27	Big 4 Drainage Ditch Lateral A	South Fork Iowa River	R	At mouth	33	89N	22W	13.8
28	South Fork Iowa River	Iowa River	R	Road crossing, west line	4	88N	22W	79.5
29	Drainage Ditch 18	South Fork Iowa River	L	At mouth	4	88N	22W	7.46
	=							

FINAL Drainage Areas of Iowa Streams.xls Table No. 42 Hardin County

30	South Fork Iowa River	Iowa River	R	Road crossing, NW1/4	11	88N	22W	91.3
31	South Fork Iowa River	Iowa River	R	Road crossing, west line	18	88N	21W	100
32	South Fork Iowa River	Iowa River	R	Road crossing, SW1/4	20	88N	21W	109
33	South Fork Iowa River	Iowa River	R	Road crossing, center	27	88N	21W	117
34	South Fork Iowa River	Iowa River	R	Road crossing, west 1/2	8	87N	20W	130
35	Tipton Creek	South Fork Iowa River	R	West (county) line	30	88N	22W	12.4
36	New York Branch	Tipton Creek	R	At mouth	32	88N	22W	13.2
37	Tipton Creek	South Fork Iowa River	R	Below New York Branch	32	88N	22W	33.4
38	Tipton Creek	South Fork Iowa River	R	Road crossing, west line	33	88N	22W	41.2
39	Drainage Ditch 56	Tipton Creek	R	At mouth	1	87N	22W	6.51
40	Tipton Creek	South Fork Iowa River	R	Road crossing, west line	6	87N	21W	56.4
41	Tipton Creek	South Fork Iowa River	R	Road crossing, west line	16	87N	21W	63.4
42	Tipton Creek	South Fork Iowa River	R	Road crossing, NE1/4	22	87N	21W	69.8
43	Tipton Creek	South Fork Iowa River	R	Road crossing, west line	25	87N	21W	75.1
44	Tipton Creek	South Fork Iowa River	R	At mouth	21	87N	20W	81.6
45	South Fork Iowa River	Iowa River	R	Below Tipton Creek	21	87N	20W	218
				Road crossing, NW1/4				
46	South Fork Iowa River	Iowa River	R	(gage near New	27	87N	20W	223
				Providence)				
47	Beaver Creek	South Fork Iowa River	L	Road crossing, NW1/4	36	89N	21W	9.39
48	Beaver Creek	South Fork Iowa River	L	Road crossing, north line	7	88N	20W	20
49	Beaver Creek	South Fork Iowa River	L	Road crossing, east 1/2	21	88N	20W	28.3
50	South Fork Iowa River	Beaver Creek	R	Road crossing, south 1/2	23	88N	21W	8.58
51	South Fork Iowa River	Beaver Creek	R	At mouth	27	88N	20W	14.5
52	Beaver Creek	South Fork Iowa River	L	Road crossing, west 1/2	2	87N	20W	51.4
53	Little Beaver Creek	Beaver Creek	R	At mouth	11	87N	20W	8.19
54	Otter Creek	Beaver Creek	L	At mouth	13	87N	20W	7.64
55	Beaver Creek	South Fork Iowa River	L	Road crossing, center	13	87N	20W	69.4
				(gage near Eldora)				
56	Beaver Creek	South Fork Iowa River	L	At mouth	25	87N	20W	76.3
57	South Fork Iowa River	Iowa River	R	Below Beaver Creek	25	87N	20W	306
58	South Fork Iowa River	Iowa River	R	At mouth	4	86N	19W	309
59	Iowa River	Mississippi River	R	Below South Fork Iowa	4	86N	19W	1089
00		Wildelesippi Kivei		River	7			
60	Unnamed creek	Iowa River	R	At mouth	4	86N	19W	7.26
61	Bear Creek	Iowa River	L	Road crossing, east	1	86N	19W	7.18
			_	(county) line	•			
62	Bear Creek	Iowa River	L	Road crossing, north line	11	86N	19W	15.1
63	Unnamed creek	Bear Creek	R	At mouth	3	86N	19W	8.19
64	Bear Creek	Iowa River	L	At mouth	9	86N	19W	26.1

FINAL Drainage Areas of Iowa Streams.xls Table No. 42 Hardin County

65	Iowa River	Mississippi River	R	South (county) line	35	86N	19W	1139
66	Dowd Creek	Iowa River	L	Road crossing, east (county) line	25	86N	19W	16.6
67	Dowd Creek	Iowa River	L	Road crossing, south (county) line	36	86N	19W	22.9
68	Honey Creek	Iowa River	R	Road crossing, west line	21	87N	22W	6.77
69	Honey Creek	Iowa River	R	Road crossing, north line	23	87N	22W	15.2
70	Honey Creek	Iowa River	R	Road crossing, north line	31	87N	21W	20.1
71	Drainage Ditch 55	Honey Creek	R	Road crossing, west line	36	87N	22W	6.63
72	Drainage Ditch 55	Honey Creek	R	At mouth	32	87N	21W	16.5
73	Honey Creek	Iowa River	R	Road crossing, west line	12	86N	21W	42.6
74	Drainage Ditch 110	Honey Creek	R	At mouth	12	86N	21W	11
75	Honey Creek	Iowa River	R	Road crossing, NE1/4	7	86N	20W	57.6
76	Honey Creek	Iowa River	R	Road crossing, west line	15	86N	20W	66.5
77	Honey Creek	Iowa River	R	Road crossing, east 1/2	31	86N	19W	78.3
78	Mud Creek	Honey Creek	R	Road crossing, north line	35	86N	20W	4.54
79	Mud Creek	Honey Creek	R	At mouth	6	85N	19W	10.5
80	Minerva Creek	Iowa River	R	Road crossing, north line	15	86N	22W	6.71
81	Minerva Creek	Iowa River	R	Road crossing, north line	24	86N	22W	10.3
82	Minerva Creek	Iowa River	R	Road crossing, west line	28	86N	21W	18.2
83	Minerva Creek	Iowa River	R	Road crossing, south (county) line	35	86N	21W	30.1
84	Hardin-Story Drainage Ditch 1	Minerva Creek	R	Road crossing, west line	5	85N	21W	6.5
85	Drainage Ditch 148	Beaver Creek	R	Road crossing, north (county) line	4	89N	19W	5.51
86	South Beaver Creek	Beaver Creek	R	Road crossing, west line	27	89N	19W	4.92
87	South Beaver Creek	Beaver Creek	R	Road crossing, north line	3	88N	19W	10.7
88	South Beaver Creek	Beaver Creek	R	Road crossing, west line	5	88N	18W	19.6
89	Middle Beaver Creek	South Beaver Creek	L	Road crossing, east (county) line	13	89N	19W	4.3
90	East Branch Indian Creek	Indian Creek	L	South (county) line	32	86N	22W	9.84

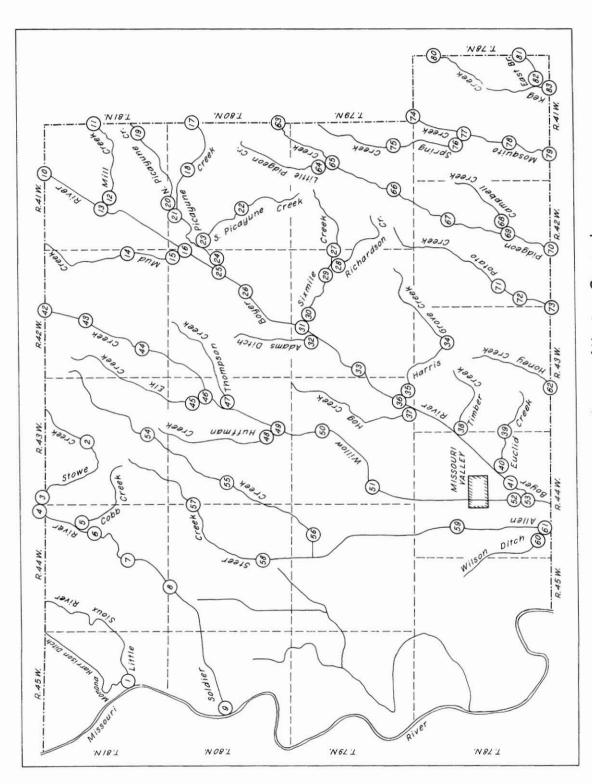


Figure 43. Drainage area index map of Harrison County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 43 Harrison County

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Little Sioux River	Missouri River	L	At mouth	27	81N	45W	4507
2	Stowe Creek	Soldier River	L	Road crossing, west line	15	81N	43W	5.64
3	Stowe Creek	Soldier River	L	At mouth	31	82N	43W	14.4
4	Soldier River	Missouri River	L	Below Stowe Creek	31	82N	43W	390
5	Cobb Creek	Soldier River	L	At mouth	11	81N	44W	6.81
6	Soldier River	Missouri River	L	Road crossing, NE¼ (gage at Pisgah)	14	81N	44W	407
7	Soldier River	Missouri River	L	North line	27	81N	44W	418
8	Soldier River	Missouri River	L	Road crossing, NW1/4	4	80N	44W	431
9	Soldier River	Missouri River	L	At mouth	17	80N	45W	445
10	Boyer River	Missouri River	L	North (county) line	3	81N	41W	678
11	Mill Creek	Boyer River	L	East (county) line	13	81N	41W	28
12	Mill Creek	Boyer River	L	At mouth	17	81N	41W	37.4
13	Boyer River	Missouri River	L	Below Mill Creek	17	81N	41W	729
14	Mud Creek	Boyer River	R	North line	25	81N	42W	10.2
15	Mud Creek	Boyer River	R	At mouth	1	80N	42W	21
16	Boyer River	Missouri River	L	Below Mud Creek	1	80N	42W	761
17	Picayune Creek	Boyer River	L	Road crossing, east (county) line	12	80N	41W	9.76
18	Picayune Creek	Boyer River	L	Road crossing, SE1/4	3	80N	41W	18.2
19	North Picayune Creek	Picayune Creek	R	Road crossing, south 1/2	25	81N	41W	3.68
20	North Picayune Creek	Picayune Creek	R	At mouth	5	80N	41W	9.31
21	Picayune Creek	Boyer River	L,	Below North Picayune Creek	5	80N	41W	31.3
22	South Picayune Creek	Picayune Creek	L	Road crossing, west line	21	80N	41W	5.38
23	South Picayune Creek	Picayune Creek	L	At mouth	7	80N	41W	10.2
24	Picayune Creek	Boyer River	L	At mouth	13	80N	42W	46.7
25	Boyer River	Missouri River	L	Below Picayune Creek	13	80N	42W	809
26	Boyer River	Missouri River	L	West line	23	80N	42W	816
27	Sixmile Creek	Boyer River	L	West line	18	79N	42W	5.92
28	Richardson Creek	Sixmile Creek	L	At mouth	12	79N	42W	5.67
29	Sixmile Creek	Boyer River	L	Road crossing, SE1/4	11	79N	42W	16.1
30	Sixmile Creek	Boyer River	L	At mouth	4	79N	42W	21.3
31	Boyer River	Missouri River	L	Below Sixmile Creek	4	79N	42W	848
32	Adams Ditch	Boyer River	R	At mouth	9	79N	42W	6.99

FINAL Drainage Areas of Iowa Streams.xls Table No. 43 Harrison County

				Road crossing, NW1/4				
33	Boyer River	Missouri River	L	(gage at Logan)	19	79N	42W	871
34	Harris Grove Creek	Boyer River	L	Road crossing, SW1/4	2	78N	43W	8.23
35	Harris Grove Creek	Boyer River	L	At mouth	35	79N	43W	15
36	Boyer River	Missouri River	L	Below Harris Grove Creek	35	79N	43W	895
37	Hog Creek	Boyer River	R	At mouth	35	79N	43W	6.79
38	Timber Creek	Boyer River	L	At mouth	12	78N	44W	6.95
39	Euclid Creek	Boyer River	L	Road crossing, west line	19	78N	43W	4.31
40	Euclid Creek	Boyer River	L	At mouth	23	78N	44W	10.4
41	Boyer River	Missouri River	L	Road crossing, SE1/4	22	78N	44W	931
42	Willow Creek	Boyer River	R	Road crossing, north (county) line	3	81N	42W	53.9
43	Willow Creek	Boyer River	R	Road crossing, north line	16	81N	42W	60.7
44	Willow Creek	Boyer River	R	Road crossing, SW1/4	29	81N	42W	69.3
45	Elk Creek	Willow Creek	R	At mouth	12	80N	43W	9.27
46	Willow Creek	Boyer River	R	Below Elk Creek	12	80N	43W	87.2
47	Thompson Creek	Willow Creek	L	At mouth	14	80N	43W	7.38
48	Huffman Creek	Willow Creek	R	At mouth	34	80N	43W	7.48
49	Willow Creek	Boyer River	R	Below Huffman Creek	34	80N	43W	108
50	Willow Creek	Boyer River	R	Road crossing, center	10	79N	43W	118
51	Willow Creek	Boyer River	R	Road crossing, north line (gage at Calhoun)	30	79N	43W	129
52	Willow Creek	Boyer River	R	At mouth	28	78N	44W	146
53	Boyer River	Missouri River	L	Below Willow Creek	28	78N	44W	1081
54	Allen Creek	Boyer River	R	Road crossing, NW1/4	34	81N	43W	6.01
55	Allen Creek	Boyer River	R	Road crossing, west line	17	80N	43W	11.5
56	Allen Creek	Boyer River	R	Road crossing, NE1/4	11	79N	44W	21.6
57	Steer Creek	Allen Creek	R	Road crossing, NE1/4	12	80N	44W	6.28
58	Steer Creek	Allen Creek	R	Road crossing, SW1/4	27	80N	44W	15
59	Allen Creek	Boyer River	R	Below Fish Lake Creek	8	78N	44W	77.7
60	Wilson Ditch	Allen Creek	R	At mouth	32	78N	44W	8.7
61	Allen Creek	Boyer River	R	Below Wilson Ditch	32	78N	44W	89.4
62	Honey Creek	Missouri River	L	South (county) line	33	78N	43W	9.31
63	Pidgeon Creek	Missouri River	L	East (county) line	36	80N	41W	13.9
64	Little Pidgeon Creek	Pidgeon Creek	R	At mouth	14	79N	41W	5.44
65	Pidgeon Creek	Missouri River	L	Below Little Pidgeon Creek	14	79N	41W	24.9
66	Pidgeon Creek	Missouri River	L	Road crossing, north line	33	79N	41W	32.4
67	Pidgeon Creek	Missouri River	L	Road crossing, north line	11	78N	42W	40.7
68	Campbell Creek	Pidgeon Creek	L	At mouth	22	78N	42W	5.55

FINAL Drainage Areas of Iowa Streams.xls Table No. 43 Harrison County

69	Pidgeon Creek	Missouri River	L	Below Campbell Creek	22	78N	42W	50.6
70	Pidgeon Creek	Missouri River	L	South (county) line	33	78N	42W	56.5
71	Potato Creek	Pidgeon Creek	R	Road crossing, west line	20	78N	42W	10.6
72	Potato Creek	Pidgeon Creek	R	Road crossing, center	30	78N	42W	16.2
73	Potato Creek	Pidgeon Creek	R	Road crossing, south (county) line	36	78N	43W	23
74	Mosquito Creek	Missouri River	L	Road crossing, north (county) line	3	78N	41W	80.8
75	Spring Creek	Mosquito Creek	R	Road crossing, north line	35	79N	41W	6.89
76	Spring Creek	Mosquito Creek	R	At mouth	9	78N	41W	12.9
77	Mosquito Creek	Missouri River	L	Below Spring Creek	9	78N	41W	97.4
78	Mosquito Creek	Missouri River	L	Road crossing, north line	29	78N	41W	108
79	Mosquito Creek	Missouri River	L	South (county) line	32	78N	41W	114
80	Keg Creek	Missouri River	L	Road crossing, east (county) line	1	78N	41W	29.4
81	East Branch Keg Creek	Keg Creek	L	East (county) line	25	78N	41W	4.83
82	East Branch Keg Creek	Keg Creek	L	At mouth	35	78N	41W	10.8
83	Keg Creek	Missouri River	L	Road crossing, south (county) line	35	78N	41W	50.4

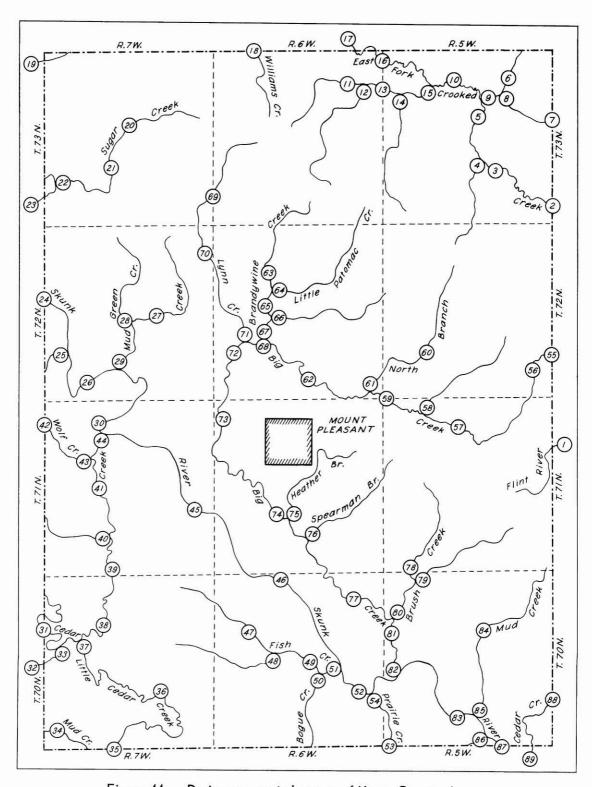


Figure 44. Drainage area index map of Henry County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 44 Henry County

			Bank	Point of determination of drainage area				Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)	
1	Flint River	Mississippi River	R	Road crossing, north line	20	71N	4W	6.52	
2	East Fork Crooked Creek	Crooked Creek	L	Road crossing, east (county) line	36	73N	5W	18.6	
3	East Fork Crooked Creek	Crooked Creek	L	Road crossing, west line	26	73N	5W	26.8	
4	Unnamed creek	East Fork Crooked Creek	L	At mouth	22	73N	5W	9.14	
5	East Fork Crooked Creek	Crooked Creek	L	Road crossing, north line	15	73N	5W	43	
6	Unnamed creek	East Fork Crooked Creek	R	North line	11	73N	5W	5.18	
7	Unnamed creek	Unnamed creek	L	Road crossing, east (county) line	13	73N	5W	6.88	
8	Unnamed creek	Unnamed creek	L	At mouth	10	73N	5W	9.38	
9	Unnamed creek	East Fork Crooked Creek	R	At mouth	10	73N	5W	20.2	
10	East Fork Crooked Creek	Crooked Creek	L	Road crossing, NE1/4	9	73N	5W	65.3	
11	Unnamed creek	East Fork Crooked Creek	L	Road crossing, west line	12	73N	6W	4.31	
12	Unnamed creek	Unnamed creek	R	At mouth	12	73N	6W	7.66	
13	Unnamed creek	East Fork Crooked Creek	L	Road crossing, west line	7	73N	5W	12.6	
14	Unnamed creek	Unnamed creek	R	At mouth	7	73N	5W	9.04	
15	Unnamed creek	East Fork Crooked Creek	L	At mouth	8	73N	5W	23	
16	East Fork Crooked Creek	Crooked Creek	L	Road crossing, west line	6	73N	5W	93.1	
17	East Fork Crooked Creek	Crooked Creek	L	Road crossing, east 1/2	35	74N	6W	101	
18	Williams Creek	Crooked Creek	L	North (county) line	5	73N	6W	5.54	
19	Crooked Creek	Skunk River	L	At mouth	1	73N	8W	286	
20	Sugar Creek	Skunk River	L	Road crossing, west line	15	73N	7W	5.94	
21	Sugar Creek	Skunk River	L	Road crossing, north line	28	73N	7W	11.2	
22	Sugar Creek	Skunk River	L	At mouth	30	73N	7W	19.5	
23	Skunk River	Mississippi River	R	Road crossing, NE1/4	36	73N	8W	3237	
24	Skunk River	Mississippi River	R	West (county) line	18	72N	7W	3356	
25	Brush Creek	Skunk River	R	At mouth	30	72N	7W	35.1	
26	Skunk River	Mississippi River	R	Road crossing, north 1/2	32	72N	7W	3398	
27	Mud Creek	Skunk River	L	West (county) line	23	72N	7W	7.66	
28	Green Creek	Mud Creek	R	At mouth	22	72N	7W	7.11	
29	Mud Creek	Skunk River	L	At mouth	28	72N	7W	17.8	
30	Skunk River	Mississippi River	R	Road crossing, SW1/4	4	71N	7W	3425	
31	Cedar Creek	Skunk River	R	West (county) line	7	70N	7W	440	
32	Rock Creek	Cedar Creek	R	Road crossing, south 1/2	13	70N	8W	9.92	
33	Rock Creek	Cedar Creek	R	At mouth	18	70N	7W	13.1	
34	Mud Creek	Little Cedar Creek	L	Road crossing, north 1/2	31	70N	7W	5	

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35	Little Cedar Creek	Cedar Creek	R	Road crossing, south (county) line	33	70N	7W	35.3
36	Little Cedar Creek	Cedar Creek	R	Road crossing, SW1/4	23	70N	7W	47.4
37	Little Cedar Creek	Cedar Creek	R	At mouth	17	70N	7W	55.7
38	Cedar Creek	Skunk River	R	Road crossing, SW1/4	9	70N	7W	512
39	Cedar Creek	Skunk River	R	Road crossing, south 1/2	33	71N	7W	517
40	Unnamed creek	Cedar Creek	L	At mouth	28	71N	7W	5.69
41	Cedar Creek	Skunk River	R	Road crossing, NW corner	21	71N	7W	533
42	Wolf Creek	Cedar Creek	L	Road crossing, west (county) line	6	71N	7W	23.5
43	Wolf Creek	Cedar Creek	L	At mouth	8	71N	7W	29.7
44	Cedar Creek	Skunk River	R	At mouth	9	71N	7W	565
45	Skunk River	Mississippi River	R	Road crossing, SW1/4	24	71N	7W	4001
46	Skunk River	Mississippi River	R	Road crossing, NW1/4	4	70N	6W	4013
47	Fish Creek	Skunk River	R	North line	17	70N	6W	4.98
48	Unnamed creek	Fish Creek	R	At mouth	16	70N	6W	6.51
49	Fish Creek	Skunk River	R	Road crossing, north 1/2	22	70N	6W	15.1
50	Bogue Creek	Fish Creek	R	At mouth	22	70N	6W	10.1
51	Fish Creek	Skunk River	R	At mouth	23	70N	6W	25.8
52	Skunk River	Mississippi River	R	Road crossing, NW1/4	25	70N	6W	4047
53	Prairie Creek	Skunk River	R	South (county) line	31	70N	5W	6.18
54	Prairie Creek	Skunk River	R	At mouth	25	70N	6W	9.66
55	Big Creek	Skunk River	L	Road crossing, east (county) line	25	72N	5W	2.87
56	Big Creek	Skunk River	L	Road crossing, north line	36	72N	5W	11.6
57	Big Creek	Skunk River	L	Road crossing, north line	9	71N	5W	23.5
58	Unnamed creek	Big Creek	R	At mouth	5	71N	5W	6.8
59	Big Creek	Skunk River	L	Road crossing, west line	31	72N	5W	37.4
60	North Branch Big Creek	Big Creek	R	Road crossing, north 1/2	29	72N	5W	7.66
61	North Branch Big Creek	Big Creek	R	At mouth	36	72N	6W	15
62	Big Creek	Skunk River	L	Road crossing, NW1/4	34	72N	6W	58
63	Brandywine Creek	Big Creek	R	Road crossing, NW corner	16	72N	6W	6.67
64	Little Patomac Creek	Brandywine Creek	L	At mouth	16	72N	6W	8.83
65	Brandywine Creek	Big Creek	R	NE corner	20	72N	6W	17.7
66	Unnamed creek	Brandywine Creek	L	At mouth	21	72N	6W	6.53
67	Brandywine Creek	Big Creek	R	At mouth	29	72N	6W	24.7
68	Big Creek	Skunk River	L	Below Brandywine Creek	29	72N	6W	87.8
69	Lynn Creek	Big Creek	R	Road crossing, SE corner	25	73N	7W	6.9
	•	•		3,				

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70	Lynn Creek	Big Creek	R	Road crossing, north line	12	72N	7W	12.7
71	Lynn Creek	Big Creek	R	At mouth	29	72N	6W	17.9
72	Big Creek	Skunk River	L	Road crossing, NW1/4 (gage near Mt. Pleasant)	29	72N	6W	106
73	Big Creek	Skunk River	L	Road crossing, SW1/4	6	71N	6W	113
74	Big Creek	Skunk River	L	Road crossing, north 1/2	28	71N	6W	123
75	Heather Branch	Big Creek	L	At mouth	28	71N	6W	6.15
76	Spearman Branch	Big Creek	L	At mouth	27	71N	6W	5.4
77	Big Creek	Skunk River	L	Road crossing, west line	1	70N	6W	140
78	Brush Creek	Big Creek	L	North line	6	70N	5W	8.79
79	Unnamed creek	Brush Creek	L	At mouth	6	70N	5W	6.42
80	Brush Creek	Big Creek	L	At mouth	7	70N	5W	19.5
81	Big Creek	Skunk River	L	Road crossing, north line	18	70N	5W	165
82	Big Creek	Skunk River	L	At mouth	19	70N	5W	167
83	Skunk River	Mississippi River	R	Road crossing, SE¼	28	70N	5W	4231
84	Mud Creek	Skunk River	L	North line	15	70N	5W	10.2
85	Mud Creek	Skunk River	L	At mouth	34	70N	5W	17.1
86	Sutton Creek	Skunk River	R	At mouth	34	70N	5W	6.55
87	Skunk River	Mississippi River	R	South (county) line	35	70N	5W	4258
88	Cedar Creek	Skunk River	L	East (county) line	25	70N	5W	11.9
89	Cedar Creek	Skunk River	L	At mouth	1	69N	5W	16

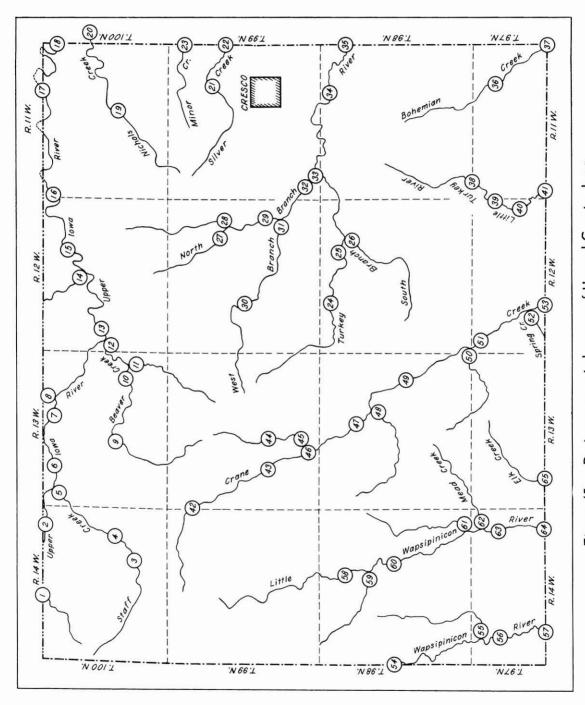


Figure 45. Drainage area index map of Howard County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 45 Howard County

	N. C.	T	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Unnamed creek	Upper Iowa River	R	Road crossing, north (state) line	9	100N	14W	4.49
2	Upper Iowa River	Mississippi River	R	North (state) line	12	100N	14W	84.2
3	Staff Creek	Upper Iowa River	R	Road crossing, west line	26	100N	14W	8.02
4	Staff Creek	Upper Iowa River	R	Road crossing, SE1/4	23	100N	14W	15.5
5	Staff Creek	Upper Iowa River	R	At mouth	7	100N	13W	20.2
6	Upper Iowa River	Mississippi River	R	Road crossing, center	8	100N	13W	110
7	Upper Iowa River	Mississippi River	R	road crossing, east 1/2	10	100N	13W	141
8	Unnamed creek	Upper Iowa River	L	At mouth	11	100N	13W	5.77
9	Beaver Creek	Upper Iowa River	R	Road crossing, north line	28	100N	13W	9.36
10	Beaver Creek	Upper Iowa River	R	Road crossing, west line	25	100N	13W	14.5
11	Unnamed creek	Beaver Creek	R	At mouth	25	100N	13W	10.2
12	Beaver Creek	Upper Iowa River	R	At mouth	19	100N	12W	29.1
13	Upper Iowa River	Mississippi River	R	Road crossing, west 1/2	20	100N	12W	182
14	Unnamed creek	Upper Iowa River	L	At mouth	15	100N	12W	9.37
15	Upper Iowa River	Mississippi River	R	Road crossing, NW1/4	14	100N	12W	203
16	Upper Iowa River	Mississippi River	R	Road crossing, NW1/4	7	100N	11W	213
17	Upper Iowa River	Mississippi River	R	North (state) line	11	100N	11W	224
18	Upper Iowa River	Mississippi River	R	Road crossing, east (county) line	12	100N	11W	248
19	Nichols Creek	Upper Iowa River	R	Road crossing, north 1/2	27	100N	11W	7
20	Nichols Creek	Upper Iowa River	R	At mouth	18	100N	10W	17.5
21	Silver Creek	Upper Iowa River	R	Road crossing, SW1/4	11	99N	11W	9.11
22	Silver Creek	Upper Iowa River	R	Road crossing, east (county) line	13	99N	11W	14.7
23	Minor Creek	Silver Creek	L	Road crossing, east (county) line	1	99N	11W	5.12
24	Turkey River	Mississippi River	R	Road crossing, west line	4	98N	12W	8.13
25	Turkey River	Mississippi River	R	West line	2	98N	12W	13.5
26	South Branch Turkey River	Turkey River	R	At mouth	2	98N	12W	11
27	North Branch Turkey River	Turkey River	L	Road crossing, NW1/4	14	99N	12W	7.76
28	Unnamed creek	North Branch Turkey River	L	At mouth	14	99N	12W	8.05
29	North Branch Turkey River	Turkey River	L	Road crossing, north line	25	99N	12W	19.5
30	West Branch Turkey River	North Branch Turkey River	R	Road crossing, west line	21	99N	12W	6.55
31	West Branch Turkey River	North Branch Turkey River	R	At mouth	25	99N	12W	15.5
32	North Branch Turkey River	Turkey River	L	At mouth	31	99N	11W	40.5

FINAL Drainage Areas of Iowa Streams.xls Table No. 45 Howard County

33	Turkey River	Mississippi River	R	Below North Branch Turkey River	31	99N	11W	72.9
34	Turkey River	Mississippi River	R	Road crossing, NW1/4	2	98N	11W	87
35	Turkey River	Mississippi River	R	Road crossing, east (county) line	12	98N	11W	95.9
36	Bohemian Creek	Turkey River	R	Road crossing, north line	11	97N	11W	10.1
37	Bohemian Creek	Turkey River	R	East (county) line	13	97N	11W	18.3
38	Little Turkey River	Turkey River	R	Road crossing, north line	6	97N	11W	9.07
39	Little Turkey River	Turkey River	R	North line	12	97N	12W	18.1
40	Little Turkey River	Turkey River	R	Road crossing, north line	13	97N	12W	23.8
41	Little Turkey River	Turkey River	R	Road crossing, south (county) line	18	97N	11W	30.5
42	Crane Creek	Little Turkey River	R	Road crossing, north line	7	99N	13W	9.75
43	Crane Creek	Little Turkey River	R	Road crossing, north line	29	99N	13W	17.4
44	Unnamed creek	Crane Creek	R	Road crossing, north line	28	99N	13W	4.06
45	Unnamed creek	Crane Creek	L	At mouth	33	99N	13W	7.87
46	Crane Creek	Little Turkey River	L	Below unnamed creek	33	99N	13W	33.4
47	Crane Creek	Little Turkey River	R	Road crossing, center	10	98N	13W	41.1
48	Unnamed creek	Crane Creek	R	At mouth	15	98N	13W	6.08
49	Crane Creek	Little Turkey River	R	Road crossing, east 1/2	23	98N	13W	59.5
50	Unnamed creek	Crane Creek	R	At mouth	6	97N	12W	5.16
51	Crane Creek	Little Turkey River	R	Road crossing, center	6	97N	12W	75.8
52	Spring Creek	Crane Creek	R	At mouth	17	97N	12W	5.39
53	Crane Creek	Little Turkey River	R	Road crossing, south (county) line	16	97N	12W	90.5
54	Wapsipinicon River	Mississippi River	R	Road crossing, west (county) line	19	98N	14W	77.6
55	Unnamed creek	Wapsipinicon River	L	At mouth	5	97N	14W	7.27
56	Wapsipinicon River	Mississippi River	R	Road crossing, north line	8	97N	14W	95.2
57	Wapsipinicon River	Mississippi River	R	Road crossing, south (county) line	17	97N	14W	102
58	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north 1/2	10	98N	14W	7.76
59	Unnamed creek	Little Wapsipinicon River	R	At mouth	15	98N	14W	6.54
60	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	22	98N	14W	19
61	Unnamed creek	Little Wapsipinicon River	L	At mouth	1	97N	14W	5.96
62	Mead Creek	Little Wapsipinicon River	L	At mouth	1	97N	14W	6.66
63	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, north line	12	97N	14W	37.3
64	Little Wapsipinicon River	Wapsipinicon River	L	Road crossing, south (county) line	13	97N	14W	45.7
65	Elk Creek	Little Wapsipinicon River	L	Road crossing, south (county) line	17	97N	13W	5.96

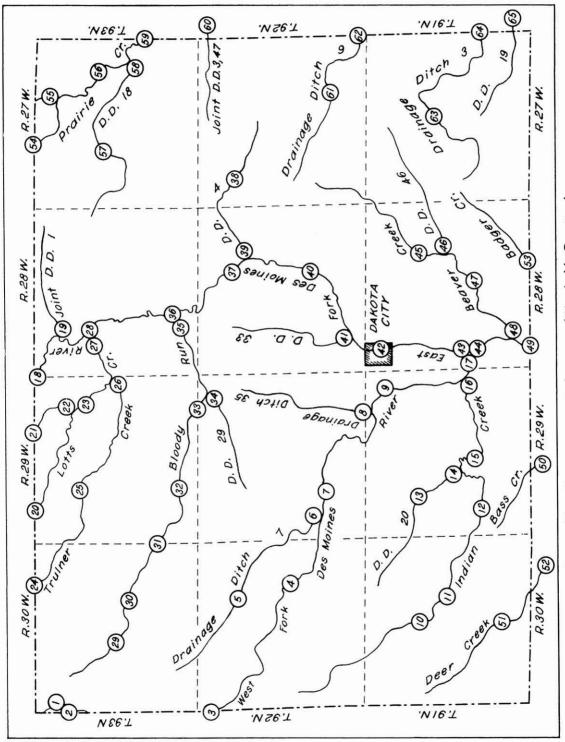


Figure 46. Drainage area index map of Humboldt County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 46 Humboldt County

			Bank	Point of determination of drainage area				Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)	
1	Prairie Creek	West Fork Des Moines River	L	At mouth	7	93N	30W	67.5	
2	West Fork Des Moines River	Des Moines River	R	Below Prairie Creek	7	93N	30W	2018	
3	West Fork Des Moines River	Des Moines River	R	Below Pilot Creek	1	92N	31W	2195	
4	West Fork Des Moines River	Des Moines River	R	Road crossing, north 1/2	23	92N	30W	2207	
5	Drainage Ditch 7	West Fork Des Moines River	L	Road crossing, west line	11	92N	30W	7.22	
6	Drainage Ditch 7	West Fork Des Moines River	L	At mouth	29	92N	29W	14	
7	West Fork Des Moines River	Des Moines River	R	Road crossing, SE1/4	29	92N	29W	2233	
8	Drainage Ditch 35	West Fork Des Moines River	L	At mouth	2	91N	29W	10	
9	West Fork Des Moines River	Des Moines River	R	Road crossing, SW¼ (gage at Humboldt)	1	91N	29W	2256	
10	Indian Creek	West Fork Des Moines River	R	Road crossing, north line	16	91N	30W	12.4	
11	Indian Creek	West Fork Des Moines River	R	Road crossing, north line	22	91N	30W	19.4	
12	Indian Creek	West Fork Des Moines River	R	Road crossing, west line	29	91N	29W	24.7	
13	Drainage Ditch 20	Indian Creek	L	Road crossing, north line	17	91N	29W	5.94	
14	Drainage Ditch 20	Indian Creek	L	At mouth	21	91N	29W	11.5	
15	Indian Creek	West Fork Des Moines River	R	Road crossing, north line	28	91N	29W	38.2	
16	Indian Creek	West Fork Des Moines River	R	At mouth	24	91N	29W	44	
17	West Fork Des Moines River	Des Moines River	R	At mouth	19	91N	28W	2308	
18	East Fork Des Moines River	Des Moines River	L	Road crossing, west line	6	93N	28W	1012	
19	Joint Drainage Ditch 1	East Fork Des Moines River	L	At mouth	8	93N	28W	6.91	
20	Lotts Creek	East Fork Des Moines River	R	North (county) line	5	93N	29W	116	
21	Joint Drainage Ditch 8	Lotts Creek	L	North (county) line	2	93N	29W	4.42	
22	Joint Drainage Ditch 8	Lotts Creek	L	At mouth	11	93N	29W	6.87	
23	Lotts Creek	East Fork Des Moines River	R	Road crossing, west line	12	93N	29W	128	
24	Trulner Creek	Lotts Creek	R	North (county) line	2	93N	30W	14.9	
25	Trulner Creek	Lotts Creek	R	Road crossing, west line	9	93N	29W	26.2	
26	Trulner Creek	Lotts Creek	R	At mouth	13	93N	29W	34.1	
27	Lotts Creek	East Fork Des Moines River	R	At mouth	17	93N	28W	166	
28	East Fork Des Moines River	Des Moines River	L	Below Lotts Creek	17	93N	28W	1191	
29	Bloody Run	East Fork Des Moines River	R	Road crossing, north line	21	93N	30W	5.98	
30	Bloody Run	East Fork Des Moines River	R	Road crossing, west line	23	93N	30W	11.3	
31	Bloody Run	East Fork Des Moines River	R	Road crossing, west line	30	93N	29W	21.8	
32	Bloody Run	East Fork Des Moines River	R	Road crossing, west line	33	93N	29W	31	
33	Bloody Run	East Fork Des Moines River	R	Road crossing, west line	1	92N	29W	39.4	
34	Drainage Ditch 29	Bloody Run	R	At mouth	1	92N	29W	6.51	
35	Bloody run	East Fork Des Moines River	R	At mouth	33	93N	28W	51.8	

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36	East Fork Des Moines River	Des Moines River	L	Below Bloody Run Road crossing, NE1/4	33	93N	28W	1258
37	East Fork Des Moines River	Des Moines River	L	(discontinued gage near Hardy)	10	92N	28W	1268
38	Drainage Ditch 4	East Fork Des Moines River	L	Road crossing, west line	8	92N	27W	6.29
39	Drainage Ditch 4	East Fork Des Moines River	L	At mouth	11	92N	28W	13
40	East Fork Des Moines River	Des Moines River	L	North line	27	92N	28W	1291
41	Drainage Ditch 33	East Fork Des Moines River	R	At mouth	32	92N	28W	8.22
42	East Fork Des Moines River	Des Moines River	L	Gage at Dakota City, SE1/4	6	91N	28W	1308
43	East Fork Des Moines River	Des Moines River	L	At mouth	19	91N	28W	1315
44	Des Moines River	Mississippi River	R	Below confluence East and West Forks	19	91N	28W	3623
45	Beaver Creek	Des Moines River	L	Road crossing, north line	14	91N	28W	8.85
46	Drainage Ditch 46	Beaver Creek	L	At mouth	14	91N	28W	9.27
47	Beaver Creek	Des Moines River	L	Road crossing, north line	27	91N	28W	21.3
48	Beaver Creek	Des Moines River	L	At mouth	32	91N	28W	29.8
49	Des Moines River	Mississippi River	R	South (county) line	31	91N	28W	3656
50	Bass Creek	Des Moines River	R	Road crossing, north 1/2	4	90N	29W	8.68
51	Deer Creek	Des Moines River	R	Road crossing, north line	33	91N	30W	5.98
52	Deer Creek	Des Moines River	R	Road crossing, west line	2	90N	30W	12
53	Badger Creek	Des Moines River	L	South (county) line	34	91N	28W	8.67
54	Prairie Creek	Boone River	R	Road crossing, north (county) line	4	93N	27W	94.6
55	Joint Drainage Ditch 100, 131, 93	Prairie Creek	L	At mouth	3	93N	27W	14.6
56	Prairie Creek	Boone River	R	Road crossing, NE¼	14	93N	27W	115
57	Drainage Ditch 18	Prairie Creek	R	Road crossing, west line	16	93N	27W	10.6
58	Drainage Ditch 18	Prairie Creek	R	At mouth	24	93N	27W	16.8
59	Prairie Creek	Boone River	R	Road crossing, east (county) line	25	93N	27W	139
60	Joint Drainage Ditch 3, 47	Boone River	R	At mouth	6	92N	26W	6.09
61	Drainage Ditch 9	Boone River	R	Road crossing, west line	26	92N	27W	11.4
62	Drainage Ditch 9	Boone River	R	Road crossing, east (county) line	36	92N	27W	15.4
63	Drainage Ditch 3	Boone River	R	Road crossing, west line	15	91N	27W	5.4
64	Drainage Ditch 3	Boone River	R	Road crossing, east (county) line	25	91N	27W	14.4
65	Drainage Ditch 19	Drainage Ditch 3	R	At mouth	31	91N	26W	9.88

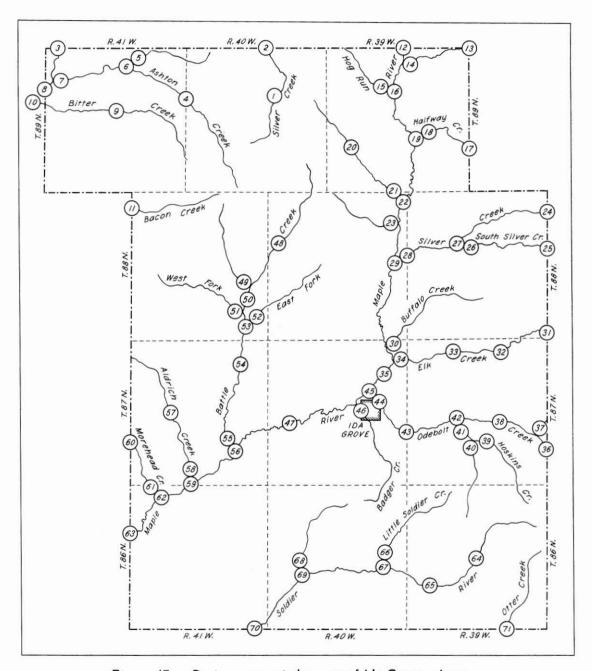


Figure 47. Drainage area index map of Ida County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 47 Ida County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Silver Creek	Little Sioux River	L	Road crossing, north line	15	89N	40W	6.97
2	Silver Creek	Little Sioux River	L	Road crossing, north (county) line	3	89N	40W	15.9
3	Little Sioux River	Missouri River	L	North (county) line	6	89N	41W	2385
4	Ashton Creek	Little Sioux River	L	Road crossing, west line	18	89N	40W	8.09
5	Unnamed creek	Ashton Creek	R	At mouth	3	89N	41W	5.32
6	Ashton Creek	Little Sioux River	L	Below unnamed creek	3	89N	41W	20.8
7	Ashton Creek	Little Sioux River	L	At mouth	7	89N	41W	26.4
8	Little Sioux River	Missouri River	L	West (county) line	7	89N	41W	2416
9	Bitter Creek	Little Sioux River	L	Road crossing, west line	15	89N	41W	6.49
10	Bitter Creek	Little Sioux River	L	At mouth	13	89N	42W	14.4
11	Bacon Creek	Little Sioux River	L	Road crossing, west (county) line	6	88N	41W	10.5
12	Maple River	Little Sioux River	L	Road crossing, north (county) line	3	89N	39W	182
13	Unnamed creek	Maple River	L	Road crossing, east (county) line	1	89N	39W	9.78
14	Unnamed creek	Maple River	L	At mouth	3	89N	39W	16.6
15	Hog Run	Maple River	R	At mouth	9	89N	39W	8.68
16	Maple River	Little Sioux River	L	Below Hog Run	9	89N	39W	212
17	Halfway Creek	Maple River	L	Road crossing, east (county) line	25	89N	39W	17
18	Halfway Creek	Maple River	L	At mouth	22	89N	39W	24.3
19	Maple River	Little Sioux River	L	Below Halfway Creek	22	89N	39W	241
20	Unnamed creek	Maple River	R	Road crossing, west line	29	89N	39W	5.2
21	Unnamed creek	Maple River	R	At mouth	1	88N	40W	12.4
22	Maple River	Little Sioux River	L	Below unnamed creek	1	88N	40W	260
23	Unnamed creek	Maple River	R	At mouth	12	88N	40W	5.66
24	Silver Creek	Maple River	L	Road crossing, east (county) line	1	88N	39W	4.54
25	South Silver Creek	Silver Creek	L	Road crossing, east (county) line	13	88N	39W	3.68
26	South Silver Creek	Silver Creek	L	At mouth	9	88N	39W	9.81
27	Silver Creek	Maple River	L	Below South Silver Creek	9	88N	39W	23.8
28	Silver Creek	Maple River	L	At mouth	13	88N	40W	31.2
29	Maple River	Little Sioux River	L	Below Silver Creek	13	88N	40W	301

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30	Buffalo Creek	Maple River	L	At mouth	1	87N	40W	7.67
31	Elk Creek	Maple River	L	Road crossing, east (county) line	36	88N	39W	17.1
32	Elk Creek	Maple River	L	Road crossing, west line	2	87N	39W	26
33	Elk Creek	Maple River	L	Road crossing, west line	4	87N	39W	32.9
34	Elk Creek	Maple River	L	At mouth	1	87N	40W	38.5
35	Maple River	Little Sioux River	L	Road crossing, NW¼ (gage near Ida Grove)	12	87N	40W	364
36	Odebolt Creek	Maple River	L	Road crossing, east (county) line	25	87N	39W	22.2
37	Unnamed creek	Odebolt Creek	R	At mouth	24	87N	39W	10.3
38	Odebolt Creek	Maple River	L	Road crossing, west line	23	87N	39W	37.4
39	Hoskins Creek	Odebolt Creek	L	Road crossing, west line	27	87N	39W	3.99
40	Unnamed creek	Hoskins Creek	L	At mouth	21	87N	39W	5.62
41	Hoskins Creek	Odebolt Creek	L	At mouth	21	87N	39W	10.2
42	Odebolt Creek	Maple River	L	Below Hoskins Creek	21	87N	39W	51.2
43	Odebolt Creek	Maple River	L	Road crossing, east line (gage near Ida Grove)	24	87N	40W	58.9
44	Odebolt Creek	Maple River	L	At mouth	14	87N	40W	61.4
45	Maple River	Little Sioux River	L	Below Odebolt Creek	14	87N	40W	428
46	Badger Creek	Maple River	L	At mouth	15	87N	40W	7.01
47	Maple River	Little Sioux River	L	Road crossing, west line	20	87N	40W	451
48	Battle Creek	Maple River	R	North line	18	88N	40W	5.31
49	Unnamed creek	Battle Creek	R	At mouth	24	88N	41W	5.7
50	Battle Creek	Maple River	R	Road crossing, north line	25	88N	41W	20.6
51	West Fork Battle Creek	Battle Creek	R	At mouth	25	88N	41W	7.11
52	East Fork Battle Creek	Battle Creek	L	At mouth	36	88N	41W	6.18
53	Battle Creek	Maple River	R	Below East Fork Battle Creek	36	88N	41W	34.4
54	Battle Creek	Maple River	R	Road crossing, north line	11	87N	41W	41.7
55	Battle Creek	Maple River	R	At mouth	26	87N	41W	52.2
56	Maple River	Little Sioux River	L	Below Battle Creek	26	87N	41W	513
57	Aldrich Creek	Maple River	R	Road crossing, north line	20	87N	41W	6.35
58	Aldrich Creek	Maple River	R	At mouth	33	87N	41W	12.7
59	Maple River	Little Sioux River	L	Below Aldrich Creek	33	87N	41W	536
60	Morehead Creek	Maple River	R	West (county) line	30	87N	41W	11.4
61	Morehead Creek	Maple River	R	At mouth	5	86N	41W	17
62	Maple River	Little Sioux River	L	Below Morehead Creek	5	86N	41W	561
63	Maple River	Little Sioux River	L	Road crossing, west (county) line	18	86N	41W	567

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64	Soldier River	Missouri River	L	Road crossing, west line	22	86N	39W	5.35
65	Soldier River	Missouri River	L	Road crossing, west line	29	86N	39W	12.2
66	Little Soldier Creek	Soldier River	R	At mouth	24	86N	40W	5.8
67	Soldier River	Missouri River	L	Below Little Soldier Creek	24	86N	40W	30.2
68	Unnamed creek	Soldier River	R	At mouth	20	86N	40W	7.8
69	Soldier River	Missouri River	L	Below unnamed creek	20	86N	40W	48.7
70	Soldier River	Missouri River	L	South (county) line	36	86N	41W	59.1
71	Otter Creek	Boyer River	R	Road crossing, south (county) line	35	86N	39W	5.48

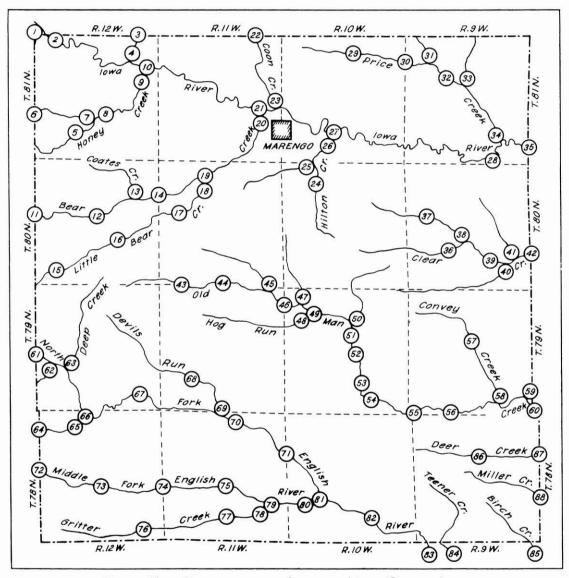


Figure 48. Drainage area index map of Iowa County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 48 Iowa County

			Bank	Point of determination of dra		Drainage area		
Area	Name of stream	Tributary to			Sec	Т	R	(sq mi)
No.				Description				
1	Walnut Creek	Iowa River	R	At mouth	31	82N	12W	91.3
2	Iowa River	Mississippi River	R	Road crossing, west line (gage near Belle Plaine)	5	81N	12W	2455
3	Buckeye Creek	Iowa River	L	North (county) line	1	81N	12W	23.8
4	Buckeye Creek	Iowa River	L	At mouth	11	81N	12W	26.1
5	Honey Creek	Iowa River	R	Road crossing, west line	28	81N	12W	8.34
6	Unnamed creek	Honey Creek	L	Road crossing, west (county) line	19	81N	12W	5.84
7	Unnamed creek	Honey Creek	L	At mouth	28	81N	12W	11.2
8	Honey Creek	Iowa River	R	Road crossing, NW corner	27	81N	12W	23
9	Honey Creek	Iowa River	R	At mouth	12	81N	12W	29.9
10	Iowa River	Mississippi River	R	Below Honey Creek	12	81N	12W	2529
11	Bear Creek	Iowa River	R	Road crossing, west (county) line	18	80N	12W	167
12	Bear Creek	Iowa River	R	Road crossing, west line	15	80N	12W	177
13	Coates Creek	Bear Creek	L	At mouth	11	80N	12W	6.55
14	Bear Creek	Iowa River	R	Road crossing, west line (gage at Ladora)	7	80N	11W	189
15	Little Bear Creek	Bear Creek	R	Road crossing, west line	32	80N	12W	4.3
16	Little Bear Creek	Bear Creek	R	Road crossing, west line	23	80N	12W	9.04
17	Little Bear Creek	Bear Creek	R	Road crossing, west line	17	80N	11W	13.7
18	Little Bear Creek	Bear Creek	R	At mouth	4	80N	11W	22.4
19	Bear Creek	Iowa River	R	Below Little Bear Creek	4	80N	11W	216
20	Bear Creek	Iowa River	R	At mouth	24	81N	11W	222
21	Iowa River	Mississippi River	R	Below Bear Creek	24	81N	11W	2780
22	Coon Creek	Iowa River	L	North (county) line	2	81N	11W	5.05
23	Coon Creek	Iowa River	L	At mouth	24	81N	11W	14
24	Hilton Creek	Iowa River	R	North line	8	80N	10W	11.2
25	Unnamed creek	Hilton Creek	L	At mouth	5	80N	10W	6.63
26	Hilton Creek	Iowa River	R	At mouth	28	81N	10W	21.5
27	Iowa River	Mississippi River	R	Below Hilton Creek	28	81N	10W	2829
28	Iowa River	Mississippi River	R	Road crossing, SW¼ (gage near Homestead)	35	81N	9W	2.864
29	Price Creek	Iowa River	L	Road crossing, south 1/2	3	81N	10W	5.59
30	Price Creek	Iowa River	L	Road crossing, west line	7	81N	9W	10.1

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31	Unnamed creek	Price Creek	L	At mouth	8	81N	9W	5.67
32	Price Creek	Iowa River	L	Road crossing, west line	9	81N	9W	20.1
33	Unnamed creek	Price Creek	L	At mouth	16	81N	9W	6.1
34	Price Creek	Iowa River	L	At mouth	26	81N	9W	30.9
35	Iowa River	Mississippi River	R	East (county) line	36	81N	9W	2904
36	Clear Creek	Iowa River	R	Road crossing, north line	28	80N	9W	9.82
37	Unnamed creek	Clear Creek	L	Road crossing, west line	17	80N	9W	4.58
38	Unnamed creek	Clear Creek	L	At mouth	21	80N	9W	11.5
39	Clear Creek	Iowa River	R	Road crossing, west line	26	80N	9W	24.5
40	Unnamed creek	Clear Creek	R	At mouth	26	80N	9W	9.33
41	Unnamed creek	Clear Creek	L	At mouth	25	80N	9W	5.49
42	Clear Creek	Iowa River	R	Road crossing, east (county) line	25	80N	9W	41.1
43	Old Man Creek	Iowa River	R	Road crossing, NW corner	5	79N	11W	7.36
44	Old Man Creek	Iowa River	R	Road crossing, west line	34	80N	11W	12.4
45	Unnamed creek	Old Man Creek	L	At mouth	36	80N	11W	6.37
46	Old Man Creek	Iowa River	R	Road crossing, west line	6	79N	10W	23.1
47	Unnamed creek	Old Man Creek	L	At mouth	8	79N	10W	7.03
48	Hog Run	Old Man Creek	R	At mouth	8	79N	10W	8.05
49	Old Man Creek	Iowa River	R	Below Hog Run	8	79N	10W	38.9
50	Unnamed creek	Old Man Creek	L	At mouth	10	79N	10W	9.33
51	Old Man Creek	Iowa River	R	Road crossing, SW1/4	10	79N	10W	51.4
52	Old Man Creek	Iowa River	R	North line	22	79N	10W	57.5
53	Old Man Creek	Iowa River	R	Road crossing, east 1/2	27	79N	10W	66.9
54	Old Man Creek	Iowa River	R	West line	35	79N	10W	73.6
55	Old Man Creek	Iowa River	R	Road crossing, SW1/4	31	79N	9W	81.2
56	Old Man Creek	Iowa River	R	Road crossing, west line	33	79N	9W	91.4
57	Convey Creek	Old Man Creek	L	Road crossing, west 1/2	15	79N	9W	5.33
58	Convey Creek	Old Man Creek	L	At mouth	35	79N	9W	15.4
59	Unnamed creek	Old Man Creek	L	At mouth	36	79N	9W	5.21
60	Old Man Creek	Iowa River	R	East (county) line	36	79N	9W	119
61	North Fork English River	English River	L	Road crossing, west (county) line	19	79N	12W	93.7
62	Jordan Creek	North Fork English River	R	At mouth	19	79N	12W	6.76
63	Deep Creek	North Fork English River	L	At mouth	20	79N	12W	10.5
64	Deep River	North Fork English River	R	Road crossing, west (county) line	6	78N	12W	36.6
65	Deep River	North Fork English River	R	At mouth	4	78N	12W	43
66	North Fork English River	English River	L	Below Deep River	4	78N	12W	162

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67	North Fork English River	English River	L	Road crossing, west line	36	79N	12W	171
68	Devils Run	North Fork English River	L	Road crossing, center	29	79N	11W	11.4
69	Devils Run	North Fork English River	L	At mouth	4	78N	11W	21.4
70	North Fork English River	English River	L	Road crossing, west line	3	78N	11W	202
71	North Fork English River	English River	L	Road crossing, west line	7	78N	10W	215
72	Middle Fork English River	North Fork English River	R	Road crossing, west (county) line	18	78N	12W	6.52
73	Middle Fork English River	North Fork English River	R	Road crossing, west line	22	78N	12W	15.3
74	Middle Fork English River	North Fork English River	R	Road crossing, west line	19	78N	11W	27.2
75	Middle Fork English River	North Fork English River	R	Road crossing, west line	22	78N	11W	35.8
76	Gritter Creek	Middle Fork English River	R	Road crossing, west line	36	78N	12W	8.1
77	Gritter Creek	Middle Fork English River	R	Road crossing, west line	27	78N	11W	16.5
78	Gritter Creek	Middle Fork English River	R	At mouth	25	78N	11W	23.4
79	Middle Fork English River	North Fork English River	R	Below Gritter Creek	25	78N	11W	63.7
80	Middle Fork English River	North Fork English River	R	At mouth	20	78N	10W	69.2
81	North Fork English River	English River	L	Below Middle Fork English River	20	78N	10W	291
82	North Fork English River	English River	L	Road crossing, SE1/4	27	78N	10W	302
83	North Fork English River	English River	L	At mouth	6	77N	9W	314
84	Teener Creek	English River	L	At mouth	5	77N	9W	6.31
85	Birch Creek	English River	L	At mouth	1	77N	9W	6.54
86	Deer Creek	English River	L	Road crossing, west line	10	78N	9W	8.15
87	Deer Creek	English River	L	Road crossing, east (county) line	12	78N	9W	12.4
88	Miller Creek	Deer Creek	R	Road crossing, east (county) line	24	78N	9W	5.35

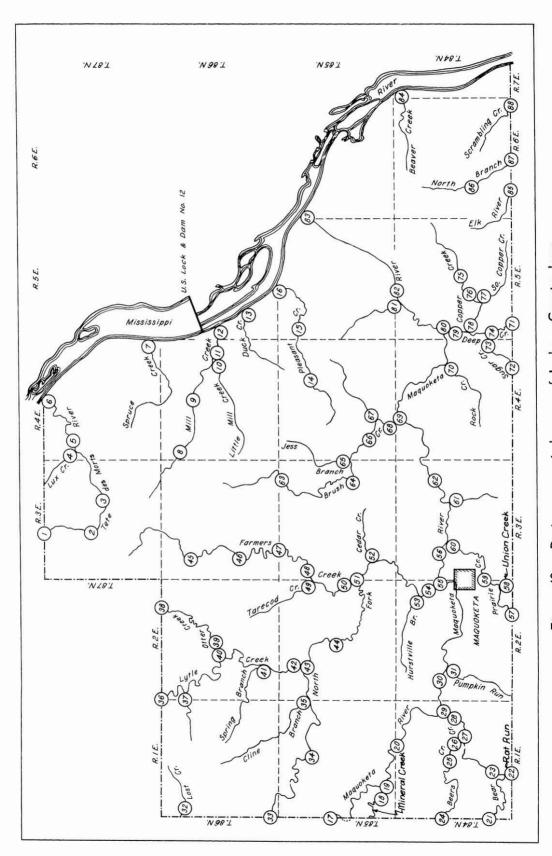


Figure 49. Drainage area index map of Jackson County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 49 Jackson County

			Bank	Point of determination of dr		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Tete des Morts River	Mississippi River	R	North (county) line	4	87N	3E	4.9
2	Tete des Morts River	Mississippi River	R	Road crossing, NW1/4	16	87N	3E	14
3	Tete des Morts River	Mississippi River	R	Road crossing, west line	23	87N	3E	20.8
4	Lux Creek	Tete des Morts River	L	At mouth	7	87N	4E	8.98
5	Tete des Morts River	Mississippi River	R	Road crossing, SE1/4	7	87N	4E	39.8
6	Tete des Morts River	Mississippi River	R	At mouth	3	87N	4E	47.9
7	Spruce Creek	Mississippi River	R	At mouth	36	87N	4E	12.3
8	Mill Creek	Mississippi River	R	North line	7	86N	4E	8.86
9	Mill Creek	Mississippi River	R	West line	10	86N	4E	18.3
10	Little Mill Creek	Mill Creek	R	At mouth	13	86N	4E	10.3
11	Mill Creek	Mississippi River	R	Below Little Mill Creek	13	86N	4E	32.6
12	Mill Creek	Mississippi River	R	At mouth	18	86N	5E	34.3
13	Duck Creek	Mississippi River	R	At mouth	29	86N	5E	9.12
14	Pleasant Creek	Mississippi River	R	West line	11	85N	4E	8.9
15	Pleasant Creek	Mississippi River	R	Road crossing, north 1/2	7	85N	5E	14.3
16	Pleasant Creek	Mississippi River	R	At mouth	33	86N	5E	21.8
17	Maquoketa River	Mississippi River	R	West (county) line	18	85N	1E	748
18	Mineral Creek	Maquoketa River	R	At mouth	32	85N	1E	49.3
19	Maquoketa River	Mississippi River	R	Below Mineral Creek	32	85N	1E	804
20	Maquoketa River	Mississippi River	R	Road crossing, NE1/4	3	84N	1E	812
21	Bear Creek	Maquoketa River	R	West (county) line	30	84N	1E	57.9
22	Rat Run	Bear Creek	R	At mouth	33	84N	1E	7.35
23	Bear Creek	Maquoketa River	R	Road crossing, NW1/4	33	84N	1E	70.9
24	Beers Creek	Bear Creek	L	West (county) line	18	84N	1E	13.2
25	Beers Creek	Bear Creek	L	Road crossing, west line	15	84N	1E	23.4
26	Beers Creek	Bear Creek	L	At mouth	23	84N	1E	27.4
27	Bear Creek	Maquoketa River	R	Below Beers Creek	23	84N	1E	104
28	Bear Creek	Maquoketa River	R	At mouth	13	84N	1E	111
29	Maquoketa River	Mississippi River	R	Below Bear Cree	13	84N	1E	935
	-			Road crossing, center				
30	Maquoketa River	Mississippi River	R	(discontinued gage near Maquoketa)	17	84N	2E	938
31	Pumpkin Run	Maquoketa River	R	At mouth	17	84N	2E	7.82
32	Lost Creek	Whitewater Creek	L	Road crossing, north 1/2	7	86N	1E	7.58
33	North Fork Maquoketa River	Maquoketa River	L	West (county) line	31	86N	1E	343
34	North Fork Maquoketa River	Maquoketa River	L	Road crossing, SW1/4	10	85N	1E	358

FINAL Drainage Areas of Iowa Streams.xls Table No. 49 Jackson County

35	Cline Branch	North Fork Maquoketa River	L	At mouth	7	85N	2E	8.78
36	Lytle Creek	North Fork Maquoketa River	L	North (county) line	6	86N	2E	62.7
37	Unnamed creek	Lytle Creek	R	At mouth	7	86N	2E	5.99
38	Otter Creek	Lytle Creek	L	Road crossing, north (county) line	2	86N	2E	6.88
39	Otter Creek	Lytle Creek	L	At mouth	16	86N	2E	23.1
40	Lytle Creek	North Fork Maquoketa River	L	Below Otter Creek	16	86N	2E	98.4
41	Spring Branch	Lytle Creek	R	At mouth	32	86N	2E	7.91
42	Lytle Creek	North Fork Maquoketa River	L	At mouth	8	85N	2E	116
43	North Fork Maquoketa River	Maquoketa River	L	Below Lytle Creek	8	85N	2E	493
44	North Fork Maquoketa River	Maquoketa River	L	Road crossing, north line	21	85N	2E	505
45	Farmers Creek	North Fork Maquoketa River	L	Road crossing, west line	8	86N	3E	10.4
46	Farmers Creek	North Fork Maquoketa River	L	North line	29	86N	3E	19.6
47	Farmers Creek	North Fork Maquoketa River	L	North line	5	85N	3E	30.6
48	Farmers Creek	North Fork Maquoketa River	L	West line	7	85N	3E	37.3
49	Tarecod Creek	Farmers Creek	R	At mouth	12	85N	2E	5.36
50	Farmers Creek	North Fork Maquoketa River	L	At mouth	24	85N	2E	48.3
51	North Fork Maquoketa River	Maquoketa River	L	Below Farmers Creek	24	85N	2E	565
52	Cedar Creek	North Fork Maquoketa River	L	At mouth	30	85N	3E	6.74
53	Hurstville Branch	North Fork Maquoketa River	R	At mouth	12	84N	2E	8.71
54	North Fork Maquoketa River	Maquoketa River	L	At mouth	13	84N	2E	592
55	Maquoketa River	Mississippi River	R	Below North Fork Maquoketa River	13	84N	2E	1550
56	Maquoketa River	Mississippi River	R	Road crossing, NE¼ (gage near Maquoketa)	17	84N	3E	1553
57	Prairie Creek	Maquoketa River	R	Road crossing, south (county) line	35	84N	2E	33.2
58	Union Creek	Prairie Creek	R	At mouth	36	84N	2E	6.93
59	Prairie Creek	Maquoketa River	R	Road crossing, west line	30	84N	3E	43.3
60	Prairie Creek	Maquoketa River	R	At mouth	17	84N	3E	54.7
61	Unnamed creek	Maquoketa River	R	At mouth	15	84N	3E	5.71
62	Maquoketa River	Mississippi River	R	NW corner	13	84N	3E	1624
63	Brush Creek	Maquoketa River	L	Road crossing, NW1/4	1	85N	3E	9.02
64	Brush Creek	Maquoketa River	L	Road crossing, SE1/4	23	85N	3E	18.8
65	Jess Branch	Brush Creek	L	At mouth	24	85N	3E	5.81
66	Brush Creek	Maquoketa River	L	West line	29	85N	4E	29
67	Unnamed creek	Brush Creek	L	At mouth	33	85N	4E	5.63
68	Brush Creek	Maquoketa River	L	At mouth	4	84N	4E	40.7
69	Maquoketa River	Mississippi River	R	Below Brush Creek	4	84N	4E	1679
70	Rock Creek	Maquoketa River	R	At mouth	14	84N	4E	8.77

FINAL Drainage Areas of Iowa Streams.xls Table No. 49 Jackson County

71	Deep Creek	Maquoketa River	R	South (county) line	31	84N	5E	88.3
72	Sugar Creek	Deep Creek	L	South (county) line	35	84N	4E	19.5
73	Sugar Creek	Deep Creek	L	At mouth	30	84N	5E	26.8
74	Deep Creek	Maquoketa River	R	Below Sugar Creek	30	84N	5E	119
75	Copper Creek	Deep Creek	R	Road crossing, NW1/4	22	84N	5E	9.35
76	Copper Creek	Deep Creek	R	Road crossing, west line	28	84N	5E	13.7
77	South Copper Creek	Copper Creek	L	At mouth	29	84N	5E	5.04
78	Copper Creek	Deep Creek	R	At mouth	19	84N	5E	21.6
79	Deep Creek	Maquoketa River	R	At mouth	18	84N	5E	143
80	Maquoketa River	Mississippi River	R	Below Deep Creek	18	84N	5E	1843
81	Unnamed creek	Maquoketa River	L	At mouth	5	84N	5E	9.16
82	Maquoketa River	Mississippi River	R	Road crossing, NW1/4	4	84N	5E	1861
83	Maquoketa River	Mississippi River	R	At mouth	7	85N	6E	1879
84	Beaver Creek	Mississippi River	R	At mouth	31	85N	7E	12.1
85	Elk River	Mississippi River	R	Road crossing, south (county) line	32	84N	6E	6.12
86	North Branch Elk River	Elk River	L	North line	29	84N	6E	6.13
87	North Branch Elk River	Elk River	L	Road crossing, south (county) line	33	84N	6E	11.1
88	Scrambling Creek	Elk River	L	Road crossing, south (county) line	36	84N	6E	5.06

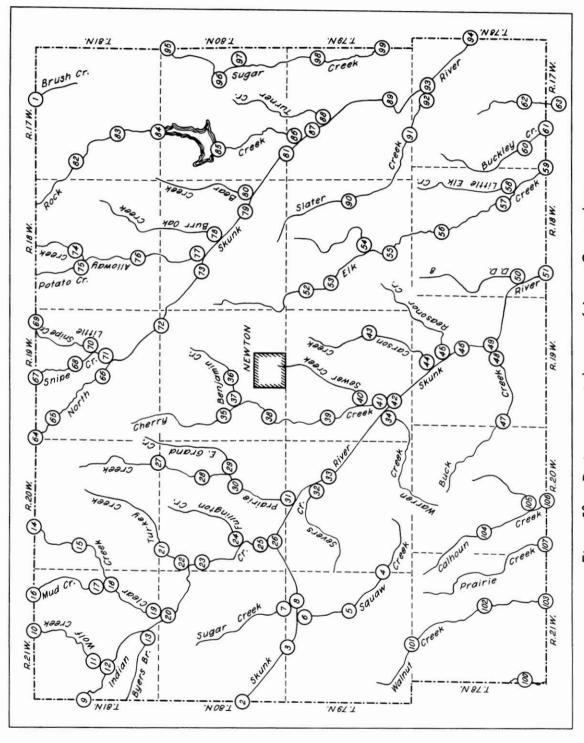


Figure 50. Drainage area index map of Jasper County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 50 Jasper County

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Brush Creek	South Timber Creek	R	Road crossing, north (county) line	3	81N	17W	3.61
2	Skunk River	Mississippi River	R	West (county) line	19	80N	21W	748
3	Skunk River	Mississippi River	R	Road crossing, north 1/2	4	79N	21W	761
4	Squaw Creek	Skunk River	R	Road crossing, west line	30	79N	20W	8.32
5	Squaw Creek	Skunk River	R	Road crossing, north line	23	79N	21W	15.7
6	Squaw Creek	Skunk River	R	At mouth	2	79N	21W	25.2
7	Sugar Creek	Skunk River	L	At mouth	2	79N	21W	7.1
8	Skunk River	Mississippi River	R	Below Sugar Creek	2	79N	21W	800
9	Indian Creek	Skunk River	L	West (county) line	18	81N	21W	247
10	Wolf Creek	Indian Creek	L	Road crossing, north (county) line	3	81N	21W	12.7
11	Wolf Creek	Indian Creek	L	At mouth	20	81N	21W	20.4
12	Indian Creek	Skunk River	L	Below Wolf Creek	20	81N	21W	275
13	Byers Branch	Indian Creek	R	At mouth	34	81N	21W	5.4
14	Clear Creek	Indian Creek	L	Road crossing, north (county) line	5	81N	20W	48.7
15	Clear Creek	Indian Creek	L	Road crossing, NW1/4	17	81N	20W	58.5
16	Mud Creek	Clear Creek	R	Road crossing, north (county) line	2	81N	21W	6.78
17	Mud Creek	Clear Creek	R	At mouth	24	81N	21W	14.1
18	Clear Creek	Indian Creek	L	Below Mud Creek	24	81N	21W	77.2
19	Clear Creek	Indian Creek	L	At mouth	3	80N	21W	84.3
20	Indian Creek	Skunk River	L	Below Clear Creek	3	80N	21W	375
21	Turkey Creek	Indian Creek	L	West line	5	80N	20W	7.08
22	Turkey Creek	Indian Creek	L	At mouth	7	80N	20W	13.3
23	Indian Creek	Skunk River	L	Road crossing, north line	18	80N	20W	395
24	Fullington Creek	Indian Creek	L	At mouth	20	80N	20W	5.2
25	Indian Creek	Skunk River	L	At mouth	32	80N	20W	413
26	Skunk River	Mississippi River	R	Below Indian Creek	32	80N	20W	1220
27	Prairie Creek	Skunk River	L	Road crossing, NE corner	2	80N	20W	6.1
28	Prairie Creek	Skunk River	L	Road crossing, north line	14	80N	20W	12.8
29	East Grand Creek	Prairie Creek	L	At mouth	23	80N	20W	5.55
30	Prairie Creek	Skunk River	L	West line	23	80N	20W	19.7
31	Prairie Creek	Skunk River	L	At mouth	3	79N	20W	25.7
32	Severs Creek	Skunk River	R	At mouth	11	79N	20W	7.25
33	Skunk River	Mississippi River	R	Road crossing, NW1/4	14	79N	20W	1260
34	Warren Creek	Skunk River	R	At mouth	32	79N	20W	9.41

FINAL Drainage Areas of Iowa Streams.xls Table No. 50 Jasper County

			1 abic 140. 00 daspo	County				
35	Cherry Creek	Skunk River	L	Road crossing, north line	20	80N	19W	5.47
36	Benjamin Creek	Cherry Creek	L	Road crossing, north 1/2	21	80N	19W	6.12
37	Benjamin Creek	Cherry Creek	L	At mouth	20	80N	19W	11.6
38	Cherry Creek	Skunk River	L	Road crossing, NW¼	32	80N	19W	20.9
39	Cherry Creek	Skunk River	L	North line	17	79N	19W	28.6
40	Sewer Creek	Cherry Creek	L	At mouth	29	79N	19W	8.49
41	Cherry Creek	Skunk River	L	At mouth	32	79N	19W	40.1
42	Skunk River	Mississippi River	R	Below Cherry Creek	32	79N	19W	1331
43	Carson Creek	Skunk River	L	Road crossing, north line	26	79N	19W	6.12
44	Carson Creek	Skunk River	L	At mouth	4	78N	19W	10.4
45	Reasonor Creek	Skunk River	L	At mouth	10	78N	19W	6.65
46	Skunk River	Mississippi River	R	Road crossing, west 1/2	10	78N	19W	1363
47	Buck Creek	Skunk River	R	Road crossing, SW1/4	19	78N	19W	7.33
48	Buck Creek	Skunk River	R	At mouth	22	78N	19W	15.3
49	Skunk River	Mississippi River	R	Below Buck Creek	22	78N	19W	1385
50	Drainage Ditch 8	Skunk River	L	At mouth	31	78N	18W	8.61
51	Skunk River	Mississippi River	R	South (county) line	32	78N	18W	1407
52	Elk Creek	Skunk River	L	Road crossing, north line	7	79N	18W	14.2
53	Elk Creek	Skunk River	L	Road crossing, NW¼	17	79N	18W	20.6
54	Unnamed creek	Elk Creek	L	At mouth	28	79N	18W	7.18
55	Elk Creek	Skunk River	L	Road crossing, north line	33	79N	18W	34.6
56	Elk Creek	Skunk River	L	NW corner	10	78N	18W	43.7
57	Elk Creek	Skunk River	L	Road crossing, north line	26	78N	18W	50.4
58	Little Elk Creek	Elk Creek	L	At mouth	26	78N	18W	5.71
59	Elk Creek	Skunk River	L	South (county) line	31	78N	17W	58.6
60	Buckley Creek	Skunk River	L	Road crossing, north line	31	78N	17W	9.02
61	Buckley Creek	Skunk River	L	Road crossing, south (county) line	32	78N	17W	11.4
62	Middle Branch Buckley Creek	Buckley Creek	L	Road crossing, north line	34	78N	17W	3.04
63	Middle Branch Buckley Creek	Buckley Creek	L	At mouth	9	77N	17W	9.93
64	North Skunk River	Skunk River	L	Road crossing, north (county) line	6	81N	19W	36.8
65	North Skunk River	Skunk River	L	Road crossing, north line	8	81N	19W	44.2
66	North Skunk River	Skunk River	L	Road crossing, west line	22	81N	19W	52.5
67	Snipe Creek	North Skunk River	L	Road crossing, north (county) line	4	81N	19W	24.1
68	Snipe Creek	North Skunk River	L	Road crossing, north line	15	81N	19W	27.8
69	Little Snipe Creek	Snipe Creek	L	Road crossing, north (county) line	1	81N	19W	3.55
70	Little Snipe Creek	Snipe Creek	L	At mouth	14	81N	19W	12
71	Snipe Creek	North Skunk River	L	At mouth	22	81N	19W	41.4
72	North Skunk River	Skunk River	L	Road crossing, NW1/4	1	80N	19W	105

FINAL Drainage Areas of Iowa Streams.xls Table No. 50 Jasper County

73	North Skunk River	Skunk River	L	Road crossing, west line	9	80N	19W	122
74	Alloway Creek	North Skunk River	L	Road crossing, north line	16	80N	18W	5.92
75	Potato Creek	Alloway Creek	R	At mouth	16	81N	18W	4.79
76	Alloway Creek	North Skunk River	L	Road crossing, north line	33	81N	18W	18.7
77	Alloway Creek	North Skunk River	L	At mouth	16	80N	18W	24.2
78	Burr Oak Creek	North Skunk River	L	At mouth	15	80N	18W	10.4
79	North Skunk River	Skunk River	L	Road crossing, north 1/2	26	80N	18W	164
80	Bear Creek	North Skunk River	L	At mouth	25	80N	18W	8.04
81	North Skunk River	Skunk River	L	Road crossing, north line	5	79N	17W	180
82	Rock Creek	North Skunk River	L	Road crossing, north line	18	81N	17W	7.62
83	Rock Creek	North Skunk River	L	North line	28	81N	17W	15.5
84	Rock Creek	North Skunk River	L	North line	4	80N	17W	27.6
85	Rock Creek	North Skunk River	L	At dam, SW1/4	17	80N	17W	41.4
86	Rock Creek	North Skunk River	L	At mouth	5	79N	17W	48.1
87	North Skunk River	Skunk River	L	Road crossing, SE1/4	5	79N	17W	230
88	Turner Creek	North Skunk River	L	At mouth	9	79N	17W	7.55
89	North Skunk River	Skunk River	L	Road crossing, north line	34	79N	17W	250
90	Slater Creek	North Skunk River	R	Road crossing, north line	24	79N	18W	5.78
91	Slater Creek	North Skunk River	R	Road crossing, west line	33	79N	17W	14
92	Slater Creek	North Skunk River	R	At mouth	3	78N	17W	20.8
93	North Skunk River	Skunk River	L	Below Slater Creek	3	78N	17W	278
94	North Skunk River	Skunk River	L	East (county) line	13	78N	17W	287
0.5	0 0 1	Ned OL d B'		Road crossing, east	4	001	4714/	5.00
95	Sugar Creek	North Skunk River	L	(county) line	1	80N	17W	5.99
96	Sugar Creek	North Skunk River	L	Road crossing, SE1/4	14	80N	17W	15
97	Unnamed creek	Sugar Creek	L	At mouth	24	80N	17W	7.92
98	Sugar Creek	North Skunk River	L	Road crossing, center	12	79N	17W	30.8
99	Sugar Creek	North Skunk River	L	East (county) line	25	79N	17W	36.2
100	Camp Creek	Des Moines River	L	Road crossing, north line	31	78N	21W	35.7
101	Walnut Creek	Des Moines River	L	Road crossing, north line	5	78N	21W	6.77
102	Walnut Creek	Des Moines River	L	Road crossing, north line	22	78N	21W	18.1
103	Walnut Creek	Des Moines River	L	Road crossing, south	34	78N	21W	25
103	Wallut Greek	Des Mollies Rivel	_	(county) line	J -1			25
104	Calhoun Creek	Des Moines River	L	Road crossing, north line	20	78N	20W	6.18
105	Union Valley Creek	Calhoun Creek	L	At mouth	33	78N	20W	6.88
106	Calhoun Creek	Des Moines River	L	Road crossing, south (county) line	33	78N	20W	18.9
107	Prairie Creek	Calhoun Creek	R	Road crossing, south (county) line	31	78N	20W	9.33
				• • •				

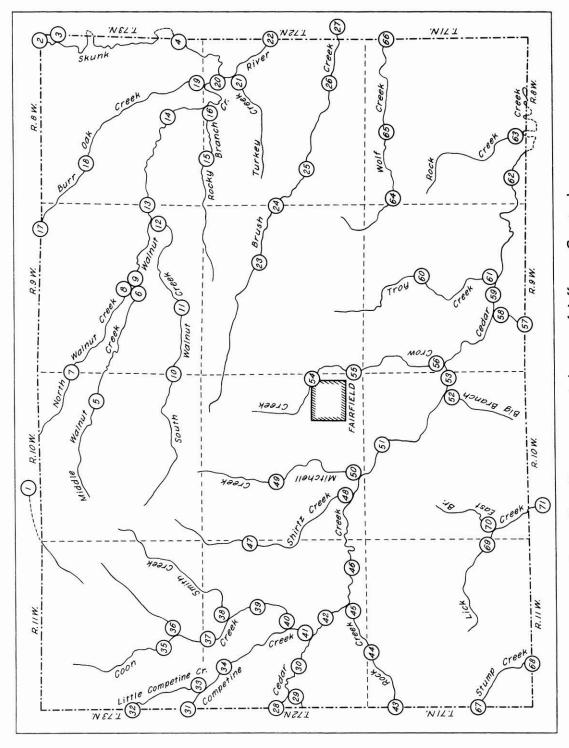


Figure 51. Drainage area index map of Jefferson County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 51 Jefferson County

	Name of stream	Tributary to	Bank	Point of determination of drainage area			Drainage area	
Area No.				Description	Sec	Т	R	(sq mi)
1	Unnamed creek	Richland Creek	R	Road crossing, west line Road crossing, NE1/4	32	74N	10W	5.67
2	Skunk River	Mississippi River	R	(discontinued gage at Coppock)	1	73N	8W	2916
3	Crooked Creek	Skunk River	L	At mouth	1	73N	8W	286
4	Skunk River	Mississippi River	R	Road crossing, NE1/4	36	73N	8W	3237
5	Middle Walnut Creek	Walnut Creek	R	Road crossing, west line	13	73N	10W	9.54
6	Middle Walnut Creek	Walnut Creek	R	At mouth	22	73N	9W	18.5
7	North Walnut Creek	Walnut Creek	L	Road crossing, west line	7	73N	9W	4.76
8	North Walnut Creek	Walnut Creek	L	At mouth	22	73N	9W	11
9	Walnut Creek	Skunk River	R	At confluence North and Middle Walnut Creeks	22	73N	9W	29.5
10	South Walnut Creek	Walnut Creek	R	Road crossing, SW corner	30	73N	9W	9.91
11	South Walnut Creek	Walnut Creek	R	Road crossing, NW1/4	33	73N	9W	14.2
12	South Walnut Creek	Walnut Creek	R	At mouth	25	73N	9W	20.4
13	Walnut Creek	Skunk River	R	Road crossing, west line	19	73N	W8	53.8
14	Walnut Creek	Skunk River	R	Road crossing, SW1/4	27	73N	W8	66.3
15	Rocky Branch	Walnut Creek	R	Road crossing, NE1/4	5	72N	8W	8.98
16	Rocky Branch	Walnut Creek	R	At mouth	3	72N	8W	13.2
17	Burr Oak Creek	Walnut Creek	L	North (county) line	1	73N	9W	4.85
18	Burr Oak Creek	Walnut Creek	L	Road crossing, south 1/2	8	73N	8W	9
19	Burr Oak Creek	Walnut Creek	L	At mouth	2	72N	8W	19.9
20	Walnut Creek	Skunk River	R	At mouth	2	72N	8W	102
21	Turkey Creek	Skunk River	R	At mouth	11	72N	8W	5.28
22	Skunk River	Mississippi River	R	East (county) line	13	72N	8W	3356
23	Brush Creek	Skunk River	R	Road crossing, west line	14	72N	9W	9.29
24	Brush Creek	Skunk River	R	Road crossing, west line	18	72N	8W	17
25	Brush Creek	Skunk River	R	Road crossing, SW1/4	20	72N	8W	23.3
26	Brush Creek	Skunk River	R	Road crossing, south 1/2	26	72N	8W	30
27	Brush Creek	Skunk River	R	At mouth	30	72N	7W	35.1
28	Cedar Creek	Skunk River	R	West (county) line	18	72N	11W	165
29	Honey Branch	Cedar Creek	R	At mouth	19	72N	11W	9.69
30	Cedar Creek	Skunk River	R	Road crossing, center	20	72N	11W	180
31	Competine Creek	Cedar Creek	L	West (county) line	31	73N	11W	23
32	Little Competine Creek	Competine Creek	L	West (county) line	19	73N	11W	4.35

FINAL Drainage Areas of Iowa Streams.xls Table No. 51 Jefferson County

33	Little Competine Creek	Competine Creek	L	At mouth	6	72N	11W	8.31
34	Competine Creek	Cedar Creek	L	Road crossing, SW1/4	5	72N	11W	34
35	Coon Creek	Competine Creek	L	Road crossing, SW1/4	28	73N	11W	9.56
36	Unnamed creek	Coon Creek	L	At mouth	28	73N	11W	5.09
37	Coon Creek	Competine Creek	L	Road crossing, north 1/2	4	72N	11W	16.4
38	Smith Creek	Coon Creek	L	At mouth	3	72N	11W	9.62
39	Coon Creek	Competine Creek	L	Road crossing, SE1/4	10	72N	11W	28.4
40	Coon Creek	Competine Creek	L	At mouth	21	72N	11W	31.2
41	Competine Creek	Cedar Creek	L	At mouth	21	72N	11W	69.2
42	Cedar Creek	Skunk River	R	Road crossing, west 1/2	27	72N	11W	252
43	Rock Creek	Cedar Creek	R	Road crossing, west (county) line	6	71N	11W	9.97
44	Rock Creek	Cedar Creek	R	Road crossing, west line	4	71N	11W	15.6
45	Rock Creek	Cedar Creek	R	At mouth	34	72N	11W	24.8
46	Cedar Creek	Skunk River	R	Road crossing, west line	36	72N	11W	284
47	Shirtz Creek	Cedar Creek	L	Road crossing, SE1/4	12	72N	11W	6.23
48	Shirtz Creek	Cedar Creek	L	At mouth	32	72N	10W	12.8
49	Mitchell Creek	Cedar Creek	L	Road crossing, SW1/4	16	72N	10W	6.11
50	Mitchell Creek	Cedar Creek	L	At mouth	33	72N	10W	14.9
51	Cedar Creek	Skunk River	R	Road crossing, SW1/4	3	71N	10W	323
52	Big Branch	Cedar Creek	R	At mouth	24	71N	10W	6.69
53	Cedar Creek	Skunk River	R	Road crossing, NE1/4	24	71N	10W	344
54	Crow Creek	Cedar Creek	L	Road crossing, NE1/4	25	72N	10W	6.46
55	Crow Creek	Cedar Creek	L	Road crossing, SW1/4	31	72N	9W	12.8
56	Crow Creek	Cedar Creek	L	At mouth	18	71N	9W	20.4
57	Unnamed creek	Cedar Creek	R	South (county) line	32	71N	9W	7.47
58	Unnamed creek	Cedar Creek	R	At mouth	28	71N	9W	10.2
59	Cedar Creek	Skunk River	R	Road crossing, NW1/4	33	71N	9W	381
60	Troy Creek	Cedar Creek	L	Road crossing, NW1/4	15	71N	9W	7.38
61	Troy Creek	Cedar Creek	L	At mouth	33	71N	9W	16.4
62	Cedar Creek	Skunk River	R	Road crossing, west line	32	71N	8W	407
63	Rock Creek	Cedar Creek	L	At mouth	33	71N	8W	10.5
64	Wolf Creek	Cedar Creek	L	Road crossing, NW1/4	7	71N	8W	7.06
65	Wolf Creek	Cedar Creek	L	Road crossing, south 1/2	3	71N	8W	15
66	Wolf Creek	Cedar Creek	L	Road crossing, east (county) line	1	71N	8W	23.5
67	Stump Creek	Des Moines River	L	West (county) line	30	71N	11W	2.42
68	Stump Creek	Des Moines River	L	South (county) line	32	71N	11W	11.1
69	Lick Creek	Des Moines River	L	Road crossing, SE1/4	25	71N	11W	11.2
70	East Branch Lick Creek	Lick Creek	L	At mouth	30	71N	10W	9.79

71 Lick Creek Des Moines River L Road crossing, NW1/4 5 70N 10W 23.3

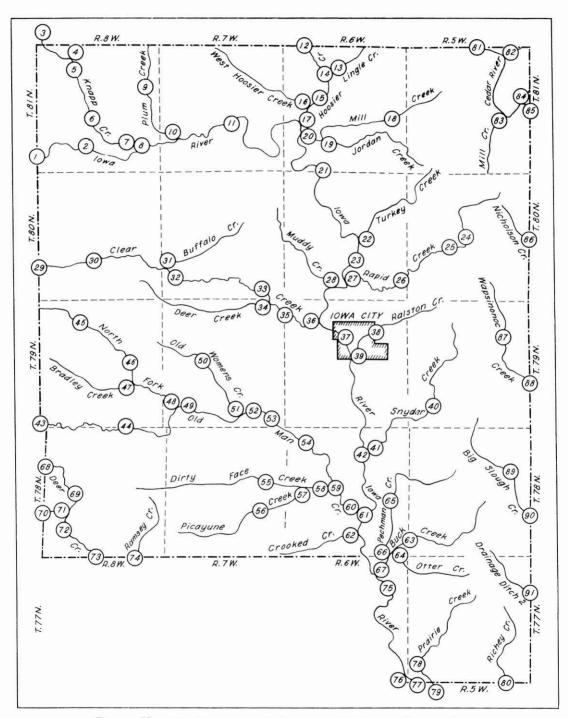


Figure 52. Drainage area index map of Johnson County, Iowa.

			Bank	Point of determination of drainage area		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Iowa River	Mississippi River	R	West (county) line	31	81N	8W	2904
2	Iowa River	Mississippi River	R	Road crossing, SW1/4	28	81N	W8	2916
3	Knapp Creek	Iowa River	L	Road crossing, west (county) line	31	82N	8W	7.18
4	Unnamed creek	Knapp Creek	L	At mouth	5	81N	8W	6.41
5	Knapp Creek	Iowa River	L	Road crossing, north line	8	81N	8W	18.2
6	Knapp Creek	Iowa River	L	Road crossing, north line	21	81N	8W	24.7
7	Knapp Creek	Iowa River	L	At mouth	25	81N	8W	30.6
8	Iowa River	Mississippi River	R	Below Knapp Creek	25	81N	8W	2953
9	Plum Creek	Iowa River	L	Road crossing, north line	13	81N	8W	7.87
10	Plum Creek	Iowa River	L	At mouth	30	81N	7W	11.5
11	Iowa River	Mississippi River	R	Road crossing, south 1/2	22	81N	7W	2999
12	Hoosier Creek	Iowa River	L	Road crossing, north (county) line	5	81N	6W	22.4
13	Lingle Creek	Hoosier Creek	L	At mouth	9	81N	6W	8.97
14	Hoosier Creek	Iowa River	L	Below Lingle Creek	9	81N	6W	35.6
15	Hoosier Creek	Iowa River	L	Road crossing, NW1/4	20	81N	6W	41.4
16	West Hoosier Creek	Hoosier Creek	R	At mouth	19	81N	6W	7.13
17	Hoosier Creek	Iowa River	L	At mouth	30	81N	6W	48.8
18	Mill Creek	Iowa River	L	Road crossing, NW1/4	24	81N	6W	8.32
19	Jordan Creek	Mill Creek	L	At mouth	29	81N	6W	8.65
20	Mill Creek	Iowa River	L	At dam (Lake Macbride gage)	29	81N	6W	27.1
21	Iowa River	Mill Creek	R	Road crossing, SE¼ (discontinued gage above Coralville, at Mahaffey bridge)	32	81N	6W	3094
22	Turkey Creek	Iowa River	L	At mouth	22	80N	6W	9.37
23	Iowa River	Mill Creek	R	At dam (gage above Coralville)	22	80N	6W	3115
24	Rapid Creek	Iowa River	L	Road crossing, north line	21	80N	5W	7.84
25	Rapid Creek	Iowa River	L	Road crossing, west 1/2	21	80N	5W	14.8
26	Rapid Creek	Iowa River	L	Gage near Iowa City, NE1/4	36	80N	6W	24.6
27	Rapid Creek	Iowa River	L	At mouth	34	80N	6W	33
28	Muddy Creek	Iowa River	R	At mouth	33	80N	6W	9.91

29	Clear Creek	Iowa River	R	Road crossing, west (county) line	30	80N	8W	41.1
30	Clear Creek	Iowa River	R	Road crossing, NE1/4	28	80N	8W	55
31	Buffalo Creek	Clear Creek	L	At mouth	30	80N	7W	10.6
32	Clear Creek	Iowa River	R	Road crossing, south 1/2	30	80N	7W	74.1
				Road crossing, SW1/4				
33	Clear Creek	Iowa River	R	(discontinued gage near	36	80N	7W	84.5
				Tiffin)				
34	Deer Creek	Clear Creek	R	At mouth	36	80N	7W	10.1
35	Clear Creek	Iowa River	R	Road crossing, west line	6	79N	6W	98.1
00				(gage near Coralville)				
36	Clear Creek	Iowa River	R	At mouth	5	79N	6W	105
37	Iowa River	Mississippi River	R	Gage at Iowa City, SE1/4	9	79N	6W	3271
38	Ralson Creek	Iowa River	L	Road crossing, NW1/4	11	79N	6W	3.01
				(gage at Iowa City)				
39	Ralson Creek	Iowa River	L	At mouth	15	79N	6W	8.75
40	Snyder Creek	Iowa River	L	North line	32	79N	5W	10.4
41	Snyder Creek	Iowa River	L	At mouth	10	78N	6W	21.8
42	Iowa River	Mississippi River	R	Below Snyder Creek	10	78N	6W	3321
43	Old Man Creek	Iowa River	R	West (county) line	31	79N	W8	119
44	Old Man Creek	Iowa River	R	Road crossing, NW corner	2	78N	8W	128
45	North Fork Old Man Creek	Old Man Creek	L	Road crossing, west line	9	79N	W8	11.2
46	North Fork Old Man Creek	Old Man Creek	L	Road crossing, north line	23	79N	W8	22.8
47	Bradley Crook	North Fork Old Man Creek		A			0147	7.3
	Bradley Creek	NOTHER OIL WAIT CIECK	R	At mouth	23	79N	W8	
48	North Fork Old Man Creek	Old Man Creek	R L	At mouth At mouth	23 31	79N 79N	8W 7W	36.4
48 49	•							
	North Fork Old Man Creek	Old Man Creek	L	At mouth	31	79N	7W	36.4
49	North Fork Old Man Creek Old Man Creek	Old Man Creek Iowa River	L R	At mouth Road crossing, NW1/4	31 32	79N 79N	7W 7W	36.4 173
49 50	North Fork Old Man Creek Old Man Creek Old Womens Creek	Old Man Creek Iowa River Old Man Creek	L R L	At mouth Road crossing, NW¼ Road crossing, west line	31 32 16	79N 79N 79N	7W 7W 7W	36.4 173 5.06
49 50 51 52	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River	L R L L	At mouth Road crossing, NW¼ Road crossing, west line At mouth	31 32 16 34 35	79N 79N 79N 79N 79N	7W 7W 7W 7W 7W	36.4 173 5.06 11.7 194
49 50 51	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River	L R L L	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City)	31 32 16 34	79N 79N 79N 79N 79N 79N	7W 7W 7W 7W 7W	36.4 173 5.06 11.7 194 201
49 50 51 52 53	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River	L R L R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line	31 32 16 34 35 36	79N 79N 79N 79N 79N 79N 79N	7W 7W 7W 7W 7W 7W	36.4 173 5.06 11.7 194 201
49 50 51 52 53 54 55	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River	L R L R R R	At mouth Road crossing, NW1/4 Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line	31 32 16 34 35 36 5	79N 79N 79N 79N 79N 79N 78N	7W 7W 7W 7W 7W 7W 6W 7W	36.4 173 5.06 11.7 194 201 209 8.28
49 50 51 52 53	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River	L R L R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line	31 32 16 34 35 36	79N 79N 79N 79N 79N 79N 79N	7W 7W 7W 7W 7W 7W	36.4 173 5.06 11.7 194 201
49 50 51 52 53 54 55	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek Old Man Creek Dirty Face Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River Iowa River Old Man Creek	L R L R R R	At mouth Road crossing, NW1/4 Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line	31 32 16 34 35 36 5	79N 79N 79N 79N 79N 79N 78N	7W 7W 7W 7W 7W 7W 6W 7W	36.4 173 5.06 11.7 194 201 209 8.28
49 50 51 52 53 54 55 56	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek Dirty Face Creek Picayune Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River Iowa River Old Man Creek Dirty Face Creek	L R L R R R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line Road crossing, SE¼	31 32 16 34 35 36 5 13 23	79N 79N 79N 79N 79N 79N 78N 78N 78N	7W 7W 7W 7W 7W 7W 6W 7W	36.4 173 5.06 11.7 194 201 209 8.28 10
49 50 51 52 53 54 55 56 57	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek Dirty Face Creek Picayune Creek Picayune Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River Iowa River Old Man Creek Dirty Face Creek Dirty Face Creek	L R L R R R R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line Road crossing, SE¼ At mouth	31 32 16 34 35 36 5 13 23 17	79N 79N 79N 79N 79N 79N 78N 78N 78N 78N	7W 7W 7W 7W 7W 7W 6W 7W 7W	36.4 173 5.06 11.7 194 201 209 8.28 10 14.6
49 50 51 52 53 54 55 56 57 58	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek Dirty Face Creek Picayune Creek Dirty Face Creek Dirty Face Creek Dirty Face Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River Iowa River Old Man Creek Dirty Face Creek Old Man Creek Old Man Creek	L R L R R R R R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line Road crossing, west line Road crossign, SE¼ At mouth At mouth	31 32 16 34 35 36 5 13 23 17 16	79N 79N 79N 79N 79N 79N 78N 78N 78N 78N 78N	7W 7W 7W 7W 7W 7W 6W 7W 6W 6W	36.4 173 5.06 11.7 194 201 209 8.28 10 14.6 26.7
49 50 51 52 53 54 55 56 57 58 59	North Fork Old Man Creek Old Man Creek Old Womens Creek Old Womens Creek Old Man Creek Old Man Creek Old Man Creek Dirty Face Creek Picayune Creek Dirty Face Creek Old Man Creek Oid Man Creek Oid Man Creek	Old Man Creek Iowa River Old Man Creek Old Man Creek Iowa River Iowa River Iowa River Old Man Creek Dirty Face Creek Old Man Creek Old Man Creek Iowa River	L R L L R R R R R R R R R	At mouth Road crossing, NW¼ Road crossing, west line At mouth Road crossing, west line Road crossing, west 1/2 (gage near lowa City) Road crossing, west line Road crossing, west line Road crossing, west line Road crossing, SE¼ At mouth At mouth Below Dirty Face Creek	31 32 16 34 35 36 5 13 23 17 16 16	79N 79N 79N 79N 79N 79N 78N 78N 78N 78N 78N 78N	7W 7W 7W 7W 7W 7W 6W 7W 6W 6W 6W	36.4 173 5.06 11.7 194 201 209 8.28 10 14.6 26.7 246

62	Crooked Creek	Iowa River	R	At mouth	27	78N	6W	5.44
63	Buck Creek	Iowa River	L	Road crossing, north line	1	77N	6W	10.4
64	Otter Creek	Buck Creek	L	At mouth	1	77N	6W	5.29
65	Pechman Creek	Buck Creek	R	Road crossing, west line	24	78N	6W	9.56
66	Pechman Creek	Buck Creek	R	At mouth	2	77N	6W	12.8
67	Buck Creek	Iowa River	L	At mouth	2	77N	6W	28.8
68	Deer Creek	English River	L	Road crossing, west (county) line	7	78N	8W	12.4
69	Deer Creek	English River	L	Road crossing, north line	20	78N	W8	17.4
70	Miller Creek	Deer Creek	R	Road crossing, west (county) line	19	78N	8W	5.35
71	Miller Creek	Deer Creek	R	At mouth	20	78N	8W	7.29
72	Deer Creek	English River	L	Road crossing, north line	29	78N	8W	29.4
73	Deer Creek	English River	L	Road crossing, south (county) line	33	78N	8W	37.8
74	Ramsey Creek	English River	L	Road crossing, south (county) line	35	78N	8W	6.05
75	Iowa River	Mississippi River	R	Below English River	11	77N	6W	4254
76	Davis Creek	Iowa River	R	At mouth	31	77N	5W	29.1
77	Iowa River	Mississippi River	R	Road crossing, north 1/2 (gage near Lone Tree)	6	76N	5W	4293
78	Prairie Creek	Iowa River	L	Road crossing, NE1/4	31	77N	5W	8.46
79	Prairie Creek	Iowa River	L	At mouth	5	76N	5W	15.4
80	Richey Creek	Iowa River	L	South (county) line	35	77N	5W	7.29
81	Cedar River	Iowa River	L	North (county) line	3	81N	5W	6997
82	Cedar Creek	Cedar River	L	At mouth	2	81N	5W	22.4
83	Mill Creek	Cedar River	R	At mouth	23	81N	5W	7.65
84	Coon Creek	Cedar River	L	At mouth	13	81N	5W	7.6
85	Cedar River	Iowa River	L	East (county) line	13	81N	5W	7053
86	Nicholson Creek	Cedar River	R	Road crossing, east (county) line	24	80N	5W	2.59
87	Wapsinonoc Creek	Cedar River	R	Road crossing, SE1/4	11	79N	5W	6.33
88	Wapsinonoc Creek	Cedar River	R	Road crossing, east (county) line	24	79N	5W	11.6
89	Big Slough Creek	Wapsinonoc Creek	R	Road crossing, north line	14	78N	5W	7.47
90	Big Slough Creek	Wapsinonoc Creek	R	Road crossing, east (county) line	25	78N	5W	15.4
91	<u>Drainage Ditch 2</u>	Wapsinonoc Creek	R	Road crossing, east (county) line	12	77N	5W	6.79

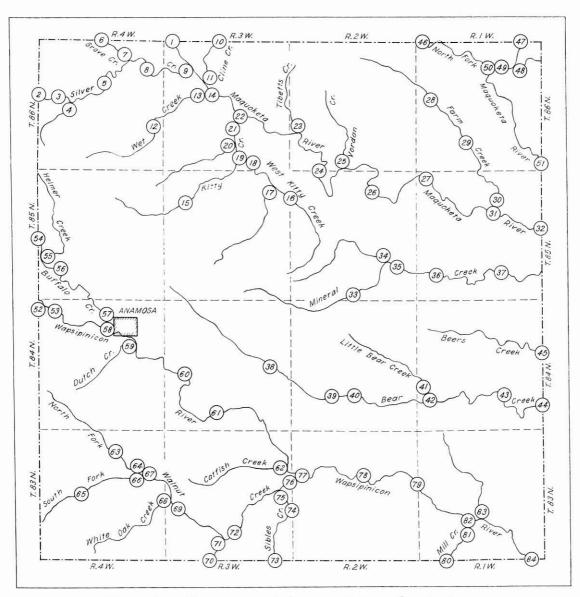


Figure 53. Drainage area index map of Jones County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Maquoketa River	Mississippi River	R	North (county) line	6	86N	3W	526
2	Silver Creek	Maquoketa River	R	Road crossing, west (county) line	18	86N	4W	5.26
3	Silver Creek	Maquoketa River	R	Road crossing, west line	17	86N	4W	9.33
4	Unnamed creek	Silver Creek	R	At mouth	17	86N	4W	5.83
5	Silver Creek	Maquoketa River	R	Road crossing, north line	15	86N	4W	20.8
6	Grove Creek	Silver Creek	L	Road crossing, north (county) line	3	86N	4W	8.02
7	Grove Creek	Silver Creek	L	At mouth	11	86N	4W	11.7
8	Silver Creek	Maquoketa River	R	Road crossing, west 1/2	12	86N	4W	36.9
9	Silver Creek	Maquoketa River	R	At mouth	8	86N	3W	39.2
10	Cline Creek	Maquoketa River	L	Road crossing, north (county) line	4	86N	3W	5.46
11	Cline Creek	Maquoketa River	L	At mouth	16	86N	3W	12.4
12	Wet Creek	Maquoketa River	R	North line	25	86N	4W	8.85
13	Wet Creek	Maquoketa River	R	At mouth	16	86N	3W	16.8
14	Maquoketa River	Mississippi River	R	Below Wet Creek	16	86N	3W	598
15	Kitty Creek	Maquoketa River	R	Road crossing, west 1/2	8	85N	3W	9.14
16	West Kitty Creek	Kitty Creek	R	Road crossing, west line	7	85N	2W	7.85
17	Unnamed creek	West Kitty Creek	L	At mouth	1	85N	3W	10.6
18	West Kitty Creek	Kitty Creek	R	At mouth	27	86N	3W	24.4
19	Kitty Creek	Maquoketa River	R	Below West Kitty Creek	27	86N	3W	42.9
20	Unnamed creek	Kitty Creek	L	At mouth	27	86N	3W	7.19
21	Kitty Creek	Maquoketa River	R	At mouth	22	86N	3W	51.1
22	Maquoketa River	Mississippi River	R	Below Kitty Creek	22	86N	3W	657
23	Tibetts Creek	Maquoketa River	L	At mouth	30	86N	2W	7.61
24	Maquoketa River	Mississippi River	R	North line	5	85N	2W	674
25	Vordan Creek	Maquoketa River	L	At mouth	33	86N	2W	8.69
26	Maquoketa River	Mississippi River	R	Road crossing, SE¼	3	85N	2W	692
27	Maquoketa River	Mississippi River	R	Road crossing, north 1/2	6	85N	1W	704
28	Farm Creek	Maquoketa River	L	Road crossing, SE1/4	18	86N	1W	10.2
29	Farm Creek	Maquoketa River	L	Road crossing, SW1/4	28	86N	1W	17.8
30	Farm Creek	Maquoketa River	L	At mouth	10	85N	1W	24.5
31	Maquoketa River	Mississippi River	R	Below Farm Creek	10	85N	1W	743
32	Maquoketa River	Mississippi River	R	East (county) line	13	85N	1W	748
33	Mineral Creek	Maquoketa River	R	West line	34	85N	2W	10.1

34	Unnamed creek	Mineral Creek	L	At mouth	26	85N	2W	7.5
35	Mineral Creek	Maquoketa River	R	Road crossing, west line	25	85N	2W	22.4
36	Mineral Creek	Maquoketa River	R	Road crossing, west line	29	85N	1W	30.9
37	Mineral Creek	Maquoketa River	R	Road crossing, SW1/4	26	85N	1W	40.9
38	Bear Creek	Maquoketa River	R	Road crossing, west line	24	84N	3W	11.3
39	Bear Creek	Maquoketa River	R	Road crossing, west line	28	84N	2W	18.1
40	Bear Creek	Maquoketa River	R	Road crossing, west line	27	84N	2W	23.8
41	Little Bear Creek	Bear Creek	L	At mouth	30	84N	1W	10
42	Bear Creek	Maquoketa River	R	Below Little Bear Creek	30	84N	1W	42.3
43	Bear Creek	Maquoketa River	R	Road crossing, SW1/4	26	84N	1W	51.2
44	Bear Creek	Maquoketa River	R	East (county) line	25	84N	1W	57.9
45	Beers Creek	Bear Creek	L	East (county) line	13	84N	1W	13.2
46	North Fork Maquoketa River	Maquoketa River	L	North (county) line	6	86N	1W	207
47	Whitewater Creek	North Fork Maquoketa River	L	North (county) line	2	86N	1W	98.8
48	Lost Creek	Whitewater Creek	L	At mouth	11	86N	1W	13.7
49	Whitewater Creek	North Fork Maquoketa River	L	At mouth	10	86N	1W	114
50	North Fork Maquoketa River	Maquoketa River	L	Below Whitewater Creek	10	86N	1W	333
51	North Fork Maquoketa River	Maquoketa River	L	East (county) line	36	86N	1W	343
52	Crows Creek	Wapsipinicon River	R	At mouth	6	84N	4W	8.34
				Road crossing, east 1/2				
53	Wapsipinicon River	Mississippi River	R	(discontinued gage at	6	84N	4W	1324
				Stone City)				
54	Buffalo Creek	Wapsipinicon River	L	West (county) line	19	85N	4W	203
55	Helmer Creek	Buffalo Creek	L	At mouth	30	85N	4W	11.4
56	Buffalo Creek	Wapsipinicon River	L	Road crossing, SE¼	30	85N	4W	217
57	Buffalo Creek	Wapsipinicon River	L	At mouth	10	84N	4W	232
58	Wapsipinicon River	Mississippi River	R	Below Buffalo Creek	10	84N	4W	1562
59	Dutch Creek	Wapsipinicon River	R	At mouth	14	84N	4W	7.09
60	Wapsipinicon River	Mississippi River	R	Road crossing, NE1/4	19	84N	3W	1585
61	Wapsipinicon River	Mississippi River	R	Road crossing, north 1/2	33	84N	3W	1596
62	Catfish Creek	Wapsipinicon River	R	At mouth	12	83N	3W	8.98
63	North Fork Walnut Creek	Walnut Creek	L	Road crossing, north line	10	83N	4W	6.59
64	North Fork Walnut Creek	Walnut Creek	L	At mouth	12	83N	4W	13.1
65	South Fork Walnut Creek	Walnut Creek	R	Road crossing, NE corner	20	83N	4W	11.3
66	South Fork Walnut Creek	Walnut Creek	R	At mouth	12	83N	4W	16.7
67	Walnut Creek	Wapsipinicon River	R	Below confluence of North and South Forks	12	83N	4W	29.8
68	White Oak Creek	Walnut Creek	R	At mouth	19	83N	3W	10.2
69	Walnut Creek	Wapsipinicon River	R	Road crossing, center	19	83N	3W	48.2

70	Pioneer Creek	Walnut Creek	R	Road crossing, south (county) line	33	83N	3W	17
71	Pioneer Creek	Walnut Creek	R	At mouth	33	83N	3W	20.8
72	Walnut Creek	Wapsipinicon River	R	Road crossing, NE corner	33	83N	3W	73.2
73	Sibles Creek	Walnut Creek	R	Road crossing, south (county) line	36	83N	3W	4.77
				Road crossing, east 1/2				
74	Sibles Creek	Walnut Creek	R	(discontinued gage at	247	83N	3W	13.4
				Stone City)				
75	Sibles Creek	Walnut Creek	R	At mouth	13	83N	3W	17.1
76	Walnut Creek	Wapsipinicon River	R	At mouth	18	83N	2W	97.9
77	Wapsipinicon River	Mississippi River	R	Below Walnut Creek	18	83N	2W	1719
78	Wapsipinicon River	Mississippi River	R	Road crossing, north 1/2	15	83N	2W	1732
79	Wapsipinicon River	Mississippi River	R	Road crossing, east 1/2	13	83N	2W	1743
80	Mill Creek	Wapsipinicon River	R	South (county) line	32	83N	1W	27.8
81	Mill Creek	Wapsipinicon River	R	At mouth	28	83N	1W	32.6
82	Wapsipinicon River	Mississippi River	R	Below Mill Creek	28	83N	1W	1788
83	Unnamed creek	Wapsipinicon River	L	At mouth	28	83N	1W	9.18
84	Wapsipinicon River	Mississippi River	R	South (county) line	36	83N	1W	1809

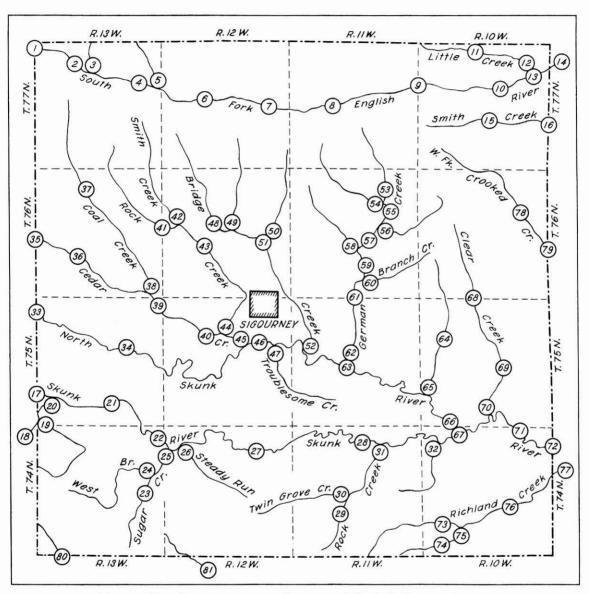


Figure 54. Drainage area index map of Keokuk County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
No.	Couth Fork English Diver	English Divor		Description West (county) line		77N	12\\\	22.4
1	South Fork English River	English River	R	West (county) line	6	77N 77N	13W 13W	23.1 27.9
2	South Fork English River	English River	R	Road crossing, west line	9	/ / IN	1300	21.9
3	Unnamed creek	South Fork English River	L	At mouth	9	77N	13W	17
4	South Fork English River	English River	R	Road crossing, west line	12	77N	13W	49.5
5	Unnamed creek	South Fork English River	L	At mouth	13	77N	13W	7.61
6	South Fork English River	English River	R	Road crossing, west line	16	77N	12W	66.2
7	South Fork English River	English River	R	Road crossing, west line	24	77N	12W	76.3
8	South Fork English River	English River	R	Road crossing, west line	21	77N	11W	88.5
9	South Fork English River	English River	R	Road crossing, west line	18	77N	10W	101
10	South Fork English River	English River	R	Road crossing, NE1/4	15	77N	10W	111
11	Little Creek	South Fork English River	L	Road crossing, center	4	77N	10W	5.02
12	Little Creek	South Fork English River	L	At mouth	12	77N	10W	9.25
13	South Fork English River	English River	R	Below Little Creek	12	77N	10W	124
14	South Fork English River	English River	R	At mouth	6	77N	9W	128
15	Smith Creek	English River	R	Road crossing, SW1/4	22	77N	10W	5.6
16	Smith Creek	English River	R	Road crossing, east (county) line	24	77N	10W	11.8
17	Skunk River	Mississippi River	R	Road crossing, west (county) line	30	75N	13W	1718
18	Maddox Creek	Skunk River	R	Road crossing, north line	1	74N	14W	4.73
19	Unnamed creek	Maddox Creek	R	At mouth	31	75N	13W	8.38
20	Maddox Creek	Skunk River	R	At mouth	30	75N	13W	14
21	Skunk River	Mississippi River	R	Road crossing, north 1/2	34	75N	13W	1740
22	Skunk River	Mississippi River	R	Road crossing, NW1/4	7	74N	12W	1750
23	Sugar Creek	Skunk River	R	Road crossing, north line	24	74N	13W	4.29
24	West Branch Sugar Creek	Sugar Creek	L	At mouth	13	74N	13W	7.99
25	Sugar Creek	Skunk River	R	At mouth	7	74N	12W	19.8
26	Steady Run	Skunk River	R	At mouth	6	74N	12W	5.91
27	Skunk River	Mississippi River	R	Road crossing, SW1/4	2	74N	12W	1786
28	Skunk River	Mississippi River	R	Road crossing, SE¼	3	74N	11W	1806
29	Rock Creek	Skunk River	R	Road crossing, north line	28	74N	11W	6.97
30	Twin Grove Creek	Rock Creek	L	At mouth	21	74N	11W	7.01
31	Rock Creek	Skunk River	R	At mouth	3	74N	11W	18.8
32	Unnamed creek	Skunk River	R	At mouth	6	74N	10W	6.77
33	North Skunk River	Skunk River	L	West (county) line	6	75N	13W	606
34	North Skunk River	Skunk River	L	Road crossing, NW1/4	14	75N	13W	621

35	Cedar Creek	North Skunk River	L	Road crossing, west (county) line	19	76N	13W	14.6
36	Cedar Creek	North Skunk River	L	Road crossing, west line	28	76N	13W	22.4
37	Coal Creek	Cedar Creek	L	Road crossing, north line	9	76N	13W	10.9
38	Coal Creek	Cedar Creek	L	At mouth	36	76N	13W	22.1
39	Cedar Creek	North Skunk River	L	Road crossing, north line	1	75N	13W	52.8
40	Cedar Creek	North Skunk River	L	Road crossing, west line	9	75N	12W	60.8
41	Rock Creek	Cedar Creek	L	Road crossing, west line	18	76N	12W	6.99
42	Smith Creek	Rock Creek	L	At mouth	18	76N	12W	8.59
43	Rock Creek	Cedar Creek	L	Road crossing, west line	21	76N	12W	20.1
44	Rock Creek	Cedar Creek	L	At mouth	10	75N	12W	27.6
45	Cedar Creek	North Skunk River	L	At mouth	15	75N	12W	92.7
46	North Skunk River	Skunk River	L	Road crossing, east 1/2	14	75N	12W	730
70				(gage near Sigourney)				
47	Troublesome Creek	North Skunk River	R	At mouth	14	75N	12W	6.93
48	Bridge Creek	North Skunk River	L	Road crossing, center	16	76N	12W	7.13
49	Unnamed creek	Bridge Creek	L	At mouth	15	76N	12W	7.38
50	Unnamed creek	Bridge Creek	L	At mouth	23	76N	12W	11
51	Bridge Creek	North Skunk River	L	Below unnamed creek	23	76N	12W	28.6
52	Bridge Creek	North Skunk River	L	At mouth	18	75N	11W	39
53	German Creek	North Skunk River	L	Road crossing, north line	11	76N	11W	7.4
54	Unnamed creek	German Creek	R	At mouth	11	76N	11W	6.5
55	German Creek	North Skunk River	L	Road crossing, north line	14	76N	11W	18.4
56	Unnamed creek	German Creek	L	At mouth	22	76N	11W	5.44
57	German Creek	North Skunk River	L	Road crossing, NE¼	22	76N	11W	27
58	Unnamed creek	German Creek	R	At mouth	22	76N	11W	6.11
59	German Creek	North Skunk River	L	Road crossing, north line	34	76N	11W	34.9
60	Branch Creek	German Creek	L	At mouth	34	76N	11W	5.17
61	German Creek	North Skunk River	L	Road crossing, north line	4	75N	11W	45.2
62	German Creek	North Skunk River	L	At mouth	21	75N	11W	56
63	North Skunk River	Skunk River	L	Below German Creek	21	75N	11W	843
64	Unnamed creek	North Skunk River	L	Road crossing, north line	17	75N	10W	4.82
65	Unnamed creek	North Skunk River	L	At mouth	30	75N	10W	11.8
66	North Skunk River	Skunk River	L	At mouth	5	74N	10W	869
67	Skunk River	Mississippi River	R	Below North Skunk River	5	74N	10W	2709
68	Clear Creek	Skunk River	L	Road crossing, north line	4	75N	10W	8.85
69	Clear Creek	Skunk River	L	Road crossing, NE1/4	22	75N	10W	16.4
70	Clear Creek	Skunk River	L	At mouth	34	75N	10W	23.3
71	Skunk River	Mississippi River	R	Road crossing, NE1/4	2	74N	10W	2741
72	Skunk River	Mississippi River	R	East (county) line	1	74N	10W	2750

73	Richland Creek	Skunk River	R	Road crossing, west line	29	74N	10W	10.8
74	Unnamed creek	Richland Creek	R	Road crossing, west line	32	74N	10W	5.67
75	Unnamed creek	Richland Creek	R	At mouth	29	74N	10W	11.6
76	Richland Creek	Skunk River	R	Road crossing, east 1/2	23	74N	10W	31.4
77	Richland Creek	Skunk River	R	At mouth	8	74N	9W	35.7
78	West Fork Crooked Creek	Crooked Creek	R	Road crossing, north line	14	76N	10W	10.2
79	West Fork Crooked Creek	Crooked Creek	R	Road crossing, east (county) line	24	76N	10W	19.1
80	Spring Creek	Cedar Creek	L	Road crossing, south (county) line	32	74N	13W	5.5
81	Competine Creek	Cedar Creek	L	Road crossing, west line	4	73N	12W	5.76

DRAINAGE AREAS OF IOWA STREAMS

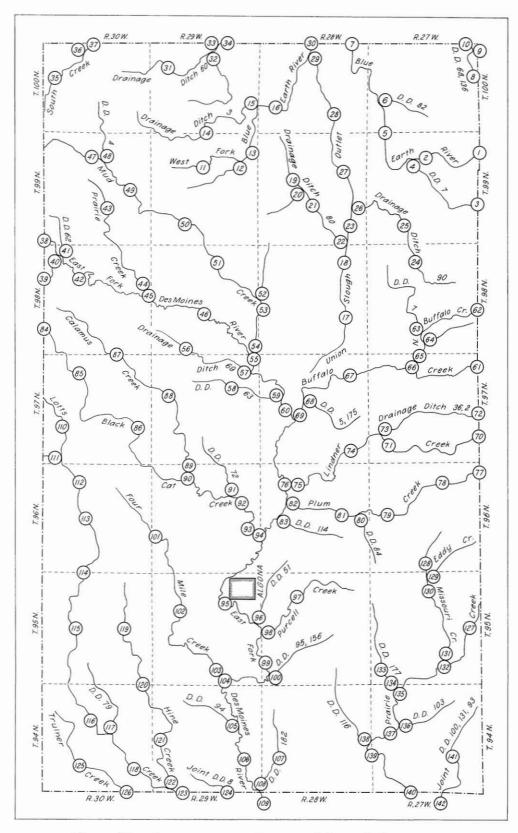


Figure 55. Drainage area index map of Kossuth County, Iowa.

			Bank	Point of determination of drainage area				<u> </u>
Area	Name of stream	Tributary to	Jann	. S.iii or dotomination of die			_	Drainage area
No.				Description	Sec	Т	R	(sq mi)
1	Blue Earth River	Minnesota River	R	Road crossing, east (county) line	12	99N	27W	36.3
2	Blue Earth River	Minnesota River	R	Road crossing, west line	10	99N	27W	43.6
3	Drainage Ditch 7	Blue Earth River	L	East (county) line	24	99N	27W	4.78
4	Drainage Ditch 7	Blue Earth River	L	At mouth	9	99N	27W	14.9
5	Blue Earth River	Minnesota River	R	Road crossing, NE corner	6	99N	27W	64.6
6	Drainage Ditch 82	Blue Earth River	R	At mouth	30	100N	27W	9.16
7	Blue Earth River	Minnesota River	R	Road crossing, north (state) line	12	100N	28W	82.8
8	Drainage Ditch 68, 136	Coon Creek	L	Road crossing, north line	24	100N	27W	8.72
9	Drainage Ditch 21	Drainage Ditch 68, 136	R	At mouth	12	100N	27W	11.2
10	Drainage Ditch 68, 136	Coon Creek	L	Road crossing, north (state) line	12	100N	27W	23.2
11	West Fork Blue Earth River	Blue Earth River	L	Road crossing, west line	10	99N	29W	4.19
12	Unnamed creek	West Fork Blue Earth River	R	At mouth	12	99N	29W	7.71
13	West Fork Blue Earth River	Blue Earth River	L	Road crossing, north line	12	99N	29W	16.8
14	Drainage Ditch 3	West Fork Blue Earth River	L	Road crossing, west line	3	99N	29W	8.47
15	Drainage Ditch 3	West Fork Blue Earth River	L	At mouth	25	100N	29W	15
16	West Fork Blue Earth River	Blue Earth River	L	Road crossing, west line	29	100N	28W	35
17	Union Slough Outlet	West Fork Blue Earth River	R	Road crossing, north line	26	98N	28W	10.6
18	Union Slough Outlet	West Fork Blue Earth River	R	Road crossing, north line	11	98N	28W	25.8
19	Drainage Ditch 80	Union Slough Outlet	L	Road crossing, west line	16	99N	28W	5.3
20	Unnamed creek	Drainage Ditch 80	R	At mouth	21	99N	28W	6.99
21	Drainage Ditch 80	Union Slough Outlet	L	Road crossing, west line	22	99N	28W	17.3
22	Drainage Ditch 80	Union Slough Outlet	L	At mouth	2	98N	28W	25
23	Union Slough Outlet	West Fork Blue Earth River	R	Road crossing, north line	36	99N	28W	57.9
24	Drainage Ditch 90	Union Slough Outlet	R	Road crossing, north line	9	98N	27W	6.69
25	Drainage Ditch 90	Union Slough Outlet	R	Road crossing, west line	33	99N	27W	14.2
26	Drainage Ditch 90	Union Slough Outlet	R	At mouth	25	99N	28W	23.8
27	Union Slough Outlet	West Fork Blue Earth River	R	Road crossing, north line	14	99N	28W	86.4
28	Union Slough Outlet	West Fork Blue Earth River	R	Road crossing, north line	35	100N	28W	97.4
29	Union Slough Outlet	West Fork Blue Earth River	R	At mouth	9	100N	28W	106
30	West Fork Blue Earth River	Blue Earth River	L	Road crossing, north (state) line	9	100N	28W	151
31	Drainage Ditch 60	West Fork Blue Earth River	L	Road crossing, west line	17	100N	29W	7.57
32	Unnamed creek	Drainage Ditch 60	R	At mouth	10	100N	29W	9.96
33	Unnamed creek	Drainage Ditch 60	L	At mouth	10	100N		7.71

FINAL Drainage Areas of Iowa Streams.xls Table No. 55 Kossuth County e Earth River L (1001) Inc.

34	Drainage Ditch 60	West Fork Blue Earth River	L	Road crossing, north (state) line	11	100N	29W	30.4
35	South Creek	Blue Earth River	L	Road crossing, north line	19	100N	30W	6.81
36	Unnamed creek	South Creek	L	At mouth	9	100N	30W	19.5
37	South Creek	Blue Earth River	L	At inlet, Burt Lake	9	100N	30W	35.9
38	East Fork Des Moines River	Des Moines River	L	Road crossing, west (county) line	31	99N	30W	297
39	Joint Drainage Ditch 69	East Fork Des Moines River	R	Road crossing, west (county) line	7	98N	30W	7.21
40	Joint Drainage Ditch 69	East Fork Des Moines River	R	At mouth	6	98N	30W	8.77
41	Drainage Ditch 62	East Fork Des Moines River	L	At mouth	6	98N	30W	6.34
42	East Fork Des Moines River	Des Moines River	L	Road crossing, SE1/4	8	98N	30W	315
43	Prairie Creek	East Fork Des Moines River	L	Road crossing, north line	27	99N	30W	7.49
44	Prairie Creek	East Fork Des Moines River	L	At mouth	13	98N	30W	19.6
45	East Fork Des Moines River	Des Moines River	L	Below Prairie Creek	13	98N	30W	342
46	East Fork Des Moines River	Des Moines River	L	Road crossing, SW1/4	22	98N	29W	350
47	Mud Creek	East Fork Des Moines River	L	Road crossing, west line	10	99N	30W	10.6
48	Drainage Ditch 4	Mud Creek	L	At mouth	10	99N	30W	5.66
49	Mud Creek	East Fork Des Moines River	L	Road crossing, west line	24	99N	30W	21.7
50	Mud Creek	East Fork Des Moines River	L	Road crossing, west line	28	99N	29W	31.1
51	Mud Creek	East Fork Des Moines River	L	Road crossing, north line	10	98N	29W	46.8
52	Unnamed creek	Mud Creek	L	At mouth	19	98N	28W	11.2
53	Mud Creek	East Fork Des Moines River	L	Road crossing, west 1/2	19	97N	28W	68.1
54	Mud Creek	East Fork Des Moines River	L	At mouth	1	97N	29W	74.1
55	East Fork Des Moines River	Des Moines River	L	Below Mud Creek	1	98N	29W	432
56	Drainage Ditch 69	East Fork Des Moines River	R	Road crossing, west line	33	97N	29W	7.14
57	Drainage Ditch 69	East Fork Des Moines River	R	At mouth	1	97N	29W	11.8
58	Drainage Ditch 63	East Fork Des Moines River	R	Road crossing, south 1/2	11	97N	29W	8.79
59	Drainage Ditch 63	East Fork Des Moines River	R	At mouth	17	97N	28W	13.7
60	East Fork Des Moines River	Des Moines River	L	Road crossing, north 1/2 (gage near Burt)	20	97N	28W	462
61	Buffalo Creek	East Fork Des Moines River	L	Road crossing, east (county) line	1	97N	27W	43.6
62	North Buffalo Creek	Buffalo Creek	R	East (county) line	13	98N	27W	63.6
63	Drainage Ditch 7	North Buffalo Creek	R	At mouth	33	98N	27W	9.98
64	Joint Drainage Ditch 89, 35	North Buffalo Creek	L	At mouth	34	98N	27W	11.4
65	North Buffalo Creek	Buffalo Creek	R	At mouth	4	97N	27W	89.2
66	Buffalo Creek	East Fork Des Moines River	L	Below North Buffalo Creek	4	97N	27W	148
67	Buffalo Creek	East Fork Des Moines River	L	Road crossing, west line	12	97N	28W	155
68	Drainage Ditch 5, 175	Buffalo Creek	L	At mouth	21	97N	28W	7.61
69	Buffalo Creek	East Fork Des Moines River	L	At mouth	21	97N	28W	168
70	Lindner Creek	East Fork Des Moines River	L	East (county) line	25	97N	27W	14.3

71	Lindner Creek	East Fork Des Moines River	L	Road crossing, north line	32	97N	27W	23.3
72	Drainage Ditch 36, 2	Lindner Creek	R	Road crossing, east (county) line	24	97N	27W	3.87
73	Drainage Ditch 36, 2	Lindner Creek	R	At mouth	30	97N	27W	13.9
74	Lindner Creek	East Fork Des Moines River	L	Road crossing, west line	36	97N	28W	41.6
75	Lindner Creek	East Fork Des Moines River	L	At mouth	8	96N	28W	49.7
76	East Fork Des Moines River	Des Moines River	L	Below Lindner Creek	8	96N	28W	694
77	Plum Creek	East Fork Des Moines River	L	East (county) line	1	96N	27W	16.7
78	Plum Creek	East Fork Des Moines River	L	Road crossing, west line	11	96N	27W	24.8
79	Plum Creek	East Fork Des Moines River	L	Road crossing, west line	17	96N	27W	34.5
80	Drainage Ditch 84	Plum Creek	L	At mouth	13	96N	28W	5.6
81	Plum Creek	East Fork Des Moines River	L	Road crossing, south 1/2	14	96N	28W	48.8
82	Plum Creek	East Fork Des Moines River	L	At mouth	17	96N	28W	51.6
83	Drainage Ditch 114	East Fork Des Moines River	L	At mouth	17	96N	28W	8.63
84	Black Cat Creek	East Fork Des Moines River	R	Road crossing, west (county) line	30	98N	30W	35.5
85	Black Cat Creek	East Fork Des Moines River	R	Road crossing, west line	9	97N	30W	47.1
86	Black Cat Creek	East Fork Des Moines River	R	Road crossing, north line	25	97N	30W	58.2
87	Calamus Creek	Black Cat Creek	L	Road crossing, north line	2	97N	30W	7.95
88	Calamus Creek	Black Cat Creek	L	Road crossing, west line	17	97N	29W	18
89	Calamus Creek	Black Cat Creek	L	At mouth	5	96N	29W	26.4
90	Black Cat Creek	East Fork Des Moines River	R	Below Calamus Creek	5	96N	29W	95.9
91	Drainage Ditch 72	Black Cat Creek	L	At mouth	11	96N	29W	8.55
92	Black Cat Creek	East Fork Des Moines River	R	Road crossing, south 1/2	11	96N	29W	112
93	Black Cat Creek	East Fork Des Moines River	R	At mouth	24	96N	29W	119
94	East Fork Des Moines River	Des Moines River	L	Below Black Cat Creek	24	96N	29W	876
95	East Fork Des Moines River	Des Moines River	L	Road crossing, SW1/4	11	95N	29W	892
96	Drainage Ditch 51	East Fork Des Moines River	L	At mouth	13	95N	29W	8
97	Purcell Creek	East Fork Des Moines River	L	Road crossing, west line	9	95N	28W	10.7
98	Purcell Creek	East Fork Des Moines River	L	At mouth	19	95N	28W	17.7
99	East Fork Des Moines River	Des Moines River	L	Road crossing, north line	31	95N	28W	925
100	Drainage Ditch 95, 156	East Fork Des Moines River	L	At mouth	31	95N	28W	10.3
101	Four Mile Creek	East Fork Des Moines River	R	Road crossing, north line	30	96N	29W	9.33
102	Four Mile Creek	East Fork Des Moines River	R	Road crossing, north line	17	95N	29W	20.7
103	Four Mile Creek	East Fork Des Moines River	R	At mouth	34	95N	29W	32.2
104	East Fork Des Moines River	Des Moines River	L	Below Four Mile Creek	34	95N	29W	974
105	Drainage Ditch 94	East Fork Des Moines River	R	At mouth	11	94N	29W	5.8
	East Fork Des Moines River	Des Moines River	L	Road crossing, west line	25	94N	29W	992
107	Drainage Ditch 182	East Fork Des Moines River	L	Road crossing, NE corner	30	94N	28W	7.22
108	Drainage Ditch 182	East Fork Des Moines River	L	At mouth	36	94N	29W	17.4
109	East Fork Des Moines River	Des Moines River	L	Road crossing, west line	6	93N	28W	1012
110		East Fork Des Moines River	R	Road crossing, north line	29	97N	30W	8.49
				-				

111	Joint Drainage Ditch 1	Lotts Creek	R	At mouth	32	97N	30W	8.59
112	Lotts Creek	East Fork Des Moines River	R	Road crossing, north line	9	96N	30W	23.5
113	Lotts Creek	East Fork Des Moines River	R	Road crossing, north line	21	96N	30W	33.3
114	Lotts Creek	East Fork Des Moines River	R	Road crossing, north line	4	95N	30W	44.4
115	Lotts Creek	East Fork Des Moines River	R	Road crossing, north line	20	95N	30W	53.7
116	Lotts Creek	East Fork Des Moines River	R	Road crossing, north line	16	94N	30W	66.2
117	Drainage Ditch 79	Lotts Creek	L	At mouth	15	94N	30W	8.32
118	Lotts Creek	East Fork Des Moines River	R	Road crossing, west line	25	94N	30W	78.7
119	Hine Creek	Lotts Creek	L	Road crossing, north line	23	95N	30W	8.18
120	Hine Creek	Lotts Creek	L	Road crossing, north line	1	94N	30W	18.4
121	Hine Creek	Lotts Creek	L	Road crossing, north line	19	94N	29W	29.4
122	Hine Creek	Lotts Creek	L	At mouth	32	94N	29W	35.3
123	Lotts Creek	East Fork Des Moines River	R	South (county) line	32	94N	29W	116
124	Joint Drainage Ditch 8	Lotts Creek	L	South (county) line	35	94N	29W	4.42
125	Trulner Creek	Lotts Creek	R	Road crossing, west line	28	94N	30W	7.67
126	Trulner Creek	Lotts Creek	R	South (county) line	35	94N	30W	14.9
127	Prairie Creek	Boone River	R	Road crossing, north line	24	95N	27W	7.24
128	Missouri Creek	Prairie Creek	R	Road crossing, SW1/4	34	96N	27W	5.15
129	Eddy Creek	Missouri Creek	L	At mouth	34	96N	27W	5.57
130	Missouri Creek	Prairie Creek	R	Road crossing, north line	10	95N	27W	15.1
131	Missouri Creek	Prairie Creek	R	At mouth	34	95N	27W	22.9
132	Prairie Creek	Boone River	R	Below Missouri Creek	34	95N	27W	35.4
133	Drainage Ditch 177	Prairie Creek	R	Road crossing, west line	32	95N	27W	7.48
134	Drainage Ditch 177	Prairie Creek	R	At mouth	5	94N	27W	17.7
135	Prairie Creek	Boone River	R	Below Drainage Ditch 177	5	94N	27W	56.3
136	Drainage Ditch 103	Prairie Creek	L	At mouth	17	94N	27W	6.46
137	Prairie Creek	Boone River	R	Road crossing, west line	17	94N	27W	68.6
138	Drainage Ditch 116	Prairie Creek	R	At mouth	24	94N	28W	11.3
139	Prairie Creek	Boone River	R	Road crossing, west line	19	94N	27W	83.8
140	Prairie Creek	Boone River	R	Road crossing, south (county) line	33	94N	27W	94.6
141	Joint Drainage Ditch 100, 131, 93	Prairie Creek	L	Road crossing, north line	26	94N	27W	6.66
142	Joint Drainage Ditch 100, 131, 93	Prairie Creek	L	At mouth	3	93N	27W	14.6

DRAINAGE AREAS OF IOWA STREAMS

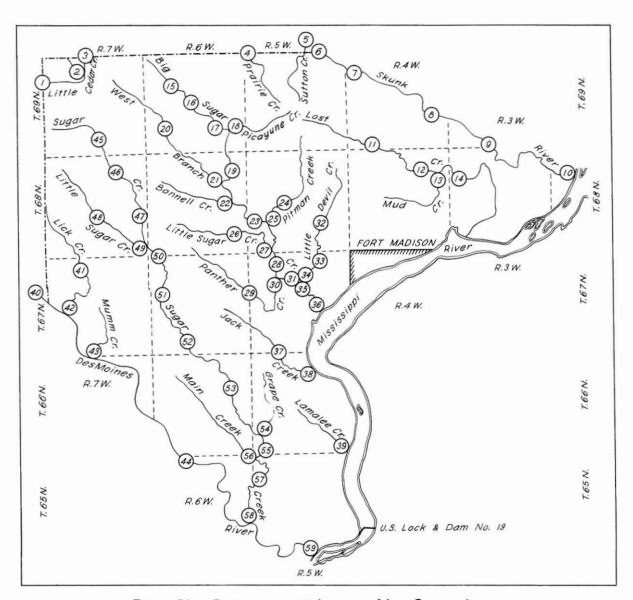


Figure 56. Drainage area index map of Lee County, Iowa.

			Bank	Point of determination of dra	ainage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Little Cedar Creek	Cedar Creek	R	Road crossing, west (county) line	7	69N	7W	15.7
2	Mud Creek	Little Cedar Creek	L	At mouth	4	69N	7W	7.98
3	Little Cedar Creek	Cedar Creek	R	Road crossing, north (county) line	4	69N	7W	35.3
4	Prairie Creek	Skunk River	R	North (county) line	6	69N	5W	6.18
5	Sutton Creek	Skunk River	R	At mouth	34	70N	5W	6.55
6	Skunk River	Mississippi River	R	North (county) line	2	69N	5W	4258
7	Skunk River	Mississippi River	R	Road crossing, north 1/2	7	69N	4W	4281
8	Skunk River	Mississippi River	R	Gage at Augusta, NE1/4	26	69N	4W	4303
9	Skunk River	Mississippi River	R	Road crossing, SW1/4	33	69N	3W	4334
10	Skunk River	Mississippi River	R	At mouth	8	68N	2W	4355
11	Lost Creek	Mississippi River	R	Road crossing, south 1/2	32	69N	4W	12.3
12	Lost Creek	Mississippi River	R	Road crossing, west line	12	68N	4W	21.8
13	Mud Creek	Lost Creek	R	At mouth	12	68N	4W	11.4
14	Lost Creek	Mississippi River	R	Road crossing, south 1/2	7	68N	3W	38.5
15	Big Sugar Creek	Big Devil Creek	R	Road crossing, north line	17	69N	6W	8.04
16	Big Sugar Creek	Big Devil Creek	R	Road crossing, north line	21	69N	6W	14.8
17	Big Sugar Creek	Big Devil Creek	R	Road crossing, south 1/2	26	69N	6W	24
18	Picayune Creek	Big Sugar Creek	L	At mouth	26	69N	6W	6.11
19	Big Sugar Creek	Big Devil Creek	R	Road crossing, SE1/4	11	68N	6W	40.4
20	West Branch Big Sugar Creek	Big Sugar Creek	R	Road crossing, west 1/2	29	69N	6W	11.9
21	West Branch Big Sugar Creek	Big Sugar Creek	R	At mouth	11	68N	6W	21.7
22	Bonnell Creek	Big Sugar Creek	R	At mouth	24	68N	6W	6.78
23	Big Sugar Creek	Big Devil Creek	R	Road crossing, north 1/2	30	68N	5W	75.6
24	Pitman Creek	Big Sugar Creek	L	Road crossing, NW1/4	21	68N	5W	8.44
25	Pitman Creek	Big Sugar Creek	L	At mouth	29	68N	5W	11.3
26	Little Sugar Creek	Big Sugar Creek	R	Road crossing, SW1/4	25	68N	6W	7.43
27	Little Sugar Creek	Big Sugar Creek	R	At mouth	5	67N	5W	12.5
28	Big Sugar Creek	Big Devil Creek	R	Road crossing, center	5	67N	5W	105
29	Panther Creek	Big Sugar Creek	R	West line	18	67N	5W	9.26
30	Panther Creek	Big Sugar Creek	R	At mouth	16	67N	5W	15.6
31	Big Sugar Creek	Big Devil Creek	R	At mouth	15	67N	5W	125
32	Little Devil Creek	Big Devil Creek	L	Road crossing, NW1/4	26	68N	5W	14.4
33	Little Devil Creek	Big Devil Creek	L	Road crossing, SW1/4	2	67N	5W	20.3
34	Little Devil Creek	Big Devil Creek	L	At mouth	15	67N	5W	25.7

				Below confluence Big				
35	Big Devil Creek	Mississippi River	R	Sugar and Little Devil Creeks	15	67N	5W	151
36	Big Devil Creek	Mississippi River	R	At mouth	23	67N	5W	152
37	Jack Creek	Mississippi River	R	Road crossing, north line	5	66N	5W	4.59
38	Jack Creek	Mississippi River	R	At mouth	10	66N	5W	14
39	Lamalee Creek	Mississippi River	R	At mouth	1	65N	5W	10.2
40	Des Moines River	Mississippi River	R	South (state) line	12	67N	8W	14238
41	Lick Creek	Des Moines River	L	Road crossing, SE1/4	5	67N	7W	12.1
42	Lick Creek	Des Moines River	L	At mouth	19	67N	7W	20
43	Mumm Creek	Des Moines River	L	At mouth	4	66N	7W	5.36
				Road crossing, west line				
44	Des Moines River	Mississippi River	R	(gage at St. Francisville, Mo)	4	65N	6W	14332
45	Sugar Creek	Des Moines River	L	Road crossing, north line	34	69N	7W	6.46
46	Sugar Creek	Des Moines River	L	Road crossing, north line	11	68N	7W	15.4
47	Sugar Creek	Des Moines River	L	Road crossing, SE1/4	24	68N	7W	25.5
48	Little Sugar Creek	Sugar Creek	R	Road crossing, west line	22	68N	7W	5.87
49	Little Sugar Creek	Sugar Creek	R	At mouth	31	68N	6W	10.6
50	Sugar Creek	Des Moines River	L	Road crossing, north line	6	67N	6W	40.8
51	Sugar Creek	Des Moines River	L	Road crossing, east 1/2	18	67N	6W	51.3
52	Sugar Creek	Des Moines River	L	Road crossing, NW1/4	33	67N	6W	62.3
53	Sugar Creek	Des Moines River	L	Road crossing, north line	14	66N	6W	76.5
54	Grape Creek	Sugar Creek	L	At mouth	31	66N	5W	6.96
55	Sugar Creek	Des Moines River	L	Road crossing, center	31	66N	5W	92.5
56	Main Creek	Sugar Creek	R	At mouth Road crossing, NW1/4	31	66N	5W	7.59
57	Sugar Creek	Des Moines River	L	(discontinued gage near Keokuk)	7	65N	5W	105
58	Sugar Creek	Des Moines River	L	At mouth	25	65N	6W	111
59	Des Moines River	Mississippi River	R	At mouth	34	65N	5W	14467
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DRAINAGE AREAS OF IOWA STREAMS

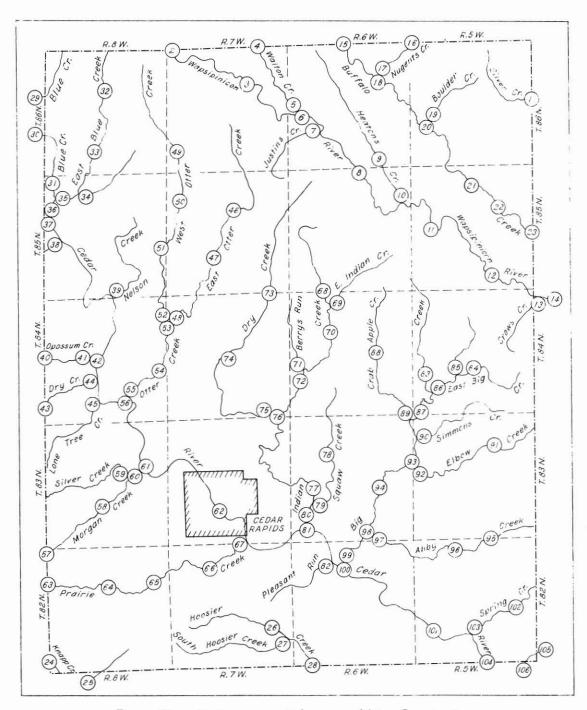


Figure 57. Drainage area index map of Linn County, Iowa.

			Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Silver Creek	Maquoketa River	R	Road crossing, east (county) line	13	86N	5W	5.26
2	Wapsipinicon River	Mississippi River	R	North (county) line	6	86N	7W	1210
3	Wapsipinicon River	Mississippi River	R	West line	11	86N	7W	1225
4	Walton Creek	Wapsipinicon River	L	Road crossing, north (county) line	1	86N	7W	6.01
5	Walton Creek	Wapsipinicon River	L	At mouth	19	86N	6W	14.1
6	Wapsipinicon River	Mississippi River	R	Below Walton Creek	19	86N	6W	1248
7	Justins Creek	Wapsipinicon River	R	At mouth	29	86N	6W	6.37
				Road crossing, center				
8	Wapsipinicon River	Mississippi River	R	(discontinued gage at Central City)	3	85N	6W	1263
9	Heatons Creek	Wapsipinicon River	L	Road crossing, west line	26	86N	6W	5.81
10	Heatons Creek	Wapsipinicon River	L	At mouth	12	85N	6W	12.3
11	Wapsipinicon River	Mississippi River	R	Road crossing, NW1/4	20	85N	5W	1294
12	Wapsipinicon River	Mississippi River	R	West line	35	85N	5W	1307
13	Crows Creek	Wapsipinicon River	R	At mouth	6	84N	4W	8.34
				Road crossing, east 1/2				
14	Wapsipinicon River	Mississippi River	R	(discontinued gage at Stone City)	6	84N	4W	1324
15	Buffalo Creek	Wapsipinicon River	L	Road crossing, north (county) line	4	86N	6W	142
16	Nugents Creek	Buffalo Creek	L	Road crossing, north (county) line	6	86N	5W	5.38
17	Nugents Creek	Buffalo Creek	L	At mouth	11	86N	6W	9.76
18	Buffalo Creek	Wapsipinicon River	L	Below Nugents Creek	11	86N	6W	162
19	Boulder Creek	Buffalo Creek	L	At mouth	30	86N	5W	6.95
20	Buffalo Creek	Wapsipinicon River	L	Below Boulder Creek	30	86N	5W	179
21	Buffalo Creek	Wapsipinicon River	L	Road crossing, west line	3	85N	5W	189
22	Buffalo Creek	Wapsipinicon River	L	Road crossing, NW1/4	14	85N	5W	197
23	Buffalo Creek	Wapsipinicon River	L	East (county) line	24	85N	5W	203
24	Knapp Creek	Iowa River	L	Road crossing, west (county) line	31	82N	8W	7.18
25	Unnamed creek	Knapp Creek	L	At mouth	5	81N	8W	6.41
26	Hoosier Creek	Iowa River	L	Road crossing, west line	25	82N	7W	5.11
27	South Hoosier Creek	Hoosier Creek	R	At mouth	25	82N	7W	9.2

				Design of the second				
28	Hoosier Creek	Iowa River	L	Road crossing, south (county) line	32	82N	6W	22.4
29	Blue Creek	Cedar River	L	Road crossing, east 1/2	13	86N	9W	12.7
30	Blue Creek	Cedar River	L	Below West Blue Creek	24	86N	9W	24.4
31	Blue Creek	Cedar River	L	Road crossing, west 1/2	6	85N	8W	31.5
32	East Blue Creek	Blue Creek	L	Road crossing, SE corner	9	86N	8W	7.17
33	East Blue Creek	Blue Creek	L	Road crossing, south 1/2	28	86N	8W	15.9
34	Unnamed creek	East Blue Creek	L	At mouth	5	85N	8W	7.91
35	East Blue Creek	Blue Creek	L	At mouth	7	85N	8W	27.7
36	Blue Creek	Cedar River	L	At mouth	18	85N	8W	63
37	Cedar River	Iowa River	L	Below Blue Creek	18	85N	8W	6206
38	Spring Creek	Cedar River	R	At mouth	19	85N	8W	6.65
39	Nelson Creek	Cedar River	L	At mouth	34	85N	8W	7.52
40	Opossum Creek	Cedar River	R	Road crossing, west (county) line	18	84N	8W	91.6
41	Opossum Creek	Cedar River	R	At mouth	21	84N	8W	98.6
42	Cedar River	Iowa River	L	Below Opossum Creek	21	84N	8W	6342
43	Dry Creek	Cedar River	R	Road crossing, west (county) line	31	84N	8W	20.2
44	Dry Creek	Cedar River	R	At mouth	21	84N	8W	27.3
45	Lone Tree Creek	Cedar River	R	At mouth	28	84N	W8	5.85
46	East Otter Creek	Otter Creek	L	North line	15	85N	7W	9.37
47	East Otter Creek	Otter Creek	L	Road crossing, NW1/4	28	85N	7W	16
48	East Otter Creek	Otter Creek	L	At mouth	7	84N	7W	25.4
49	West Otter Creek	Otter Creek	R	North line	31	86N	7W	10.3
50	West Otter Creek	Otter Creek	R	Road crossing, east 1/2	7	85N	7W	19.1
51	West Otter Creek	Otter Creek	R	Road crossing, SE1/4	24	85N	W8	26.7
52	West Otter Creek	Otter Creek	R	At mouth	7	84N	7W	31.7
53	Otter Creek	Cedar River	L	Below confluence East and West Otter Creeks	7	84N	7W	57.1
54	Otter Creek	Cedar River	L	Road crossing, SE¼	24	84N	8W	65.1
55	Otter Creek	Cedar River	L	At mouth	34	84N	W8	70.9
56	Cedar River	Iowa River	L	Below Otter Creek	34	84N	W8	6452
57	Morgan Creek	Cedar River	R	Road crossing, west (county) line	6	82N	8W	6.9
58	Morgan Creek	Cedar River	R	Road crossing, north line	28	83N	W8	13.4
59	Silver Creek	Morgan Creek	L	At mouth	14	83N	W8	8.08
60	Morgan Creek	Cedar River	R	At mouth	14	83N	8W	27
61	Cedar River	Iowa River	L	Below Morgan Creek	14	83N	W8	6486

62	Cedar River	Iowa River	L	At gage at Cedar Rapids, NW1/4	28	83N	7W	6510
63	Prairie Creek	Cedar River	R	Road crossing, west (county) line	7	82N	8W	171
64	Prairie Creek	Cedar River	R	West line	10	82N	8W	181
65	Prairie Creek	Cedar River	R	Road crossing, SW1/4	12	82N	W8	196
66	Prairie Creek	Cedar River	R	Road crossing, west line	9	82N	7W	208
67	Prairie Creek	Cedar River	R	At mouth	34	83N	7W	216
68	Indian Creek	Cedar River	L	Road crossing, north line	5	84N	6W	7.58
69	East Indian Creek	Indian Creek	L	At mouth	5	84N	6W	8.26
70	Indian Creek	Cedar River	L	Road crossing, north line	17	84N	6W	19.8
71	Berrys Run	Indian Creek	R	At mouth	19	84N	6W	5.89
72	Indian Creek	Cedar River	L	Road crossing, north 1/2	30	84N	6W	32
73	Dry Creek	Indian Creek	R	Road crossing, west line	1	84N	7W	11.4
74	Dry Creek	Indian Creek	R	Road crossing, west line	22	84N	7W	19.7
75	Dry Creek	Indian Creek	R	At mouth	1	83N	7W	31
76	Indian Creek	Cedar River	L	Below Dry Creek	1	83N	7W	66.8
77	Indian Creek	Cedar River	L	Road crossing, north line	29	83N	6W	77.7
78	Squaw Creek	Indian Creek	R	Road crossing, SE1/4	8	83N	6W	8.94
79	Squaw Creek	Indian Creek	R	At mouth	30	83N	6W	14.6
80	Indian Creek	Cedar River	L	At mouth	30	83N	6W	93
81	Cedar River	Iowa River	L	Below Indian Creek	30	83N	6W	6832
82	Pleasant Run	Cedar River	R	At mouth	9	82N	6W	7.33
83	Big Creek	Cedar River	L	Road crossing, center	30	84N	5W	9.84
84	East Big Creek	Big Creek	L	Road crossing, west line	22	84N	5W	4.85
85	Unnamed creek	East Big Creek	R	At mouth	28	84N	5W	5.46
86	East Big Creek	Big Creek	L	At mouth	30	84N	5W	13.6
87	Big Creek	Cedar River	L	NW corner	6	83N	5W	25.4
88	Crab Apple Creek	Big Creek	R	Road crossing, north line	23	84N	6W	6.96
89	Crab Apple Creek	Big Creek	R	At mouth	1	83N	6W	14.1
90	Simmons Creek	Big Creek	L	At mouth	7	83N	5W	7.06
91	Elbow Creek	Big Creek	L	Road crossing, west line	11	83N	5W	6.39
92	Elbow Creek	Big Creek	L	At mouth	13	83N	6W	13.9
93	Big Creek	Cedar River	L	Below Elbow Creek	13	83N	6W	65
94	Big Creek	Cedar River	L	Road crossing, center	23	83N	6W	72.8
95	Abby Creek	Big Creek	L	Road crossing, NE1/4	3	82N	5W	10.6
96	Abby Creek	Big Creek	L	Road crossing, west line	4	82N	5W	18.5
97	Abby Creek	Big Creek	L	At mouth	34	83N	6W	26.4
98	Big Creek	Cedar River	L	Below Abby Creek	34	83N	6W	108
99	Big Creek	Cedar River	L	At mouth	9	82N	6W	111

100	Cedar River	Iowa River	L	Below Big Creek	9	82N	6W	6955
101	Cedar River	Iowa River	L	Road crossing, east 1/2	30	82N	5W	6974
102	Spring Creek	Cedar River	L	Road crossing, west line	24	82N	5W	4.41
103	Spring Creek	Cedar River	L	At mouth	28	82N	5W	11
104	Cedar River	Iowa River	L	South (county) line	34	82N	5W	6997
105	Clear Creek	Cedar River	L	Road crossing, south 1/2	30	82N	4W	18.3
106	Clear Creek	Cedar River	L	At mouth	2	81N	5W	22.4

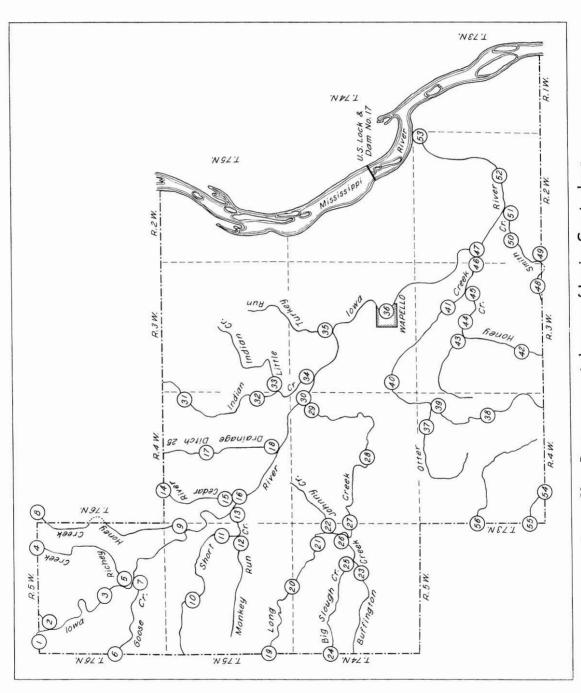


Figure 58. Drainage area index map of Louisa County, lowa.

			Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Iowa River	Mississippi River	R	Road crossing, north 1/2 (gage near Lone Tree)	6	76N	5W	4293
2	Prairie Creek	Iowa River	L	At mouth	5	76N	5W	15.4
3	Iowa River	Mississippi River	R	Road crossing, NE1/4	21	76N	5W	4319
4	Richey Creek	Iowa River	L	North (county) line	2	76N	5W	7.29
5	Richey Creek	Iowa River	L	At mouth	27	76N	5W	17.8
6	Goose Creek	Iowa River	R	Road crossing, west (county) line	19	76N	5W	33.5
7	Goose Creek	Iowa River	R	At mouth	27	76N	5W	43.1
8	Honey Creek	Iowa River	L	Road crossing, north line	6	76N	4W	9.08
9	Honey Creek	Iowa River	L	At mouth	1	75N	5W	21.2
10	Short Creek	Iowa River	R	Road crossing, north 1/2	9	75N	5W	8.14
11	Short Creek	Iowa River	R	Road crossing, SW1/4	13	75N	5W	18.8
12	Monkey Run	Short Creek	R	At mouth	24	75N	5W	7.46
13	Short Creek	Iowa River	R	At mouth	19	75N	4W	31.6
14	Cedar River	Iowa River	L	North (county) line	5	75N	4W	7815
15	Cedar River	Iowa River	L	At mouth	20	75N	4W	7819
16	Iowa River	Mississippi River	R	Below Cedar River	20	75N	4W	12261
17	Drainage Ditch 25	Iowa River	L	Road crossing, north line	15	75N	4W	5.65
18	Drainage Ditch 25	Iowa River	L	At mouth	34	75N	4W	11.2
19	Long Creek	Iowa River	R	Road crossing, west (county) line	30	75N	5W	71.9
20	Long Creek	Iowa River	R	Road crossing, north line	3	74N	5W	82.2
21	Long Creek	Iowa River	R	Road crossing, NW1/4	12	74N	5W	90.7
22	Johnny Creek	Long Creek	L	At mouth	12	74N	5W	5.37
23	Buffington Creek	Long Creek	R	Road crossing, west line	23	74N	5W	10.9
24	Big Slough Creek	Buffington Creek	L	Road crossing, west (county) line	7	74N	5W	11
25	Big Slough Creek	Buffington Creek	L	At mouth	14	74N	5W	17.2
26	Buffington Creek	Long Creek	R	At mouth	13	74N	5W	33.1
27	Long Creek	Iowa River	R	Road crossing, west line	18	74N	4W	132
28	Long Creek	Iowa River	R	West line	22	74N	4W	142
29	Long Creek	Iowa River	R	At mouth	1	74N	4W	154
30	Iowa River	Mississippi River	R	Below Long Creek	1	74N	4W	12441
31	Indian Creek	Iowa River	L	Road crossing, north line	12	75N	4W	10.7
32	Indian Creek	Iowa River	L	Road crossing, east 1/2	25	75N	4W	18.7

Little Indian Creek	Indian Creek	L	At mouth	31	75N	3W	9.34
Indian Creek	Iowa River	L	At mouth	7	74N	3W	31.7
Turkey Run	Iowa River	L	At mouth	9	74N	3W	6.71
Iowa River	Mississippi River	R	Road crossing, SE¼ (gage at Wapello)	27	74N	3W	12499
Otter Creek	Iowa River	R	Road crossing, north 1/2	2	73N	4W	10.2
Unnamed creek	Otter Creek	R	Road crossing, NW1/4	24	73N	4W	5.43
Unnamed creek	Otter Creek	R	At mouth	1	73N	4W	10.7
Otter Creek	Iowa River	R	Road crossing, south 1/2	30	74N	3W	26.2
Otter Creek	Iowa River	R	Road crossing, west line	11	73N	3W	33.3
Honey Creek	Otter Creek	R	Road crossing, NE corner	32	73N	3W	6.47
Unnamed creek	Honey Creek	L	At mouth	16	73N	3W	10.8
Honey Creek	Otter Creek	R	Road crossing, west line	15	73N	3W	23.6
Honey Creek	Otter Creek	R	At mouth	14	73N	3W	29.9
Otter Creek	Iowa River	R	At mouth	19	73N	2W	65.4
Iowa River	Mississippi River	R	Below Otter Creek	19	73N	2W	12586
Smith Creek	Iowa River	R	Road crossing, west line	36	73N	3W	7.93
Paul Creek	Smith Creek	R	At mouth	31	73N	2W	8.62
Smith Creek	Iowa River	R	Road crossing, SW1/4	29	73N	2W	20
Smith Creek	Iowa River	R	At mouth	28	73N	2W	27.9
Iowa River	Mississippi River	R	Road crossing, NW1/4	26	73N	2W	12630
Iowa River	Mississippi River	R	At mouth	6	73N	1W	12637
East Fork Crooked Creek	Crooked Creek	L	Road crossing, south (county) line	32	73N	4W	8.28
East Fork Crooked Creek	Crooked Creek	L	Road crossing, west (county) line	31	73N	4W	18.6
Unnamed creek	Unnamed creek	L	Road crossing, west (county) line	18	73N	4W	6.88
	Indian Creek Turkey Run Iowa River Otter Creek Unnamed creek Unnamed creek Otter Creek Otter Creek Honey Creek Honey Creek Honey Creek Honey Creek Honey Creek Gotter Creek Honey Creek Honey Creek Honey Creek Iowa River Smith Creek Smith Creek Smith Creek Iowa River Iowa River Iowa River East Fork Crooked Creek	Indian Creek Turkey Run Iowa River Iowa River Mississippi River Otter Creek Unnamed creek Unnamed creek Otter Creek Unnamed creek Otter Creek Honey Creek Unnamed creek Unnamed creek Unnamed creek Honey Creek Unnamed creek Honey Creek Unnamed creek Honey Creek Honey Creek Honey Creek Honey Creek Otter Creek Otter Creek Iowa River Iowa River Smith Creek Smith Creek Smith Creek Iowa River I	Indian Creek Turkey Run Iowa River Iowa River Iowa River Mississippi River R Otter Creek Unnamed creek Unnamed creek Unnamed creek Otter Creek Iowa River R Otter Creek Iowa River R Honey Creek Iowa River R Honey Creek Unnamed creek Honey Creek R Unnamed creek Iowa River R Honey Creek R Otter 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Iowa Croek Iowa River Iowa River Iowa Croek Iowa River Iowa Rive	Indian Creek Iowa River L At mouth 7 74N Turkey Run Iowa River L At mouth 9 74N Iowa River L At mouth 9 74N Iowa River R Road crossing, SE¼ (gage at Wapello) 27 74N Iowa River R Road crossing, north 1/2 2 73N Iowa River R Road crossing, north 1/2 2 73N Iowa River R Road crossing, north 1/2 2 73N Iowa River R Road crossing, north 1/2 2 73N Iowa River R Road crossing, NW¼ 24 73N Iowa River R Road crossing, south 1/2 30 74N Iowa River R Road crossing, south 1/2 30 74N Iowa River R Road crossing, west line 11 73N Iowa River R Road crossing, west line 11 73N Iowa River R Road crossing, NE corner 32 73N Iowa River R Road crossing, NE corner 32 73N Iowa River R Road crossing, west line 11 73N Iowa River R Road crossing, west line 15 73N Iowa River R Road crossing, west line 15 73N Iowa River R Road crossing, west line 15 73N Iowa River R Road crossing, west line 15 73N Iowa River R Road crossing, west line 15 73N Iowa River R 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line 11 73N 3W Honey Creek Otter Creek R Road crossing, west line 11 73N 3W Unnamed creek Honey Creek L At mouth 16 73N 3W Honey Creek Otter Creek R Road crossing, west line 15 73N 3W Honey Creek Otter Creek R Road crossing, west line 15 73N 3W Otter Creek Iowa River R At mouth 14 73N 3W Otter Creek Iowa River R At mouth 14 73N 3W Iowa River R Below Otter Creek 19 73N 2W Iowa River R Road crossing, west line 36 73N 3W Paul Creek Smith Creek Iowa River R Road crossing, west line 36 73N 3W Smith Creek Iowa River R Road crossing, swest line 36 73N 3W Smith Creek Iowa River R Road crossing, swest line 36 73N 2W Smith Creek Iowa River R Road crossing, SW¼ 29 73N 2W Smith Creek Iowa River R Road crossing, SW¼ 29 73N 2W Smith Creek Iowa River R Road crossing, SW¼ 29 73N 2W Smith Creek Iowa River R Road crossing, Swi¼ 29 73N 2W Smith Creek Iowa River R Road crossing, Swi¼ 29 73N 2W Smith Creek Iowa River R Road crossing, Swi¼ 29 73N 2W Iowa River Mississippi River R Road crossing, south 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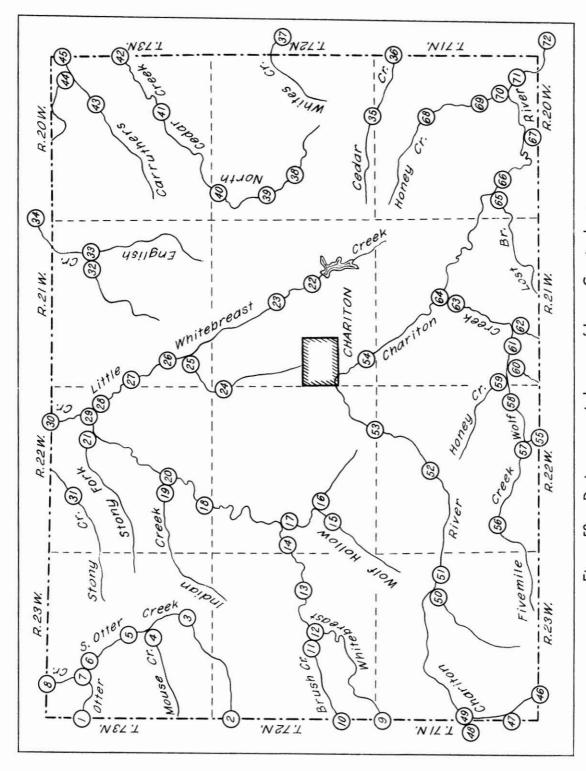


Figure 59. Drainage area index map of Lucas County, lowa.

			Bank	Point of determination of dra	ainage a	ırea		Drainage area
Area	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
No. 1	Otter Creek	South River	lR	Description West (county) line	7	73N	23W	<u>1</u> 46.5
'	Otter Creek	South River	K	Road crossing, west	,	7311	2300	40.5
2	South Otter Creek	Otter Creek	R	(county) line	6	72N	23W	19.1
3	South Otter Creek	Otter Creek	R	Road crossing, NE1/4	34	73N	23W	30.9
4	Mouse Creek	South Otter Creek	L	At mouth	22	73N	23W	7.63
5	South Otter Creek	Otter Creek	R	Road crossing, north line	21	73N	23W	42.6
6	South Otter Creek	Otter Creek	R	At mouth	8	73N	23W	46.9
7	Otter Creek	South River	R	Below South Otter Creek	8	73N	23W	102
8	Otter Creek	South River	R	Road crossing, north (county) line	5	73N	23W	104
9	Whitebreast Creek	Des Moines River	R	West (county) line	6	71N	23W	88.9
10	Brush Creek	Whitebreast Creek	L	West (county) line	30	72N	23W	10.7
11	Brush Creek	Whitebreast Creek	L	At mouth	22	72N	23W	19
12	Whitebreast Creek	Des Moines River	R	Below Brush Creek	22	72N	23W	120
13	Whitebreast Creek	Des Moines River	R	Road crossing, NE1/4	23	72N	23W	128
14	Whitebreast Creek	Des Moines River	R	Road crossing, south 1/2	18	72N	22W	133
15	Wolf Hollow	Whitebreast Creek	R	Road crossing, north line	29	72N	22W	5.47
16	Unnamed creek	Wolf Hollow	R	At mouth	20	72N	22W	5.98
17	Wolf Hollow	Whitebreast Creek	R	At mouth	18	72N	22W	12.7
18	Whitebreast Creek	Des Moines River	R	Road crossing, SE1/4	32	73N	22W	158
19	Indian Creek	Whitebreast Creek	L	At mouth	28	73N	22W	8.72
20	Whitebreast Creek	Des Moines River	R	Below Indian Creek	28	73N	22W	174
21	Stony Fork	Whitebreast Creek	L	At mouth	11	73N	22W	6.43
22	Little Whitebreast Creek	Whitebreast Creek	R	Road crossing, SE1/4	22	72N	21W	10.7
23	Little Whitebreast Creek	Whitebreast Creek	R	Road crossing, NW1/4	15	72N	21W	18.7
24	Unnamed creek	Little Whitebreast Creek	L	Road crossing, NW1/4	6	72N	21W	5.33
25	Unnamed creek	Little Whitebreast Creek	L	At mouth	32	73N	21W	11.1
26	Little Whitebreast Creek	Whitebreast Creek	R	Road crossing, north line	32	73N	21W	40.3
27	Little Whitebreast Creek	Whitebreast Creek	R	Road crossing, north line	19	73N	21W	44.9
28	Little Whitebreast Creek	Whitebreast Creek	R	At mouth	11	73N	22W	55.8
29	Whitebreast Creek	Des Moines River	R	Below Little Whitebreast Creek	11	73N	22W	242
30	Whitebreast Creek	Des Moines River	R	Road crossing, north (county) line	2	73N	22W	243
31	Stony Creek	Whitebreast Creek	L	North line	9	73N	22W	8.29
32	Unnamed creek	English Creek	L	At mouth	11	73N	21W	6.29

35 Cedar Creek Des Moines River R Road crossing, NE¼ 3 71N 20W 4.1 36 Cedar Creek Des Moines River R East (county) line 1 71N 20W 10 37 Whites Creek Cedar Creek L Road crossing, north 1/2 18 72N 19W 11 38 North Cedar Creek Cedar Creek L North line 20 72N 20W 6 39 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 40 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 21 41 North Cedar Creek Cedar Creek L West line 26 73N 20W 24 42 North Cedar Creek L West line 26 73N 20W 3 43 Carruthers Creek L Road crossing, east 1 73N <td< th=""><th>4.8 .08 0.8 1.2 6.8 12 1.5 33</th></td<>	4.8 .08 0.8 1.2 6.8 12 1.5 33
36 Cedar Creek Des Moines River R East (county) line 1 71N 20W 10 37 Whites Creek Cedar Creek L Road crossing, north 1/2 18 72N 19W 11 38 North Cedar Creek Cedar Creek L North line 20 72N 20W 6 49 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 41 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 21 41 North Cedar Creek L West line 26 73N 20W 3 42 North Cedar Creek L West line 26 73N 20W 3 43 Carruthers Creek L Road crossing, east (county) line 11 73N 20W 5 44 Columbia Creek Carruthers Creek L At mouth 1 73N 20W 20	0.8 1.2 5.8 12 1.5
37 Whites Creek Cedar Creek L Road crossing, north 1/2 18 72N 19W 11 38 North Cedar Creek Cedar Creek L North line 20 72N 20W 6 39 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 40 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 41 North Cedar Creek Cedar Creek L West line 26 73N 20W 3 42 North Cedar Creek L West line 26 73N 20W 3 43 Carruthers Creek L Road crossing, east (county) line 13 73N 20W 5 44 Columbia Creek North Cedar Creek L At mouth 1 73N 20W 5 45 Carruthers Creek North Cedar Creek L At mouth 1 73N <td< td=""><td>1.2 5.8 12 1.5 33</td></td<>	1.2 5.8 12 1.5 33
38 North Cedar Creek Cedar Creek L North line 20 72N 20W 6 39 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 40 North Cedar Creek Cedar Creek L Road crossing, NW¼ 5 72N 20W 21 41 North Cedar Creek Cedar Creek L West line 26 73N 20W 3 42 North Cedar Creek L Road crossing, east (county) line 13 73N 20W 43 43 Carruthers Creek North Cedar Creek L Road crossing, sowth 11 73N 20W 5. 44 Columbia Creek North Cedar Creek L At mouth 1 73N 20W 5. 45 Carruthers Creek North Cedar Creek L At mouth 1 73N 20W 8. 45 Carruthers Creek North Cedar Creek L At mouth 1 <td>3.8 12 1.5 33</td>	3.8 12 1.5 33
38 North Cedar Creek Cedar Creek L North line 20 72N 20W 6 39 North Cedar Creek Cedar Creek L Road crossing, north line 18 72N 20W 1 40 North Cedar Creek Cedar Creek L Road crossing, NW¼ 5 72N 20W 21 41 North Cedar Creek Cedar Creek L West line 26 73N 20W 3 42 North Cedar Creek L Road crossing, east (county) line 13 73N 20W 43 43 Carruthers Creek North Cedar Creek L Road crossing, sowth 11 73N 20W 5. 44 Columbia Creek North Cedar Creek L At mouth 1 73N 20W 5. 45 Carruthers Creek North Cedar Creek L At mouth 1 73N 20W 8. 45 Carruthers Creek North Cedar Creek L At mouth 1 <td>12 1.5 33</td>	12 1.5 33
40 North Cedar Creek Cedar Creek L Road crossing, NW¼ 5 72N 20W 21 41 North Cedar Creek Cedar Creek L West line 26 73N 20W 3 42 North Cedar Creek L Road crossing, east (county) line 13 73N 20W 43 43 Carruthers Creek North Cedar Creek L Road crossing, SW¼ 11 73N 20W 5. 44 Columbia Creek Carruthers Creek L At mouth 1 73N 20W 5. 45 Carruthers Creek L At mouth 1 73N 20W 8. 45 Carruthers Creek L At mouth 1 73N 20W 20 46 Chariton River Missouri River L At mouth 31 71N 23W 2 47 Brush Creek Chariton River L At mouth 30 71N 23W 6. <t< td=""><td>1.5 33</td></t<>	1.5 33
41 North Cedar Creek Cedar Creek L West line Road crossing, east (county) line 13 73N 20W 43 Carruthers Creek North Cedar Creek L Road crossing, SW¼ 11 73N 20W 5. 44 Columbia Creek Carruthers Creek North Cedar Creek L At mouth 1 73N 20W 8. Carruthers Creek North Cedar Creek L At mouth 1 73N 20W 8. Carruthers Creek Carruthers Creek L At mouth 1 73N 20W 8. Road crossing, east (county) line County) line County) line County) line L Road crossing, south (county) line County) line County) line L At mouth 30 71N 23W 6. At Chariton Creek Chariton River L At mouth 19 71N 23W 19 Chariton River Missouri River L At mouth 19 71N 23W 19 Chariton River Missouri River L Below Chariton Creek 19 71N 23W 54 Dunnamed creek Chariton River R At mouth 14 71N 23W 7. Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7. Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7. Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7. Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7. Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	33
42 North Cedar Creek Cedar Creek L Road crossing, east (county) line 43 Carruthers Creek North Cedar Creek L Road crossing, SW¼ 11 73N 20W 5. At mouth 1 73N 20W 8. At mouth 1 74N 23W 7 1 74N 24W 8 2 1 74N	
Cedar Creek Cedar Creek L Road crossing, SW¼ 11 73N 20W 5. 44 Columbia Creek Carruthers Creek L At mouth 1 73N 20W 8. 45 Carruthers Creek North Cedar Creek L At mouth 1 73N 20W 8. 46 Chariton River Missouri River L At mouth 31 71N 23W 2. 47 Brush Creek Chariton River L At mouth 30 71N 23W 6.4 48 Chariton Creek Chariton River L At mouth 19 71N 23W 19 49 Chariton River Missouri River L Below Chariton Creek 19 71N 23W 54 50 Unnamed creek Chariton River R At mouth 14 71N 23W 7. 51 Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7. 52 Chariton River Missouri River L Road crossing, west line 15 71N 22W 82 53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	3.2
44 Columbia Creek Carruthers Creek L At mouth 1 73N 20W 8.5 45 Carruthers Creek North Cedar Creek L Road crossing, east (county) line 1 73N 20W 20 46 Chariton River Missouri River L Road crossing, south (county) line 31 71N 23W 2 47 Brush Creek Chariton River L At mouth 30 71N 23W 6.4 48 Chariton Creek Chariton River L At mouth 19 71N 23W 19 49 Chariton River Missouri River L Below Chariton Creek 19 71N 23W 54 50 Unnamed creek Chariton River R At mouth 14 71N 23W 7.5 51 Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7.5 52 Chariton River Missouri River L Road crossing, west line 15 71N 22W 82 53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	
44 Columbia Creek Carruthers Creek L At mouth 1 73N 20W 8.5 45 Carruthers Creek North Cedar Creek L Road crossing, east (county) line 1 73N 20W 20 46 Chariton River Missouri River L Road crossing, south (county) line 31 71N 23W 2 47 Brush Creek Chariton River L At mouth 30 71N 23W 6.4 48 Chariton Creek Chariton River L At mouth 19 71N 23W 19 49 Chariton River Missouri River L Below Chariton Creek 19 71N 23W 54 50 Unnamed creek Chariton River R At mouth 14 71N 23W 7.5 51 Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7.5 52 Chariton River Missouri River L Road crossing, west line 15 71N 22W 82 53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	.16
46 Chariton River Missouri River L Road crossing, south (county) line 47 Brush Creek Chariton River County) line County line County) line County lin	.28
47 Brush Creek Chariton River L At mouth 30 71N 23W 6.4 Chariton Creek Chariton River L At mouth 19 71N 23W 19 Chariton River Missouri River L Below Chariton Creek 19 71N 23W 54 50 Unnamed creek Chariton River R At mouth 14 71N 23W 7.5 Chariton River Missouri River L Road crossing, NW¼ 13 71N 23W 7.5 Chariton River Missouri River L Road crossing, west line 15 71N 22W 82 53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	0.7
48Chariton CreekChariton RiverLAt mouth1971N23W1949Chariton RiverMissouri RiverLBelow Chariton Creek1971N23W5450Unnamed creekChariton RiverRAt mouth1471N23W7.351Chariton RiverMissouri RiverLRoad crossing, NW¼1371N23W752Chariton RiverMissouri RiverLRoad crossing, west line1571N22W8253Chariton RiverMissouri RiverLRoad crossing, north line271N22W92	22
49Chariton RiverMissouri RiverLBelow Chariton Creek1971N23W5450Unnamed creekChariton RiverRAt mouth1471N23W7.351Chariton RiverMissouri RiverLRoad crossing, NW¼1371N23W752Chariton RiverMissouri RiverLRoad crossing, west line1571N22W8253Chariton RiverMissouri RiverLRoad crossing, north line271N22W92	.09
50 Unnamed creek Chariton River R At mouth 14 71N 23W 7.551 Chariton River Missouri River L Road crossing, NW½ 13 71N 23W 7.552 Chariton River Missouri River L Road crossing, west line 15 71N 22W 82 53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	9.8
51 Chariton RiverMissouri RiverL Road crossing, NW¼1371N23W752 Chariton RiverMissouri RiverL Road crossing, west line1571N22W8253 Chariton RiverMissouri RiverL Road crossing, north line271N22W92	4.5
52 Chariton RiverMissouri RiverL Road crossing, west line1571N22W8253 Chariton RiverMissouri RiverL Road crossing, north line271N22W92	.29
53 Chariton River Missouri River L Road crossing, north line 2 71N 22W 92	71
9 .	2.6
	2.9
54 Chariton River Missouri River L Road crossing, west line 32 72N 21W 10	04
55 Wolf Creek Chariton River R Road crossing, south (county) line 34 71N 22W 18	8.9
56 Fivemile Creek Wolf Creek L West line 29 71N 22W 8.	.17
57 Fivemile Creek Wolf Creek L At mouth 34 71N 22W 13	3.7
58 Wolf Creek Chariton River R Road crossing, SE1/4 25 71N 22W 3	36
59 Honey Creek Wolf Creek L At mouth 30 71N 21W 5	5.3
60 Brush Creek Wolf Creek R At mouth 30 71N 21W 11	1.2
61 Wolf Creek Chariton River R Road crossing, NE1/4 31 71N 21W 53	3.3
62 Sugar Creek Wolf Creek R At mouth 32 71N 21W 6.	.16
63 Wolf Creek Chariton River R At mouth 15 71N 21W 65	5.5
64 Chariton River Missouri River L Below Wolf Creek 15 71N 21W 18	82
65 Lost Branch Chariton River R At mouth 29 71N 20W 11	1.4
66 Chariton River Missouri River L Road crossing, west 1/2 29 71N 20W 20	206
	.96
68 Honey Creek Chariton River L Road crossing, north line 15 71N 20W 7.3	.31

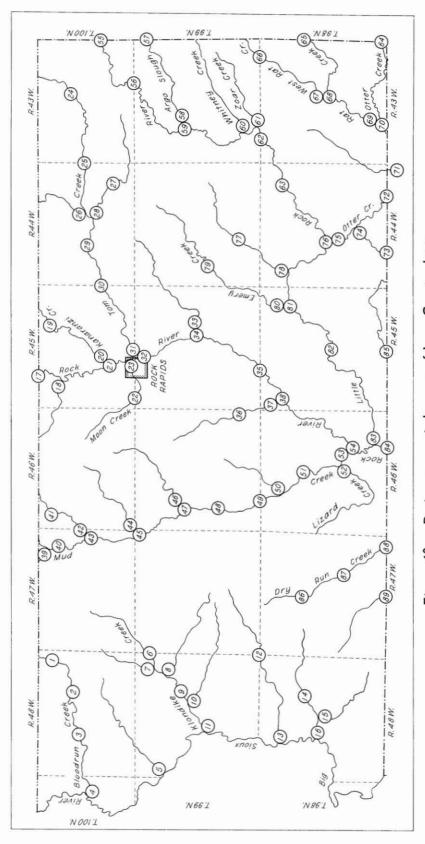


Figure 60. Drainage area index map of Lyon County, lowa.

	N	T. 11	Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Bloodrun Creek	Big Sioux River	L	North line	13	100N	48W	10.7
2	Bloodrun Creek	Big Sioux River	L	West line	23	100N	48W	17.6
3	Bloodrun Creek	Big Sioux River	L	Road crossing, west line	21	100N	48W	26.6
4	Bloodrun Creek	Big Sioux River	L	At mouth	24	100N	49N	32.8
5	Unnamed creek	Big Sioux River	L	At mouth	7	99N	48N	9.85
6	Klondike Creek	Big Sioux River	L	Road crossing, SE1/4	1	99N	48N	9.23
7	Unnamed creek	Klondike Creek	R	At mouth	12	99N	48W	5.31
8	Unnamed creek	Klondike Creek	L	At mouth	11	99N	48W	8.14
9	Klondike Creek	Big Sioux River	L	Road crossing, west line	14	99N	48W	26.2
10	Unnamed creek	Klondike Creek	L	At mouth	15	99N	48W	7.24
11	Klondike Creek	Big Sioux River	L	At mouth	21	99N	48W	36.1
12	Unnamed creek	Big Sioux River	L	Road crossing, west line	6	98N	47W	6.96
13	Unnamed creek	Big Sioux River	L	At mouth	8	98N	48W	14.7
14	Unnamed creek	Big Sioux River	L	West line	14	98N	48W	5.85
15	Unnamed creek	Unnamed creek	L	At mouth	15	98N	48W	8.52
16	Unnamed creek	Big Sioux River	L	At mouth	16	98N	48W	17.3
17	Rock River	Big Sioux River	L	Road crossing, north (state) line	8	100N	45W	558
18	Unnamed creek	Rock River	R	At mouth	17	100N	45W	7.24
19	Kanaranzi Creek	Rock River	L	SW corner	11	100N	45W	197
20	Kanaranzi Creek	Rock River	L	At mouth	28	100N	45W	205
21	Rock River	Big Sioux River	L	Below Kanaranzi Creek	28	100N	45W	777
22	Moon Creek	Rock River	R	Road crossing, north line	6	99N	45W	5.59
23	Moon Creek	Rock River	R	At mouth	33	100N	45W	11.2
24	Tom Creek	Rock River	L	Road crossing, north line	22	100N	43W	6.22
25	Tom Creek	Rock River	L	Road crossing, west line	19	100N	43W	15.2
26	Unnamed creek	Tom Creek	R	At mouth	22	100N	44W	11.7
27	Unnamed creek	Tom Creek	L	Road crossing, NW corner	36	100N	44W	6.57
28	Unnamed creek	Tom Creek	L	At mouth	22	100N	44W	13.4
29	Tom Creek	Rock River	L	Road crossing, west line	21	100N	44W	46.9
30	Tom Creek	Rock River	L	Road crossing, west line	30	100N	44W	53.7
31	Tom Creek	Rock River	L	At mouth	33	100N	45W	62.1
32	Rock River	Big Sioux River	L	Below Tom Creek	33	100N	45W	851
33	Unnamed creek	Rock River	L	At mouth	22	99N	45W	7.72
34	Rock River	Big Sioux River	L	Below unnamed creek	22	99N	45W	869

35	Rock River	Big Sioux River	L	Road crossing, north line	5	98N	46W	880
36	Unnamed creek	Rock River	R	Road crossing, north line	36	99N	45W	7.74
37	Unnamed creek	Rock River	R	At mouth	7	98N	45W	16.9
38	Rock River	Big Sioux River	L	Below unnamed creek	7	98N	47W	901
39	Unnamed creek	Mud Creek	R	At mouth	12	100N	47W	9.03
40	Mud Creek	Rock River	R	Road crossing, north line	13	100N	46W	40
41	Unnamed creek	Mud Creek	L	Road crossing, north line	18	100N	47W	5.97
42	Unnamed creek	Mud Creek	L	At mouth	24	100N	47W	11.5
43	Mud Creek	Rock River	R	Below unnamed creek	24	100N	47W	57.7
44	Unnamed creek	Mud Creek	L	At mouth	1	99N	47W	6.92
45	Mud Creek	Rock River	R	Below unnamed creek	1	99N	47W	72.2
46	Unnamed creek	Mud Creek	L	At mouth	17	99N	46W	9.35
47	Mud Creek		R	Below unnamed creek	17	99N	46W	91.2
48	Mud Creek	Mud Creek	R	Road crossing, north line	29	99N	46W	101
49	Mud Creek	Mud Creek	R	Road crossing, north line	5	98N	46W	111
50	Unnamed creek	Mud Creek	L	At mouth	4	98N	46W	6.43
51	Mud Creek	Rock River	R	Road crossing, north line	16	98N	46W	126
52	Lizard Creek	Mud Creek	R	At mouth	22	98N	46W	7.53
53	Mud Creek	Rock River	R	At mouth	26	98N	46W	138
54	Rock River	Big Sioux River	L	Below Mud Creek	26	98N	46W	1049
55	Little Rock River	Rock River	L	Road crossing, east (county) line	25	100N	43W	125
56	Little Rock River	Rock River	L	Road crossing, north line	3	99N	43W	134
57	Argo Slough	Little Rock River	L	Road crossing, east (county) line	1	99N	43W	7.07
58	Argo Slough	Little Rock River	L	At mouth	17	99N	43W	14.4
59	Little Rock River	Rock River	L	Below Argo Slough	17	99N	43W	154
60	Whitney Creek	Little Rock River	L	At mouth	32	99N	43W	8.72
61	Zoar Creek	Little Rock River	L	At mouth	32	99N	43W	7.33
62	Little Rock River	Rock River	L	Road crossing, north line	5	98N	43W	181
63	Little Rock River	Rock River	L	Road crossing, SE1/4	2	98N	44W	195
64	Otter Creek	Little Rock River	L	Road crossing, east (county) line	36	98N	43W	120
65	Rat Creek	Otter Creek	R	Road crossing, east (county) line	12	98N	43W	8.74
66	West Rat Creek	Rat Creek	R	Road crossing, north line	1	98N	43W	5.32
67	West Rat Creek	Rat Creek	R	At mouth	22	98N	43W	12.6
68	Rat Creek	Otter Creek	R	Below West Rat Creek	22	98N	43W	25.9
69	Rat Creek	Otter Creek	R	At mouth	32	98N	43W	29.4
70	Otter Creek	Little Rock River	L	Below Rat Creek	32	98N	43W	160

71	Unnamed creek	Otter Creek	R	At mouth	1	97N	44W	9.11
72	Otter Creek	Little Rock River	L	Road crossing, south (county) line	35	98N	44W	194
73	Unnamed creek	Otter Creek	L	Road crossing, south (county) line	32	98N	44W	5.4
74	Unnamed creek	Otter Creek	L	At mouth	28	98N	44W	8.17
75	Otter Creek	Little Rock River	L	At mouth	21	98N	44W	210
76	Little Rock River	Rock River	L	Below Otter Creek	21	98N	44W	416
77	Unnamed creek	Little Rock River	R	Road crossing, north line	33	98N	44W	5.23
78	Unnamed creek	Little Rock River	R	At mouth	7	98N	44W	10.8
79	Emery Creek	Little Rock River	R	Road crossing, west line	20	99N	44W	9.25
80	Emery Creek	Little Rock River	R	At mouth	12	98N	45W	17.3
81	Little Rock River	Rock River	L	Below Emery Creek	12	98N	45W	454
82	Little Rock River	Rock River	L	Road crossing, west line	22	98N	45W	462
83	Little Rock River	Rock River	L	At mouth	35	98N	46W	474
84	Rock River	Big Sioux River	L	South (county) line	35	98N	46W	1526
85	Unnamed creek	Burr Oak Creek	R	Road crossing, south (county) line	33	98N	45W	10.7
86	Dry Run Creek	Rock River	R	Road crossing, north line	16	98N	47W	5.76
87	Dry Run Creek	Rock River	R	Road crossing, north line	26	98N	47W	12.4
88	Dry Run Creek	Rock River	R	Road crossing, south (county) line	36	98N	47W	20.1
89	Unnamed creek	Dry Run Creek	R	Road crossing, south (county) line	34	98N	47W	8.84

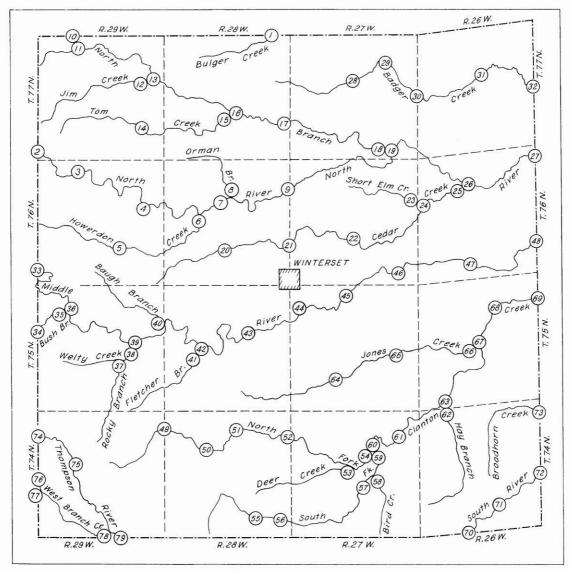


Figure 61. Drainage area index map of Madison County, Iowa.

	N	T "	Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Bulger Creek	South Raccoon River	R	North (county) line	1	77N	28W	8.95
2	North River	Des Moines River	R	Road crossing, west (county) line	31	77N	29W	55.9
3	North River	Des Moines River	R	Road crossing, west line	4	76N	29W	64.6
4	North River	Des Moines River	R	West line	13	76N	29W	74.3
5	Howerdon Creek	North River	R	Road crossing, west line	26	76N	29W	8.38
6	Howerdon Creek	North River	R	At mouth	17	76N	28W	16.9
7	North River	Des Moines River	R	Road crossing, west line	10	76N	28W	102
8	Orman Branch	North River	L	At mouth	10	76N	28W	6.12
9	North River	Des Moines River	R	Road crossing, east 1/2	12	76N	28W	116
10	Jim Creek	North Branch North River	L	At mouth	5	77N	29W	11
11	North Branch North River	North River	L	Below Jim Creek	5	77N	29W	16.6
12	Jim Creek	North Branch North River	R	At mouth	13	77N	29W	9.51
13	North Branch North River	North River	L	Below Jim Creek	13	77N	29W	31.7
14	Tom Creek	North Branch North River	R	Road crossing, west line	25	77N	29W	7.08
15	Tom Creek	North Branch North River	R	At mouth	22	77N	28W	16.8
16	North Branch North River	North River	L	Below Tom Creek	22	77N	28W	56.2
17	North Branch North River	North River	L	Road crossing, NE1/4	25	77N	28W	63.2
18	North Branch North River	North River	L	At mouth	35	77N	27W	75.2
19	North River	Des Moines River	R	Below North Branch North River	35	77N	27W	203
20	Cedar Creek	North River	R	West line	27	76N	28W	6.81
21	Cedar Creek	North River	R	Road crossing, west line	30	76N	27W	14
22	Cedar Creek	North River	R	West line	22	76N	27W	22.7
23	Short Elm Creek	Cedar Creek	L	At mouth	18	76N	26W	6.38
24	Cedar Creek	North River	R	Below Short Elm Creek	18	76N	26W	35
25	Cedar Creek	North River	R	At mouth	9	76N	26W	41.7
26	North River	Des Moines River	R	Below Cedar Creek	9	76N	26W	255
27	North River	Des Moines River	R	Road crossing, east (county) line	1	76N	26W	265
28	Badger Creek	North River	L	Road crossing, west line	15	77N	27W	4.42
29	Badger Creek	North River	L	Road crossing, north 1/2	11	77N	27W	11.9
30	Badger Creek	North River	_ L	West line	19	77N	26W	21.5
31	Badger Creek	North River	L	Road crossing, north 1/2	15	77N	26W	30.7
32	Badger Creek	North River	L	Road crossing, east (county) line	24	77N	26W	42.5

33	Middle River	Des Moines River	R	Road crossing, west (county) line	31	76N	29W	161
34	Bush Branch	Middle River	R	West (county) line	18	75N	29W	14.1
35	Bush Branch	Middle River	R	At mouth	8	75N	29W	17.4
36	Middle River	Des Moines River	R	Below Bush Branch	8	75N	29W	184
37	Rocky Branch	Welty Creek	R	At mouth	22	75N	29W	7.12
38	Welty Creek	Middle River	R	At mouth	14	75N	29W	11.8
39	Middle River	Des Moines River	R	Below Welty Creek	14	75N	29W	205
40	Baugh Branch	Middle River	L	At mouth	7	75N	28W	6.14
41	Fletcher Branch	Middle River	R	At mouth	17	75N	28W	8.02
42	Middle River	Des Moines River	R	Below Fletcher Branch	17	75N	28W	226
43	Middle River	Des Moines River	R	West line	14	75N	28W	236
44	Middle River	Des Moines River	R	Road crossing, north 1/2	7	75N	27W	248
45	Middle River	Des Moines River	R	Road crossing, east 1/2	4	75N	27W	257
46	Middle River	Des Moines River	R	Road crossing, NW1/4	36	76N	27W	265
47	Middle River	Des Moines River	R	Road crossing, NE1/4	33	76N	26W	275
48	Middle River	Des Moines River	R	Road crossing, east (county) line	25	76N	26W	285
49	North Fork Clanton Creek	Clanton Creek	L	West line	6	74N	28W	7.83
50	North Fork Clanton Creek	Clanton Creek	L	West line	9	74N	28W	16.6
51	North Fork Clanton Creek	Clanton Creek	L	Road crossing, south 1/2	3	74N	28W	23.1
52	North Fork Clanton Creek	Clanton Creek	L	Road crossing, NE1/4	12	74N	28W	29.5
53	Deer Creek	North Fork Clanton Creek	R	At mouth	16	74N	27W	7.06
54	North Fork Clanton Creek	Clanton Creek	L	At mouth	10	74N	27W	44.3
55	South Fork Clanton Creek	Clanton Creek	R	Road crossing, NW1/4	35	74N	28W	6.61
56	South Fork Clanton Creek	Clanton Creek	R	Road crossing, north 1/2	36	74N	28W	13.6
57	South Fork Clanton Creek	Clanton Creek	R	Road crossing, north 1/2	22	74N	27W	23.8
58	Bird Creek	South Fork Clanton Creek	R	At mouth	22	74N	27W	8.77
59	South Fork Clanton Creek	Clanton Creek	R	At mouth	10	74N	27W	33.6
60	Clanton Creek	Middle River	R	below confluence North and South Forks	10	74N	27W	77.9
61	Clanton Creek	Middle River	R	Road crossing, NE1/4	11	74N	27W	84.5
62	Hay Branch	Clanton Creek	R	At mouth	32	75N	26W	10.8
63	Clanton Creek	Middle River	R	Below Hay Branch	32	75N	26W	103
64	Jones Creek	Clanton Creek	L	Road crossing, west 1/2	28	75N	27W	7.98
65	Jones Creek	Clanton Creek	L	Road crossing, west line	24	75N	27W	17.6
66	Jones Creek	Clanton Creek	L	At mouth	22	75N	26W	24.7
67	Clanton Creek	Middle River	R	Below Jones Creek	22	75N	26W	138
68	Clanton Creek	Middle River	R	West line	11	75N	26W	145
69	Clanton Creek	Middle River	R	East (county) line	12	75N	26W	151

70	South River	Des Moines River	R	South (county) line	33	74N	26W	36.6
71	South River	Des Moines River	R	Road crossing, SW1/4	26	74N	26W	43.5
72	South River	Des Moines River	R	East (county) line	24	74N	26W	54.5
73	Broadhorn Creek	South River	L	Road crossing, east (county) line	1	74N	26W	8.51
74	Thompson River	Grand River	L	West (county) line	7	74N	29W	81.7
75	Thompson River	Grand River	L	Road crossing, east 1/2	17	74N	29W	91
76	West Branch Creek	Thompson River	R	West (county) line	19	74N	29W	9.38
77	Unnamed creek	West Branch Creek	R	At mouth	19	74N	29W	8.82
78	West Branch Creek	Thompson River	R	At mouth	34	74N	29W	28.8
79	Thompson River	Grand River	L	South (county) line	34	74N	29W	129

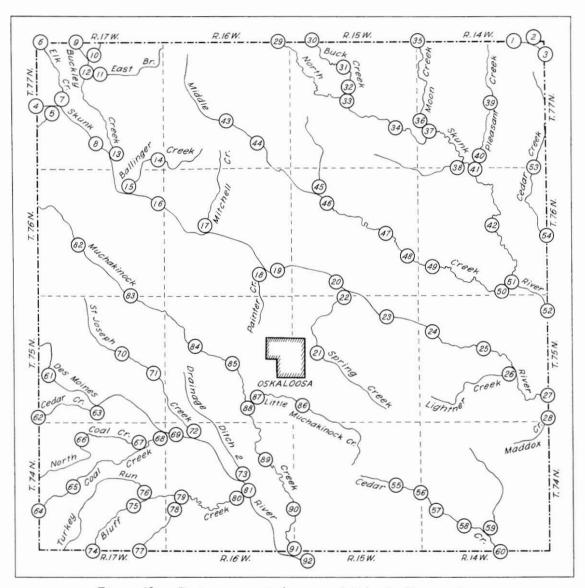


Figure 62. Drainage area index map of Mahaska County, Iowa.

			Bank	Point of determination of dra	ainage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	South Fork English River	English River	R	Road crossing, north (county) line	2	77N	14W	14.8
2	Unnamed creek	South Fork English River	L	At mouth	1	77N	14W	6.55
3	South Fork English River	English River	R	East (county) line	1	77N	14W	23.1
4	Skunk River	Mississippi River	R	West (county) line	19	77N	17W	1440
5	Thunder Creek	Skunk River	R	At mouth	19	77N	17W	29.7
6	Elk Creek	Skunk River	L	North (county) line	6	77N	17W	58.6
7	Elk Creek	Skunk River	L	At mouth	19	77N	17W	62.9
8	Skunk River	Mississippi River	R	Road crossing, SE1/4	28	77N	17W	1539
9	Buckley Creek	Skunk River	L	Road crossing, north (county) line	5	77N	17W	11.4
10	Middle Branch Buckley Creek	Buckley Creek	L	At mouth	9	77N	17W	9.93
11	East Branch Buckley Creek	Buckley Creek	L	At mouth	9	77N	17W	7.14
12	Buckley Creek	Skunk River	L	Below East Branch Buckley Creek	9	77N	17W	29.6
13	Buckley Creek	Skunk River	L	At mouth	34	77N	17W	37.5
14	Ballinger Creek	Skunk River	L	Road crossing, SE1/4	36	77N	17W	4.38
15	Ballinger Creek	Skunk River	L	At mouth	11	76N	17W	10.8
16	Skunk River	Mississippi River	R	Road crossing, SE1/4	12	76N	17W	1599
17	Mitchell Creek	Skunk River	L	At mouth	21	76N	16W	6.18
18	Painter Creek	Skunk River	R	At mouth	26	76N	16W	6.32
19	Skunk River	Mississippi River	R	Road crossing, SW¼ (gage near Oskaloosa)	25	76N	16W	1635
20	Skunk River	Mississippi River	R	Road crossing, south 1/2	33	76N	15W	1652
21	Spring Creek	Skunk River	R	Road crossing, SW1/4	17	76N	15W	9.04
22	Spring Creek	Skunk River	R	At mouth	33	76N	15W	15.7
23	Skunk River	Mississippi River	R	Road crossing, north 1/2	11	75N	15W	1676
24	Skunk River	Mississippi River	R	Road crossing, SE1/4	7	75N	14W	1687
25	Skunk River	Mississippi River	R	Road crossing, west line	15	75N	14W	1697
26	Lightner Creek	Skunk River	R	At mouth	23	75N	14W	7.03
27	Skunk River	Mississippi River	R	Road crossing, east (county) line	25	75N	14W	1718
28	Maddox Creek	Skunk River	R	Road crossing, north line	1	74N	14W	4.73
29	North Skunk River	Skunk River	L	Road crossing, north (county) line	1	77N	16W	384

	5 . 6 .	N. d. O. J. D.		Road crossing, north	_		4 -1 4 4	
30	Buck Creek	North Skunk River	L	(county) line	5	77N	15W	33.9
31	Buck Creek	North Skunk River	L	Road crossing, NE1/4	9	77N	15W	38.1
32	Buck Creek	North Skunk River	L	At mouth	16	77N	15W	45.9
33	North Skunk River	Skunk River	L	Below Buck Creek	16	77N	15W	440
34	North Skunk River	Skunk River	L	Road crossing, west line	25	77N	15W	450
35	Moon Creek	North Skunk River	L	Road crossing, north	6	77N	14W	27.9
33	MOON Creek	Notti Skutik Kivei	L	(county) line	O	/ / IN	1400	21.9
36	Moon Creek	North Skunk River	L	At mouth	30	77N	14W	37.4
37	North Skunk River	Skunk River	L	Below Moon Creek	30	77N	14W	492
38	Unnamed creek	North Skunk River	R	At mouth	4	76N	14W	7.64
39	Pleasant Creek	North Skunk River	L	Road crossing, north line	22	77N	14W	5.66
40	Pleasant Creek	North Skunk River	L	At mouth	4	76N	14W	13.7
41	North Skunk River	Skunk River	L	Below Pleasant Creek	4	76N	14W	519
42	North Skunk River	Skunk River	L	Road crossing, south 1/2	15	76N	14W	529
43	Middle Creek	North Skunk River	R	Road crossing, west line	22	77N	16W	10.6
44	Middle Creek	North Skunk River	R	Road crossing, south 1/2	26	77N	16W	17.6
45	Unnamed creek	Middle Creek	L	At mouth	8	76N	15W	6.69
46	Middle Creek	North Skunk River	R	Road crossing, center	8	76N	15W	32.5
47	Middle Creek	North Skunk River	R	Road crossing, NE1/4	23	76N	15W	42.4
48	Middle Creek	North Skunk River	R	Road crossing, NE¼	25	76N	15W	48.3
49	Middle Creek	North Skunk River	R	Road crossing, SE1/4	30	76N	14W	56.1
50	Middle Creek	North Skunk River	R	At mouth	35	76N	14W	65.1
51	North Skunk River	Skunk River	L	Below Middle Creek	35	76N	14W	600
52	North Skunk River	Skunk River	L	East (county) line	1	75N	14W	606
53	Cedar Creek	North Skunk River	L	Road crossing, north line	1	76N	14W	9.31
54	Cedar Creek	North Skunk River	L	Road crossing, east	24	76N	14W	14.6
J 4	Cedal Creek	NOTHI SKUTK KIVET	_	(county) line	24	IOIN	1400	14.0
55	Cedar Creek	Skunk River	R	Road crossing, west line	13	74N	15W	4.58
56	Cedar Creek	Skunk River	R	Road crossing, west line	19	74N	14W	12.2
57	Cedar Creek	Skunk River	R	North line	30	74N	14W	17.3
58	Cedar Creek	Skunk River	R	Road crossing, west line	28	74N	14W	26.4
59	Unnamed creek	Cedar Creek	L	At mouth	34	74N	14W	6.69
60	Cedar Creek	Skunk River	R	South (county) line	34	74N	14W	40.4
61	Des Moines River	Mississippi River	R	Road crossing, SE¼ (gage	19	75N	17W	12479
01	Des Monies Rivei	Mississippi Kivei	K	at Tracy)	19	7511	1 / VV	12479
62	Cedar Creek	Des Moines River	R	West (county) line	31	75N	17W	419
63	Cedar Creek	Des Moines River	R	At mouth	33	75N	17W	423
64	Coal Creek	Des Moines River	R	West (county) line	30	74N	17W	4.01
65	Coal Creek	Des Moines River	R	Road crossing, north line	20	74N	17W	9.92

66	North Coal Creek	Coal Creek	L	Road crossing, SW1/4	4	74N	17W	6.21
67	North Coal Creek	Coal Creek	L	At mouth	1	74N	17W	9.96
68	Coal Creek	Des Moines River	R	At mouth	1	74N	17W	25.5
69	Des Moines River	Mississippi River	R	Road crossing, NE1/4	1	74N	17W	12940
70	St. Joseph Creek	Des Moines River	L	Road crossing, west line	14	75N	17W	5.41
71	St. Joseph Creek	Des Moines River	L	Road crossing, SW1/4	24	75N	17W	10.6
72	St. Joseph Creek	Des Moines River	L	At mouth	6	74N	16W	14.8
73	Drainage Ditch 2	Des Moines River	L	At mouth	15	74N	16W	6.91
74	Bluff Creek	Des Moines River	R	Road crossing, south (county) line	33	74N	17W	17.4
75	Bluff Creek	Des Moines River	R	Road crossing, west line	24	74N	17W	23.6
76	Turkey Run	Bluff Creek	L	At mouth	24	74N	17W	6.96
77	Little Bluff Creek	Bluff Creek	R	South (county) line	35	74N	17W	6.8
78	Little Bluff Creek	Bluff Creek	R	At mouth	19	74N	16W	11.4
79	Bluff Creek	Des Moines River	R	Below Little Bluff Creek	19	74N	16W	44.1
80	Bluff Creek	Des Moines River	R	At mouth	22	74N	16W	49.8
81	Des Moines River	Mississippi River	R	Below Bluff Creek	22	74N	16W	13020
82	Muchakinock Creek	Des Moines River	L	West line	21	76N	17W	9.39
83	Muchakinock Creek	Des Moines River	L	Road crossing, north line	2	75N	17W	19.6
84	Muchakinock Creek	Des Moines River	L	Road crossing, center	17	75N	16W	28.6
85	Muchakinock Creek	Des Moines River	L	Road crossing, NW1/4	22	75N	16W	35.4
86	Little Muchakinock Creek	Muchakinock Creek	L	Road crossing, north 1/2	31	75N	15W	7.24
87	Little Muchakinock Creek	Muchakinock Creek	L	At mouth	34	75N	16W	12.2
88	Muchakinock Creek	Des Moines River	L	Below Little Muchakinock Creek	34	75N	16W	54.1
89	Muchakinock Creek	Des Moines River	L	Road crossing, SE¼	11	74N	16W	61.1
90	Muchakinock Creek	Des Moines River	L	North line	30	74N	15W	72.9
91	Muchakinock Creek	Des Moines River	L	At mouth	1	73N	16W	78.8
92	Des Moines River	Mississippi River	R	Road crossing, NW1/4	6	73N	15W	13130

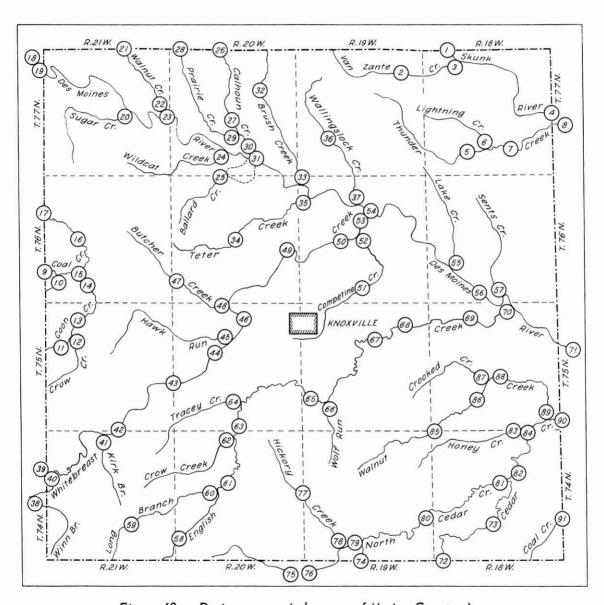


Figure 63. Drainage area index map of Marion County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Skunk River	Mississippi River	R	North (county) line	5	77N	18W	1407
2	Van Zante Creek	Skunk River	R	Road crossing, west line	12	77N	19W	7.84
3	Van Zante Creek	Skunk River	R	At mouth	4	77N	18W	14.4
4	Skunk River	Mississippi River	R	East (county) line	24	77N	18W	1440
5	Thunder Creek	Skunk River	R	Road crossing, west line	28	77N	18W	9.88
6	Lightning Creek	Thunder Creek	L	At mouth	28	77N	18W	5.15
7	Thunder Creek	Skunk River	R	Road crossing, SW1/4	26	77N	18W	19.3
8	Thunder Creek	Skunk River	R	At mouth	19	77N	17W	29.7
9	Coal Creek	South River	R	West (county) line	30	76N	21W	22
10	Fly Creek	Coal Creek	R	At mouth	30	76N	21W	5.83
11	Coon Creek	Coal Creek	R	Road crossing, SW corner	8	75N	21W	6.64
12	Crow Creek	Coon Creek	R	At mouth	8	75N	21W	5.95
13	Coon Creek	Coal Creek	R	Road crossing, north line	8	75N	21W	13.6
14	Coon Creek	Coal Creek	R	At mouth	29	76N	21W	19.8
15	Coal Creek	South River	R	Below Coon Creek	29	76N	21W	50.1
16	Coal Creek	South River	R	Road crossing, NE1/4	20	76N	21W	56.4
17	Coal Creek	South River	R	West (county) line	7	76N	21W	64.2
18	Camp Creek	Des Moines River	L	At mouth	12	77N	22W	41.4
19	Des Moines River	Mississippi River	R	Below Camp Creek	12	77N	22W	11699
20	Sugar Creek	Des Moines River	R	At mouth	22	77N	21W	11.3
21	Walnut Creek	Des Moines River	L	Road crossing, north (county) line	3	77N	21W	25
22	Walnut Creek	Des Moines River	L	At mouth	24	77N	21W	30.7
23	Des Moines River	Mississippi River	R	Below Walnut Creek	24	77N	21W	11756
24	Wildcat Creek	Des Moines River	R	At mouth	28	77N	20W	12.6
25	Ballard Creek	Des Moines River	R	At mouth (old channel)	33	77N	20W	5.35
26	Calhoun Creek	Des Moines River	L	Road crossing, north (county) line	4	77N	20W	18.9
27	Calhoun Creek	Des Moines River	L	Road crossing, west line	22	77N	20W	25
28	Prairie Creek	Calhoun Creek	R	Road crossing, north (county) line	6	77N	20W	9.33
29	Prairie Creek	Calhoun Creek	R	At mouth	27	77N	20W	14.7
30	Calhoun Creek	Des Moines River	L	At mouth	35	77N	20W	42.4
31	Des Moines River	Mississippi River	R	Below Calhoun Creek	35	77N	20W	11827
32	Brush Creek	Des Moines River	L	Road crossing, north line	14	77N	20W	9.4

Teter Creek Des Moines River R Road crossing, north line R Road crossin	5.15 13.5 6.68 14.6 6.8 38.4 323 6.7 342 357 363
36Wallingslock CreekDes Moines RiverLRoad crossing, NE¼2977N19W37Wallingslock CreekDes Moines RiverLAt mouth976N19W38Winn BranchWhitebreast CreekRAt mouth1374N22W39Wolf CreekWhitebreast CreekLAt mouth1874N21W40Whitebreast CreekDes Moines RiverRBelow Wolf Creek1874N21W41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW¼374N21W	6.68 14.6 6.8 38.4 323 6.7 342 357 363
37Wallingslock CreekDes Moines RiverLAt mouth976N19W38Winn BranchWhitebreast CreekRAt mouth1374N22W39Wolf CreekWhitebreast CreekLAt mouth1874N21W40Whitebreast CreekDes Moines RiverRBelow Wolf Creek1874N21W41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW1/4374N21W	14.6 6.8 38.4 323 6.7 342 357 363
37Wallingslock CreekDes Moines RiverLAt mouth976N19W38Winn BranchWhitebreast CreekRAt mouth1374N22W39Wolf CreekWhitebreast CreekLAt mouth1874N21W40Whitebreast CreekDes Moines RiverRBelow Wolf Creek1874N21W41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW1/4374N21W	6.8 38.4 323 6.7 342 357 363
39Wolf CreekWhitebreast CreekLAt mouth1874N21W40Whitebreast CreekDes Moines RiverRBelow Wolf Creek1874N21W41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW1/4374N21W	38.4 323 6.7 342 357 363
40Whitebreast CreekDes Moines RiverRBelow Wolf Creek1874N21W41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW¼374N21W	323 6.7 342 357 363
41Kirk BranchWhitebreast CreekRAt mouth474N21W42Whitebreast CreekDes Moines RiverRRoad crossing, NW1/4374N21W	6.7 342 357 363
42 Whitebreast Creek Des Moines River R Road crossing, NW1/4 3 74N 21W	342 357 363
	357 363
40 Militaly reset Oreals De Maines Diver	363
43 Whitebreast Creek Des Moines River R Road crossing, west line 19 75N 20W	
44 Whitebreast Creek Des Moines River R Road crossing, NW1/4 16 75N 20W	
45 Hawk Run Whitebreast Creek L At mouth 9 75N 20W	10.4
46 Whitebreast Creek Des Moines River R Road crossing, SW1/4 (gage near Knoxville) 3 75N 20W	380
47 Butcher Creek Whitebreast Creek L North line 31 76N 20W	6.14
48 Butcher Creek Whitebreast Creek L At mouth 4 75N 20W	12
49 Whitebreast Creek Des Moines River R Road crossing, center 24 76N 20W	403
50 Whitebreast Creek Des Moines River R Road crossing, west line 21 76N 19W	411
51 Competine Creek Whitebreast Creek R West line 34 76N 19W	8.67
52 Competine Creek Whitebreast Creek R At mouth 16 76N 19W	15.5
53 Whitebreast Creek Des Moines River R At mouth 10 76N 19W	430
54 Des Moines River Mississippi River R Below Whitebreast Creek 10 76N 19W	12309
55 Lake Creek Des Moines River L At mouth 29 76N 18W	6.48
56 Des Moines River Mississippi River R Railroad crossing, west 1/2 33 76N 18W	12337
57 Sents Creek Des Moines River L At mouth 34 76N 18W	9.59
58 English Creek Des Moines River R Road crossing, north line 31 74N 20W	24.8
59 Long Branch English Creek L Road crossing, west line 26 74N 21W	7.68
60 Long Branch English Creek L At mouth 16 74N 20W	13.7
61 English Creek Des Moines River R Road crossing, west 1/2 16 74N 20W	46.3
62 Crow Creek English Creek L At mouth 4 74N 20W	6.56
63 English Creek Des Moines River R Road crossing, NW1/4 3 74N 20W	57.4
64 Tracey Creek English Creek L At mouth 27 75N 20W	6.14
65 English Creek Des Moines River R Road crossing, north 1/2 30 75N 19W	73
66 Wolf Run English Creek R At mouth 29 75N 19W	8.27
67 English Creek Des Moines River R Road crossing, south 1/2 10 75N 19W	92.5
68 English Creek Des Moines River R Railroad crossing, NE1/4 11 75N 19W	101
69 English Creek Des Moines River R Road crossing, west line 4 75N 18W	108
70 English Creek Des Moines River R At mouth 3 75N 18W	112

71	Des Moines River	Mississippi River	R	Road crossing, SE¼ (gage at Tracy)	19	75N	17W	12479
72	Cedar Creek	Des Moines River	R	Road crossing, south (county) line	31	74N	18W	232
73	Cedar Creek	Des Moines River	R	Road crossing, NE1/4	28	74N	18W	241
74	North Cedar Creek	Cedar Creek	L	South (county) line	33	74N	19W	62.3
75	Columbia Creek	Carruthers Creek	L	At mouth	1	73N	20W	8.28
76	Carruthers Creek	North Cedar Creek	L	Road crossing, west (county) line	6	73N	19W	20.7
77	Hickory Creek	Carruthers Creek	L	Road crossing, north line	24	74N	20W	8.27
78	Hickory Creek	Carruthers Creek	L	At mouth	33	74N	19W	19.8
79	Carruthers Creek	North Cedar Creek	L	At mouth	33	74N	19W	43.2
80	North Cedar Creek	Cedar Creek	L	Road crossing, SE1/4	24	74N	19W	116
81	North Cedar Creek	Cedar Creek	L	At mouth	15	74N	18W	127
82	Cedar Creek	Des Moines River	R	Road crossing, SE corner (gage near Bussey)	10	74N	18W	374
83	Honey Creek	Cedar Creek	L	At mouth	2	74N	18W	9.27
84	Cedar Creek	Des Moines River	R	Below Honey Creek	2	74N	18W	389
85	Walnut Creek	Cedar Creek	L	North line	6	74N	18W	8.33
86	Walnut Creek	Cedar Creek	L	Road crossing, west 1/2	28	75N	18W	13.6
87	Crooked Creek	Walnut Creek	L	At mouth	21	75N	18W	5.89
88	Walnut Creek	Cedar Creek	L	Road crossing, west 1/2	22	75N	18W	23.6
89	Walnut Creek	Cedar Creek	L	At mouth	36	75N	18W	29
90	Cedar Creek	Des Moines River	R	East (county) line	36	75N	18W	419
91	Coal Creek	Des Moines River	R	East (county) line	25	74N	18W	4.01

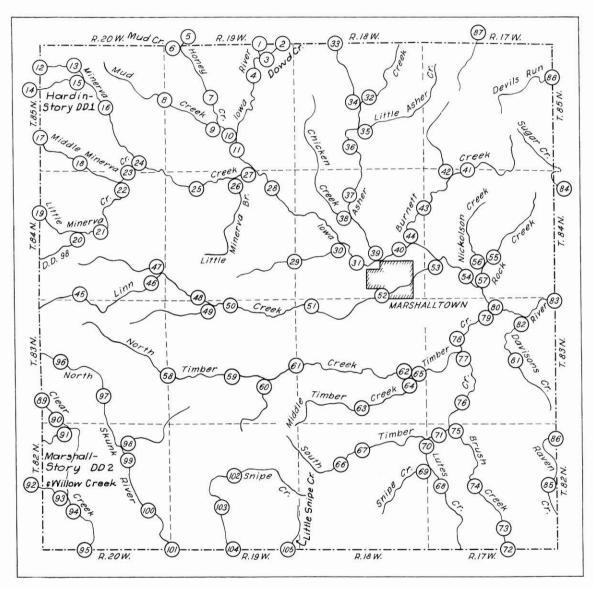


Figure 64. Drainage area index map of Marshall County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Iowa River	Mississippi River	R	North (county) line	2	85N	19W	1139
2	Dowd Creek	Iowa River	L	Road crossing, north (county) line	1	85N	19W	22.9
3	Dowd Creek	Iowa River	L	At mouth	2	85N	19W	27
4	Iowa River	Mississippi River	R	Road crossing, west 1/2	11	85N	19W	1170
5	Honey Creek	Iowa River	R	Road crossing, east 1/2	31	86N	19W	78.3
6	Mud Creek	Honey Creek	R	At mouth	6	85N	19W	10.5
7	Honey Creek	Iowa River	R	Road crossing, west 1/2	16	85N	19W	95.6
8	Mud Creek	Honey Creek	R	West line	18	85N	19W	7.32
9	Mud Creek	Honey Creek	R	At mouth	28	85N	19W	12.2
10	Honey Creek	Iowa River	R	At mouth	27	85N	19W	110
11	Iowa River	Mississippi River	R	Road crossing, SW1/4	27	85N	19W	1288
12	Minerva Creek	Iowa River	R	West (county) line	7	85N	20W	32.4
13	Minerva Creek	Iowa River	R	Road crossing, NW1/4	9	85N	20W	40.9
14	Hardin-Story Drainage Ditch 1	Minerva Creek	R	Road crossing, west line	12	85N	21W	12.7
15	Hardin-Story Drainage Ditch 1	Minerva Creek	R	At mouth	9	85N	20W	16
16	Minerva Creek	Iowa River	R	Road crossing, SW1/4	15	85N	20W	61.7
17	Middle Minerva Creek	Minerva Creek	R	West (county) line	30	85N	20W	30.2
18	Middle Minerva Creek	Minerva Creek	R	Road crossing, west line	33	85N	20W	38.8
19	Little Minerva Creek	Middle Minerva Creek	R	Road crossing, west (county) line	7	84N	20W	7.28
20	Drainage Ditch 98	Little Minerva Creek	R	At mouth	16	84N	20W	6.64
21	Little Minerva Creek	Middle Minerva Creek	R	Road crossing, west line	15	84N	20W	19
22	Little Minerva Creek	Middle Minerva Creek	R	At mouth	2	84N	20W	26.3
23	Middle Minerva Creek	Minerva Creek	R	At mouth	35	85N	20W	68.4
24	Minerva Creek	Iowa River	R	Below Middle Minerva Creek	35	85N	20W	138
25	Minerva Creek	Iowa River	R	Road crossing, south 1/2 (gage near Clemons)	5	84N	19W	148
26	Little Minerva Creek	Minerva Creek	R	At mouth	3	84N	19W	7.48
27	Minerva Creek	Iowa River	R	At mouth	2	84N	19W	164
28	Iowa River	Mississippi River	R	Road crossing, SW1/4	1	84N	19W	1459
29	Unnamed creek	Iowa River	R	Road crossing, west line	30	84N	18W	5.19
30	Unnamed creek	Iowa River	R	At mouth	21	84N	18W	11.9
31	Iowa River	Mississippi River	R	West line	27	84N	18W	1482
32	Asher Creek	Iowa River	L	Road crossing, south 1/2	15	85N	18W	6.17

33	Unnamed creek	Asher Creek	R	Road crossing, north	4	85N	18W	4.51
34	Unnamed creek	Asher Creek	R	(county) line At mouth	15	85N	18W	9.38
35	Little Asher Creek	Asher Creek	L	At mouth	28	85N	18W	9.36 7.79
	Asher Creek	Iowa River			33	85N	18W	27.3
36 37	Asher Creek	lowa River	L	Road crossing, north line		84N	18W	33.2
			L	Road crossing, NE1/4	9			
38	Chicken Creek	Asher Creek	R	At mouth	16	84N	18W	9.94
39	Asher Creek	Iowa River	L	At mouth	26	84N	18W	46.2
40	Iowa River	Mississippi River	R	Gage at Marshalltown, SW1/4	24	84N	18W	1532
41	Burnett Creek	Iowa River	L	Road crossing, west line	4	84N	17W	11.1
42	Unnamed creek	Burnett Creek	R	At mouth	5	84N	17W	5.62
43	Burnett Creek	Iowa River	L	Road crossing, west line	7	84N	17W	21.2
44	Burnett Creek	Iowa River	L	At mouth	24	84N	18W	32.4
45	Linn Creek	Iowa River	R	Road crossing, west line	33	84N	20W	8.31
46	Linn Creek	Iowa River	R	Road crossing, north line	36	84N	20W	15.3
47	Unnamed creek	Linn Creek	L	At mouth	25	84N	20W	6.15
48	Linn Creek	Iowa River	R	Road crossing, north line	5	83N	19W	23.9
49	Unnamed creek	Linn Creek	R	At mouth	5	83N	19W	6.02
50	Linn Creek	Iowa River	R	Road crossing, west line	3	83N	19W	39.8
51	Linn Creek	Iowa River	R	Road crossing, east 1/2	6	83N	18W	50.3
52	Linn Creek	Iowa River	R	West line	35	84N	18W	59.4
53	Linn Creek	Iowa River	R	At mouth	30	84N	17W	66.8
54	Iowa River	Mississippi River	R	Road crossing, SW1/4	28	84N	17W	1635
55	Rock Creek	Iowa River	L	Road crossing, west line	27	84N	17W	8.46
56	Nickolson Creek	Rock Creek	R	At mouth	28	84N	17W	5.46
57	Rock Creek	Iowa River	L	At mouth	33	84N	17W	14.8
58	North Timber Creek	Timber Creek	L	Road crossing, west line	19	83N	19W	8.22
59	North Timber Creek	Timber Creek	L	Road crossing, west line	22	83N	19W	14.6
60	Unnamed creek	North Timber Creek	R	At mouth	23	83N	19W	5.56
61	North Timber Creek	Timber Creek	L	Road crossing, west line	19	83N	18W	26.6
62	North Timber Creek	Timber Creek	L	At mouth	24	83N	18W	36.9
63	Middle Timber Creek	Timber Creek	R	Road crossing, west line	34	83N	18W	7.12
64	Middle Timber Creek	Timber Creek	R	At mouth	24	83N	18W	11.7
65	Timber Creek	Iowa River	R	Below confluence North and Middle Timber Creeks	24	83N	18W	48.6
66	South Timber Creek	Timber Creek	R	Road crossing, SE corner	8	82N	18W	6.23
67	South Timber Creek	Timber Creek	R	Road crossing, west line	10	82N	18W	13.1
68	Lutes Creek	South Timber Creek	R	Road crossing, north line	19	82N	17W	8.14
69	Snipe Creek	Lutes Creek	L	At mouth	18	82N	17W	5.11

70	Lutes Creek	South Timber Creek	R	At mouth	6	82N	17W	15.8
71	South Timber Creek	Timber Creek	R	Road crossing, SW¼ Road crossing, south	6	82N	17W	35.7
72	Brush Creek	South Timber Creek	R	(county) line	34	82N	17W	3.61
73	Brush Creek	South Timber Creek	R	Road crossing, north line	34	82N	17W	8.65
74	Brush Creek	South Timber Creek	R	Road crossing, north line	21	82N	17W	13.6
75	Brush Creek	South Timber Creek	R	At mouth	6	82N	17W	20.2
76	South Timber Creek	Timber Creek	R	Road crossing, north line	32	83N	17W	58.8
77	South Timber Creek	Timber Creek	R	At mouth	17	83N	17W	65.2
78	Timber Creek	Iowa River	R	Road crossing, north line (gage near Marshalltown)	17	83N	17W	118
79	Timber Creek	Iowa River	R	At mouth	3	83N	17W	124
80	Iowa River	Mississippi River	R	Below Timber Creek	3	83N	17W	1781
81	Davisons Creek	Iowa River	R	Road crossing, north line	23	83N	17W	5.64
82	Davisons Creek	Iowa River	R	At mouth	2	83N	17W	11.2
83	Iowa River	Mississippi River	R	Road crossing, east (county) line	1	83N	17W	1800
84	Sugar Creek	Iowa River	L	Road crossing, north line	7	84N	16W	4.81
85	Raven Creek	Iowa River	R	Road crossing, north line	24	82N	17W	5.52
86	Raven Creek	Iowa River	R	Road crossing, east (county) line	1	82N	17W	14.9
87	Unnamed creek	Wolf Creek	R	At mouth	33	86N	17W	5.94
88	Devils Creek	Wolf Creek	R	Road crossing, east (county) line	12	85N	17W	7.35
89	Clear Creek	Indian Creek	L	Road crossing, west (county) line	30	83N	20W	7.52
90	Clear Creek	Indian Creek	L	NE corner	6	82N	20W	9.86
91	Marshall-Story Drainage Ditch 2	Clear Creek	R	At mouth	5	82N	20W	13.1
92	Willow Creek	Clear Creek	R	Road crossing, west 1/2	13	82N	21W	4.16
93	Willow Creek	Clear Creek	R	At mouth	20	82N	20W	8.13
94	Clear Creek	Indian Creek	L	Road crossing, north line	29	82N	20W	38
95	Clear Creek	Indian Creek	L	Road crossing, south (county) line	32	82N	20W	48.7
96	North Skunk River	Skunk River	L	Road crossing, west line	20	83N	20W	3.68
97	North Skunk River	Skunk River	L	Road crossing, SE1/4	28	83N	20W	9.68
98	Unnamed creek	North Skunk River	L	At mouth	10	82N	20W	10
99	North Skunk River	Skunk River	L	Road crossing, east 1/2	10	82N	20W	24.7
100	North Skunk River	Skunk River	L	Road crossing, west line	25	82N	20W	28.8

101	North Skunk River	Skunk River	L	Road crossing, south (county) line	31	82N	19W	36.8
102	Snipe Creek	North Skunk River	L	Road crossing, west line	15	82N	19W	7.06
103	Snipe Creek	North Skunk River	L	Road crossing, north line	28	82N	19W	16.2
104	Snipe Creek	North Skunk River	L	Road crossing, south (county) line	33	82N	19W	24.1
105	Little Snipe Creek	Snipe Creek	L	Road crossing, south (county) line	36	82N	19W	3.55

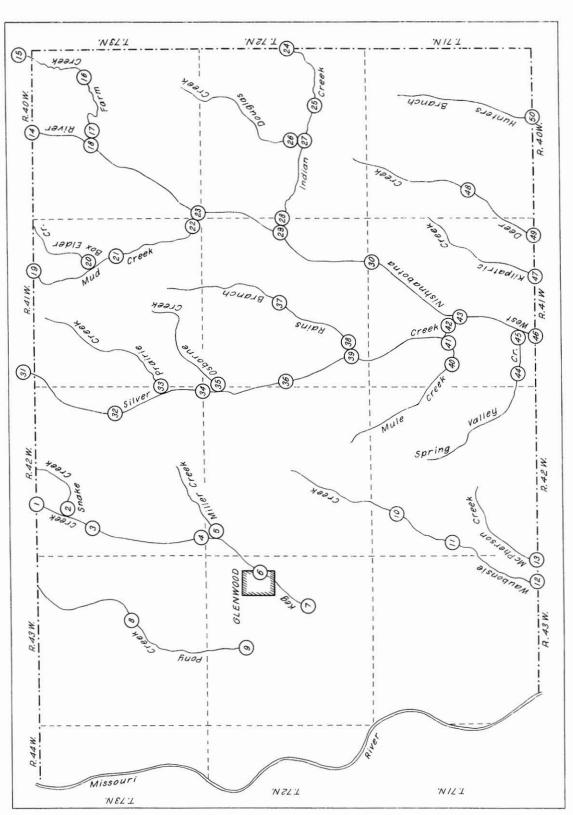


Figure 65 Drainage area index map of Mills County, lowa.

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Keg Creek	Missouri River	L	Road crossing, north (county) line	5	73N	42W	137
2	Snake Creek	Keg Creek	L	At mouth	5	73N	42W	7.12
3	Keg Creek	Missouri River	L	Road crossing, west line	17	73N	42W	149
4	Keg Creek	Missouri River	L	Road crossing, north line	6	72N	42W	163
5	Miller Creek	Keg Creek	L	At mouth	6	72N	42W	8.16
6	Keg Creek	Missouri River	L	Road crossing, north line	13	72N	43W	181
7	Keg Creek	Missouri River	L	Road crossing, NE corner	27	72N	43W	190
8	Pony Creek	Keg Creek	R	Road crossing, NE1/4 Road crossing, NE1/4	22	73N	43W	6.9
9	Pony Creek	Keg Creek	R	(gage near Pacific Junction)	9	72N	43W	15.9
10	Waubonsie Creek	Missouri River	L	Road crossing, south 1/2	5	71N	42W	7.83
11	Waubonsie Creek	Missouri River	L	Road crossing, north 1/2	19	71N	42W	14.6
12	Waubonsie Creek	Missouri River	L	South (county) line	36	71N	43W	20.9
13	McPherson Creek	Waubonsie Creek	L	South (county) line	36	71N	43W	5.78
14	West Nishnabotna River	Nishnabotna River	R	North (county) line	3	73N	40W	695
15	Farm Creek	West Nishnabotna River	L	Below Graybill Creek	36	74N	40W	104
16	Farm Creek	West Nishnabotna River	L	Road crossing, north line	14	73N	40W	113
17	Farm Creek	West Nishnabotna River	Ē	At mouth	16	73N	40W	122
18	West Nishnabotna River	Nishnabotna River	R	Below Farm Creek	16	73N	40W	823
19	Mud Creek	West Nishnabotna River	R	Road crossing, north (county) line	2	73N	41W	13.9
20	Box Elder Creek	Mud Creek	L	At mouth	14	73N	41W	6.1
22	Box Elder Creek	Mud Creek	R	At mouth	31	73N	40W	37
23	West Nishnabotna River	Nishnabotna River	R	Below Mud Creek	31	73N	40W	876
24	Indian Creek	West Nishnabotna River	L	East (county) line	24	72N	40W	37.4
25	Indian Creek	West Nishnabotna River	L	Road crossing, west line	26	72N	40W	50
26	Douglas Creek	Indian Creek	R	At mouth	21	72N	40W	7.27
27	Indian Creek	West Nishnabotna River	L	Below Douglas Creek	21	72N	40W	61.4
28	Indian Creek	West Nishnabotna River	L	At mouth	13	72N	41W	68
29	West Nishnabotna River	Nishnabotna River	R	Below Indian Creek Road crossing, north line	13	72N	41W	955
30	West Nishnabotna River	Nishnabotna River	R	(discontinued gage at White Cloud)	2	71N	31W	967
31	Silver Creek	West Nishnabotna River	R	Below Middle Silver Creek	31	74N	41W	192

32	Silver Creek	West Nishnabotna River	R	Road crossing, north line	24	73N	42W	203
33	Prairie Creek	Silver Creek	L	At mouth	25	73N	42W	7.55
34	Silver Creek	West Nishnabotna River	R	Road crossing, north line	1	72N	42W	221
35	Osborne Creek	Silver Creek	L	At mouth	1	72N	42W	5.54
36	Silver Creek	West Nishnabotna River	R	Road crossing, north line (gage near Malvern)	19	72N	41W	244
37	Rains Branch	Silver Creek	L	Road crossing, west line	15	72N	41W	6.06
38	Rains Branch	Silver Creek	L	At mouth	32	72N	41W	13.3
39	Silver Creek	West Nishnabotna River	R	Below Rains Branch	32	72N	41W	261
40	Mule Creek	Silver Creek	R	Road crossing, east line (gage near Malvern)	19	71N	41W	10.6
41	Mule Creek	Silver Creek	R	At mouth	21	71N	41W	11.2
42	Silver Creek	West Nishnabotna River	R	At mouth	21	71N	41W	282
43	West Nishnabotna River	Nishnabotna River	R	Below Silver Creek	21	71N	41W	1262
44	Spring Valley Creek	West Nishnabotna River	R	Road crossing, center (gage near Tabor)	31	71N	41W	7.65
45	Spring Valley Creek	West Nishnabotna River	R	At mouth	32	71N	41W	8.49
46	West Nishnabotna River	Nishnabotna River	R	Road crossing, south (county) line	32	71N	41W	1281
47	Kilpatric Creek	West Nishnabotna River	L	Road crossing, south (county) line	34	71N	41W	4.34
48	Deer Creek	West Nishnabotna River	L	Road crossing, west line	20	71N	40W	10.4
49	Deer Creek	West Nishnabotna River	L	Road crossing, south (county) line	36	71N	41W	21.7
50	Hunters Branch	Walnut Creek	R	Road crossing, south (county) line	34	71N	40W	7.59

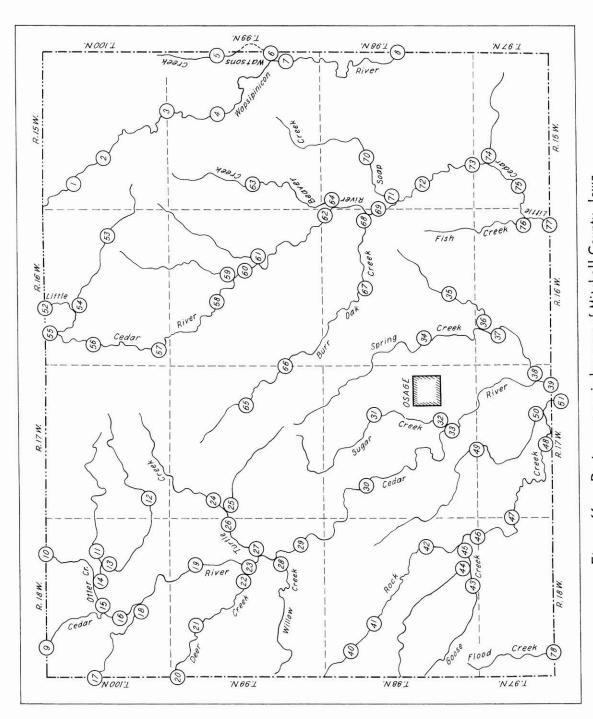


Figure 66. Drainage area index map of Mitchell County, lowa.

	Name of stream Tributary to Bank Point of determination of drainage area				Drainage area			
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Wapsipinicon River	Mississippi River	R	Road crossing, west line	17	100N	15W	13.2
2	Wapsipinicon River	Mississippi River	R	Road crossing, west 1/2	21	100N	15W	22.1
3	Wapsipinicon River	Mississippi River	R	Road crossing, NE1/4	3	99N	15W	33.2
4	Wapsipinicon River	Mississippi River	R	Road crossing, north line	15	99N	15W	44.6
5	Watsons Creek	Wapsipinicon River	L	Road crossing, north line	13	99N	15W	4.77
6	Watsons Creek	Wapsipinicon River	L	At mouth	25	99N	15W	11.4
7	Wapsipinicon River	Mississippi River	R	Road crossing, east 1/2	25	99N	15W	62.4
8	Wapsipinicon River	Mississippi River	R	Road crossing, east (county) line	24	98N	15W	77.6
9	Cedar River	Iowa River	L	Road crossing, north (state) line	8	100N	18W	584
10	Otter Creek	Cedar River	L	Road crossing, north (state) line	11	100N	18W	38.3
11	Unnamed creek	Otter Creek	L	Road crossing, NW1/4	23	100N	18W	8.6
12	Unnamed creek	Unnamed creek	L	Road crossing, west line	32	100N	17W	5.2
13	Unnamed creek	Unnamed creek	L	At mouth	23	100N	18W	10.1
14	Unnamed creek	Otter Creek	L	At mouth	22	100N	18W	19
15	Otter Creek	Cedar River	L	At mouth	21	100N	18W	60.5
16	Cedar River	Iowa River	L	Road crossing, north line	28	100N	18W	656
17	Unnamed creek	Cedar River	R	Road crossing, west (county) line	19	99N	18W	9.07
18	Unnamed creek	Cedar River	R	At mouth	28	99N	18W	13.5
19	Cedar River	Iowa River	L	North line	11	99N	18W	677
20	Deer Creek	Cedar River	R	Road crossing, west (county) line	6	99N	18W	85.7
21	Deer Creek	Cedar River	R	Road crossing, SE corner	5	99N	18W	91.6
22	Deer Creek	Cedar River	R	At mouth	23	99N	18W	99.4
23	Cedar River	Iowa River	L	Below Deer Creek	23	99N	18W	780
24	Turtle Creek	Cedar River	L	Road crossing, west line	8	99N	17W	8.93
25	Unnamed creek	Turtle Creek	L	At mouth	7	99N	17W	6.66
26	Turtle Creek	Cedar River	L	West line	18	99N	17W	17.4
27	Turtle Creek	Cedar River	L	At mouth	23	99N	18W	21.6
28	Willow Creek	Cedar River	R	At mouth	26	99N	18W	9.05
29	Cedar River	Iowa River	L	Road crossing, west line	36	99N	18W	813

				At dam, south 1/2				
30	Cedar River	Iowa River	L	(discontinued gage at Mitchell)	8	98N	17W	826
31	Sugar Creek	Cedar River	L	North line	14	98N	17W	8.42
32	Sugar Creek	Cedar River	L	At mouth	34	98N	17W	15
33	Cedar River	Iowa River	L	Below Sugar Creek	34	98N	17W	848
34	Spring Creek	Cedar River	L	Road crossing, north line	29	98N	16W	10.2
35	Unnamed creek	Spring Creek	L	Road crossing, north line	33	98N	16W	5.08
36	Unnamed creek	Spring Creek	L	At mouth	5	97N	16W	10.1
37	Spring Creek	Cedar River	L	North line	8	97N	16W	27.4
38	Spring Creek	Cedar River	L	At mouth	13	97N	17W	32.9
39	Cedar River	Iowa River	L	South (county) line	13	97N	17W	888
40	Rock Creek	Cedar River	R	Road crossing, SE corner	6	98N	18W	4.73
41	Rock Creek	Cedar River	R	Road crossing, west line	15	98N	18W	14.2
42	Rock Creek	Cedar River	R	Road crossing, north line	26	98N	18W	20.6
43	Goose Creek	Rock Creek	R	Road crossing, west line	35	98N	18W	8.02
44	Unnamed creek	Goose Creek	L	At mouth	35	98N	18W	6.7
45	Goose Creek	Rock Creek	R	At mouth	35	98N	18W	15.5
46	Rock Creek	Cedar River	R	Road crossing, north line	1	97N	18W	39.4
47	Rock Creek	Cedar River	R	Road crossing, west line	7	97N	17W	47.4
48	Rock Creek	Cedar River	R	Road crossing, west line	15	97N	17W	55.9
49	Unnamed creek	Rock Creek	L	Road crossing, north line	4	97N	17W	5.41
50	Unnamed creek	Rock Creek	L	At mouth	14	97N	17W	12.3
51	Rock Creek	Cedar River	R	At mouth	24	97N	17W	69.7
52	Little Cedar River	Cedar River	L	Road crossing, north (state) line	9	100N	16W	50.6
53	Unnamed creek	Little Cedar River	L	Road crossing, west line	24	100N	16W	4.14
54	Unnamed creek	Little Cedar River	L	At mouth	16	100N	16W	11.6
55	Unnamed creek	Little Cedar River	R	At mouth	8	100N	16W	8.65
56	Little Cedar River	Cedar River	L	Road crossing, north line	19	100N	16W	77.3
57	Little Cedar River	Cedar River	L	Road crossing, east 1/2	31	100N	16W	87.9
58	Little Cedar River	Cedar River	L	Road crossing, NW1/4	15	99N	16W	98.9
59	Unnamed creek	Little Cedar River	L	At mouth	15	99N	16W	7.19
60	Little Cedar River	Cedar River	L	Road crossing, north line	22	99N	16W	110
61	Unnamed creek	Little Cedar River	L	At mouth	22	99N	16W	6
62	Little Cedar River	Cedar River	L	Road crossing, NE1/4	1	98N	16W	126
63	Beaver Creek	Little Cedar River	L	Road crossing, west line	20	99N	15W	4.79
64	Beaver Creek	Little Cedar River	L	At mouth	6	98N	15W	13.7
65	Burr Oak Creek	Little Cedar River	R	North line	23	99N	17W	7.62
66	Burr Oak Creek	Little Cedar River	R	Road crossing, west line	30	99N	16W	12.9

67 68	Burr Oak Creek Burr Oak Creek	Little Cedar River Little Cedar River	R R	Road crossing, west line At mouth	10 12	98N 98N	16W 16W	22.1 30.5
69	Little Cedar River	Cedar River	L	Road crossing, north line	13	98N	16W	174
70	Soap Creek	Little Cedar River	L	Road crossing, SW corner	9	98N	15W	7.31
71	Soap Creek	Little Cedar River	L	At mouth	18	98N	15W	14.4
72	Little Cedar River	Cedar River	L	Road crossing, NE corner	30	98N	15W	193
73	Little Cedar River	Cedar River	L	Road crossing, north line	5	97N	15W	200
74	Unnamed creek	Little Cedar River	L	At mouth	5	97N	15W	7.66
75	Little Cedar River	Cedar River	L	West line	8	97N	15W	211
76	Fish Creek	Little Cedar River	R	At mouth	13	97N	16W	9.18
77	Little Cedar River	Cedar River	L	Road crossing, south (county) line	13	97N	16W	227
78	Flood Creek	Shell Rock River	L	Road crossing, south (county) line	18	97N	18W	5.85

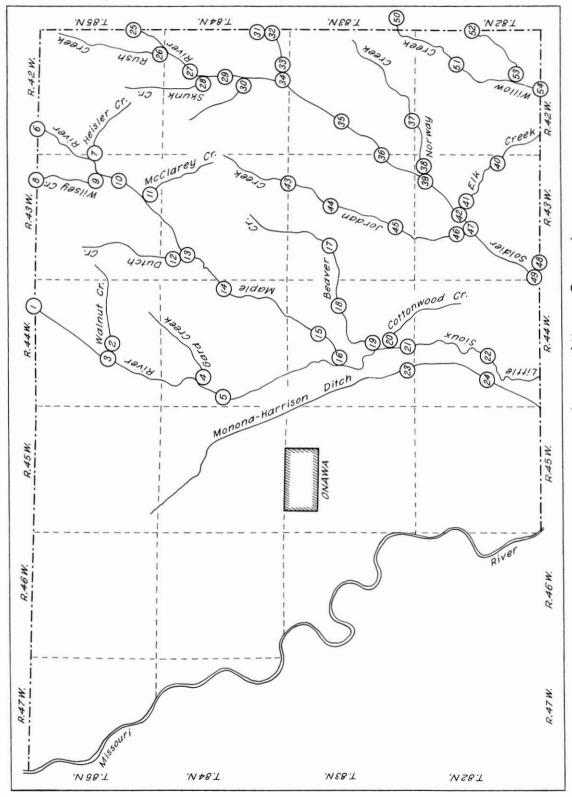
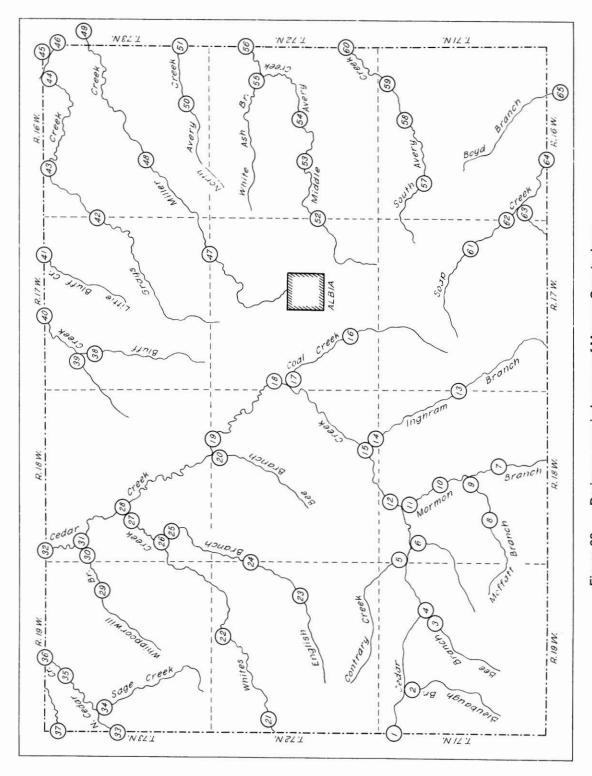


Figure 67. Drainage area index map of Monona County, lowa.

			Bank Point of determination of drainage area					Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Little Sioux River	Missouri River	L	North (county) line	2	85N	44W	2697
2	Walnut Creek	Little Sioux River	L	At mouth	21	85N	44W	7.45
3	Little Sioux River	Missouri River	L	below Walnut Creek	21	85N	44W	2718
4	Gard Creek	Little Sioux River	L	At mouth	8	84N	44W	6.4
5	Little Sioux River	Missouri River	L	Road crossing, south 1/2 (gage near Kennebec)	18	84N	44W	2738
6	Maple River	Little Sioux River	L	North (county) line	5	85N	42W	628
7	Heisler Creek	Maple River	L	At mouth	13	85N	43W	5.83
8	Wilsey Creek	Maple River	R	North (county) line	2	85N	43W	9.77
9	Wilsey Creek	Maple River	R	At mouth	24	85N	43W	18.8
10	Maple River	Little Sioux River	L	Road crossing, SE¼ (gage at Mapleton)	23	85N	43W	669
11	McClarey Creek	Maple River	L	At mouth	34	85N	43W	8.22
12	Dutch Creek	Maple River	R	At mouth	8	84N	43W	8.84
13	Maple River	Little Sioux River	L	Below Dutch Creek	8	84N	43W	704
14	Maple River	Little Sioux River	L	Road crossing, north 1/2 Road crossing, NW1/4	24	84N	44W	722
15	Maple River	Little Sioux River	L	(discontinued gage at Turin)	10	83N	44W	734
16	Maple River	Little Sioux River	L	At mouth	17	83N	44W	742
17	Beaver Creek	Little Sioux River	L	Road crossing, north line	17	83N	43W	6.97
18	Beaver Creek	Little Sioux River	L	Road crossing, NE1/4	14	83N	44W	15.5
19	Beaver Creek	Little Sioux River	L	At mouth	28	83N	44W	21.8
20	Cottonwood Creek	Little Sioux River	L	At mouth	28	83N	44W	9.55
21	Little Sioux River	Missouri River	L	Road crossing, north line (gage near Turin)	33	83N	44W	4426
22	Little Sioux River	Missouri River	L	Road crossing, west 1/2 (discontinued gage near Blencoe)	21	82N	44W	4441
23	Monona-Harrison Ditch	Little Sioux River	R	Road crossing, west 1/2 (gage near Turin) Road crossing, west 1/2	32	83N	44W	4426
24	Monona-Harrison Ditch	Little Sioux River	R	(discontinued gage near Blencoe)	20	82N	44W	4441
25	Soldier River	Missouri River	L	East (county) line	25	85N	42W	117
26	Rush Creek	Soldier River	R	At mouth	2	84N	42W	9.06

27 28 29 30 31	Soldier River Skunk Creek Soldier River Unnamed creek Middle Soldier River	Missouri River Soldier River Missouri River Soldier River East Soldier River	L R L R	Road crossing, west line At mouth Road crossing, north line At mouth At mouth	11 15 22 22 36	84N 84N 84N 84N 84N	42W 42W 42W 42W 42W	135 5.8 144 5.49 24.6
32	East Soldier River	Soldier River	L	Below Middle Soldier River	36	84N	42W	91.1
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51	East Soldier River Soldier River Soldier River Soldier River Norway Creek Norway Creek Soldier River Elk Creek Elk Creek Soldier River Jordan Creek Jordan Creek Jordan Creek Jordan Creek Soldier River Stowe Creek Soldier River Willow Creek South Willow Creek	Soldier River Missouri River Missouri River Missouri River Soldier River Soldier River Missouri River Soldier River Missouri River Soldier River Missouri River Boyer River Boyer River Willow Creek	. LLLLLLLLRRRRLLL R R L	At mouth Below East Soldier River Road crossing, east 1/2 Road crossing, west line Road crossing, SE½ At mouth Below Norway Creek Road crossing, north line At mouth Below Elk Creek Road crossing, north line Road crossing, north line Road crossing, north line Road crossing, north 1/2 At mouth Below Jordan Creek At mouth Below Stowe Creek Below Middle Willow Creek Road crossing, north line Road crossing, north line Road crossing, north line	34 34 17 30 32 2 2 25 15 15 2 15 33 16 16 31 31 31	84N 84N 83N 83N 82N 82N 82N 82N 83N 83N 82N 82N 82N 82N 82N 82N 82N 82N 82N 82	42W 42W 42W 42W 42W 43W 43W 43W 43W 43W 43W 43W 43W 43W 43	98.4 253 267 281 9.55 16.7 303 8.27 16.4 325 7.29 13.5 19.3 30.3 358 14.4 390 22.1 29.1 8.66
53 54	South Willow Creek Willow Creek	Willow Creek Boyer River	L R	(county) line At mouth Road crossing, south (county) line	27 34	82N 82N	42W 42W	14.9 53.9



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	N		Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Cedar Creek	Des Moines River	R	West (county) line	6	71N	19W	10.8
2	Bleaubaugh Branch	Cedar Creek	R	At mouth	5	71N	19W	6.5
3	Bee Branch	Cedar Creek	R	At mouth	11	71N	19W	5.67
4	Cedar Creek	Des Moines River	R	Below Bee Branch	11	71N	19W	32.3
5	Contrary Creek	Cedar Creek	L	At mouth	6	71N	18W	5.89
6	Unnamed creek	Cedar Creek	R	At mouth	7	71N	18W	5.61
7	Mormon Branch	Cedar Creek	R	Road crossing, north 1/2	27	71N	18W	6.43
8	Moffatt Branch	Mormon Branch	L	Road crossing, south 1/2	20	71N	18W	5.13
9	Moffatt Branch	Mormon Branch	L	At mouth	21	71N	18W	11.1
10	Mormon Branch	Cedar Creek	R	Road crossing, NE1/4	16	71N	18W	22.7
11	Mormon Branch	Cedar Creek	R	At mouth	4	71N	18W	24.5
12	Cedar Creek	Des Moines River	R	Road crossing, west 1/2	4	71N	18W	73.6
13	Inghram Branch	Cedar Creek	R	Road crossing, SE1/4	13	71N	18W	7.48
14	Inghram Branch	Cedar Creek	R	At mouth	35	72N	18W	16.2
15	Cedar Creek	Des Moines River	R	Below Inghram Branch	35	72N	18W	98.2
16	Coal Creek	Cedar Creek	R	North line	32	72N	17W	10.3
17	Coal Creek	Cedar Creek	R	At mouth	18	72N	17W	20.4
18	Cedar Creek	Des Moines River	R	Road crossing, SW1/4	18	72N	17W	127
19	Cedar Creek	Des Moines River	R	Road crossing, NW1/4	2	72N	18W	137
20	Bee Branch	Cedar Creek	L	At mouth	3	72N	18W	7.51
21	Whites Creek	Cedar Creek	L	Road crossing, north 1/2	18	72N	19W	11.2
22	Whites Creek	Cedar Creek	L	Road crossing, center	3	72N	19W	21.3
23	English Branch	Whites Creek	R	Road crossing, NE1/4	23	72N	19W	7.25
24	English Branch	Whites Creek	R	Road crossing, NE¼	12	72N	19W	13.6
25	English Branch	Whites Creek	R	At mouth	30	73N	18W	18.4
26	Whites Creek	Cedar Creek	L	Below English Branch	30	73N	18W	48.3
27	Whites Creek	Cedar Creek	L	At mouth	21	73N	18W	51.1
28	Cedar Creek	Des Moines River	R	Below Whites Creek	21	73N	18W	209
29	Whippoorwill Branch	Cedar Creek	L	Road crossing, west line	13	73N	19W	8.84
30	Whippoorwill Branch	Cedar Creek	L	At mouth	7	73N	18W	12.8
31	Cedar Creek	Des Moines River	R	Below Whippoorwill Branch	7	73N	18W	229
32	Cedar Creek	Des Moines River	R	Road crossing, north (county) line	6	73N	18W	232
33	North Cedar Creek	Cedar Creek	L	Road crossing, west (county) line	18	73N	19W	43.2

34	Sage Creek	North Cedar Creek	R	At mouth	7	73N	19W	9.5
35	North Cedar Creek	Cedar Creek	L	Road crossing, west line	4	73N	19W	57.2
36	North Cedar Creek	Cedar Creek	L	North (county) line	4	73N	19W	62.3
37	Carruthers Creek	North Cedar Creek	L	Road crossing, west (county) line	6	73N	19W	20.7
38	Bluff Creek	Des Moines River	R	Road crossing, west 1/2	8	73N	17W	8.65
39	Unnamed creek	Bluff Creek	L	At mouth	8	73N	17W	5.41
40	Bluff Creek	Des Moines River	R	North (county) line	4	73N	17W	17.4
41	Little Bluff Creek	Bluff Creek	R	North (county) line	2	73N	17W	6.8
42	Grays Creek	Des Moines River	R	West line	7	73N	16W	9.92
43	Grays Creek	Des Moines River	R	Road crossing, NE1/4	5	73N	16W	17.8
44	Grays Creek	Des Moines River	R	At mouth	1	73N	16W	25
45	Muchakinock Creek	Des Moines River	L	At mouth	1	73N	16W	78.8
46	Des Moines River	Mississippi River	R	Road crossing, NW1/4	6	73N	15W	13130
47	Miller Creek	Des Moines River	R	Road crossing, north line	2	72N	17W	9.42
48	Miller Creek	Des Moines River	R	West line	21	73N	16W	21.9
49	Miller Creek	Des Moines River	R	At mouth	7	73N	15W	32
50	North Avery Creek	Des Moines River	R	Road crossing, NE1/4	34	73N	16W	4.67
51	North Avery Creek	Des Moines River	R	Road crossing, east (county) line	25	73N	16W	11.4
52	Middle Avery Creek	North Cedar Creek	R	Road crossing, SE1/4	24	72N	17W	6.29
53	Middle Avery Creek	North Cedar Creek	R	Road crossing, west line	21	72N	16W	14.4
54	Middle Avery Creek	North Cedar Creek	R	Road crossing, north 1/2	22	72N	16W	21.1
55	White Ash Branch	Middle Avery Creek	L	At mouth	11	72N	16W	6.83
56	Middle Avery Creek	North Cedar Creek	R	Road crossing, east (county) line	12	72N	16W	34.2
57	South Avery Creek	Des Moines River	R	Road crossing, SW1/4	8	71N	16W	8.93
58	South Avery Creek	Des Moines River	R	Road crossing, south 1/2	3	71N	16W	12.8
59	South Avery Creek	Des Moines River	R	Road crossing, NE1/4	2	71N	16W	24
60	South Avery Creek	Des Moines River	R	Road crossing, east (county) line	25	72N	16W	29.5
61	Soap Creek	Des Moines River	R	West line	24	71N	17W	7.49
62	Soap Creek	Des Moines River	R	West line	30	71N	16W	14.3
63	Mormon Creek	Soap Creek	R	At mouth	31	71N	16W	6.91
64	Soap Creek	Des Moines River	R	South (county) line	33	71N	16W	26.5
65	Boyd Branch	Soap Creek	L	At mouth	2	70N	16W	9.48

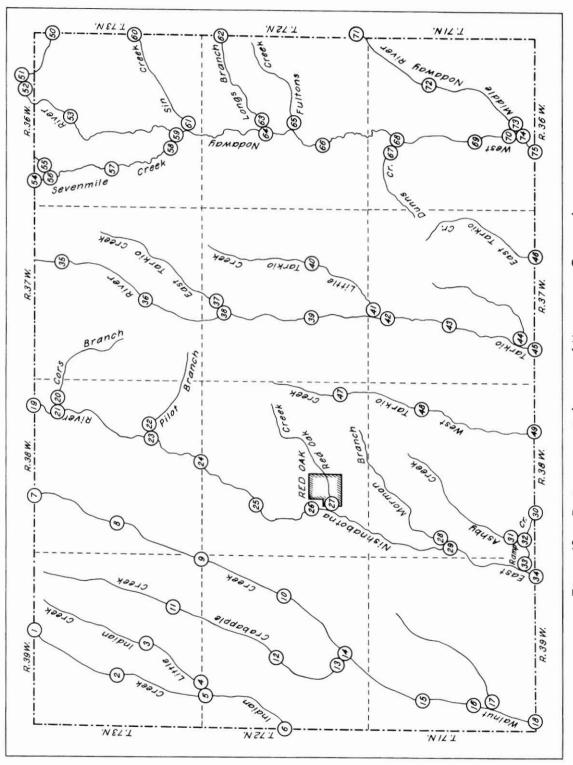


Figure 69. Drainage area index map of Montgomery County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 69 Montgomery County

	Newsofit	T.11	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description		Т	R	(sq mi)
1	Indian Creek	West Nishnabotna River	L	North (county) line	3	73N	39W	15
2	Indian Creek	West Nishnabotna River	L	Road crossing, north line	20	73N	39W	19.8
3	Little Indian Creek	Indian Creek	L	Road crossing, north line	28	73N	39W	4.49
4	Little Indian Creek	Indian Creek	L	At mouth	5	72N	39W	8.32
5	Indian Creek	West Nishnabotna River	L	Below Little Indian Creek	5	72N	39W	33
6	Indian Creek	West Nishnabotna River	L	West (county) line	19	72N	39W	37.4
7	Walnut Creek	West Nishnabotna River	L	Road crossing, north (county) line	4	73N	38W	82.4
8	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	20	73N	38W	92.4
9	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	1	72N	39W	101
10	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	23	72N	39W	108
11	Crabapple Creek	Walnut Creek	R	Road crossing, north line	35	73N	39W	4.75
12	Crabapple Creek	Walnut Creek	R	Road crossing, S 1/2	16	72N	39W	9.38
13	Crabapple Creek	Walnut Creek	R	At mouth	33	72N	39W	14.4
14	Walnut Creek	West Nishnabotna River	L	Below Crabapple Creek	33	72N	39W	130
15	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	17	71N	39W	140
16	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	30	71N	39W	146
17	Unnamed creek	Walnut Creek	L	At mouth	30	71N	39W	6.51
18	Walnut Creek	West Nishnabotna River	L	Road crossing, south (county) line	31	71N	39W	159
19	East Nishnabotna River	Nishnabotna River	L	Road crossing, north (county) line	1	73N	38W	837
20	Cors Branch	East Nishnabotna River	L	At mouth	2	73N	38W	5.78
21	East Nishnabotna River	Nishnabotna River	L	Below Cors Branch	2	73N	38W	848
22	Pilot Branch	East Nishnabotna River	L	At mouth	27	73N	38W	6.49
23	East Nishnabotna River	Nishnabotna River	L	Below Pilot Branch	27	73N	38W	867
24	East Nishnabotna River	Nishnabotna River	L	North line	3	72N	38W	877
25	East Nishnabotna River	Nishnabotna River	L	Road crossing, west line	9	72N	38W	888
26	East Nishnabotna River	Nishnabotna River	L	Road crossing, north line (gage at Red Oak)	29	72N	38W	894
27	Red Oak Creek	East Nishnabotna River	L	At mouth	29	72N	38W	8.51
28	Mormon Branch	East Nishnabotna River	L	At mouth	18	71N	38W	8.26
29	East Nishnabotna River	Nishnabotna River	L	Below Mormon Branch	18	71N	38W	925
30	Ramp Creek	East Nishnabotna River	L	South (county) line	32	71N	38W	7.25
31	Ashby Creek	Ramp Creek	R	At mouth	31	71N	38W	5.66
32	Ramp Creek	East Nishnabotna River	L	Below Ashby Creek	31	71N	38W	16.2
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FINAL Drainage Areas of Iowa Streams.xls Table No. 69 Montgomery County

o –	ast Nishnabotna River		L					17.2
34 Ea	asi Nishilabolila Rivel	Nishnabotna River	L	South (county) line	36	71N	39W	953
35 Ta	arkio River	Missouri River	L	Road crossing, north line	11	73N	37W	4.72
36 Ta	arkio River	Missouri River	L	Road crossing, north line	28	73N	37W	10.7
37 Ea	ast Tarkio River	Tarkio River	L	At mouth	4	72N	37W	6.47
38 Ta	arkio River	Missouri River	L	Below East Tarkio Creek	4	72N	37W	22.1
39 Ta	arkio River	Missouri River	L	Road crossing, north line	28	72N	37W	28.7
40 Lit	ittle Tarkio River	Tarkio River	L	Road crossing, north line	26	72N	37W	8.24
41 Lit	ittle Tarkio River	Tarkio River	L	At mouth	4	71N	37W	16.2
42 Ta	arkio River	Missouri River	L	Road crossing, W 1/2	4	71N	37W	49.3
43 Ta	arkio River	Missouri River	L	Road crossing, north line	21	71N	37W	53.5
44 Ur	Innamed creek	Tarkio River	L	At mouth	32	71N	37W	5.55
45 Ta	arkio River	Missouri River	L	Road crossing, south (county) line	32	71N	37W	66.6
46 Ea	ast Tarkio River	Tarkio River	L	Road crossing, south (county) line	35	71N	37W	6.97
47 W	Vest Tarkio River	Tarkio River	R	Road crossing, north line	36	72N	38W	5.97
48 W	Vest Tarkio River	Tarkio River	R	Road crossing, north line	13	71N	38W	12.7
49 W	Vest Tarkio River	Tarkio River	R	South (county) line	35	71N	38W	20.4
50 W	Villiams Creek	West Nodaway River	L	East (county) line	1	73N	36W	36.1
51 W	Villiams Creek	West Nodaway River	L	At mouth	35	74N	36W	38.4
52 W	Vest Nodaway River	Nodaway River	R	Below Williams Creek	35	74N	36W	116
53 W	Vest Nodaway River	Nodaway River	R	Road crossing, west line	10	73N	36W	131
	Sevenmile Creek	West Nodaway River	R	Road crossing, north (county) line	6	73N	36W	96.3
	Rose Creek	Sevenmile Creek	L	At mouth	5	73N	36W	9.03
	Sevenmile Creek	West Nodaway River	R	Below Rose Creek	5	73N	36W	110
	Sevenmile Creek	West Nodaway River	R	Road crossing, SW1/4	17	73N	36W	116
	Sevenmile Creek	West Nodaway River	R	At mouth	33	73N	36W	124
59 W	Vest Nodaway River	Nodaway River	R	Below Sevenmile Creek	33	73N	36W	262
60 Si	Sin Creek	West Nodaway River	L	Road crossing, east (county) line	24	73N	36W	8.17
61 Si	Sin Creek	West Nodaway River	L	At mouth	33	73N	36W	18.2
62 Lo	ongs Branch	West Nodaway River	L	East (county) line	1	72N	36W	4.97
63 Lo	ongs Branch	West Nodaway River	L	At mouth	16	72N	36W	11
64 W	Vest Nodaway River	Nodaway River	R	Below Longs Branch	16	72N	36W	305
65 Fu	ultons Creek	West Nodaway River	L	At mouth	21	72N	36W	5.55
66 W	Vest Nodaway River	Nodaway River	R	Road crossing, center	28	72N	36W	317
67 Du	Ounns Creek	West Nodaway River	R	At mouth	9	71N	36W	6.53
68 W	Vest Nodaway River	Nodaway River	R	Below Dunns Creek	9	71N	36W	334

FINAL Drainage Areas of Iowa Streams.xls Table No. 69 Montgomery County

69	West Nodaway River	Nodaway River	R	At railroad crossing, SW1/4 (discontinued gage at Villisca)	21	71N	36W	342
70	West Nodaway River	Nodaway River	R	At mouth	33	71N	36W	347
71	Middle Nodaway River	Nodaway River	L	Road crossing, north line	31	72N	35W	318
72	Middle Nodaway River	Nodaway River	L	Road crossing, NW1/4	14	71N	36W	332
73	Middle Nodaway River	Nodaway River	L	At mouth	33	71N	36W	341
74	Nodaway River	Missouri River	L	Below confluence Middle and West Nodaway Rivers	33	71N	36W	688
75	Nodaway River	Missouri River	L	South (county) line	33	71N	36W	689

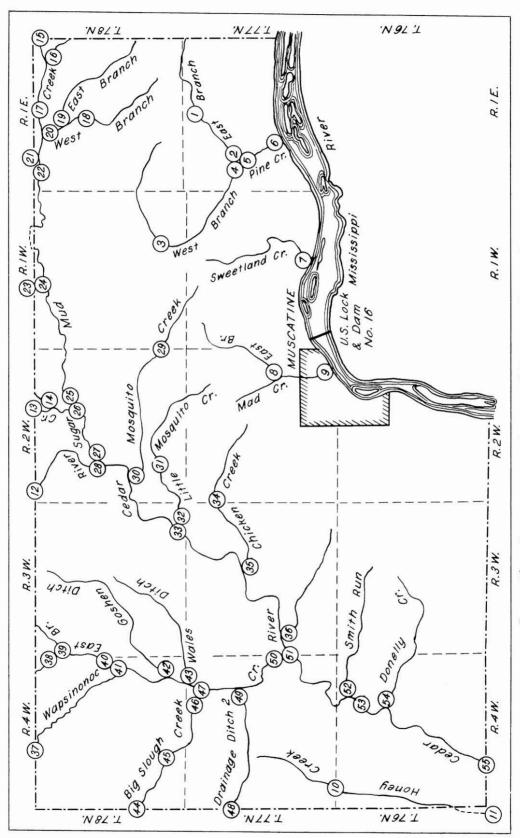


Figure 70. Drainage area index map of Muscatine County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 70 Muscatine County

	Name of stream	Tributary to	Bank	Point of determination of drainage area			Drainage area	
Area No.				Description	Sec	Т	R	(sq mi)
1	East Branch Pine Creek	Pine Creek	L	West line	3	77N	1E	5.77
2	East Branch Pine Creek	Pine Creek	L	At mouth	17	77N	1E	16.8
3	West Branch Pine Creek	Pine Creek	R	Road crossing, north line	35	78N	1W	11.6
4	West Branch Pine Creek	Pine Creek	R	At mouth	17	77N	1E	20.7
5	Pine Creek	Mississippi River	R	Below confluence East and West Branches	17	77N	1E	37.5
6	Pine Creek	Mississippi River	R	At mouth	21	77N	1E	40.3
7	Sweetland Creek	Mississippi River	R	At mouth	27	77N	1W	10.2
8	East Branch Mad Creek	Mad Creek	L	At mouth	24	77N	2W	9.39
9	Mad Creek	Mississippi River	R	At mouth	36	77N	2W	17.3
10	Honey Creek	Iowa River	L	Road crossing, north line	6	76N	4W	9.08
11	Honey Creek	Iowa River	L	At mouth	1	75N	5W	21.2
12	Cedar River	Iowa River	L	North (county) line	6	78N	2W	7256
13	Sugar Creek	Cedar River	L	North (county) line	3	78N	2W	98.4
14	Otter Creek	Sugar Creek	L	At mouth	3	78N	2W	12.7
15	Mud Creek	Sugar Creek	L	East (county) line	1	78N	1E	8.33
16	Unnamed creek	Mud Creek	L	At mouth	1	78N	1E	6.1
17	Mud Creek	Sugar Creek	L	Road crossing, west line	3	78N	1E	18.9
18	West Branch Mud Creek	Mud Creek	L	Road crossing, NE1/4	16	78N	1E	7.59
19	East Branch Mud Creek	West Branch Mud Creek	R	At mouth	4	78N	1E	5.87
20	West Branch Mud Creek	Mud Creek	L	At mouth	4	78N	1E	15.2
21	Unnamed creek	Mud Creek	R	At mouth	5	78N	1E	6.96
22	Mud Creek	Sugar Creek	L	Road crossing, west line	5	78N	1E	42.1
23	Little Elkhorn Creek	Mud Creek	R	At mouth	4	78N	1W	14.7
24	Mud Creek	Sugar Creek	L	Below Little Elkhorn Creek	4	78N	1W	88.2
25	Mud Creek	Sugar Creek	L	At mouth	10	78N	2W	105
26	Sugar Creek	Cedar River	L	Below Mud Creek	10	78N	2W	218
27	Sugar Creek	Cedar River	L	At mouth	17	78N	2W	222
28	Cedar River	Iowa River	L	Below Guar Creek	17	78N	2W	7490
29	Mosquito Creek	Cedar River	L	West line	30	78N	1W	8.79
30	Mosquito Creek	Cedar River	L	At mouth	19	78N	2W	17.8
31	Little Mosquito Creek	Cedar River	L	Road crossing, south 1/2	29	78N	2W	6.69
32	Little Mosquito Creek	Cedar River	L	At mouth	35	78N	3W	13
33	Cedar River	Iowa River	L	Below Little Mosquito Creek	35	78N	3W	7535
34	Chicken Creek	Cedar River	L	Road crossing, SW1/4	6	77N	2W	7.32

FINAL Drainage Areas of Iowa Streams.xls Table No. 70 Muscatine County

35	Chicken Creek	Cedar River	L	At mouth	15	77N	3W	17.8
36	Unnamed creek	Cedar River	L	At mouth	19	77N	3W	8.32
37	Wapsinonoc Creek	Cedar River	R	North (county) line	4	78N	4W	42
38	Middle Branch Wapsinonoc Creek	East Branch Wapsinonoc Creek	R	At mouth	6	78N	3W	25.2
39	East Branch Wapsinonoc Creek	Wapsinonoc Creek	L	Below Middle Branch Wapsinonoc Creek	6	78N	3W	45.7
40	East Branch Wapsinonoc Creek	Wapsinonoc Creek	L	At mouth	24	78N	4W	52.2
41	Wapsinonoc Creek	Cedar River	R	Below East Branch Wapsinonoc Creek	24	78N	4W	107
42	Goshen Ditch	Wapsinonoc Creek	L	At mouth	36	78N	4W	7.63
43	Wales Ditch	Wapsinonoc Creek	L	At mouth	2	77N	4W	7.44
44	Big Slough Creek	Wapsinonoc Creek	R	Road crossing, west (county) line	30	78N	4W	15.4
45	Big Slough Creek	Wapsinonoc Creek	R	Road crossing, west line	33	78N	4W	25.1
46	Big Slough Creek	Wapsinonoc Creek	R	At mouth	2	77N	4W	34.5
47	Wapsinonoc Creek	Cedar River	R	Below Big Slough Creek	2	77N	4W	161
48	Drainage Ditch 2	Wapsinonoc Creek	R	Road crossing, west (county) line	7	77N	4W	6.79
49	Drainage Ditch 2	Wapsinonoc Creek	R	At mouth	14	77N	4W	14.8
50	Wapsinonoc Creek	Cedar River	R	At mouth	18	77N	3W	189
51	Cedar River	Iowa River	L	Below Wapsinonoc Creek	19	77N	3W	7764
52	Smith Run	Cedar River	L	At mouth	2	76N	4W	9.67
53	Cedar River	Iowa River	L	Road crossing, SW1/4 (gage near Conesville)	2	76N	4W	7785
54	Donelly Creek	Cedar River	L	At mouth	14	76N	4W	9.86
55	Cedar River	Iowa River	L	South (county) line	32	76N	4W	7815

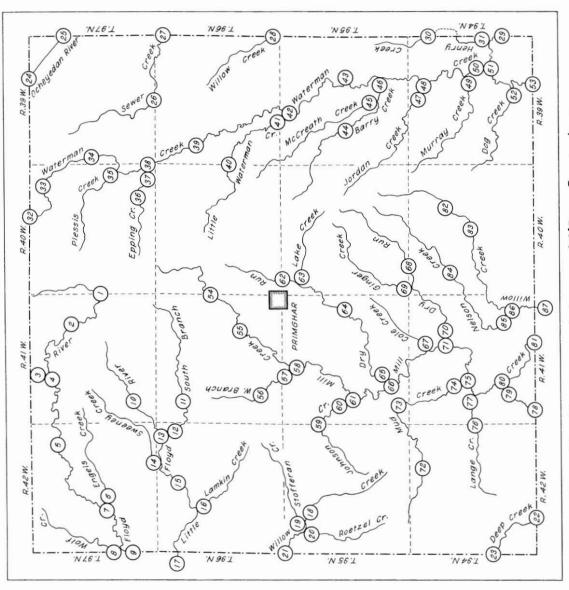


Figure 71. Drainage area index map of O'Brien Countv, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 71 O'Brien County

	N	T. 11	Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Floyd River	Missouri River	L	Road crossing, west line	19	97N	40W	6.83
2	Floyd River	Missouri River	L	Road crossing, north line	14	97N	41W	14.7
3	North Fork Floyd River	Floyd River	R	At mouth	9	97N	41W	17.3
4	Floyd River	Missouri River	L	Below North Fork Floyd River	9	97N	41W	39.3
5	Floyd River	Missouri River	L	Road crossing, west line	12	97N	42W	50.2
6	Engels Creek	Floyd River	L	At mouth	20	97N	42W	6.27
7	Floyd River	Missouri River	L	Below Englels Creek	20	97N	42W	64
8	Wolf Creek	Floyd River	R	At mouth	30	97N	42W	11.3
9	Floyd River	Missouri River	L	Road crossing, west (county) line	30	97N	42W	79.5
10	Little Floyd River	Floyd River	L	Road crossing, west line	29	97N	41W	8.48
11	South Branch Little Floyd River	Little Floyd River	L	Road crossing, west line	8	96N	41W	9.09
12	South Branch Little Floyd River	Little Floyd River	L	At mouth	1	96N	42W	17.6
13	Little Floyd River	Floyd River	L	Below South Branch Little Floyd River	1	96N	42W	28.6
14	Sweeney Creek	Little Floyd River	R	At mouth	2	96N	42W	7.6
15	Little Floyd River	Floyd River	L	Road crossing, north line	10	96N	42W	42.2
16	Lamkin Creek	Little Floyd River	L	At mouth	8	96N	42W	7.52
17	Little Floyd River	Floyd River	L	At mouth	1	96N	43W	59.4
18	Willow Creek	Floyd River	L	Road crossing, north line	8	95N	42W	7.71
19	Stofferan Creek	Willow Creek	R	At mouth	5	95N	42W	8.03
20	Roetzel Creek	Willow Creek	L	At mouth	8	95N	42W	6.47
21	Willow Creek	Floyd River	L	Road crossing, west (county) line	6	95N	42W	29
22	Deep Creek	Floyd River	L	Road crossing, south (county) line	32	94N	42W	5.18
23	Deep Creek	Floyd River	L	Road crossing, west (county) line	19	94N	42W	11.8
24	Ocheyedan River	Little Sioux River	R	Road crossing, north (county) line	2	97N	39W	229
25	Ocheyedan River	Little Sioux River	R	East (county) line	12	97N	39W	249
26	Sewer Creek	Ocheyedan River	R	Road crossing, west line	34	97N	39W	6.06
27	Sewer Creek	Ocheyedan River	R	Road crossing, east (county) line	1	96N	39W	18

FINAL Drainage Areas of Iowa Streams.xls Table No. 71 O'Brien County

				Dood areasing aget				
28	Willow Creek	Little Sioux River	R	Road crossing, east (county) line	36	96N	39W	8.7
29	Little Sioux River	Missouri River	L	East (county) line	25	94N	39W	1644
30	Henry Creek	Little Sioux River	R	East (county) line	12	94N	39W	6.93
31	Henry Creek	Little Sioux River	R	At mouth	24	94N	39W	16.9
32	Waterman Creek	Little Sioux River	R	North (county) line	3	97N	40W	6.49
33	Waterman Creek	Little Sioux River	R	Road crossing, west line	1	97N	40W	11
34	Waterman Creek	Little Sioux River	R	Road crossing, north line	19	97N	39W	18.8
35	Flessis Creek	Waterman Creek	R	At mouth	25	97N	40W	7.3
36	Epping Creek	Waterman Creek	R	Road crossing, west line	36	97N	40W	7.99
37	Epping Creek	Waterman Creek	R	At mouth	36	97N	40W	12.7
38	Waterman Creek	Little Sioux River	R	Below Epping Creek	36	97N	40W	44.3
39	Waterman Creek	Little Sioux River	R	Road crossing, north line	18	96N	39W	50.1
40	Little Waterman Creek	Waterman Creek	R	Road crossing, west line	19	95N	39W	9.33
41	Little Waterman Creek	Waterman Creek	R	At mouth	4	95N	39W	15.9
40	Waterman Creek	Little Cierry Diver	ь	Below Little Waterman	4	OEN	2014/	747
42	Waterman Creek	Little Sioux River	R	Creek	4	95N	39W	74.7
43	Waterman Creek	Little Sioux River	R	Road crossing, NW1/4	23	95N	39W	82.7
44	Barry Creek	Waterman Creek	R	Road crossing, north line	20	95N	39W	9.11
45	McCreath Creek	Barry Creek	L	At mouth	27	95N	39W	6.77
46	Barry Creek	Waterman Creek	R	At mouth	27	95N	39W	20
47	Jordan Creek	Waterman Creek	R	At mouth	3	94N	39W	7.97
48	Waterman Creek	Little Sioux River	R	Below Jordan Creek	3	94N	39W	122
49	Murray Creek	Waterman Creek	R	At mouth	14	94N	39W	9.39
50	Waterman Creek	Little Sioux River	R	At mouth	26	94N	39W	140
51	Little Sioux River	Missouri River	L	Below Waterman Creek	26	94N	39W	1803
52	Dog Creek	Little Sioux River	R	At mouth	34	94N	39W	6.49
53	Little Sioux River	Missouri River	L	South (county) line	34	94N	39W	1813
54	Mill Creek	Little Sioux River	R	Road crossing, west line	18	96N	40W	7.32
55	Mill Creek	Little Sioux River	R	Road crossing, north line	26	96N	41W	13.8
56	West Branch Mill Creek	Mill Creek	R	Road crossing, north line	32	96N	41W	6.69
57	West Branch Mill Creek	Mill Creek	R	At mouth	4	95N	41W	13.5
	Mill Organia	Liula Ciarre Direca	_	Below West Branch Mill	4	OFNI	44107	25.4
58	Mill Creek	Little Sioux River	R	Creek	4	95N	41W	35.4
59	Johnson Creek	Mill Creek	R	Road crossing, west line	7	95N	41W	6.39
60	Johnson Creek	Mill Creek	R	At mouth	20	95N	41W	13.2
61	Mill Creek	Little Sioux River	R	Below Johnson Creek	20	95N	41W	57.6
62	Dry Run	Mill Creek	L	Road crossing, north line	6	95N	40W	5.31
63	Lake Creek	Dry Run	L	At mouth	6	95N	40W	6.2
64	Dry Run	Mill Creek	L	Road crossing, north line	24	95N	41W	19.7
	-			3 .				

FINAL Drainage Areas of Iowa Streams.xls Table No. 71 O'Brien County

65	Dry Run	Mill Creek	L	At mouth	29	95N	41W	24.8
66	Mill Creek	Little Sioux River	R	Below Dry Run	29	95N	41W	87.3
67	Cole Creek	Mill Creek	L	At mouth	3	94N	41W	5.44
68	Dry Run	Mill Creek	-	Road crossing, west line	5	94N	40W	6.53
69	•		R	At mouth	6	94N	40W	
	Ginger Creek	Dry Run			_			5.9
70	Dry Run	Mill Creek	L	At mouth	10	94N	41W	17.2
71	Mill Creek	Little Sioux River	R	Below Dry Run	10	94N	41W	115
72	Mud Creek	Mill Creek	R	Road crossing, west line	2	94N	42W	7.71
73	Mud Creek	Mill Creek	R	Road crossing, west line	32	95N	41W	14.5
74	Mud Creek	Mill Creek	R	At mouth	17	94N	41W	20.9
75	Mill Creek	Little Sioux River	R	Below Mud Creek	17	94N	41W	140
76	Lange Creek	Mill Creek	R	Road crossing, west line	19	94N	41W	9.55
77	Lange Creek	Mill Creek	R	At mouth	17	94N	41W	15.2
78	Whiskey Creek	Mill Creek	R	Road crossing, south (county) line	31	94N	41W	9.58
79	Whiskey Creek	Mill Creek	R	At mouth	28	94N	41W	16.7
80	Mill Creek	Little Sioux River	R	Below Whiskey Creek	28	94N	41W	175
81	Mill Creek	Little Sioux River	R	South (county) line	34	94N	41W	179
82	Willow Creek	Mill Creek	L	Road crossing, west line	11	94N	40W	4.1
83	Willow Creek	Mill Creek	L	Road crossing, west line	15	94N	40W	10.8
84	Nelson Creek	Willow Creek	R	Road crossing, west line	17	94N	40W	5.19
85	Nelson Creek	Willow Creek	R	At mouth	25	94N	41W	11.5
86	Willow Creek	Mill Creek	L	Below Nelson Creek	25	94N	41W	29.6
87	Willow Creek	Mill Creek	L	At mouth	1	93N	41W	38.4

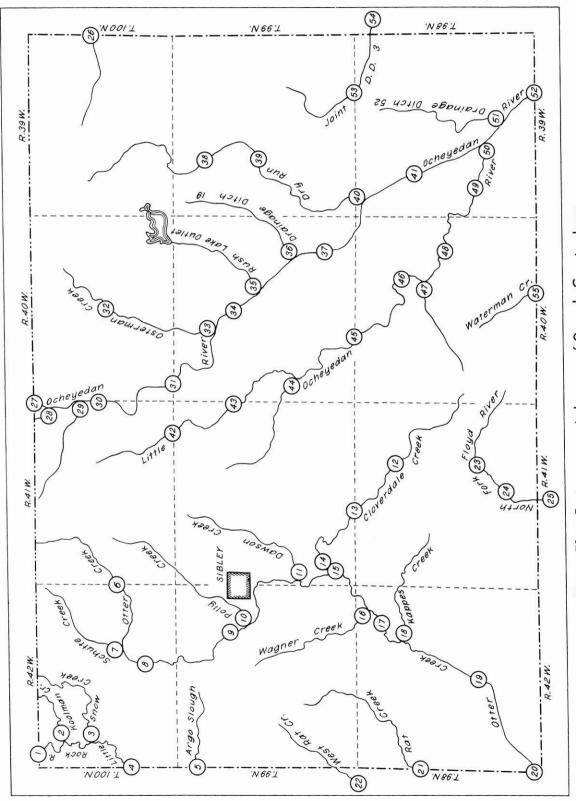


Figure 72. Drainage area index map of Osceola County, lowa.

Drainage Areas of Iowa Streams.xls Table No. 72 Osceola County

			Bank	Point of determination of dra	Point of determination of drainage area			
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	Drainage area (sq mi)
1	Little Rock River	Rock River	L	Road crossing, north (state) line	7	100N	42W	92
2	Koolman Creek	Little Rock River	L	At mouth	18	100N	42W	11
3	Snow Creek	Little Rock River	L	At mouth	19	100N	42W	11.2
4	Little Rock River	Rock River	L	Road crossing, west (county) line	30	100N	42W	125
5	Argo Slough	Little Rock River	L	Road crossing, west (county) line	6	99N	42W	7.07
6	Otter Creek	Little Rock River	L	Road crossing, west line	30	100N	41W	11.9
7	Schutte Creek	Otter Creek	R	At mouth	27	100N	42W	5.41
8	Otter Creek	Little Rock River	L	Road crossing, north line	34	100N	42W	20.8
9	Otter Creek	Little Rock River	L	Road crossing, north line	14	99N	42W	29.9
10	Polly Creek	Otter Creek	L	At mouth	14	99N	42W	8.25
11	Dawson Creek	Otter Creek	L	At mouth	30	99N	41W	7.07
12	Cloverdale Creek	Otter Creek	L	Road crossing, west line	11	98N	41W	7.34
13	Cloverdale Creek	Otter Creek	L	Road crossing, north line	4	98N	41W	14.4
14	Cloverdale Creek	Otter Creek	L	At mouth	31	99N	41W	22.1
15	Otter Creek	Little Rock River	L	Below Cloverdale Creek	31	99N	41W	75.6
16	Wagner Creek	Otter Creek	R	At mouth	1	98N	42W	7.42
17	Otter Creek	Little Rock River	L	Road crossing, west line	1	98N	42W	88
18	Kappes Creek	Otter Creek	L	At mouth	11	98N	42W	7.82
19	Otter Creek	Little Rock River	L	Road crossing, NW corner	27	98N	42W	107
20	Otter Creek	Little Rock River	L	Road crossing, west (county) line	31	98N	42W	120
21	Rat Creek	Otter Creek	R	Road crossing, west (county) line	7	98N	42W	8.74
22	West Rat Creek	Rat Creek	R	Road crossing, north line	1	98N	43W	5.32
23	North Fork Floyd River	Floyd River	R	Road crossing, west line	26	98N	41W	5.34
24	North Fork Floyd River	Floyd River	R	Road crossing, west line	34	98N	41W	10.9
25	North Fork Floyd River	Floyd River	R	At mouth	9	97N	41W	17.3
26	West Branch Little Sioux River	West Fork Little Sioux River	R	Road crossing, east (county) line	24	100N	39W	7.67
27	Ocheyedan River	Little Sioux River	R	Road crossing, north (state) line	12	100N	41W	50

Drainage Areas of Iowa Streams.xls Table No. 72 Osceola County

28	Voss Creek	Ocheyedan River	R	At mouth	12	100N	41W	6.73
29	Unnamed creek	Ocheyedan River	R	At mouth	13	100N	41W	5.64
30	Ocheyedan River	Little Sioux River	R	Road crossing, NE corner	24	100N	41W	64.3
31	Ocheyedan River	Little Sioux River	R	Road crossing, north line	6	99N	40W	73.5
32	Osterman Creek	Ocheyedan River	L	Road crossing, west line	22	100N	40W	5.97
33	Osterman Creek	Ocheyedan River	L	At mouth	9	99N	40W	15
34	Ocheyedan River	Little Sioux River	R	Road crossing, NW corner	15	99N	40W	99.2
35	Rush Lake Outlet	Ocheyedan River	L	At mouth	15	99N	40W	7.22
36	Drainage Ditch 19	Ocheyedan River	L	At mouth	23	99N	40W	6.61
37	Ocheyedan River	Little Sioux River	R	Road crossing, north line	35	99N	40W	121
38	Dry Run	Ocheyedan River	L	Road crossing, north line	8	99N	39W	10.6
39	Dry Run	Ocheyedan River	L	Road crossing, west line	16	99N	39W	18.4
40	Dry Run	Ocheyedan River	L	At mouth	6	98N	39W	25.5
41	Ocheyedan River	Little Sioux River	R	Road crossing, north line	17	98N	39W	160
42	Little Ocheyedan River	Ocheyedan River	R	Road crossing, NE corner	2	99N	41W	5.56
43	Little Ocheyedan River	Ocheyedan River	R	Road crossing, north line	13	99N	41W	11.6
44	Unnamed creek	Little Ocheyedan River	R	At mouth	30	99N	40W	5.43
45	Little Ocheyedan River	Ocheyedan River	R	Road crossing, north line	4	98N	40W	26.2
46	Little Ocheyedan River	Ocheyedan River	R	Road crossing, west line	11	98N	40W	36.4
47	Unnamed creek	Little Ocheyedan River	R	At mouth	15	98N	40W	5.49
48	Little Ocheyedan River	Ocheyedan River	R	Road crossing, north line	23	98N	40W	45
49	Little Ocheyedan River	Ocheyedan River	R	Road crossing, SE corner	19	98N	39W	50.9
50	Little Ocheyedan River	Ocheyedan River	R	At mouth	28	98N	39W	55.4
51	Drainage Ditch 52	Ocheyedan River	L	At mouth	27	98N	39W	7.2
52	Ocheyedan River	Little Sioux River	R	Road crossing, south (county) line	35	98N	39W	229
53	Joint Drainage Ditch 3	Stony Creek	R	Road crossing, north line	2	98N	39W	7.57
54	Joint Drainage Ditch 3	Stony Creek	R	At mouth	7	98N	38W	10.4
55	Waterman Creek	Little Sioux River	R	South (county) line	34	98N	40W	6.49

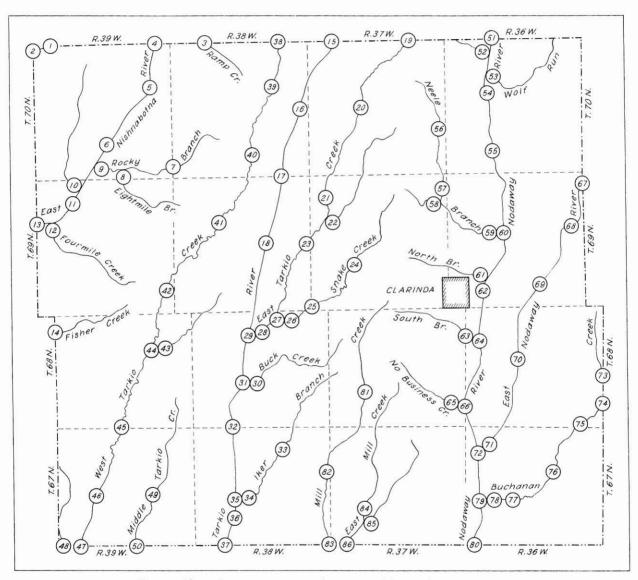


Figure 73. Drainage area index map of Page County, Iowa.

Area No. Name of stream Name of str	nage area ni) 159 161
1 Walnut Creek West Nishnabotna River L North (county) line 6 70N 39W 2 Walnut Creek West Nishnabotna River L West (county) line 6 70N 39W 3 Ramp Creek East Nishnabotna River L North (county) line 5 70N 38W 4 East Nishnabotna River Nishnabotna River L North (county) line 1 70N 39W 5 East Nishnabotna River Nishnabotna River L North line 13 70N 39W 6 East Nishnabotna River Nishnabotna River L Road crossing, west 1/2 27 70N 39W 7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	
2 Walnut Creek West Nishnabotna River L West (county) line 6 70N 39W 3 Ramp Creek East Nishnabotna River L North (county) line 5 70N 38W 4 East Nishnabotna River Nishnabotna River L North (county) line 1 70N 39W 5 East Nishnabotna River Nishnabotna River L North line 13 70N 39W 6 East Nishnabotna River Nishnabotna River L Road crossing, west 1/2 27 70N 39W 7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	161
4 East Nishnabotna River Nishnabotna River L North (county) line 1 70N 39W 5 East Nishnabotna River Nishnabotna River L North line 13 70N 39W 6 East Nishnabotna River Nishnabotna River L Road crossing, west 1/2 27 70N 39W 7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	
5 East Nishnabotna River Nishnabotna River L North line 13 70N 39W 6 East Nishnabotna River Nishnabotna River L Road crossing, west 1/2 27 70N 39W 7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	7.25
6 East Nishnabotna River Nishnabotna River L Road crossing, west 1/2 27 70N 39W 7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	953
7 Rocky Branch East Nishnabotna River L Road crossing, west line 31 70N 38W 8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	961
8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	976
8 Eightmile Branch Rocky Branch L At mouth 34 70N 39W 9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	5.5
9 Rocky Branch East Nishnabotna River L At mouth 33 70N 39W 10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	6.52
10 Unnamed creek East Nishnabotna River R At mouth 5 69N 39W 11 East Nishnabotna River Nishnabotna River L Road crossing, north line 8 69N 39W 12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W Road crossing, west	16.6
11 East Nishnabotna RiverNishnabotna RiverL Road crossing, north line869N 39W12 Fourmile CreekEast Nishnabotna RiverL At mouth769N 39W	6.39
12 Fourmile Creek East Nishnabotna River L At mouth 7 69N 39W	1005
Pood grossing west	7.52
(county) line	1019
14 Fisher Creek East Nishnabotna River L Road crossing, west (county) line 7 68N 39W	10.4
15 Tarkio River Missouri River L Road crossing, north 5 70N 37W	66.6
16 Tarkio River Missouri River L Road crossing, north line 24 70N 38W	74.7
17 Tarkio River Missouri River L Road crossing, north line 2 69N 38W	80.3
18 Tarkio River Missouri River L Road crossing, north line 23 69N 38W	88.2
19 East Tarkio Creek Tarkio River L Road crossing, north (county) line 2 70N 37W	6.97
20 East Tarkio Creek Tarkio River L Road crossing, north line 21 70N 37W	15.7
21 East Tarkio Creek Tarkio River L Road crossing, north line 7 69N 37W	22.5
22 Unnamed creek East Tarkio Creek L At mouth 7 69N 37W	7.54
23 East Tarkio Creek Tarkio River L Road crossing, north line 24 69N 38W	33.4
24 Snake Creek East Tarkio Creek L Road crossing, north line 29 69N 37W	5.82
25 Snake Creek East Tarkio Creek L Road crossing, west line 31 69N 37W	16
26 Snake Creek East Tarkio Creek L At mouth 10 68N 38W	18.4
27 East Tarkio Creek Tarkio River L Below Snake Creek 10 68N 38W	56.8
28 East Tarkio Creek Tarkio River L At mouth 9 68N 38W	58.2
29 Tarkio River Missouri River L Below East Tarkio Creek 9 68N 38W	155
30 Buck Creek Tarkio River L At mouth 28 68N 38W	
31 Tarkio River Missouri River L Below Buck Creek 28 68N 38W	8.48
32 Tarkio River Missouri River L Road crossing, north line 5 67N 38W	8.48 169

33	Iker Branch	Tarkio River	L	Road crossing, NE corner	10	67N	38W	7.29
34	Iker Branch	Tarkio River	L	At mouth	20	67N	38W	12.9
35	Tarkio River	Missouri River	L	Below Iker Branch	20	67N	38W	197
				Road crossing, north line				
36	Tarkio River	Missouri River	L	(discontinued gage near	29	67N	38W	200
				Blanchard)				
37	Tarkio River	Missouri River	L	State line	32	67N	38W	206
38	West Tarkio Creek	Tarkio Creek	R	Road crossing, north	2	70N	38W	20.4
				(county) line				
39	West Tarkio Creek	Tarkio Creek	R	Road crossing, north line	14	70N	38W	26.4
40	West Tarkio Creek	Tarkio Creek	R	Road crossing, north line	34	70N	38W	33.6
41	West Tarkio Creek	Tarkio Creek	R	Road crossing, NW corner	16	69N	38W	39.6
42	West Tarkio Creek	Tarkio Creek	R	Road crossing, north line	36	69N	39W	48.8
43	Unnamed creek	West Tarkio Creek	L	At mouth	14	68N	39W	6.31
44	West Tarkio Creek	Tarkio River	R	Below unnamed creek	14	68N	39W	61.3
45	West Tarkio Creek	Tarkio River	R	Road crossing, north line	4	67N	39W	75.4
46	West Tarkio Creek	Tarkio River	R	Road crossing, north line	20	67N	39W	86.8
47	West Tarkio Creek	Tarkio River	R	State line	31	67N	39W	92.5
48	Unnamed creek	West Tarkio Creek	R	State line	31	67N	39W	4.54
49	Middle Tarkio Creek	West Tarkio Creek	L	Road crossing, north line	23	67N	39W	5.52
50	Middle Tarkio Creek	West Tarkio Creek	L	State line	34	67N	39W	10.6
5 4	Nederror Diver	Missouri Divor		Road crossing, north	4	70NI	20141	000
51	Nodaway River	Missouri River	L	(county) line	4	70N	36W	689
52	Unnamed creek	Nodaway River	R	At mouth	4	70N	36W	5.5
53	Wolf Run	Nodaway River	L	At mouth	9	70N	36W	6.66
54	Nodaway River	Missouri River	L	NW corner	16	70N	36W	706
55	Nodaway River	Missouri River	L	North line	33	70N	36W	718
56	Neele Branch	Nodaway River	R	Road crossing, north line	25	70N	37W	5.66
57	Neele Branch	Nodaway River	R	Road crossing, north line	12	69N	37W	11.8
58	Unnamed creek	Neele Branch	R	At mouth	12	69N	37W	5.72
59	Neele Branch	Nodaway River	R	At mouth	16	69N	36W	20.9
60	Nodaway River	Missouri River	L	Below Neele Branch	16	69N	36W	752
61	North Branch	Nodaway River	R	At mouth	29	69N	36W	5.15
62	Nodaway River	Missouri River	L	Road crossing, NE¼ (gage at Clarinda)	32	69N	36W	762
63	South Branch	Nodaway River	R	At mouth	18	68N	36W	9.52
64	Nodaway River	Missouri River	Ĺ	Below South Branch	18	68N	36W	776
65	No Business Creek	Nodaway River	R	At mouth	36	68N	37W	5.48
66	Nodaway River	Missouri River	L	Below No Business Creek	36	68N	37W	792
	•							

67	East Nodaway River	Nodaway River	L	Road crossing, east (county) line	1	69N	36W	291
68	East Nodaway River	Nodaway River	L	Road crossing, center	13	69N	36W	299
69	East Nodaway River	Nodaway River	L	Road crossing, north line	35	69N	36W	310
70	East Nodaway River	Nodaway River	L	Road crossing, north line	21	68N	36W	323
71	East Nodaway River	Nodaway River	L	At mouth	7	67N	36W	334
72	Nodaway River	Missouri River	L	Below East Nodaway River	7	67N	36W	1131
73	Buchanan Creek	Nodaway River	L	East (county) line	24	68N	36W	4.82
74	Buchanan Creek	Nodaway River	L	East (county) line	25	68N	36W	9.26
75	Buchanan Creek	Nodaway River	L	Road crossing, west line	36	68N	36W	17.7
76	Buchanan Creek	Nodaway River	L	Road crossing, north line	15	67N	36W	25.3
77	Buchanan Creek	Nodaway River	L	West line	21	67N	36W	34.9
78	Buchanan Creek	Nodaway River	L	At mouth	19	67N	36W	40.4
79	Nodaway River	Missouri River	L	Below Buchanan Creek	19	67N	36W	1178
80	Nodaway River	Missouri River	L	State line	31	67N	36W	1182
81	Mill Creek	Nodaway River	R	Road crossing, center	29	68N	37W	6.74
82	Mill Creek	Nodaway River	R	Road crossing, north line	13	67N	38W	14.8
83	Mill Creek	Nodaway River	R	State line	36	67N	38W	24.7
84	East Mill Creek	Mill Creek	L	Road crossing, north line	29	67N	37W	8.11
85	Unnamed creek	East Mill Creek	L	At mouth	29	67N	37W	6.76
86	East Mill Creek	Mill Creek	L	State line	31	67N	37W	16.4

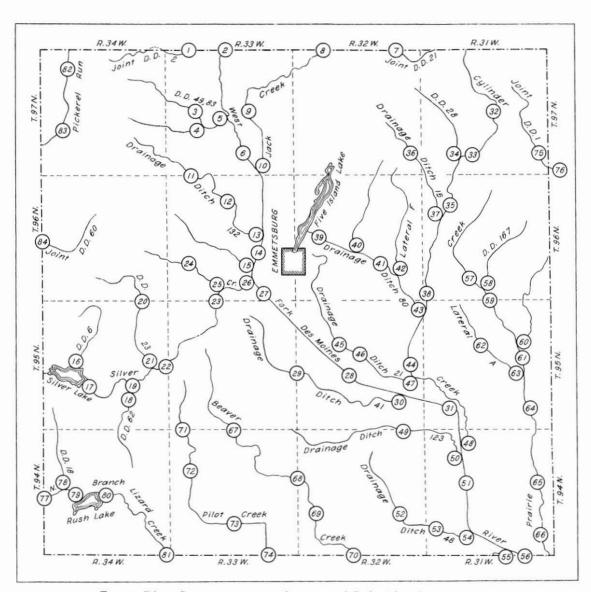


Figure 74. Drainage area index map of Palo Alto County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Joint Drainage Ditch 2	West Fork Des Moines River	R	Road crossing, north (county) line	5	97N	33W	6.94
2	West Fork Des Moines River	Des Moines River	R	North (county) line	4	97N	33W	1519
3	Drainage Ditch 49, 83	West Fork Des Moines River	R	Road crossing, north line	20	97N	33W	6.44
4	Unnamed creek	Drainage Ditch 49, 83	R	At mouth	20	97N	33W	6.34
5	Drainage Ditch 49, 83	West Fork Des Moines River	R	At mouth	21	97N	33W	15
6	West Fork Des Moines River	Des Moines River	R	Road crossing, SE1/4	27	97N	33W	1543
7	Joint Drainage Ditch 21	Jack Creek	L	North (county) line	2	97N	32W	5.4
8	Jack Creek	West Fork Des Moines River	L	North (county) line	5	97N	32W	82.7
9	Jack Creek	West Fork Des Moines River	L	Road crossing, north line	22	97N	33W	92.2
10	Jack Creek	West Fork Des Moines River	L	At mouth	35	97N	33W	99.8
11	Drainage Ditch 132	West Fork Des Moines River	R	Road crossing, north line	5	96N	33W	8.68
12	Drainage Ditch 132	West Fork Des Moines River	R	Road crossing, west line	10	96N	33W	14.8
13	Drainage Ditch 132	West Fork Des Moines River	R	At mouth	14	96N	33W	20.4
14	West Fork Des Moines River	Des Moines River	R	Road crossing, north line	26	96N	33W	1672
15	Unnamed creek	West Fork Des Moines River	R	At mouth	26	96N	33W	9.83
16	Drainage Ditch 6	Silver Lake		At mouth	20	95N	34W	6.58
17	Silver Creek	West Fork Des Moines River	R	Road crossing, NW¼	28	95N	34W	12.7
18	Drainage Ditch 62	Silver Creek	R	At mouth	23	95N	34W	7.65
19	Silver Creek	West Fork Des Moines River	R	Below Drainage Ditch 62	23	95N	34W	25.5
20	Drainage Ditch 23	Silver Creek	L	Road crossing, north line	2	95N	34W	5.59
21	Drainage Ditch 23	Silver Creek	L	At mouth	24	95N	34W	12.3
22	Silver Creek	West Fork Des Moines River	R	Road crossing, north line	24	95N	34W	39.5
23	Silver Creek	West Fork Des Moines River	R	Road crossing, north line	4	95N	33W	46.7
24	Unnamed creek	Silver Creek	L	Road crossing, west line	29	96N	33W	5.24
25	Unnamed creek	Silver Creek	L	At mouth	33	96N	33W	11.1
26	Silver Creek	West Fork Des Moines River	R	At mouth	35 35	96N	33W	62
27	West Fork Des Moines River	Des Moines River	R	Road crossing, SE1/4	35	96N	33W	1747
28	West Fork Des Moines River	Des Moines River	R	Road crossing, 3L/4 Road crossing, north 1/2	21	95N	32W	1755
29	Drainage Ditch 41	West Fork Des Moines River	R	Road crossing, north 1/2 Road crossing, west line	19	95N	32W	10.2
30			R	At mouth			32W	21.7
	Drainage Ditch 41	West Fork Des Moines River			26	95N 95N	32VV 31W	∠1.7 1781
31	West Fork Des Moines River	Des Moines River	R	Road crossing, SW1/4	29			
32	Cylinder Creek	West Fork Des Moines River	L	Road crossing, north line	22	97N	31W	6.66
33	Cylinder Creek	West Fork Des Moines River	L	Road crossing, west line	33	97N	31W	12.5
34	Drainage Ditch 28	Cylinder Creek	R	At mouth	32	97N	31W	7.84
35	Cylinder Creek	West Fork Des Moines River	L	Road crossing, west line	8	96N	31W	25.4

36	Drainage Ditch 15	Cylinder Creek	R	Road crossing, north line	36	97N	32W	5.45
37	Drainage Ditch 15	Cylinder Creek	R	At mouth	7	96N	31W	10.3
38	Cylinder Creek	West Fork Des Moines River	L	Railroad crossing, SW1/4	31	96N	31W	40.1
39	Drainage Ditch 80	Cylinder Creek	R	Road crossing, north line	20	96N	32W	16.7
40	Unnamed creek	Drainage Ditch 80	L	At mouth	22	96N	32W	7.88
41	Drainage Ditch 80	Cylinder Creek	R	Road crossing, west line	26	96N	32W	27.6
42	Lateral F	Drainage Ditch 80	L	At mouth	26	96N	32W	10
43	Drainage Ditch 80	Cylinder Creek	R	At mouth	1	95N	32W	42.8
44	Cylinder Creek	West Fork Des Moines River	L	Road crossing, north line	24	95N	32W	88.6
45	Drainage Ditch 21	Cylinder Creek	R	Road crossing, NW corner	16	95N	32W	5.94
46	Drainage Ditch 21	Cylinder Creek	R	West line	15	95N	32W	11.6
47	Ditch 21	Cylinder Creek	R	At mouth	24	95N	32W	17.2
48	Cylinder Creek	West Fork Des Moines River	L	At mouth	5	94N	31W	112
49	Drainage Ditch 123	West Fork Des Moines River	R	Road crossing, west line	1	94N	32W	7.07
50	Drainage Ditch 123	West Fork Des Moines River	R	At mouth	8	94N	31W	16.2
51	West Fork Des Moines River	Des Moines River	R	Road crossing, east 1/2	17	94N	31W	1914
52	Drainage Ditch 48	West Fork Des Moines River	R	Road crossing, north line	26	94N	32W	8.29
53	Drainage Ditch 48	West Fork Des Moines River	R	Road crossing, south 1/2	30	94N	31W	12.9
54	Drainage Ditch 48	West Fork Des Moines River	R	At mouth	28	94N	31W	20.9
55	Drainage Ditch 17	West Fork Des Moines River	R	At mouth	35	94N	31W	6.28
56	West Fork Des Moines River	Des Moines River	R	South (county) line	35	94N	31W	1948
57	Prairie Creek	West Fork Des Moines River	L	Road crossing, north line	33	96N	31W	8.58
58	Drainage Ditch 167	Prairie Creek	L	At mouth	34	96N	31W	5.64
59	Prairie Creek	West Fork Des Moines River	L	Road crossing, north line	3	95N	31W	17.1
60	Unnamed creek	Prairie Creek	L	At mouth	14	95N	31W	6.6
61	Prairie Creek	West Fork Des Moines River	L	Road crossing, north line	23	95N	31W	28.5
62	Lateral A	Prairie Creek	R	Road crossing, north line	16	95N	31W	4.71
63	Lateral A	Prairie Creek	R	At mouth	23	95N	31W	11.7
64	Prairie Creek	West Fork Des Moines River	L	Road crossing, north line	35	95N	31W	45.2
65	Prairie Creek	West Fork Des Moines River	L	Road crossing, west 1/2	13	94N	31W	52.8
66	Prairie Creek	West Fork Des Moines River	L	Road crossing, north line	36	94N	31W	61.1
67	Beaver Creek	West Fork Des Moines River	R	Road crossing, NE corner	4	94N	33W	9.98
68	Beaver Creek	West Fork Des Moines River	R	Road crossing, west line	18	94N	32W	18.8
69	Beaver Creek	West Fork Des Moines River	R	Road crossing, north line	30	94N	32W	27.3
70	Beaver Creek	West Fork Des Moines River	R	Road crossing, south (county) line	33	94N	32W	35.2
71	Pilot Creek	West Fork Des Moines River	R	Road crossing, north line	6	94N	33W	6.54
72	Pilot Creek	West Fork Des Moines River	R	Road crossing, NE corner	18	94N	33W	12.9
73	Pilot Creek	West Fork Des Moines River	R	Road crossing, west line	27	94N	33W	20.6
				3 ,				_

74	Pilot Creek	West Fork Des Moines River	R	Road crossing, south (county) line	35	94N	33W	33.9
75	Joint Drainage Ditch 1	Lotts Creek	R	Road crossing, north line	36	97N	31W	4.48
76	Joint Drainage Ditch 1	Lotts Creek	R	At mouth	31	97N	30W	8.59
77	North Branch Lizard Creek	Lizard Creek	L	Road crossing, west (county) line	19	94N	34W	16.7
78	Drainage Ditch 18	North Branch Lizard Creek	L	At mouth	17	94N	34W	6
79	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north 1/2	20	94N	34W	24.5
80	North Branch Lizard Creek	Lizard Creek	L	West line	22	94N	34W	33.5
81	North Branch Lizard Creek	Lizard Creek	L	Road crossing, south (county) line	36	94N	34W	41.4
82	Pickeral Run	Lost Island Outlet	R	Road crossing, north line	8	97N	34W	7.12
83	Pickeral Run	Lost Island Outlet	R	Road crossing, SW1/4	20	97N	34W	13.5
84	Joint Drainage Ditch 60	Lost Island Outlet	L	Road crossing, west (county) line	19	96N	34W	6.14

DRAINAGE AREAS OF IOWA STREAMS

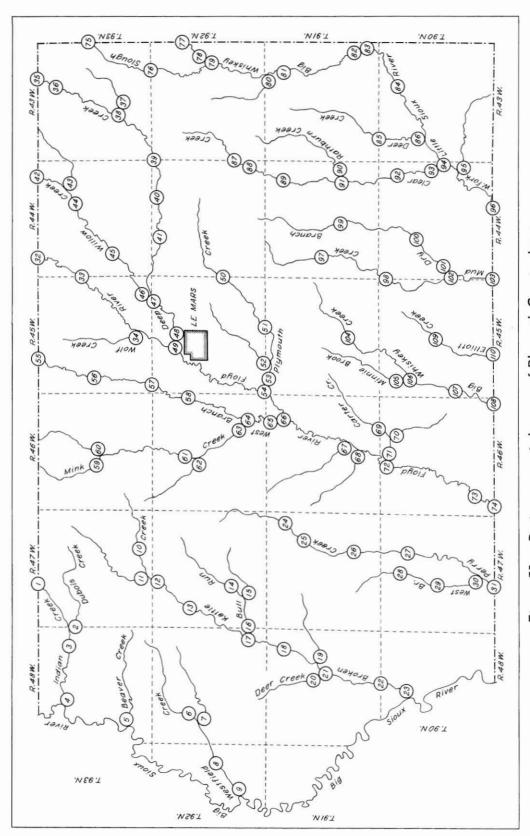


Figure 75. Drainage area index map of Plymouth County, lowa.

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description		Т	R	(sq mi)
1	Indian Creek	Big Sioux River	L	Road crossing, north (county) line	4	93N	47W	35.2
2	Dubois Creek	Indian Creek	L	At mouth	12	93N	48W	9.53
3	Indian Creek	Big Sioux River	L	Road crossing, west line	12	93N	48W	56.6
4	Indian Creek	Big Sioux River	L	At mouth	8	93N	48W	63
5	Beaver Creek	Big Sioux River	L	At mouth	30	93N	48W	8.88
6	Westfield Creek	Big Sioux River	L	Road crossing, north line	17	92N	48W	6.29
7	Unnamed creek	Westfield Creek	L	At mouth	17	92N	48W	9.41
8	Westfield Creek	Big Sioux River	L	Road crossing, west line	24	92N	49W	23.2
9	Westfield Creek	Big Sioux River	L	At mouth	27	92N	49W	30.2
10	Broken Kettle Creek	Big Sioux River	L	Road crossing, west line	35	93N	47W	8.33
11	Unnamed creek	Broken Kettle Creek	R	At mouth	33	93N	47W	7.16
12	Broken Kettle Creek	Big Sioux River	L	Road crossing, north line	4	92N	47W	18.8
13	Broken Kettle Creek	Big Sioux River	L	Road crossing, NE corner	18	92N	47W	27
14	Bull Run	Broken Kettle Creek	L	Road crossing, west line	28	92N	47W	7.47
15	Unnamed creek	Bull Run	L	At mouth	29	92N	47W	5.67
16	Bull Run	Broken Kettle Creek	L	At mouth	36	92N	48W	16.7
17	Broken Kettle Creek	Big Sioux River	L	Below Bull Run	36	92N	48W	53.1
18	Broken Kettle Creek	Big Sioux River	L	Road crossing, SE1/4	2	91N	48W	60.7
19	Unnamed creek	Broken Kettle Creek	L	At mouth	14	91N	48W	7.88
20	Deer Creek	Broken Kettle Creek	R	At mouth	22	91N	48W	4.86
21	Broken Kettle Creek	Big Sioux River	L	Below Deer Creek	22	91N	48W	79
22	Broken Kettle Creek	Big Sioux River	L	Road crossing, NW1/4	3	90N	48W	90
23	Broken Kettle Creek	Big Sioux River	L	At mouth	9	90N	48W	98.8
24	Perry Creek	Missouri River	L	Road crossing, north line	12	91N	47W	7.88
25	Perry Creek	Missouri River	L	Road crossing, north line	14	91N	47W	12.8
26	Perry Creek	Missouri River	L	Road crossing, west line	26	91N	47W	21.4
27	Perry Creek	Missouri River	L	Road crossing, west line	11	90N	47W	30.7
28	West Branch Perry Creek	Perry Creek	R	Road crossing, north line	9	90N	47W	4.25
29	West Branch Perry Creek	Perry Creek	R	North line	21	90N	47W	8.01
30	West Branch Perry Creek	Perry Creek	R	At mouth	33	90N	47W	13.5
31	Perry Creek	Missouri River	L	South (county) line	33	90N	47W	54.5
32	Floyd River	Missouri River	L	North (county) line	6	93N	44W	292
33	Floyd River	Missouri River	L	West line	18	93N	44W	303
34	Wolf Creek	Floyd River	R	At mouth	34	93N	45W	6.41

				Deceleration and				
35	Deep Creek	Floyd River	L	Road crossing, north (county) line	2	93N	43W	26
36	Deep Creek	Floyd River	L	Road crossing, north line	10	93N	43W	32.8
37	Unnamed creek	Deep Creek	L	At mouth	28	93N	43W	5.86
38	Deep Creek	Floyd River	L	Below unnamed creek	28	93N	43W	45.7
39	Deep Creek	Floyd River	L	Road crossing, west line	6	92N	43W	54.9
40	Deep Creek	Floyd River	L	Road crossing, west line	2	92N	44W	65.6
41	Deep Creek	Floyd River	L	Road crossing, west line	4	92N	44W	75.4
42	Willow Creek	Deep Creek	R	Road crossing, north (county) line	1	93N	44W	38.3
43	Unnamed creek	Willow Creek	L	At mouth	11	93N	44W	7.93
44	Willow Creek	Deep Creek	R	Road crossing, north line	15	93N	44W	53.2
45	Willow Creek	Deep Creek	R	Road crossing, north line	29	93N	44W	61.4
46	Willow Creek	Deep Creek	R	At mouth	2	92N	45W	65.9
47	Deep Creek	Floyd River	L	Below Willow Creek	2	92N	45W	150
48	Deep Creek	Floyd River	L	At mouth	9	92N	45W	156
49	Floyd River	Missouri River	L	Below Deep Creek	9	92N	45W	478
50	Plymouth Creek	Floyd River	L	Road crossing, west line	19	92N	44W	11.7
51	Plymouth Creek	Floyd River	Ē	Road crossing, north line	3	91N	45W	21.7
52	Unnamed creek	Plymouth Creek	R	At mouth	5	91N	45W	6.04
53	Plymouth Creek	Floyd River	Ĺ	At mouth	31	92N	45W	36
54	Floyd River	Missouri River	Ē	Below Plymouth Creek	31	92N	45W	527
	•			Road crossing, north				
55	West Branch Floyd River	Floyd River	R	(county) line	5	93N	45W	194
56	West Branch Floyd River	Floyd River	R	Road crossing, north line	19	93N	45W	209
57	West Branch Floyd River	Floyd River	R	North line	6	92N	45W	219
58	West Branch Floyd River	Floyd River	R	Road crossing, north line	13	92N	46W	225
59	Mink Creek	West Branch Floyd River	R	Road crossing, north line	21	93N	46W	7.81
60	Unnamed creek	Mink Creek	L	At mouth	21	93N	46W	5.07
61	Mink Creek	West Branch Floyd River	R	Road crossing, north line	16	92N	46W	25.6
62	Unnamed creek	Mink Creek	R	At mouth	16	92N	46W	11.6
63	Mink Creek	West Branch Floyd River	R	At mouth	35	92N	46W	42.3
64	West Branch Floyd River	Floyd River	R	Below Mink Creek	35	92N	46W	275
65	West Branch Floyd River	Floyd River	R	At mouth	2	91N	46W	281
66	Floyd River	Missouri River	L	Below West Branch Floyd River	2	91N	46W	811
67	Unnamed creek	Floyd River	R	At mouth	27	91N	46W	8.04
68	Unnamed creek	Floyd River	R	At mouth	27	91N	46W	6.53
69	Carter Creek	Floyd River	L	Road crossing, north line	2	90N	46W	5.67
70	Unnamed creek	Carter Creek	L	At mouth	3	90N	46W	5.82

Floyd River Missouri River L Below Carter Creek 4 90N 46W Road crossing, SE¼ (gage at James) 74 Floyd River Missouri River L South (county) line 75 Big Whiskey Slough West Fork Little Sioux River R Road crossing, SE¼ (gage at James) 8 Road crossing, seast (county) line 8 Road crossing, east (county) line 8 Road crossing, north line 90N 46W 8 Road crossing, east (county) line 93N 43W 8 Road crossing, north line 92 92N 43W	858 882 887 3.24
74 Floyd River Missouri River L South (county) line 31 90N 46W 75 <u>Big Whiskey Slough</u> West Fork Little Sioux River R Road crossing, east (county) line 13 93N 43W 76 <u>Big Whiskey Slough</u> West Fork Little Sioux River R Road crossing, north line 2 92N 43W	3.24
75 Big Whiskey Slough West Fork Little Sloux River R (county) line 13 93N 43W 76 Big Whiskey Slough West Fork Little Sloux River R Road crossing, north line 2 92N 43W	
76 Big Whiskey Slough West Fork Little Sioux River R Road crossing, north line 2 92N 43W	
	11.3
77 Unnamed creek Big Whiskey Slough L Road crossing, east (county) line 12 92N 43W	6.84
78 Unnamed creek Big Whiskey Slough L At mouth 23 92N 43W	12.5
79 Big Whiskey Slough West Fork Little Sioux River R Below unnamed creek 23 92N 43W	30.6
80 Unnamed creek Big Whiskey Slough R At mouth 2 91N 43W	6.37
81 Big Whiskey Slough West Fork Little Sioux River R Road crossing, north line 11 91N 43W	45
82 Big Whiskey Slough West Fork Little Sioux River R At mouth 36 91N 43W	56.1
83 West Fork Little Sioux River Little Sioux River R Below Big Whiskey Slough 36 91N 43W	134
84 West Fork Little Sioux River Little Sioux River Road crossing, north line 10 90N 43W	147
85 Deer Creek West Fork Little Sioux River Road crossing, north line 5 90N 43W	7.55
86 Deer Creek West Fork Little Sioux River At mouth 17 90N 43W	14
87 <u>Clear Creek</u> West Fork Little Sioux River Road crossing, west line 30 92N 43W	6.12
88 Clear Creek West Fork Little Sioux River Road crossing, north line 36 92N 44W	10.6
89 Clear Creek West Fork Little Sioux River Road crossing, west line 1 91N 44W	18.1
90 Rathburn Creek Clear Creek At mouth 26 91N 44W	9.18
91 <u>Clear Creek</u> West Fork Little Sioux River Below Rathburn Creek 26 91N 44W	33.6
92 <u>Clear Creek</u> West Fork Little Sioux River Road crossing, north line 12 90N 44W	40.8
93 Clear Creek West Fork Little Sioux River At mouth 24 90N 44W	46.4
94 West Fork Little Sioux River Little Sioux River Below Clear Creek 24 90N 44W	219
95 Unnamed creek West Fork Little Sioux River At mouth 25 90N 44W	10.3
96 West Fork Little Sioux River Little Sioux River South (county) line 34 90N 44W	241
97 Mud Creek West Fork Little Sioux River Road crossing, north line 20 91N 44W	6.86
98 Mud Creek West Fork Little Sioux River Road crossing, west line 6 90N 44W	14.4
99 Dry Branch Mud Creek Road crossing, north line 28 91N 44W	6.04
100 Dry Branch Mud Creek Road crossing, north line 16 90N 44W	13.2
101 Dry Branch Mud Creek At mouth 19 90N 44W	21
102 Mud Creek West Fork Little Sioux River Below Dry Branch 19 90N 44W	43.3
103 Mud Creek West Fork Little Sioux River Road crossing, south (county) line 31 90N 44W	49
104 Big Whiskey Creek West Fork Little Sioux River Road crossing, west line 27 91N 45W	7.08
105 Minnie Brook Big Whiskey Creek At mouth 7 90N 45W	

106 Big Whiskey Creek	West Fork Little Sioux River	Below Minnie Brook	7	90N	45W	20.1
107 Big Whiskey Creek	West Fork Little Sioux River	Road crossing, north line	30	90N	45W	25.2
108 Big Whiskey Creek	West Fork Little Sioux River	South (county) line	36	90N	46W	29.8
109 Elliott Creek	Big Whiskey Creek	Road crossing, north line	21	90N	45W	4.61
110 Elliott Creek	Big Whiskey Creek	Road crossing, south (county) line	33	90N	45W	9.86

DRAINAGE AREAS OF IOWA STREAMS

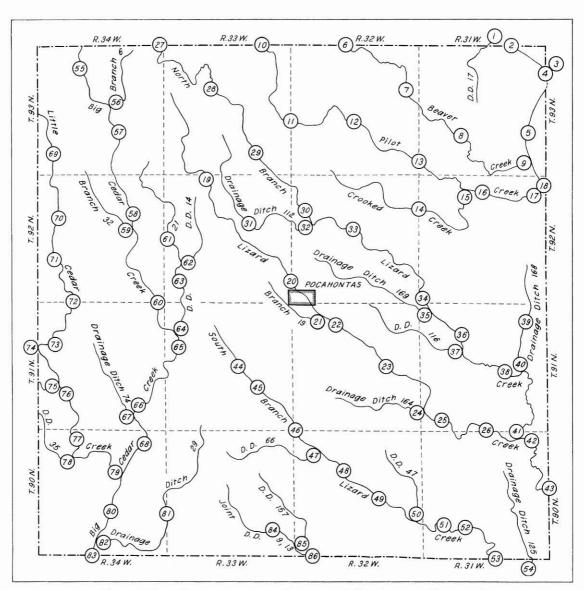


Figure 76. Drainage area index map of Pocahontas County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 76 Pocahontas County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Drainage Ditch 17	West Fork Des Moines River	R	At mouth	35	94N	31W	6.28
2	West Fork Des Moines River	Des Moines River	R	North (county) line	2	93N	31W	1948
3	Prairie Creek	West Fork Des Moines River	L	At mouth	7	93N	30W	67.5
4	West Fork Des Moines River	Des Moines River	R	Below Prairie Creek	7	93N	30W	2018
5	West Fork Des Moines River	Des Moines River	R	Road crossing, NW1/4	25	93N	31W	2029
6	Beaver Creek	West Fork Des Moines River	R	Road crossing, north (county) line	4	93N	32W	35.2
7	Beaver Creek	West Fork Des Moines River	R	Road crossing, north line	13	93N	32W	47.4
8	Beaver Creek	West Fork Des Moines River	R	Road crossing, west line	28	93N	31W	53.9
9	Beaver Creek	West Fork Des Moines River	R	At mouth	36	93N	31W	62.8
10	Pilot Creek	West Fork Des Moines River	R	Road crossing, north (county) line	2	93N	33W	33.9
11	Pilot Creek	West Fork Des Moines River	R	Road crossing, west line	19	93N	32W	43.4
12	Pilot Creek	West Fork Des Moines River	R	Road crossing, west line	22	93N	32W	53.2
13	Pilot Creek	West Fork Des Moines River	R	Road crossing, west line	31	93N	31W	62.8
14	Crooked Creek	Pilot Creek	R	Road crossing, west line	7	92N	31W	11.4
15	Crooked Creek	Pilot Creek	R	At mouth	4	92N	31W	19.8
16	Pilot Creek	West Fork Des Moines River	R	Road crossing, west line	3	92N	31W	88.5
17	Pilot Creek	West Fork Des Moines River	R	At mouth	1	92N	31W	97.1
18	West Fork Des Moines River	Des Moines River	R	Below Pilot Creek	1	92N	31W	2195
19	Lizard Creek	Des Moines River	R	Road crossing, west line	4	92N	33W	10.1
20	Lizard Creek	Des Moines River	R	Road crossing, NE corner	36	92N	33W	19.2
21	Branch 19	Lizard Creek	R	At mouth	5	91N	32W	6.45
22	Lizard Creek	Des Moines River	R	Road crossing, NE corner	8	91N	32W	28.4
23	Lizard Creek	Des Moines River	R	Road crossing, north line	23	91N	32W	40.6
24	Drainage Ditch 164	Lizard Creek	R	At mouth	31	91N	31W	10.4
25	Lizard Creek	Des Moines River	R	Road crossing, west line	32	91N	31W	57.6
26	Lizard Creek	Des Moines River	R	Road crossing, west line	3	90N	31W	66.4
27	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north (county) line	1	93N	34W	41.4
28	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	16	93N	33W	49.9
29	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	35	93N	33W	58.2
30	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	18	92N	32W	66.8
31	Drainage Ditch 112	North Branch Lizard Creek	R	Road crossing, west line	14	92N	33W	5.82
32	Drainage Ditch 112	North Branch Lizard Creek	R	At mouth	18	92N	32W	12.7
33	North Branch Lizard Creek	Lizard Creek	L	Road crossing, west line	15	92N	32W	83.8

FINAL Drainage Areas of Iowa Streams.xls Table No. 76 Pocahontas County

34	North Branch Lizard Creek	Lizard Creek	L	Road crossing, north line	6	91N	31W	93.3
35	Drainage Ditch 169	North Branch Lizard Creek	R	At mouth	6	91N	31W	7.73
36	North Branch Lizard Creek	Lizard Creek	L	Road crossing, west line	9	91N	31W	109
37	Drainage Ditch 116	North Branch Lizard Creek	R	At mouth	9	91N	31W	8.08
38	North Branch Lizard Creek	Lizard Creek	L	Road crossing, west line	23	91N	31W	127
39	Drainage Ditch 168	North Branch Lizard Creek	L	Road crossing, west line	1	91N	31W	6.61
40	Drainage Ditch 168	North Branch Lizard Creek	L	At mouth	23	91N	31W	15
41	North Branch Lizard Creek	Lizard Creek	L	At mouth	2	90N	31W	149
42	Lizard Creek	Des Moines River	R	Road crossing, west line	1	90N	31W	219
43	Lizard Creek	Des Moines River	R	Road crossing, east (county) line	13	90N	31W	224
44	South Branch Lizard Creek	Lizard Creek	R	Road crossing, north line	22	91N	33W	9
45	South Branch Lizard Creek	Lizard Creek	R	Road crossing, north line	26	91N	33W	16.7
46	South Branch Lizard Creek	Lizard Creek	R	Road crossing, north line	6	90N	32W	29.2
47	Drainage Ditch 66	South Branch Lizard Creek	R	At mouth	8	90N	32W	7
48	South Branch Lizard Creek	Lizard Creek	R	Road crossing, north line	16	90N	32W	42.1
49	South Branch Lizard Creek	Lizard Creek	R	Road crossing, west line	23	90N	32W	52.7
50	Drainage Ditch 47	South Branch Lizard Creek	L	At mouth	25	90N	32W	6.23
51	South Branch Lizard Creek	Lizard Creek	R	Road crossing, west line	29	90N	31W	66.4
52	South Branch Lizard Creek	Lizard Creek	R	Road crossing, west line	28	90N	31W	74
53	South Branch Lizard Creek	Lizard Creek	R	Road crossing, south (county) line	34	90N	31W	78.4
54	Drainage Ditch 125	South Branch Lizard Creek	L	At mouth	12	89N	31W	7.84
55	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	9	93N	34W	12.2
56	Branch 6	Big Cedar Creek	L	At mouth	15	93N	34W	6.42
57	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	27	93N	34W	26.1
58	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	14	92N	34W	36.2
59	Branch 32	Big Cedar Creek	R	At mouth	14	92N	34W	7.14
60	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	1	91N	34W	49.4
61	Drainage Ditch 21	Big Cedar Creek	L	Road crossing, north line	19	92N	33W	7.47
62	Drainage Ditch 14	Drainage Ditch 21	L	At mouth	30	92N	33W	5.33
63	Drainage Ditch 21	Big Cedar Creek	L	Road crossing, north line	31	92N	33W	17.3
64	Drainage Ditch 21	Big Cedar Creek	L	At mouth	7	91N	33W	22.4
65	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	18	91N	33W	77.4
66	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	35	91N	34W	85.3
67	Drainage Ditch 74	Big Cedar Creek	R	At mouth	35	91N	34W	8.75
68	Big Cedar Creek	North Raccoon River	L	Road crossing, west line	1	90N	34W	104
69	Little Cedar Creek	Big Cedar Creek	R	Road crossing, north line	31	93N	34W	6.03
70	Little Cedar Creek	Big Cedar Creek	R	North line	17	92N	34W	11.5
71	Little Cedar Creek	Big Cedar Creek	R	Road crossing, north line	30	92N	34W	19.3

FINAL Drainage Areas of Iowa Streams.xls Table No. 76 Pocahontas County

72	Little Cedar Creek	Big Cedar Creek	R	Road crossing, north line	5	91N	34W	24.7
73	Little Cedar Creek	Big Cedar Creek	R	Road crossing, north line	18	91N	34W	34.6
74	Drainage Ditch 67	Little Cedar Creek	R	At mouth	18	91N	34W	16.4
75	Drainage Ditch 183	Little Cedar Creek	R	At mouth	19	91N	34W	8.98
76	Little Cedar Creek	Big Cedar Creek	R	Road crossing, NE corner	30	91N	34W	64.1
77	Little Cedar Creek	Big Cedar Creek	R	Road crossing, east 1/2	5	90N	34W	69.2
78	Drainage Ditch 35	Little Cedar Creek	R	At mouth	8	90N	34W	7.59
79	Little Cedar Creek	Big Cedar Creek	R	At mouth	15	90N	34W	84.1
80	Big Cedar Creek	North Raccoon River	L	Road crossing, north line	27	90N	34W	196
81	Drainage Ditch 29	Big Cedar Creek	L	Road crossing, north line	30	90N	33W	7.04
82	Drainage Ditch 29	Big Cedar Creek	L	At mouth	33	90N	34W	16.9
83	Big Cedar Creek	North Raccoon River	L	Road crossing, south (county) line	33	90N	34W	217
84	Joint Drainage Ditch 9, 13	Lake Creek	L	Road crossing, west line	25	90N	33W	6.92
85	Drainage Ditch 157	Joint Drainage Ditch 9, 13	L	At mouth	31	90N	32W	7.74
86	Joint Drainage Ditch 9, 13	Lake Creek	L	South (county) line	31	90N	32W	19

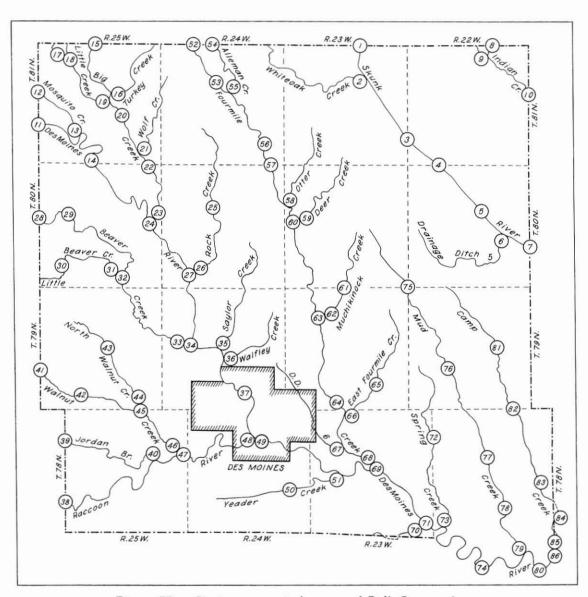


Figure 77. Drainage area index map of Polk County, Iowa.

			Bank	Point of determination of dra	ainage a	area		Drainage area
Area No.	Name of stream	Tributary to		Description R North (county) line		Т	R	(sq mi)
1	Skunk River	Mississippi River	R	North (county) line	3	81N	23W	649
2	Whiteoak Creek	Skunk River	R	At mouth	11	81N	23W	10.8
3	Skunk River	Mississippi River	R	Road crossing, SW1/4	30	81N	22W	688
4	Skunk River	Mississippi River	R	Road crossing, north line	5	80N	22W	710
5	Skunk River	Mississippi River	R	Road crossing, NE1/4	15	80N	22W	722
6	Drainage Ditch 5	Skunk River	R	At mouth	23	80N	22W	7.61
7	Skunk River	Mississippi River	R	East (county) line	24	80N	22W	748
8	Indian Creek	Skunk River	L	North (county) line	3	81N	22W	219
9	Calamus Creek	Indian Creek	R	At mouth	3	81N	22W	15.2
10	Indian Creek	Skunk River	L	East (county) line	13	81N	22W	247
11	Des Moines River	Mississippi River	R	West (county) line	30	81N	25W	5695
12	Mosquito Creek	Des Moines River	L	Road crossing, west (county) line	18	81N	25W	2.8
13	Mosquito Creek	Des Moines River	L	At mouth	29	81N	25W	8.75
14	Des Moines River	Mississippi River	R	Road crossing, SE1/4	33	81N	25W	5710
15	Big Creek	Des Moines River	L	road crossing, north (county) line	4	81N	25W	40.8
16	Turkey Creek	Big Creek	L	At mouth	15	81N	25W	6.86
17	Prairie Creek	Little Creek	R	At mouth	5	81N	25W	5.89
18	Little Creek	Big Creek	R	Below Prairie Creek	5	81N	25W	18.7
19	Little Creek	Big Creek	R	At mouth	22	81N	25W	21.1
20	Big Creek	Des Moines River	L	Road crossing, east 1/2	22	81N	25W	77.5
21	Wolf Creek	Big Creek	L	At mouth	36	81N	25W	8.19
22	Big Creek	Des Moines River	L	Road crossing, NW1/4	1	80N	25W	88.4
23	Big Creek	Des Moines River	L	At mouth	13	80N	25W	95.9
24	Des Moines River	Mississippi River	R	Below Big Creek	13	80N	25W	5815
25	Rock Creek	Des Moines River	L	Road crossing, north line	16	80N	24W	7.33
26	Rock Creek	Des Moines River	L	At mouth	32	80N	24W	14.4
27	Des Moines River	Mississippi River	R	Below Rock Creek	32	80N	24W	5838
28	Beaver Creek	Des Moines River	R	West (county) line	18	80N	25W	324
29	Beaver Creek	Des Moines River	R	Road crossing, center	17	80N	25W	335
30	Little Beaver Creek	Beaver Creek	R	North line	32	80N	25W	5.85
31	Little Beaver Creek	Beaver Creek	R	At mouth	35	80N	25W	13
32	Beaver Creek	Des Moines River	R	Below Little Beaver Creek	35	80N	25W	358
33	Beaver Creek	Des Moines River	R	At mouth	17	79N	24W	372
34	Des Moines River	Mississippi River	R	Below Beaver Creek	17	79N	24W	6216

35	Saylor Creek	Des Moines River	L	At mouth	21	79N	24W	11.8
36	Walfley Creek	Des Moines River	L	At mouth	21	79N	24W	6.36
				Second Avenue crossing				
37	Des Moines River	Mississippi River	R	in Des Moines, west line	35	79N	24W	6245
01	Des Montes Mivel	νιιοοιοσιρρί Τάνοι	11	(gage above Raccoon	55	7514	2700	0240
				River)				
38	Raccoon River	Des Moines River	R	West (county) line	30	78N	25W	3498
39	Jordan Branch	Raccoon River	L	Road crossing, west (county) line	7	78N	25W	3.24
40	Jordan Branch	Raccoon River	L	At mouth	14	78N	25W	12.8
41	Walnut Creek	Raccoon River	L	Road crossing, west	30	79N	25W	48.3
40				(county) line				
42	Walnut Creek	Raccoon River	Ļ	Road crossing, west line	33	79N	25W	58
43	North Walnut Creek	Walnut Creek	L	Road crossing, north line	22	79N	25W	5.75
44	North Walnut Creek	Walnut Creek	Ļ	At mouth	3	78N	25W	13.3
45	Walnut Creek	Raccoon River	L	Below North Walnut Creek	3	78N	25W	78.3
46	Walnut Creek	Raccoon River	L	At mouth	13	78N	25W	84.9
47	Raccoon River	Des Moines River	R	Below Walnut Creek	13	78N	25W	3620
48	Raccoon River	Des Moines River	R	At mouth	10	78N	25W	3629
			_	At Scott Street dam, NW1/4				
49	Des Moines River	Mississippi River	R	(gage below Raccoon River)	10	78N	24W	9879
50	Yeader Creek	Des Moines River	R	West line	24	78N	24W	6.16
51	Yeader Creek	Des Moines River	R	At mouth	20	78N	23W	13.1
	E	D. M. L. D. D.		Road crossing, north	_	041	0.4147	4.05
52	Fourmile Creek	Des Moines River	L	(county) line	5	81N	24W	4.65
53	Fourmile Creek	Des Moines River	L	Road crossing, west line	15	81N	24W	7.79
54	Alleman Creek	Fourmile Creek	L	Road crossing, north	4	81N	24W	3.26
				(county) line				
55	Alleman Creek	Fourmile Creek	L	At mouth	15	81N	24W	8.71
56	Fourmile Creek	Des Moines River	L	Road crossing, north line	36	81N	24W	24.4
57	Fourmile Creek	Des Moines River	L	Road crossing, north line	1	80N	24W	31.3
58	Otter Creek	Fourmile Creek	L	At mouth	7	80N	23W	5.68
59	Deer Creek	Fourmile Creek	L	At mouth	18	80N	23W	10.2
60	Fourmile Creek	Des Moines River	L	Below Deer Creek	18	80N	23W	59
61	Muchikinock Creek	Fourmile Creek	L	Road crossing, north line	4	79N	23W	7.49
62	Muchikinock Creek	Fourmile Creek	L	At mouth	8	79N	23W	12
63	Fourmile Creek	Des Moines River	L	Below Muchikinock Creek	8	79N	23W	83.7
64	Fourmile Creek	Des Moines River	L	Road crossing, north line	5	78N	23W	95.9
65	East Fourmile Creek	Fourmile Creek	L	Road crossing, SW1/4	26	79N	23W	8.23

66	East Fourmile Creek	Fourmile Creek	L	At mouth	5	78N	23W	12.4
67	Drainage Ditch 6	Fourmile Creek	R	At mouth	8	78N	23W	8.85
68	Fourmile Creek	Des Moines River	L	At mouth	15	78N	23W	121
69	Des Moines River	Mississippi River	R	Below Fourmile Creek	15	78N	23W	10025
70	North River	Des Moines River	R	At mouth	36	78N	23W	400
71	Des Moines River	Mississippi River	R	Below North River	36	78N	23W	10437
72	Spring Creek	Des Moines River	L	Road crossing, north line	7	78N	22W	8.5
73	Spring Creek	Des Moines River	L	At mouth	31	78N	22W	17.8
74	Des Moines River	Mississippi River	R	Below Middle River	9	77N	22W	11019
75	Mud Creek	Des Moines River	L	Road crossing, NW corner	6	79N	22W	8.11
76	Mud Creek	Des Moines River	L	Road crossing, north line	29	79N	22W	19.6
77	Mud Creek	Des Moines River	L	Road crossing, north line	16	78N	22W	29.2
78	Mud Creek	Des Moines River	L	Road crossing, center	27	78N	22W	35.5
79	Mud Creek	Des Moines River	L	At mouth	2	77N	22W	41.7
80	Des Moines River	Mississippi River	R	Below South River	12	77N	22W	11655
81	Camp Creek	Des Moines River	L	Road crossing, north line	23	79N	22W	10.3
82	Camp Creek	Des Moines River	L	Road crossing, north line	2	78N	22W	20.9
83	Camp Creek	Des Moines River	L	Road crossing, NW1/4	24	78N	22W	32.2
84	Camp Creek	Des Moines River	L	Road crossing, north line	31	78N	21W	35.7
85	Camp Creek	Des Moines River	L	At mouth	12	77N	22W	41.4
86	Des Moines River	Mississippi River	R	Below Camp Creek	12	77N	22W	11699

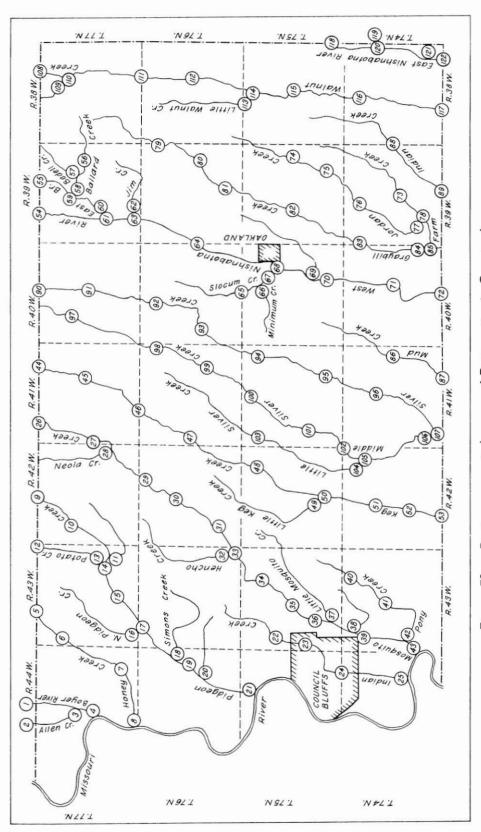


Figure 78. Drainage area index map of Pottawattamie County, lowa.

Name of stream Name of stream Name of stream Description Descr				Bank	Point of determination of dra		Drainage area		
Boyer River		Name of stream	I ributary to		Description	Sec	Т	R	_
3 Allen Creek		Boyer River	Missouri River	L		28	78N	44W	1081
Boyer River Missouri River L At mouth 20 77N 44W 1188	2	Allen Creek	Boyer River	R	Below Wilson Ditch	32	78N	44W	89.4
Foreign Fore	3	Allen Creek	Boyer River	R	At mouth	16	77N	44W	92.2
6 Honey Creek Missouri River L Road crossing, center 7 77N 43W 15.8 7 Honey Creek Missouri River L Road crossing, NE¼ 35 77N 44W 24.4 8 Honey Creek Missouri River L At mouth 32 77N 44W 27.1 9 Pidgeon Creek Missouri River L North (county) line 4 77N 42W 56.5 10 Pidgeon Creek Missouri River L Road crossing, north line 17 77N 42W 66.6 11 Unnamed creek Pidgeon Creek L At mouth 25 77N 43W 7.06 12 Potato Creek Pidgeon Creek R At mouth 23 77N 43W 31.6 14 Pidgeon Creek Missouri River L Below Potatoe Creek 23 77N 43W 11.0 15 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 11.0 16 North Pidgeon Creek	4	Boyer River	Missouri River	L	At mouth	20			
Honey Creek	5	Honey Creek	Missouri River	L	North (county) line	4	77N		9.31
8 Honey Creek Missouri River L At mouth 32 77N 44W 27.1 9 Pidgeon Creek Missouri River L North (county) line 4 77N 42W 56.5 10 Pidgeon Creek Missouri River L Rad crossing, north line 17 77N 42W 56.5 11 Unnamed creek Pidgeon Creek L At mouth 25 77N 43W 7.06 12 Potato Creek Pidgeon Creek R Rada crossing, north (county) line 1 77N 43W 7.06 13 Potato Creek Pidgeon Creek R At mouth 23 77N 43W 31.6 14 Pidgeon Creek Missouri River L Below Potatoe Creek 23 77N 43W 11.0 15 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 11.0 16 North Pidgeon Creek Missouri River L At mouth 5 76N 43W 6.78 17 Pidgeon Creek	6	Honey Creek		L	Road crossing, center	7	77N	43W	15.8
9 Pidgeon Creek Missouri River L North (county) line 4 77N 42W 56.5 10 Pidgeon Creek Missouri River L Road crossing, north line 17 77N 42W 66.6 11 Unnamed creek Pidgeon Creek L At mouth 25 77N 43W 7.06 12 Potato Creek Pidgeon Creek R Road crossing, north (county) line 1 77N 43W 31.6 13 Potato Creek Pidgeon Creek Missouri River L Below Potatoe Creek 23 77N 43W 31.6 14 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 110 15 Pidgeon Creek Pidgeon Creek R At mouth 5 76N 43W 6.78 17 Pidgeon Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 19 Pidgeon Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 <	7	Honey Creek	Missouri River	L	Road crossing, NE1/4	35	77N	44W	24.4
10 Pidgeon Creek Missouri River L Road crossing, north line 17 77N 42W 66.6 11 Unnamed creek Pidgeon Creek L At mouth 25 77N 43W 7.06 12 Potato Creek Pidgeon Creek R Road crossing, north 1 77N 43W 23 13 Potato Creek Pidgeon Creek R At mouth 23 77N 43W 31.6 14 Pidgeon Creek Missouri River L Below Potatoe Creek 23 77N 43W 110 15 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 116 16 North Pidgeon Creek Pidgeon Creek R At mouth 5 76N 43W 6.78 17 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 116 18 Simons Creek Pidgeon Creek L At mouth 5 76N 43W 6.46 19 Pidgeon Creek Missouri River L Road crossing, north line 24 76N 44W 6.46 19 Pidgeon Creek Missouri River L Road crossing, north line 24 76N 44W 6.46 10 Pidgeon Creek Missouri River L At mouth 23 76N 44W 5.35 11 Pidgeon Creek Missouri River L At mouth 3 75N 43W 7.99 12 Indian Creek Missouri River L At mouth 3 75N 43W 7.99 13 Indian Creek Missouri River L At mouth 23 76N 44W 13.5 14 Pidgeon Creek Missouri River L At mouth 23 76N 44W 13.5 15 Indian Creek Missouri River L At mouth 23 74N 44W 14.9 15 Indian Creek Missouri River L At mouth 23 74N 44W 14.9 15 Indian Creek Missouri River L North (county) line 5 77N 41W 114 15 Mosquito Creek Missouri River L Road crossing, west 1/2 19 77N 41W 114 16 Pidgeon Creek Missouri River L Road crossing, west line 2 76N 42W 7.002 15 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 7.002 15 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 7.002 15 Pidgeon Creek Missouri River L Road crossing, west li	8	Honey Creek	Missouri River	L	At mouth	32	77N	44W	27.1
11 Unnamed creek	9	Pidgeon Creek	Missouri River	L	North (county) line	4	77N	42W	56.5
11 Unnamed creek	10	Pidgeon Creek	Missouri River	L	Road crossing, north line	17	77N	42W	66.6
Polato Creek	11		Pidgeon Creek	L	<u> </u>	25	77N	43W	7.06
Potato Creek	12	Potato Creek	Pidgeon Creek	R	<u> </u>	1	77N	43W	23
14 Pidgeon Creek Missouri River L Below Potatoe Creek 23 77N 43W 110 15 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 116 16 North Pidgeon Creek Pidgeon Creek R At mouth 5 76N 43W 6.78 17 Pidgeon Creek Missouri River L Below North Pidgeon Creek 5 76N 43W 134 18 Simons Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 19 Pidgeon Creek L At mouth 24 76N 44W 147 20 Little Pidgeon Creek L At mouth 23 76N 44W 165 21 Pidgeon Creek Missouri River L At mouth 23 76N 44W 165 22 Indian Creek Missouri River L At mouth 3 75N 43W 9.68<	13	Potato Creek	Pidgeon Creek	R		23	77N	43W	31.6
15 Pidgeon Creek Missouri River L Road crossing, west line 27 77N 43W 116 16 North Pidgeon Creek Pidgeon Creek R At mouth 5 76N 43W 6.78 17 Pidgeon Creek Missouri River L Below North Pidgeon 5 76N 43W 134 18 Simons Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 19 Pidgeon Creek Missouri River L Road crossing, north line 24 76N 44W 147 20 Little Pidgeon Creek Pidgeon Creek L At mouth 23 76N 44W 5.35 21 Pidgeon Creek Missouri River L At mouth 3 75N 44W 165 22 Indian Creek Missouri River L Road crossing, SW¼ (gage near Council Bluffs) SW¼ (discontinued gage SW¼ (d			•						
16 North Pidgeon Creek Pidgeon Creek R At mouth 5 76N 43W 6.78 17 Pidgeon Creek Missouri River L Below North Pidgeon Creek 5 76N 43W 134 18 Simons Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 19 Pidgeon Creek Missouri River L Road crossing, north line 24 76N 44W 147 20 Little Pidgeon Creek L At mouth 23 76N 44W 5.35 21 Pidgeon Creek L At mouth 23 76N 44W 5.35 21 Pidgeon Creek Missouri River L At mouth 3 75N 44W 165 22 Indian Creek Missouri River L At mouth 18 75N 43W 7.99 23 Indian Creek Missouri River L At mouth 2 74N 44W 13.5	15		Missouri River	L	Road crossing, west line	27	77N	43W	116
17									
18 Simons Creek Pidgeon Creek L At mouth 13 76N 44W 6.46 19 Pidgeon Creek Missouri River L Road crossing, north line 24 76N 44W 147 20 Little Pidgeon Creek Pidgeon Creek L At mouth 23 76N 44W 5.35 21 Pidgeon Creek Missouri River L At mouth 3 75N 44W 165 22 Indian Creek Missouri River L Road crossing, SW¼ (gage near Council Bluffs) 18 75N 43W 7.99 23 Indian Creek Missouri River L at 2700 No. Broadway, (gage at 16th Avenue, Council Bluffs) 19 75N 43W 9.68 24 Indian Creek Missouri River L At mouth 2 74N 44W 13.5 25 Indian Creek Missouri River L At mouth 23 74N 44W 16.9 26 Mosquito Creek Missouri River L North (county) line 5 77N 41W 114 27 Mosquito Creek Missouri River L Road crossing, west 1/2 19 77N 41W 128 28 Neola Creek Mosquito Creek R At mouth 25 77N 42W 7.02 29 Mosquito Creek Missouri River L Road crossing, west line		-	•	_	Below North Pidgeon				
Little Pidgeon Creek Pidgeon Creek L At mouth 23 76N 44W 5.35	18	Simons Creek	Pidgeon Creek	L		13	76N	44W	6.46
21 Pidgeon Creek Missouri River L At mouth 3 75N 44W 165 22 Indian Creek Missouri River L Road crossing, SW¼ (gage near Council Bluffs) SW¼ (discontinued gage 18 75N 43W 7.99 23 Indian Creek Missouri River L at 2700 No. Broadway, Council Bluffs) 19 75N 43W 9.68 24 Indian Creek Missouri River L North line (gage at 16th Avenue, Council Bluffs) 2 74N 44W 13.5 25 Indian Creek Missouri River L At mouth 23 74N 44W 16.9 26 Mosquito Creek Missouri River L North (county) line 5 77N 41W 114 27 Mosquito Creek Missouri River L Road crossing, west 1/2 19 77N 41W 128 28 Neola Creek Mosquito Creek R At mouth 25 77N 42W 7.02 29 Mosquito C	19	Pidgeon Creek	Missouri River	L	Road crossing, north line	24	76N	44W	147
Indian Creek Missouri River L Road crossing, SW¼ (gage near Council Bluffs) SW¼ (discontinued gage Ab	20	Little Pidgeon Creek	Pidgeon Creek	L	At mouth	23	76N	44W	5.35
22 Indian Creek Missouri River L at 2700 No. Broadway, 19 75N 43W 9.68 23 Indian Creek Missouri River L at 2700 No. Broadway, 19 75N 43W 9.68 24 Indian Creek Missouri River L North line (gage at 16th Avenue, Council Bluffs) 25 Indian Creek Missouri River L At mouth 23 74N 44W 16.9 26 Mosquito Creek Missouri River L North (county) line 5 77N 41W 114 27 Mosquito Creek Missouri River L Road crossing, west 1/2 19 77N 41W 128 28 Neola Creek Mosquito Creek R At mouth 25 77N 42W 7.02 29 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 150	21	Pidgeon Creek	Missouri River	L	At mouth	3	75N	44W	165
Indian Creek Missouri River L at 2700 No. Broadway, 19 75N 43W 9.68 Council Bluffs) Indian Creek Missouri River L North line (gage at 16th Avenue, Council Bluffs) Indian Creek Missouri River L At mouth L North (county) line Missouri River L Road crossing, west 1/2 19 77N 41W 128 Neola Creek Mosquito Creek Missouri River L Road crossing, west line Missouri River Missouri River L Road crossing, west line Missouri River Missouri River L Road crossing, west line Missouri River L Road crossing, west line Missouri River Missouri River L Road crossing, west line Missouri River Missouri River L Road crossing, west line Missouri River Missouri River L Road crossing, west line Missouri River Missouri River Missouri River L Road crossing, west line Missouri River Missouri River Missouri River L Road crossing, west line Missouri River Missouri River	22	Indian Creek	Missouri River	L	(gage near Council Bluffs)	18	75N	43W	7.99
24 Indian Creek Missouri River L Avenue, Council Bluffs) 2 74N 44W 13.5 25 Indian Creek Missouri River L At mouth 23 74N 44W 16.9 26 Mosquito Creek Missouri River L North (county) line 5 77N 41W 114 27 Mosquito Creek Missouri River L Road crossing, west 1/2 19 77N 41W 128 28 Neola Creek Mosquito Creek R At mouth 25 77N 42W 7.02 29 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 150	23	Indian Creek	Missouri River	L	at 2700 No. Broadway,	19	75N	43W	9.68
26Mosquito CreekMissouri RiverLNorth (county) line577N41W11427Mosquito CreekMissouri RiverLRoad crossing, west 1/21977N41W12828Neola CreekMosquito CreekRAt mouth2577N42W7.0229Mosquito CreekMissouri RiverLRoad crossing, west line276N42W150	24	Indian Creek	Missouri River	L		2	74N	44W	13.5
26Mosquito CreekMissouri RiverLNorth (county) line577N41W11427Mosquito CreekMissouri RiverLRoad crossing, west 1/21977N41W12828Neola CreekMosquito CreekRAt mouth2577N42W7.0229Mosquito CreekMissouri RiverLRoad crossing, west line276N42W150	25	Indian Creek	Missouri River	L		23	74N	44W	16.9
27 Mosquito CreekMissouri RiverLRoad crossing, west 1/21977N41W12828 Neola CreekMosquito CreekRAt mouth2577N42W7.0229 Mosquito CreekMissouri RiverLRoad crossing, west line276N42W150		Mosquito Creek	Missouri River		North (county) line		77N	41W	114
28 Neola Creek Mosquito Creek R At mouth 25 77N 42W 7.02 29 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 150	27	•	Missouri River	L		19	77N	41W	128
29 Mosquito Creek Missouri River L Road crossing, west line 2 76N 42W 150		•	Mosquito Creek		<u> </u>				
•		Mosquito Creek		L	Road crossing, west line	2	76N	42W	
		•		L	•				

31	Mosquito Creek	Missouri River	L	Road crossing, SW1/4	29	76N	42W	173
32	Hencho Creek	Mosquito Creek	R	At mouth	36	76N	43W	9.79
33	Mosquito Creek	Missouri River	L	Below Hencho Creek	36	76N	43W	189
34	Mosquito Creek	Missouri River	L	Road crossing, NW1/4	11	75N	43W	201
35	Mosquito Creek	Missouri River	L	Road crossing, NE¼ (gage at Council Bluffs)	21	75N	43W	208
36	Mosquito Creek	Missouri River	L	Road crossing, east 1/2 (gage at Council Bluffs)	29	75N	43W	211
37	Little Mosquito Creek	Mosquito Creek	L	At mouth	29	75N	43W	9.02
38	Little Pony Creek	Mosquito Creek	L	At mouth	7	74N	43W	4.86
39	Mosquito Creek	Missouri River	L	Road crossing, NE¼ (discontinued gage at Council Bluffs)	7	74N	43W	230
40	Pony Creek	Mosquito Creek	L	Road crossing, west 1/2	2	74N	43W	5.69
41	Pony Creek	Mosquito Creek	L	Road crossing, east 1/2 (gage at Council Bluffs)	16	74N	43W	14.2
42	Pony Creek	Mosquito Creek	L	At mouth	30	74N	43W	32
43	Mosquito Creek	Missouri River	L	At mouth	25	74N	44W	267
44	Keg Creek	Missouri River	L	Road crossing, north (county) line	2	77N	41W	50.4
45	Keg Creek	Missouri River	L	Road crossing, west line	14	77N	41W	59.6
46	Keg Creek	Missouri River	L	Road crossing, north line	4	76N	41W	70.5
47	Keg Creek	Missouri River	L	Road crossing, north line	19	76N	41W	81
48	Keg Creek	Missouri River	L	Road crossing, north line	11	75N	42W	91.4
49	Little Keg Creek	Keg Creek	R	At mouth	27	75N	42W	9.5
50	Keg Creek	Missouri River	L	Below Little Keg Creek	27	75N	42W	111
51	Keg Creek	Missouri River	L	North line (gage at 16th Avenue, Council Bluffs)	16	74N	42W	122
52	Keg Creek	Missouri River	L	Road crossing, north line	28	74N	42W	131
53	Keg Creek	Missouri River	L	Road crossing, south (county) line	32	74N	42W	137
54	West Nishnabotna River	Nishnabotna River	R	North (county) line	5	77N	39W	350
55	East Branch West Nishnabotna River	West Nishnabotna River	L	North (county) line	3	77N	39W	204
56	Ballard Creek	East Branch West Nishnabotna River	L	Road crossing, west line	13	77N	39W	4.44
57	Bedell Creek	Ballard Creek	R	At mouth	14	77N	39W	7.77
58	Ballard Creek	East Branch West Nishnabotna River	L	At mouth	9	77N	39W	16.9

59	East Branch West Nishnabotna River	West Nishnabotna River	L	Below Ballard Creek	9	77N	39W	223
60	East Branch West Nishnabotna River	West Nishnabotna River	L	At mouth	29	77N	39W	227
61	West Nishnabotna River	Nishnabotna River	R	Below East Branch West Nishnabotna River	29	77N	39W	587
62	Jim Creek	West Nishnabotna River	L	At mouth	32	77N	39W	8.19
63	West Nishnabotna River	Nishnabotna River	R	Below Jim Creek	32	77N	39W	603
64	West Nishnabotna River	Nishnabotna River	R	West line	19	76N	39W	619
65	Slocum Creek	West Nishnabotna River	R	Road crossing, north line	3	75N	40W	6.46
66	Minimum Creek	Slocum Creek	R	At mouth	11	75N	40W	5.33
67	Slocum Creek	West Nishnabotna River	R	At mouth	14	75N	40W	15.8
68	West Nishnabotna River	Nishnabotna River	R	Below Slocum Creek	14	75N	40W	651
69	Unnamed creek	West Nishnabotna River	L	At mouth	26	75N	40W	7.2
70	West Nishnabotna River	Nishnabotna River	R	North line	34	75N	40W	669
71	West Nishnabotna River	Nishnabotna River	R	North line	22	74N	40W	683
72	West Nishnabotna River	Nishnabotna River	R	South (county) line	34	75N	40W	695
73	Farm Creek	West Nishnabotna River	L	Road crossing, west line	22	75N	39W	9.93
74	Jordan Creek	Farm Creek	R	Road crossing, north line	24	74N	39W	8.22
75	Jordan Creek	Farm Creek	R	Road crossing, north line	35	74N	39W	16.4
76	Jordan Creek	Farm Creek	R	Road crossing, north line	9	74N	39W	25.9
77	Jordan Creek	Farm Creek	R	At mouth	31	76N	39W	33.4
78	Farm Creek	West Nishnabotna River	L	Below Jordan Creek	31	76N	39W	50.1
79	Graybill Creek	Farm Creek	R	Road crossing, north line	12	76N	39W	8.82
80	Graybill Creek	Farm Creek	R	Road crossing, west line	24	76N	39W	16.8
81	Graybill Creek	Farm Creek	R	Road crossing, north line	34	76N	39W	27.3
82	Graybill Creek	Farm Creek	R	Road crossing, north line	21	75N	39W	37.6
83	Graybill Creek	Farm Creek	R	Road crossing, north line	7	74N	39W	45.9
84	Graybill Creek	Farm Creek	R	At mouth	36	74N	40W	52.9
85	Farm Creek	West Nishnabotna River	L	Below Graybill Creek	36	74N	40W	104
86	Mud Creek	West Nishnabotna River	R	Road crossing, north line	24	74N	41W	9.02
87	Mud Creek	West Nishnabotna River	R	Road crossing, south (county) line	35	74N	41W	13.9
88	Indian Creek	West Nishnabotna River	L	Road crossing, north line	19	74N	38W	6.74
89	Indian Creek	West Nishnabotna River	L	South (county) line	34	74N	39W	15
90	Silver Creek	West Nishnabotna River	R	North (county) line	3	77N	40W	41.2
91	Silver Creek	West Nishnabotna River	R	Road crossing, north line	22	77N	40W	52.6
92	Silver Creek	West Nishnabotna River	R	Road crossing, north line	9	76N	40W	66.1
93	Silver Creek	West Nishnabotna River	R	Road crossing, west line	20	76N	40W	75.9
94	Silver Creek	West Nishnabotna River	R	Road crossing, north line	12	75N	41W	86
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95	Silver Creek	West Nishnabotna River	R	Road crossing, north line	35	75N	41W	100
96	Silver Creek	West Nishnabotna River	R	North line	15	74N	41W	108
97	Middle Silver Creek	Silver Creek	R	Road crossing, north line	17	77N	40W	3.21
98	Middle Silver Creek	Silver Creek	R	Road crossing, north line	12	76N	41W	13.6
99	Middle Silver Creek	Silver Creek	R	Road crossing, north line	26	76N	41W	19
100	Middle Silver Creek	Silver Creek	R	Road crossing, west line	3	75N	41W	25.7
101	Middle Silver Creek	Silver Creek	R	Road crossing, north line	29	75N	41W	35.4
102	Middle Silver Creek	Silver Creek	R	Road crossing, west line	6	74N	41W	42.7
103	Little Silver Creek	Middle Silver Creek	R	Road crossing, north line	7	75N	41W	8.09
104	Little Silver Creek	Middle Silver Creek	R	At mouth	12	74N	42W	16.4
105	Middle Silver Creek	Silver Creek	R	Below Little Silver Creek	12	74N	42W	62.1
106	Middle Silver Creek	Silver Creek	R	At mouth	31	74N	41W	74.9
107	Silver Creek	West Nishnabotna River	R	Below Middle Silver Creek	31	74N	41W	192
108	Walnut Creek	West Nishnabotna River	L	Road crossing, north	2	77N	38W	7.68
100	Wallut Creek	West Mishhabotha River	L	(county) line	2	/ / IN	3000	7.00
109	Unnamed creek	Walnut Creek	R	At mouth	10	77N	38W	9.64
110	Walnut Creek	West Nishnabotna River	L	Below unnamed creek	10	77N	38W	18.4
111	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	3	76N	38W	27.5
112	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	22	76H	38W	37.4
113	Little Walnut Creek	Walnut Creek	R	At mouth	4	75N	38W	8.11
114	Walnut Creek	West Nishnabotna River	L	Below Little Walnut Creek	4	75N	38W	52.6
115	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	22	75N	38W	61.2
116	Walnut Creek	West Nishnabotna River	L	Road crossing, north line	9	74N	38W	70.4
447	Molecut Crook	West Niebrehetze Diver		Road crossing, south	22	741	2014/	00.4
117	Walnut Creek	West Nishnabotna River	L	(county) line	33	74N	38W	82.4
118	East Nishnabotna River	Nishnabotna River	L	East (county) line	36	75N	38W	789
119	Baughmans Creek	East Nishnabotna River	L	At mouth	13	74N	38W	18.6
120	East Nishnabotna River	Nishnabotna River	L	Below Baughmans Creek	13	74N	38W	816
121	Clarks Branch	East Nishnabotna River	L	At mouth	36	74N	38W	10.7
400	Foot Nichaelastae Diver	Nichach stac Diver		Road crossing, south	20	741	2014/	007
122	East Nishnabotna River	Nishnabotna River	L	(county) line	36	74N	38W	837
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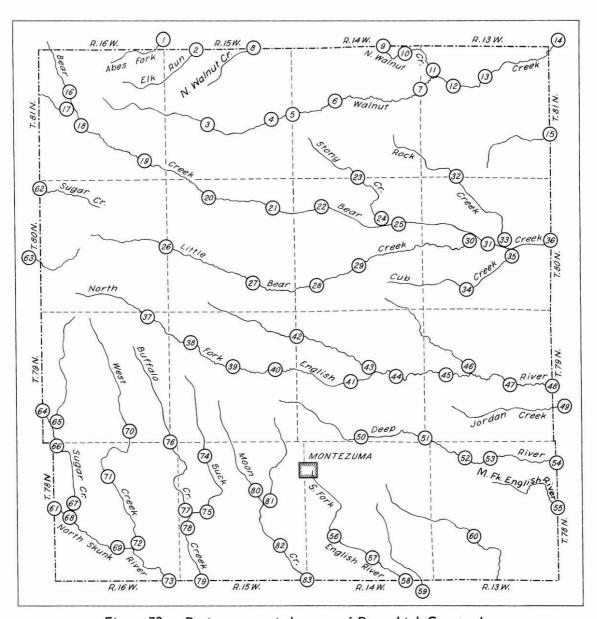


Figure 79. Drainage area index map of Poweshiek County, Iowa.

	Name of stream	Tributary to	Bank	Point of determination of drainage area			Drainage area	
Area No.				Description	Sec	Т	R	(sq mi)
1	Abes Fork	Richland Creek	R	Road crossing, west line	31	82N	15W	6.63
-				Road crossing, north				
2	Elk Run	Richland Creek	R	(county) line	5	81N	15W	6.77
3	Walnut Creek	Iowa River	R	Road crossing, west line	21	81N	15W	8.66
4	Walnut Creek	Iowa River	R	Road crossing, west line	24	81N	15W	17.5
5	Walnut Creek	Iowa River	R	Road crossing, west line	19	81N	14W	24.4
6	Walnut Creek	Iowa River	R	Road crossing, west line	16	81N	14W	31
7	Walnut Creek	Iowa River	R	Road crossing, SW corner	7	81N	13W	40.7
8	North Walnut Creek	Walnut Creek	L	Road crossing, north (county) line	2	81N	15W	3.43
9	North Walnut Creek	Walnut Creek	L	Road crossing, north (county) line	2	81N	14W	14.5
10	North Walnut Creek	Walnut Creek	L	Road crossing, NW1/4	1	81N	14W	20.7
11	North Walnut Creek	Walnut Creek	L	At mouth	7	81N	13W	26.6
12	Walnut Creek	Iowa River	R	Road crossing, south 1/2 (gage near Hartwick)	8	81N	13W	70.9
13	Walnut Creek	Iowa River	R	Road crossing, west line	10	81N	13W	81.8
14	Walnut Creek	Iowa River	R	At mouth	31	82N	12W	91.3
15	Unnamed creek	Honey Creek	L	Road crossing, east (county) line	24	81N	13W	5.84
16	Bear Creek	Iowa River	R	Road crossing, north line	17	81N	16W	7.84
17	Unnamed creek	Bear Creek	R	At mouth	17	81N	16W	5.65
18	Bear Creek	Iowa River	R	Road crossing, west line	21	81N	16W	16.8
19	Bear Creek	Iowa River	R	West line	36	81N	16W	26.1
20	Bear Creek	Iowa River	R	Road crossing, west line	4	80N	15W	37.6
21	Bear Creek	Iowa River	R	Road crossing, west line	12	80N	15W	48.7
22	Bear Creek	Iowa River	R	Road crossing, NW1/4	8	80N	14W	58.2
23	Stony Creek	Bear Creek	L	road crossing, north line	3	80N	14W	7.44
24	Stony Creek	Bear Creek	L	At mouth	14	80N	14W	11.6
25	Bear Creek	Iowa River	R	Road crossing, NE1/4	14	80N	14W	77.9
26	Little Bear Creek	Bear Creek	R	Road crossing, north line	24	80N	16W	9.29
27	Little Bear Creek	Bear Creek	R	Road crossing, west line	26	80N	15W	20.8
28	Little Bear Creek	Bear Creek	R	Road crossing, west line	29	80N	14W	27.3
29	Little Bear Creek	Bear Creek	R	West line	22	80N	14W	36.4
30	Little Bear Creek	Bear Creek	R	At mouth	16	80N	13W	45.1

FINAL Drainage Areas of Iowa Streams.xls Table No. 79 Poweshiek County

32Rock CreekBear CreekLRoad crossing, north line580N13W33Rock CreekBear CreekLAt mouth2280N13W34Cub CreekBear CreekRRoad crossing, west line3380N13W35Cub CreekBear CreekRAt mouth2280N13W36Bear CreekIowa RiverRRoad crossing, east (county) line1380N13W37North Fork English RiverEnglish RiverLRoad crossing, west line179N16W38North Fork English RiverEnglish RiverLRoad crossing, west line879N15W39North Fork English RiverEnglish RiverLRoad crossing, west line1579N15W40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	130
33Rock CreekBear CreekLAt mouth2280N13W34Cub CreekBear CreekRRoad crossing, west line3380N13W35Cub CreekBear CreekRAt mouth2280N13W36Bear CreekIowa RiverRoad crossing, east (county) line1380N13W37North Fork English RiverEnglish RiverLRoad crossing, west line179N16W38North Fork English RiverEnglish RiverLRoad crossing, west line879N15W39North Fork English RiverEnglish RiverLRoad crossing, west line1579N15W40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	9
35 Cub Creek Bear Creek R At mouth 22 80N 13W 36 Bear Creek Iowa River R Road crossing, east (county) line 13 80N 13W 37 North Fork English River English River L Road crossing, west line 1 79N 16W 38 North Fork English River English River L Road crossing, west line 8 79N 15W 39 North Fork English River English River L Road crossing, west line 15 79N 15W 40 North Fork English River English River L Road crossing, west line 13 79N 15W 41 North Fork English River English River L Road crossing, north 1/2 21 79N 14W	16.5
36Bear CreekIowa RiverRRoad crossing, east (county) line1380N13W37North Fork English RiverEnglish RiverLRoad crossing, west line179N16W38North Fork English RiverEnglish RiverLRoad crossing, west line879N15W39North Fork English RiverEnglish RiverLRoad crossing, west line1579N15W40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	5.37
37 North Fork English River English River English River L Road crossing, west line 1 79N 16W 38 North Fork English River English River L Road crossing, west line 8 79N 15W 39 North Fork English River English River L Road crossing, west line 15 79N 15W 40 North Fork English River English River L Road crossing, west line 13 79N 15W 41 North Fork English River English River L Road crossing, north 1/2 21 79N 14W	13.3
38North Fork English RiverEnglish RiverLRoad crossing, west line879N15W39North Fork English RiverEnglish RiverLRoad crossing, west line1579N15W40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	167
39North Fork English RiverEnglish RiverLRoad crossing, west line1579N15W40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	8.23
40North Fork English RiverEnglish RiverLRoad crossing, west line1379N15W41North Fork English RiverEnglish RiverLRoad crossing, north 1/22179N14W	18.9
41 North Fork English River English River L Road crossing, north 1/2 21 79N 14W	26.2
	34
	40.2
42 <u>Unnamed creek</u> North Fork English River L Road crossing, west line 7 79N 14W	5.37
43 <u>Unnamed creek</u> North Fork English River L At mouth 15 79N 14W	14.6
44 North Fork English River English River L Road crossing, north line 23 79N 14W	60.8
45 North Fork English River English River R Road crossing, west line 17 79N 13W	68.7
46 Unnamed creek North Fork English River L At mouth 16 79N 13W	9.81
47 North Fork English River English River L Road crossing, west line 23 79N 13W	88.3
48 North Fork English River English River L Road crossing, east (county) line 24 79N 13W	93.7
49 Jordan Creek North Fork English River R At mouth 19 79N 12W	6.76
50 Deep River North Fork English River R Road crossing, west line 34 79N 14W	7.46
51 Deep River North Fork English River R Road crossing, west line 31 79N 13W	14.2
52 Deep River North Fork English River R Railraod crossing, SE1/4 5 78N 13W	23.9
53 Deep River North Fork English River R Road crossing, west line 3 78N 13W	30.5
54 Deep River North Fork English River R Road crossing, east (county) line 1 78N 13W	36.6
55 Middle Fork English River North Fork English River Road crossing, east (county) line	6.52
56 South Fork English River English River R Road crossing, north line 29 78N 14W	5.43
57 South Fork English River English River R Road crossing, north line 34 78N 14W	11.5
58 South Fork English River English River R Road crossing, south (county) line 35 78N 14W	14.8
59 Unnamed creek South Fork English River L At mouth 1 77N 14W	6.55
60 Unnamed creek South Fork English River L Road crossing, north line 29 78N 13W	7.73
61 North Skunk River Skunk River L West (county) line 18 78N 16W	287
62 Sugar Creek North Skunk River L Road crossing, west (county) line 6 80N 16W	5.99
63 Unnamed creek Sugar Creek L At mouth 24 80N 17W	7.92

FINAL Drainage Areas of Iowa Streams.xls Table No. 79 Poweshiek County

64	Sugar Creek	North Skunk River	L	West (county) line	30	79N	16W	36.2
65	Unnamed creek	Sugar Creek	L	At mouth	30	79N	16W	7.94
66	Sugar Creek	North Skunk River	L	North line	6	78N	16W	47.6
67	Sugar Creek	North Skunk River	L	At mouth	19	78N	16W	54.8
68	North Skunk River	Skunk River	L	Below Sugar Creek	19	78N	16W	344
69	North Skunk River	Skunk River	L	Road crossing, NW¼	27	78N	16W	358
70	West Creek	North Skunk River	L	Road crossing, west 1/2	35	79N	16W	7.36
71	West Creek	North Skunk River	L	Road crossing, NE¼	9	78N	16W	13.4
72	West Creek	North Skunk River	L	At mouth	27	78N	16W	21.7
73	North Skunk River	Skunk River	L	South (county) line	36	78N	16W	384
74	Buck Creek	North Skunk River	L	Road crossing, west 1/2	5	78N	15W	5.52
75	Buck Creek	North Skunk River	L	Road crossing, west line	17	78N	15W	11.6
76	Buffalo Creek	Buck Creek	R	Road crossing, north line	1	78N	16W	7.25
77	Buffalo Creek	Buck Creek	R	At mouth	18	78N	15W	17
78	Buck Creek	North Skunk River	L	Road crossing, NW¼	19	78N	15W	29.2
79	Buck Creek	North Skunk River	L	Road crossing, south (county) line	32	78N	15W	33.9
80	Moon Creek	North Skunk River	L	Road crossing, north line	15	78N	15W	7.19
81	Unnamed creek	Moon Creek	L	At mouth	15	78N	15W	7.3
82	Moon Creek	North Skunk River	L	Road crossing, NE1/4	26	78N	15W	18.5
83	Moon Creek	North Skunk River	L	Road crossing, south (county) line	31	78N	14W	27.9

DRAINAGE AREAS OF IOWA STREAMS

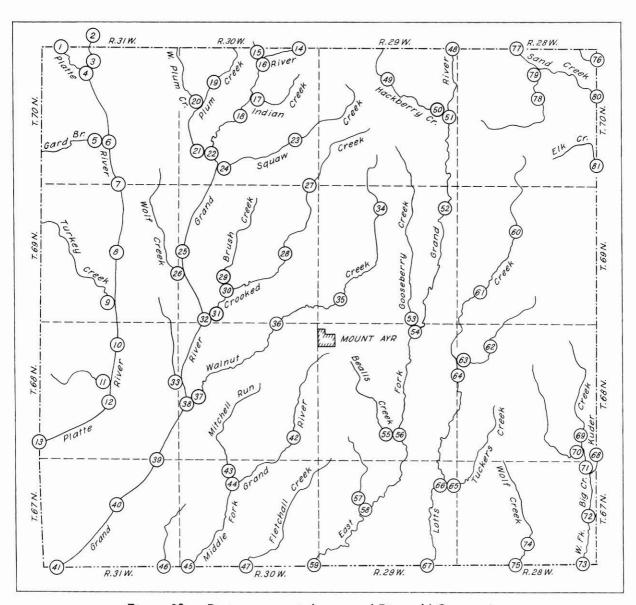


Figure 80. Drainage area index map of Ringgold County, Iowa.

			Bank	Point of determination of dra	letermination of drainage area			
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	Drainage area (sq mi)
1	Platte River	Missouri River	L	Road crossing, north (county) line	6	70N	31W	103
2	East Platte River	Platte River	L	Below Middle Platte River	33	71N	31W	66.3
3	East Platte River	Platte River	L	At mouth	8	70N	31W	67.7
4	Platte River	Missouri River	L	Below East Platte River	8	70N	31W	178
5	Gard Branch	Platte River	R	At mouth	28	70N	31W	10.8
6	Platte River	Missouri River	L	Below Gard Branch	28	70N	31W	201
7	Platte River	Missouri River	L	Road crossing, north line	3	69N	31W	211
8	Platte River	Missouri River	L	Road crossing, north line	22	69N	31W	217
9	Turkey Creek	Platte River	R	At mouth	34	69N	31W	10.8
10	Platte River	Missouri River	L	Road crossing, north line	10	68N	31W	236
11	Unnamed creek	Platte River	R	At mouth	15	68N	31W	6.32
12	Platte River	Missouri River	L	Road crossing, east 1/2	21	68N	31W	247
13	Platte River	Missouri River	L	Road crossing, west (county) line	31	68N	31W	255
14	Grand River	Missouri River	L	Road crossing, north (county) line	1	70N	30W	22.3
15	Grand Creek	Grand River	R	At mouth	3	70N	30W	10.6
16	Grand River	Missouri River	L	Below Grand Creek	3	70N	30W	34.4
17	Indian Creek	Grand River	L	At mouth	15	70N	30W	4.86
18	Grand River	Missouri River	L	Road crossing, north line	21	70N	30W	43.1
19	Plum Creek	Grand River	R	Road crossing, west 1/2	8	70N	30W	5.64
20	West Plum Creek	Plum Creek	R	At mouth	18	70N	30W	9.41
21	Plum Creek	Grand River	R	At mouth	29	70N	30W	20
22	Grand River	Missouri River	L	Below Plum Creek	29	70N	30W	67
23	Squaw Creek	Grand River	L	Road crossing, west line	25	70N	30W	7.83
24	Squaw Creek	Grand River	Ē	At mouth	32	70N	30W	13
25	Grand River	Missouri River	L	Road crossing, north line	19	69N	30W	90.6
26	Wolf Creek	Grand River	- R	At mouth	19	69N	30W	7.43
27	Crooked Creek	Grand River	L	North line	1	69N	30W	5.49
28	Crooked Creek	Grand River	Ĺ	Road crossing, north line	23	69N	30W	14.2
29	Brush Creek	Crooked Creek	R	At mouth	28	69N	30W	5.51
30	Crooked Creek	Grand River	I I	Below Brush Creek	28	69N	30W	26.3
31	Crooked Creek	Grand River	L	At mouth	32	69N	30W	28.2
32	Grand River	Missouri River	L I	Below Crooked Creek	32	69N	30W	131
33	Unnamed creek	Grand River	R	At mouth	18	68N	30W	8.54
55	Official Cleek	Orana Miver	IX	Atmouth	10	OOIN	3011	0.04

34	Walnut Creek	Grand River	L	Road crossing, north line	9	69N	29W	5.65
35	Walnut Creek	Grand River	L	Road crossing, west line	29	69N	29W	12.4
36	Walnut Creek	Grand River	L	Road crossing, north line	2	68N	30W	23.9
37	Walnut Creek	Grand River	L	At mouth	19	68N	30W	32.1
38	Grand River	Missouri River	L	Below Walnut Creek	19	68N	30W	177
39	Grand River	Missouri River	L	Road crossing, north line	1	67N	31W	185
40	Grand River	Missouri River	L	Road crossing, north line	15	67N	31W	195
41	Grand River	Missouri River	L	State line	30	67N	31W	206
42	Middle Fork Grand River	Grand River	L	Road crossing, north line	35	68N	30W	11.1
43	Mitchell Run	Middle Fork Grand River	R	At mouth	9	67N	30W	9.65
44	Middle Fork Grand River	Grand River	L	Below Mitchell Run	9	67N	30W	28.7
45	Middle Fork Grand River	Grand River	L	State line	30	67N	30W	42.1
46	Unnamed creek	Middle Fork Grand River	R	State line	25	67N	31W	5.55
47	Fletchall Creek	Middle Fork Grand River	L	Road crossing, state line	28	67N	30W	8.38
48	East Fork Grand River	Grand River	L	Road crossing, north (county) line	1	70N	29W	11.7
49	Hackberry Creek	East Fork Grand River	R	Road crossing west line	10	70N	29W	6.06
50	Hackberry Creek	East Fork Grand River	R	At mouth	13	70N	29W	12.9
51	East Fork Grand River	Grand River	L	Below Hackberry Creek	13	70N	29W	31
52	East Fork Grand River	Grand River	L	North line	12	69N	29W	42.3
53	Gooseberry Creek	East Fork Grand River	R	At mouth	2	68N	29W	9.65
54	East Fork Grand River	Grand River	L	Below Gooseberry Creek	2	68N	29W	60.6
55	Bealls Creek	East Fork Grand River	R	At mouth	27	68N	29W	7.17
56	East Fork Grand River	Grand River	L	Below Bealls Creek	27	68N	29W	78.7
57	Unnamed creek	East Fork Grand River	R	At mouth	17	67N	29W	5.63
58	East Fork Grand River	Grand River	L	Below unnamed creek	17	67N	29W	91.5
59	East Fork Grand River	Grand River	L	State line	25	67N	30W	97.7
60	Lotts Creek	East Fork Grand River	L	Road crossing, north line	16	69N	28W	6.62
61	Lotts Creek	East Fork Grand River	L	Road crossing, west line	29	69N	28W	19.2
62	Unnamed creek	Lotts Creek	L	Road crossing, north line	8	68N	28W	4.72
63	Unnamed creek	Lotts Creek	L	At mouth	18	68N	28W	12.3
64	Lotts Creek	East Fork Grand River	L	Road crossing, NW1/4	18	68N	28W	38.3
65	Tuckers Creek	Lotts Creek	L	At mouth	12	67N	29W	7.55
66	Lotts Creek	East Fork Grand River	L	Below Tuckers Creek	12	67N	29W	53.7
67	Lotts Creek	East Fork Grand River	L	State line	26	67N	29W	63.4
68	West Fork Big Creek	Big Creek	R	East (county) line	1	67N	28W	5.29
69	Kuder Creek	West Fork Big Creek	R	Road crossing, north line	36	68N	28W	6.8
70	Unnamed creek	Kuder Creek	R	At mouth	36	68N	28W	10.8
71	Kuder Creek	West Fork Big Creek	R	At mouth	1	67N	28W	18.6
72	West Fork Big Creek	Big Creek	R	North line	13	67N	28W	27

73	West Fork Big Creek	Big Creek	R	State line	25	67N	28W	31.8
74	Wolf Creek	West Fork Big Creek	R	Road crossing, west line	22	67N	28W	9.77
75	Wolf Creek	West Fork Big Creek	R	State line	28	67N	28W	16.6
76	Thompson River	Grand River	L	East (county) line	1	70N	28W	393
77	Sand Creek	Thompson River	R	Road crossing, north (county) line	4	70N	28W	8.4
78	Unnamed creek	Sand Creek	R	road crossing, north 1/2	15	70N	28W	6.52
79	Unnamed creek	Sand Creek	R	At mouth	3	70N	28W	12
80	Sand Creek	Thompson River	R	East (county) line	13	70N	28W	26.1
81	Elk Creek	Thompson River	R	Road crossing, east (county) line	36	70N	28W	7.27

DRAINAGE AREAS OF IOWA STREAMS

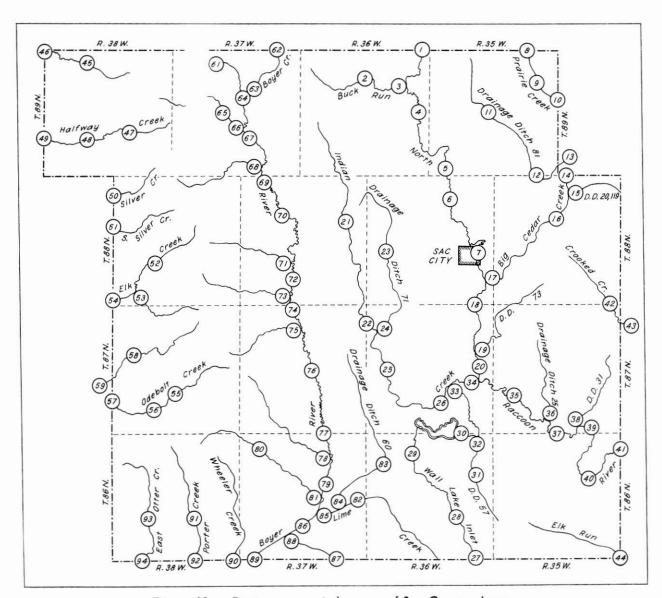


Figure 81. Drainage area index map of Sac County, Iowa.

	N. C.	T 11	Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	North Raccoon River	Raccoon River	L	Road crossing, north (county) line	1	89N	36W	287
2	Buck Run	North Raccoon River	R	Road crossing, west line	10	89N	36W	10.3
3	Buck Run	North Raccoon River	R	At mouth	11	89N	36W	18.3
4	North Raccoon River	Raccoon River	L	Road crossing, north line	24	89N	36W	314
5	North Raccoon River	Raccoon River	L	Road crossing, SE1/4	31	89N	36W	326
6	North Raccoon River	Raccoon River	L	Road crossing, north line	11	88N	36W	333
7	North Raccoon River	Raccoon River	L	Road crossing, west 1/2	24	88N	36W	349
8	Prairie Creek	Big Cedar Creek	R	North (county) line	2	89N	35W	30.4
9	Prairie Creek	Big Cedar Creek	R	Road crossing, west line	12	89N	35W	39.3
10	Prairie Creek	Big Cedar Creek	R	Road crossing, east (county) line	13	89N	35W	44.1
11	Drainage Ditch 81	Big Cedar Creek	R	Road crossing, north line	21	89N	35W	7.8
12	Drainage Ditch 81	Big Cedar Creek	R	Road crossing, NW corner	4	88N	35W	16.1
13	Drainage Ditch 81	Big Cedar Creek	R	At mouth	31	89N	34W	22
14	Big Cedar Creek	North Raccoon River	L	North (county) line	3	88N	35W	317
15	Drainage Ditch 20, 119	Big Cedar Creek	L	At mouth	3	88N	35W	6.77
16	Big Cedar Creek	North Raccoon River	L	Road crossing, west line	10	88N	35W	331
17	Big Cedar Creek	North Raccoon River	L	At mouth	25	88N	36W	342
18	North Raccoon River	Raccoon River	L	Road crossing, north line	1	87N	36W	697
19	Drainage Ditch 73	North Raccoon River	L	At mouth	13	87N	36W	8.07
20	North Raccoon River	Raccoon River	L	Road crossing, north line	24	87N	36W	713
21	Indian Creek	North Raccoon River	R	Road crossing, north line	13	88N	37W	6.17
22	Indian Creek	North Raccoon River	R	Road crossing, north line	7	87N	36W	13.2
23	Drainage Ditch 71	Indian Creek	L	Road crossing, east 1/2	19	88N	36W	8.15
24	Drainage Ditch 71	Indian Creek	L	At mouth	7	87N	36W	16
25	Indian Creek	North Raccoon River	R	Road crossing, north line	20	87N	36W	33.6
26	Indian Creek	North Raccoon River	R	Road crossing, west line	23	87N	36W	42.8
27	Wall Lake Inlet	Wall Lake		Road crossing, south (county) line	36	86N	36W	4.42
28	Wall Lake Inlet	Wall Lake		Road crossing, north line	26	86N	36W	8.5
29	Wall Lake Inlet	Wall Lake		Road crossing, north line	9	86N	36W	18.2
30	Wall Lake Outlet	Indian Creek	R	Road crossing, north line	2	86N	36W	23.4
31	Drainage Ditch 57	Wall Lake Outlet	R	North line	13	86N	36W	5.23
32	Drainage Ditch 57	Wall Lake Outlet	R	At mouth	1	86N	36W	13.4

33	Wall Lake Outlet	Indian Creek	R	At mouth	23	87N	36W	41.6
34	Indian Creek	North Raccoon River	R	At mouth	24	87N	36W	90.4
35	North Raccoon River	Raccoon River	L	Road crossing, west line	29	87N	35W	807
36	Drainage Ditch 25	North Raccoon River	L	At mouth	33	87N	35W	7.7
37	North Raccoon River	Raccoon River	L	Road crossing, west line	3	86N	35W	822
38	Drainage Ditch 31	North Raccoon River	L	At mouth	34	87N	35W	9.77
39	North Raccoon River	Raccoon River	L	Road crossing, SW1/4	35	87N	35W	833
40	North Raccoon River	Raccoon River	L	Road crossing, north 1/2	14	86N	35W	844
41	North Raccoon River	Raccoon River	L	East (county) line	1	86N	35W	852
42	Crooked Creek	West Fork Camp Creek	R	Road crossing, north line	1	87N	35W	9.34
43	Crooked Creek	West Fork Camp Creek	R	At mouth	5	87N	34W	14.3
44	Elk Run	North Raccoon River	R	Road crossing, south (county) line	36	86N	35W	7.19
45	Unnamed creek	Maple River	L	Road crossing, west line	4	89N	38W	4.82
46	Unnamed creek	Maple River	L	Road crossing, west (county) line	6	89N	38W	9.78
47	Halfway Creek	Maple Creek	L	Road crossing, west line	23	89N	38W	3.52
48	Halfway Creek	Maple Creek	L	Road crossing, west line	28	89N	38W	11.2
49	Halfway Creek	Maple Creek	L	Road crossing, west (county) line	30	89N	38W	17
50	Silver Creek	Maple Creek	L	Road crossing, west (county) line	6	88N	38W	4.54
51	South Silver Creek	Silver Creek	L	Road crossing, west (county) line	18	88N	38W	3.68
52	Elk Creek	Maple River	L	Road crossing, west line	28	88N	38W	5.89
53	Unnamed creek	Elk Creek	L	At mouth	32	88N	38W	6.99
54	Elk Creek	Maple River	L	Road crossing, west (county) line	31	88N	38W	17.1
55	Odebolt Creek	Maple River	L	Road crossing, west line	27	87N	38W	5.52
56	Odebolt Creek	Maple River	L	Road crossing, west line	28	87N	38W	13.6
57	Odebolt Creek	Maple River	L	Road crossing, west (county) line	30	87N	38W	22.2
58	Unnamed creek	Odebolt Creek	R	Road crossing, west line	17	87N	38W	6.62
59	Unnamed creek	Odebolt Creek	R	At mouth	24	87N	39W	10.3
60	Boyer River	Missouri River	L	Road crossing, north (county) line	5	89N	37W	8.08
61	Boyer River	Missouri River	L	Road crossing, west line	4	89N	37W	19.5
62	Boyer Creek	Boyer River	L	Road crossing, north (county) line	2	89N	37W	6.16
63	Boyer Creek	Boyer River	L	At mouth	15	89N	37W	14.2

64	Boyer River	Missouri River	L	Below Boyer Creek	15	89N	37W	38.3
65	Unnamed creek	Boyer River	R	Road crossing, north line	21	89N	37W	5.54
66	Unnamed creek	Boyer River	R	At mouth	22	89N	37W	11.6
67	Boyer River	Missouri River	L	Road crossing, north line	27	89N	37W	55.4
68	Unnamed creek	Boyer River	R	At mouth	35	89N	37W	5.19
69	Boyer River	Missouri River	L	Road crossing, NE corner	6	88N	37W	67.5
70	Boyer River	Missouri River	L	West line	9	88N	37W	78
71	Unnamed creek	Boyer River	R	At mouth	28	88N	37W	7.81
72	Boyer River	Missouri River	L	Road crossing, north line	33	88N	37W	99
73	Unnamed creek	Boyer River	R	At mouth	33	88N	37W	8.95
74	Boyer River	Missouri River	L	Road crossing, north line	4	87N	37W	112
75	Unnamed creek	Boyer River	R	At mouth	9	87N	37W	5.27
76	Boyer River	Missouri River	L	Road crossing, north line	22	87N	37W	123
77	Boyer River	Missouri River	L	Road crossing, north line	2	86N	37W	135
78	Unnamed creek	Boyer River	R	At mouth	11	86N	37W	8.64
79	Boyer River	Missouri River	L	Road crossing, NE corner	22	86N	37W	147
80	Unnamed creek	Boyer River	R	Road crossing, west line	5	86N	37W	6.03
81	Unnamed creek	Boyer River	R	At mouth	22	86N	37W	12.9
82	Lime Creek	Boyer River	L	West line	24	86N	37W	9.92
83	Drainage Ditch 60	Lime Creek	R	Road crossing, west 1/2	8	86N	36W	6.83
84	Drainage Ditch 60	Lime Creek	R	At mouth	23	86N	37W	9.71
85	Lime Creek	Boyer River	L	At mouth	22	86N	37W	25.9
86	Boyer River	Missouri River	L	Road crossing, west line	27	86N	37W	189
87	Unnamed creek	Boyer River	L	Road crossing, south (county) line	35	86N	37W	11
88	Unnamed creek	Boyer River	L	At mouth	28	86N	37W	14.4
00	Official feet	Boyer River	L	Road crossing, south	20	OUN	37 VV	14.4
89	Boyer River	Missouri River	L	(county) line	31	86N	37W	210
90	Wheeler Creek	Boyer River	R	Road crossing, south	36	86N	38W	5.68
0.4	De de Const	•	_	(county) line	07	001	00147	0.0
91	Porter Creek	Boyer River	R	Road crossing, north line	27	86N	38W	6.6
92	Porter Creek	Boyer River	R	South (county) line	34	86N	38W	12.9
93	East Otter Creek	Otter Creek	L	Road crossing, north line	29	86N	38W	5.85
94	East Otter Creek	Otter Creek	L	Road crossing, south (county) line	32	86N	38W	11

DRAINAGE AREAS OF IOWA STREAMS

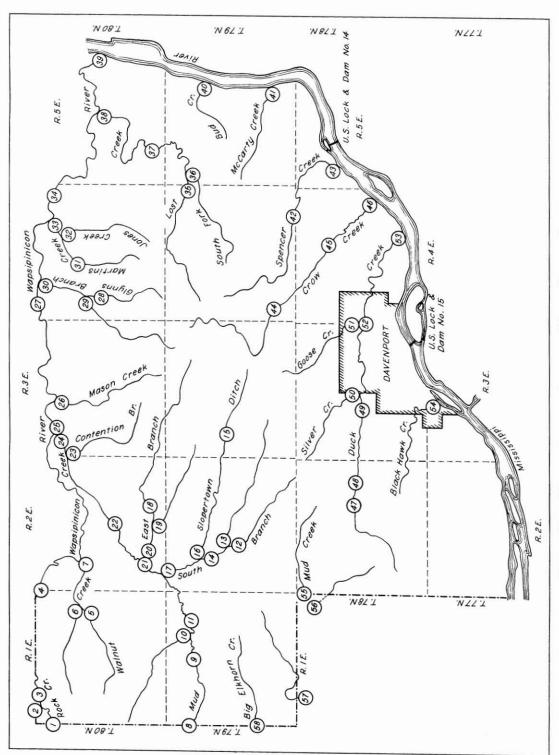


Figure 82. Drainage area index map of Scott County, Iowa.

		-	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Rock Creek	Wapsipinicon River	R	West (county) line	6	80N	1E	21.4
2	Unnamed creek	Rock Creek	L	At mouth	6	80N	1E	7.13
3	Rock Creek	Wapsipinicon River	R	Road crossing, west line	5	80N	1E	29.6
4	Wapsipinicon River	Mississippi River	R	Road crossing, west line	6	80N	2E	2053
5	Walnut Creek	Wapsipinicon River	R	Road crossing, west 1/2	13	80N	1E	7.87
6	Unnamed creek	Walnut Creek	L	At mouth	13	80N	1E	6.2
7	Walnut Creek	Wapsipinicon River	R	At mouth	17	80N	2E	16.2
8	Mud Creek	Wapsipinicon River	R	Road crossing, west (county) line	7	79N	1E	8.45
9	Mud Creek	Wapsipinicon River	R	West line	10	79N	1E	18.4
10	Unnamed creek	Mud Creek	L	At mouth	11	79N	1E	7.12
11	Mud Creek	Wapsipinicon River	R	Road crossing, NE1/4	11	79N	1E	34.2
12	South Branch Mud Creek	Mud Creek	R	Road crossing, north line	21	79N	2E	11
13	Unnamed creek	South Branch Mud Creek	R	At mouth	16	79N	2E	9.93
14	South Branch Mud Creek	Mud Creek	R	Road crossing, south 1/2	8	79N	2E	23.7
15	Slopertown Ditch	South Branch Mud Creek	R	Road crossing, west line	17	79N	3E	10.8
16	Slopertown Ditch	South Branch Mud Creek	R	At mouth	8	79N	2E	19.1
17	South Branch Mud Creek	Mud Creek	R	At mouth	31	80N	2E	45.7
18	East Branch Mud Creek	Mud Creek	R	Road crossing, NE1/4	34	80N	2E	10.2
19	Unnamed creek	East Branch Mud Creek	L	At mouth	33	80N	2E	5.85
20	East Branch Mud Creek	Mud Creek	R	At mouth	32	80N	2E	18.7
21	Mud Creek	Wapsipinicon River	R	Below East Branch Mud Creek	32	80N	2E	109
22	Mud Creek	Wapsipinicon River	R	Road crossing, east 1/2	21	80N	2E	115
23	Contention Branch	Mud Creek	R	At mouth	7	80N	3E	6.08
24	Mud Creek	Wapsipinicon River	R	At mouth	5	80N	3E	128
25	Wapsipinicon River	Mississippi River	R	Below Mud Creek	5	80N	3E	2224
26	Mason Creek	Wapsipinicon River	R	At mouth	4	80N	3E	8.28
27	Wapsipinicon River	Mississippi River	R	Road crossing, NE¼ (gage near DeWitt)	6	80N	4E	2330
28	Glynns Branch	Wapsipinicon River	R	Road crossing, NW corner	20	80N	4E	4.86
29	Unnamed creek	Glynns Branch	L	At mouth	17	80N	4E	8.78
30	Glynns Branch	Wapsipinicon River	R	At mouth	5	80N	4E	16.5
31	Martins Creek	Wapsipinicon River	R	Road crossing, north line	16	80N	4E	5.65
32	Jones Creek	Martins Creek	R	At mouth	11	80N	4E	4.97

33	Martins Creek	Wapsipinicon River	R	At mouth	2	80N	4E	12.6
34	Wapsipinicon River	Mississippi River	R	Below Brophys Creek	1	80N	4E	2482
35	Lost Creek	Wapsipinicon River	R	Road crossing, west line	7	79N	5E	7.11
36	South Fork Lost Creek	Lost Creek	R	At mouth	7	79N	5E	11.5
37	Lost Creek	Wapsipinicon River	R	Road crossing, center	32	80N	5E	29.3
38	Lost Creek	Wapsipinicon River	R	At mouth	15	80N	5E	34.8
39	Wapsipinicon River	Mississippi River	R	At mouth	13	80N	5E	2540
40	Bud Creek	Mississippi River	R	At mouth	11	79N	5E	5.69
41	McCarty Creek	Mississippi River	R	At mouth	26	79N	5E	5.61
42	Spencer Creek	Mississippi River	R	Road crossing, SE1/4	35	79N	4E	9.05
43	Spencer Creek	Mississippi River	R	At mouth	18	78N	5E	19.7
44	Crow Creek	Mississippi River	R	Road crossing, north line	31	79N	4E	9.6
45	Crow Creek	Mississippi River	R	Road crossing, center	10	78N	4E	13.9
46	Crow Creek	Mississippi River	R	At mouth	24	78N	4E	18.8
47	Duck Creek	Mississippi River	R	Road crossing, west line	14	78N	2E	9.05
48	Duck Creek	Mississippi River	R	Road crossing, west line	13	78N	2E	16.1
49	Duck Creek	Mississippi River	R	Road crossing, south 1/2	16	78N	3E	25.6
50	Silver Creek	Duck Creek	L	At mouth	16	78N	3E	8.8
51	Goose Creek	Duck Creek	L	At mouth	24	78N	3E	8.59
52	Duck Creek	Mississippi River	R	Below Goose Creek	24	78N	3E	51.4
53	Duck Creek	Mississippi River	R	At mouth	27	78N	4E	64.5
54	Black Hawk Creek	Mississippi River	R	At mouth	4	77N	3E	7.26
55	Mud Creek	Sugar Creek	L	West (county) line	6	78N	2E	8.33
56	Unnamed creek	Mud Creek	L	At mouth	1	78N	1E	6.1
57	Unnamed creek	Mud Creek	R	At mouth	5	78N	1E	6.96
58	Big Elkhorn Creek	Mud Creek	R	Road crossing, west (county) line	30	79N	1E	5.67

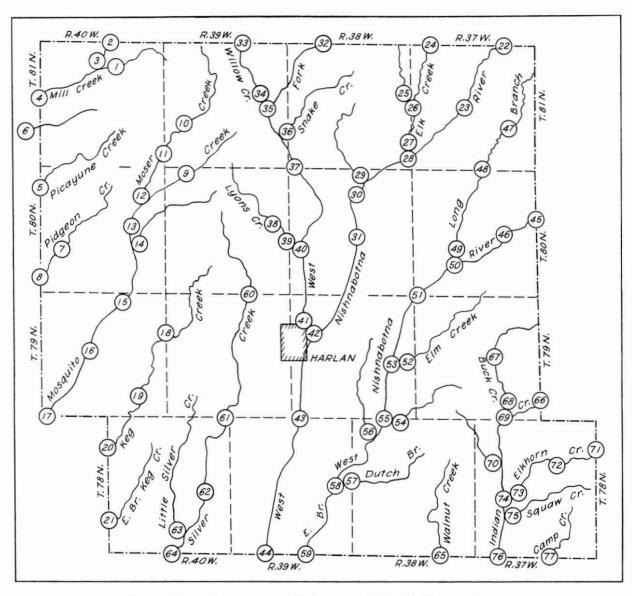


Figure 83. Drainage area index map of Shelby County, Iowa.

			Bank	Point of determination of dra	inage a	rea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Mill Creek	Boyer River	L	Road crossing, NW1/4	10	81N	40W	6.84
2	Bee Tree Creek	Mill Creek	R	Road crossing, north (county) line	3	81N	40W	6.21
3	Bee Tree Creek	Mill Creek	R	At mouth	9	81N	40W	7.39
4	Mill Creek	Boyer River	L	West (county) line	18	81N	40W	28
5	Picayune Creek	Boyer River	L	Road crossing, west (county) line	7	80N	40W	9.76
6	North Picayune Creek	Picayune Creek	R	Road crossing, south 1/2	25	81N	41W	3.68
7	Pidgeon Creek	Missouri River	L	Road crossing, NW corner	29	80N	40W	9.13
8	Pidgeon Creek	Missouri River	L	West (county) line	31	80N	40W	13.9
9	Mosquito Creek	Missouri River	L	Road crossing, NW1/4	5	80N	39W	4.57
10	Moser Creek	Mosquito Creek	R	Road crossing, west line	20	81N	39W	9.85
11	Moser Creek	Mosquito Creek	R	Road crossing, west line	31	81N	39W	16.8
12	Moser Creek	Mosquito Creek	R	At mouth	11	80N	40W	24.4
13	Mosquito Creek	Missouri River	L	Road crossing, north 1/2	23	80N	40W	35.7
14	Unnamed creek	Mosquito Creek	L	At mouth	23	80N	40W	6.57
15	Mosquito Creek	Missouri River	L	Road crossing, east 1/2	3	79N	40W	54.6
16	Mosquito Creek	Missouri River	L	Road crossing, SW1/4	16	79N	40W	63.9
17	Mosquito Creek	Missouri River	L	Road crossing, south (county) line	31	79N	40W	80.8
18	Keg Creek	Missouri River	L	Road crossing, west line	7	79N	39W	10.4
19	Keg Creek	Missouri River	L	Road crossing, north line	35	79N	40W	20.2
20	Keg Creek	Missouri River	L	Road crossing, west (county) line	6	78N	40W	29.4
21	East Branch Keg Creek	Keg Creek	L	West (county) line	30	78N	40W	4.83
22	West Nishnabotna River	Nishnabotna River	R	Road crossing, north (county) line	2	81N	37W	70.6
23	West Nishnabotna River	Nishnabotna River	R	Road crossing, north line	21	81N	37W	80.6
24	Elk Creek	West Nishnabotna River	R	Road crossing, north (county) line	5	81N	37W	17.1
25	Greeley Creek	Elk Creek	R	At mouth	18	81N	37W	7.72
26	Elk Creek	West Nishnabotna River	R	Road crossing, north line	19	81N	37W	30.1
27	Elk Creek	West Nishnabotna River	R	At mouth	36	81N	38W	35.3
28	West Nishnabotna River	Nishnabotna River	R	Below Elk Creek	36	81N	38W	125
29	Unnamed creek	West Nishnabotna River	R	At mouth	3	80N	38W	5.02
30	West Nishnabotna River	Nishnabotna River	R	Road crossing, north line	10	80N	38W	140
31	West Nishnabotna River	Nishnabotna River	R	Road crossing, north 1/2	22	80N	38W	148
				5 ·				

32	West Fork West Nishnabotna River	West Nishnabotna River	R	Road crossing, north (county) line	5	81N	38W	71.5
33	Willow Creek	West Fork West Nishnabotna River	R	North (county) line	3	81N	39W	11.5
34	Willow Creek	West Fork West Nishnabotna River	R	At mouth	24	81N	39W	19.2
35	West Fork West Nishnabotna River	West Nishnabotna River	R	Below Willow Creek	24	81N	39W	99.2
36	Snake Creek	West Fork West Nishnabotna River	L	At mouth	25	81N	39W	6.02
37	West Fork West Nishnabotna River	West Nishnabotna River	R	North line	6	80N	38W	114
38	Lyons Creek	West Fork West Nishnabotna River	R	Road crossing, west 1/2	13	80N	39W	6.32
39	Lyons Creek	West Fork West Nishnabotna River	R	At mouth	19	80N	38W	12.5
40	West Fork West Nishnabotna River	West Nishnabotna River	R	Below Lyons Creek	19	80N	38W	139
41	West Fork West Nishnabotna River	West Nishnabotna River	R	At mouth	8	79N	38W	151
42	West Nishnabotna River	Nishnabotna River	R	Below West Fork West Nishnabotna River	8	79N	38W	312
43	West Nishnabotna River	Nishnabotna River	R	North line	3	78N	39W	330
44	West Nishnabotna River	Nishnabotna River	R	South (county) line	32	78N	39W	350
45	East Branch West Nishnabotna River	West Nishnabotna River	L	Road crossing, east (county) line	13	80N	37W	70.3
46	East Branch West Nishnabotna River	West Nishnabotna River	L	Road crossing, north line	23	80N	37W	80.7
47	Long Branch	East Branch West Nishnabotna River	R	Road crossing, north line	26	81N	37W	8.39
48	Long Branch	East Branch West Nishnabotna River	R	Road crossing, north line	3	80N	37W	16.5
49	Long Branch	East Branch West Nishnabotna River	R	At mouth	28	80N	37W	28.3
50	East Branch West Nishnabotna River	West Nishnabotna River	L	Below Long Branch	28	80N	37W	120
51	East Branch West Nishnabotna River	West Nishnabotna River	L	North line	6	79N	37W	130
52	Elm Creek	East Branch West Nishnabotna River	L	At mouth	23	79N	38W	10.3
53	East Branch West Nishnabotna River	West Nishnabotna River	L	Below Elm Creek	23	79N	38W	151

			,				
Unnamed creek	East Branch West Nishnabotna River	L	At mouth	5	78N	38W	8.11
East Branch West Nishnabotna River	West Nishnabotna River	L	Below unnamed creek	5	78N	38W	164
Unnamed creek	East Branch West Nishnabotna River	R	At mouth	5	78N	38W	6.32
Dutch Branch	East Branch West Nishnabotna River	L	At mouth	13	78N	39W	9.74
East Branch West Nishnabotna River	West Nishnabotna River	L	Below Dutch Branch	13	78N	39W	193
East Branch West Nishnabotna River	West Nishnabotna River	L	South (county) line	34	78N	39W	204
Silver Creek	West Nishnabotna River	R	Road crossing, north line	2	79N	39W	7.24
Silver Creek	West Nishnabotna River	R	North line	1	78N	40W	18.6
Silver Creek	West Nishnabotna River	R	Road crossing, north line	23	78N	40W	25.5
Little Silver Creek	Silver Creek	R	At mouth	34	78N	40W	9.39
Silver Creek	West Nishnabotna River	R	South (county) line	34	78N	40W	41.2
Walnut Creek	West Nishnabotna River	L	Road crossing, south (county) line	35	78N	38W	7.68
Indian Creek	East Nishnabotna River	R	Road crossing, east (county) line	36	79N	37W	31.4
Buck Creek	Indian Creek	R	Road crossing, north line	22	79N	37W	9.92
Buck Creek	Indian Creek	R	At mouth	35	79N	37W	18.7
Indian Creek	East Nishnabotna River	R	Below Buck Creek	35	79N	37W	52.3
Unnamed creek	Indian Creek	R	At mouth	8	78N	37W	5.41
Elkhorn Creek	Indian Creek	L	Road crossing, east (county) line	1	78N	37W	20.4
Elkhorn Creek	Indian Creek	L	West line	11	78N	37W	27.2
Elkhorn Creek	Indian Creek	L	At mouth	20	78N	37W	35.8
Indian Creek	East Nishnabotna River	R	Below Elkhorn Creek	20	78N	37W	103
Squaw Creek	Indian Creek	L	At mouth	20	78N	37W	6.38
Indian Creek	East Nishnabotna River	R	Road crossing, south (county) line	32	78N	37W	117
Camp Creek	Indian Creek	L	Road crossing, south (county) line	34	78N	37W	5.57
	East Branch West Nishnabotna River Unnamed creek Dutch Branch East Branch West Nishnabotna River East Branch West Nishnabotna River Silver Creek Silver Creek Silver Creek Silver Creek Little Silver Creek Silver Creek Undian Creek Buck Creek Buck Creek Buck Creek Buck Creek Buck Creek Elkhorn Creek Elkhorn Creek Elkhorn Creek Indian Creek Indian Creek Indian Creek Indian Creek Indian Creek	East Branch West Nishnabotna River Unnamed creek Dutch Branch East Branch West Nishnabotna River West Nishnabotna River Silver Creek Silver Creek West Nishnabotna River West Nishnabotna River West Nishnabotna River Indian Creek West Nishnabotna River West Nishnabotna River Indian Creek Indian Creek Indian Creek Indian Creek Indian Creek Elkhorn Creek Indian Creek	East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Unnamed creek Dutch Branch East Branch West Nishnabotna River East Nishnabotna River R West Nishnabotna River R West Nishnabotna River R West Nishnabotna River R Hodian Creek East Nishnabotna River R Elkhorn Creek Indian Creek Indian Creek Indian Creek Elkhorn Creek Indian Creek Indian Creek Elkhorn Creek Indian Creek East Nishnabotna River R Indian Creek Indian Creek L Elkhorn Creek Indian Creek Indian Creek L Indian Creek East Nishnabotna River R R Indian Creek Indian Creek L Indian Creek Indian Creek L Indian Creek Indian Creek L Indian Creek East Nishnabotna River R R R R Indian Creek L Indian Creek Indian Creek L Indian Creek East Nishnabotna River R R R R R R R R R R R R R	East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Dutch Branch East Branch West Nishnabotna River East Nishnabotna River West Nishnabotna River East Nishnabotna River West Nishnabotna River East Nishnabotna River Road crossing, south (county) line Road crossing, east (county) line Elkhorn Creek Indian Creek I	East Branch West Nishnabotna River L Below unnamed creek East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Dutch Branch East Branch West Nishnabotna River West Nishnabotna River East Branch West Nishnabotna River East Branch West Nishnabotna River West Nishnabotna River East Branch West Nishnabotna River East Branch West Nishnabotna River West Nishnabotna River East Branch West Nishnabotna River East Branch West Nishnabotna River West Nishnabotna River East Branch West Nishnabotna River R Road crossing, north line 2 Silver Creek West Nishnabotna River R Road crossing, north line 34 Walnut Creek West Nishnabotna River East Nishnabotna River East Nishnabotna River East Nishnabotna River East Nishnabotna River R Road crossing, south (county) line Road crossing, north line 2 Elkhorn Creek Indian Cree	East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River East Ni	East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River East Branch West Nishnabotna River Unnamed creek East Branch West Nishnabotna River East Nishrabotna River East Nishrabotna River East Nishnabotna River East Nishnabotn

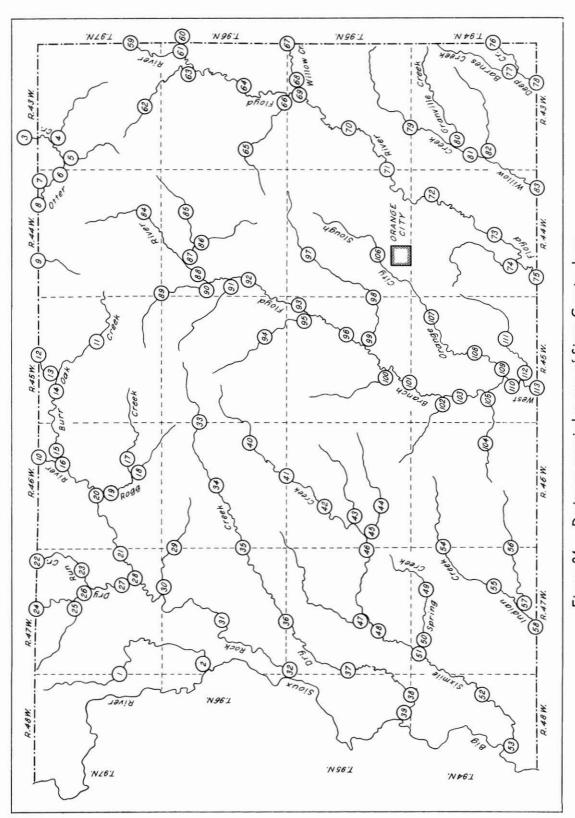


Figure 84. Drainage area index map of Sioux County, Iowa.

Area No.	Name of stream	Bank Point of determination of drainage area					Drainage area	
INO.		Tributary to		Description	Sec	Т	R	(sq mi)
1	Unnamed creek	Big Sioux River	L	Road crossing, west line	19	97N	47W	5.05
2	Unnamed creek	Big Sioux River	L	At mouth	18	96N	47W	15.8
3	Otter Creek	Little Rock River	L	Below Rat Creek	32	98N	43W	160
4	Unnamed creek	Otter Creek	L	At mouth	5	97N	43W	7.24
5	Unnamed creek	Otter Creek	L	At mouth	7	97N	43W	6.58
6	Otter Creek	Little Rock River	L	West line	7	97N	43W	179
7	Unnamed creek	Otter Creek	R	At mouth	1	97N	44W	9.11
8	Otter Creek	Little Rock River	L	Road crossing, north (county) line	2	97N	44W	194
9	Unnamed creek	Otter Creek	L	Road crossing, north (county) line	5	97N	44W	5.4
10	Rock River	Big Sioux River	L	North (county) line	2	97N	46W	1526
	Burr Oak Creek	Rock River	Ĺ	Road crossing, west line	14	97N	45W	4.89
	Unnamed creek	Burr Oak Creek	R	Road crossing, north (county) line	4	97N	45W	10.7
13	Unnamed creek	Burr Oak Creek	R	At mouth	4	97N	45W	11.9
	Burr Oak Creek	Rock River	L	Road crossing, west line	4	97N	45W	30.9
	Burr Oak Creek	Rock River	L	At mouth	11	97N	46W	38.9
16	Rock River	Big Sioux River	L	Below Burr Oak Creek	11	97N	46W	1566
17	Rogg Creek	Rock River	L	Road crossing, west line	26	97N	46W	5.7
18	Unnamed creek	Rogg Creek	L	At mouth	27	97N	46W	6.52
19	Rogg Creek	Rock River	L	At mouth	16	97N	46W	15.4
20	Rock River	Big Sioux River	L	Below Rogg Creek	16	97N	46W	1591
21	Rock River	Big Sioux River	L	Road crossing, north line (gage near Rock Valley)	25	97N	47W	1600
22	Dry Run Creek	Rock River	R	Road crossing, north (county) line	1	97N	47W	20.1
23	Dry Run Creek	Rock River	R	Road crossing, west line	13	97N	47W	25.2
	Unnamed creek	Dry Run Creek	R	Road crossing, north (county) line	3	97N	47W	8.84
25	Unnamed creek	Unnamed creek	R	At mouth	14	97N	47W	7.34
	Unnamed creek	Dry Run Creek	R	At mouth	14	97N	47W	21.2
	Dry Run Creek	Rock River	R	At mouth	26	97N	47W	51.4
	Rock River	Big Sioux River	L	Below Dry Run Creek	26	97N	47W	1656
	Unnamed creek	Rock River	L	Road crossing, west line	6	96N	46W	4.52
	Unnamed creek	Rock River	L	At mouth	3	96N	47W	10.5

31	Rock River	Big Sioux River	L	Road crossing, SE1/4	16	96N	47W	1681
32	Rock River	Big Sioux River	L	At mouth	1	95N	48W	1688
33	Dry Creek	Big Sioux River	L	Road crossing, west line	7	96N	45W	7.45
34	Dry Creek	Big Sioux River	L	Road crossing, west line	15	96N	46W	14
35	Dry Creek	Big Sioux River	L	Road crossing, west line	19	96N	46W	23.9
36	Dry Creek	Big Sioux River	L	Road crossing, north line	4	95N	47W	34.1
37	Dry Creek	Big Sioux River	L	Road crossing, north line	19	95N	47W	41.9
38	Dry Creek	Big Sioux River	L	Road crossing, north line (gage at Hawarden)	1	94N	48W	48.4
39	Dry Creek	Big Sioux River	L	At mouth	34	95N	48W	50.3
40	Sixmile Creek	Big Sioux River	L	Road crossing, west line	25	96N	46W	10.9
41	Sixmile Creek	Big Sioux River	L	Road crossing, north line	3	95N	46W	18.6
42	Sixmile Creek	Big Sioux River	L	Road crossing, west line	9	95N	46W	26.3
43	Unnamed creek	Sixmile Creek	L	At mouth	20	95N	46W	5.49
44	Unnamed creek	Sixmile Creek	L	Road crossing, west line	28	95N	46W	7.18
45	Unnamed creek	Sixmile Creek	L	At mouth	19	95N	46W	11.9
46	Sixmile Creek	Big Sioux River	L	Road crossing, west line	19	95N	46W	48.6
47	Unnamed creek	Sixmile Creek	R	At mouth	21	95N	47W	9.02
48	Sixmile Creek	Big Sioux River	L	Road crossing, north line	28	95N	47W	68.3
49	Spring Creek	Sixmile Creek	L	Road crossing, west line	2	94N	47W	6.35
50	Spring Creek	Sixmile Creek	L	At mouth	6	94N	47W	12.7
51	Sixmile Creek	Big Sioux River	L	Below Spring Creek	6	94N	47W	86.6
52	Sixmile Creek	Big Sioux River	L	Road crossing, west line	24	94N	48W	99
53	Sixmile Creek	Big Sioux River	L	At mouth	28	94N	48W	108
54	Indian Creek	Big Sioux River	L	Road crossing, west line	7	94N	46W	6.15
55	Indian Creek	Big Sioux River	L	Road crossing, north line	26	94N	47W	13.1
56	Unnamed creek	Indian Creek	L	Road crossing, west line	30	94N	46W	8.69
57	Unnamed creek	Indian Creek	L	At mouth	33	94N	47W	15.9
58	Indian Creek	Big Sioux River	L	Road crossing, south (county) line	33	94N	47W	35.2
59	Floyd River	Missouri River	L	Road crossing, east (county) line	25	97N	43W	79.5
60	Little Floyd River	Floyd River	L	At mouth	1	96N	43W	59.4
61	Floyd River	Missouri River	L	Below Little Floyd River	1	96N	43W	144
62	Unnamed creek	Floyd River	R	Road crossing, west line	34	97N	43W	7.45
63	Unnamed creek	Floyd River	R	At mouth	11	96N	43W	15
64	Floyd River	Missouri River	L	Road crossing, NE corner	27	96N	43W	167
65	Unnamed creek	Floyd River	R	Road crossing, west line	29	96N	43W	7.01
66	Unnamed creek	Floyd River	R	At mouth	3	95N	43W	18

67	Willow Creek	Floyd River	L	Road crossing, east (county) line	1	95N	43W	29
68	Willow Creek	Floyd River	L	At mouth	3	95N	43W	37.9
69	Floyd River	Missouri River	L	Below Willow Creek	3	95N	43W	230
70	Floyd River	Missouri River	L	NE corner	20	95N	43W	238
71	Floyd River	Missouri River	L	Road crossing, west line	30	95N	43W	249
72	Floyd River	Missouri River	L	Railroad crossing, NE1/4 (gage at Alton)	11	94N	44W	265
73	Floyd River	Missouri River	L	Road crossing, north line	28	94N	44W	278
74	Unnamed creek	Floyd River	R	At mouth	32	94N	44W	9.35
75	Floyd River	Missouri River	L	South (county) line	31	94N	44W	292
76	Deep Creek	Floyd River	L	Road crossing, east (county) line	24	94N	43W	11.8
77	Barnes Creek	Deep Creek	R	At mouth	35	94N	43W	9.11
78	Deep Creek	Floyd River	L	Road crossing, south (county) line	35	94N	43W	26
79	Willow Creek	Deep Creek	R	Road crossing, north line	4	94N	43W	11
80	Granville Creek	Willow Creek	L	At mouth	17	94N	43W	8.01
81	Willow Creek	Deep Creek	R	Road crossing, north line	19	94N	43W	23.4
82	Unnamed creek	Willow Creek	L	At mouth	19	94N	43W	7.7
83	Willow Creek	Deep Creek	R	Road crossing, south (county) line	36	94N	44W	38.3
84	West Branch Floyd River	Floyd River	R	Road crossing, west line	35	97N	44W	8.23
85	Unnamed creek	West Branch Floyd River	L	Road crossing, west line	11	96N	44W	9.64
86	Unnamed creek	Unnamed creek	R	At mouth	9	96N	44W	6.29
87	Unnamed creek	West Branch Floyd River	L	At mouth	8	96N	44W	18.7
88	West Branch Floyd River	Floyd River	R	Road crossing, NW corner	17	96N	44W	34.8
89	Unnamed creek	West Branch Floyd River	R	Road crossing, north line	6	96N	44W	11.3
90	Unnamed creek	West Branch Floyd River	R	At mouth	18	96N	44W	15.3
91	Unnamed creek	West Branch Floyd River	R	At mouth	19	96N	44W	5.39
92	West Branch Floyd River	Floyd River	R	Road crossing, north line	30	96N	44W	59.7
93	West Branch Floyd River	Floyd River	R	Road crossing, north line	12	95N	45W	69.3
94	Unnamed creek	West Branch Floyd River	R	Road crossing, north line	35	96N	45W	9.16
95	Unnamed creek	West Branch Floyd River	R	At mouth	12	95N	45W	13.3
96	West Branch Floyd River	Floyd River	R	Road crossing, north line	23	95N	45W	91.2
97	Unnamed creek	West Branch Floyd River	L	Road crossing, north line	9	95N	44W	6.31
98	Unnamed creek	West Branch Floyd River	L	Road crossing, west line	30	95N	44W	14.6
99	Unnamed creek	West Branch Floyd River	L	At mouth	22	95N	45W	18.6
100		West Branch Floyd River	R	At mouth	28	95N	45W	9.02

101	West Branch Floyd River	Floyd River	R	Road crossing, NE corner	5	94N	45W	125
102	Unnamed creek	West Branch Floyd River	R	At mouth	8	94N	45W	8.81
103	West Branch Floyd River	Floyd River	R	Road crossing, north line	17	94N	45W	140
104	Unnamed creek	West Branch Floyd River	R	Road crossing, west line	24	94N	46W	7.3
105	Unnamed creek	West Branch Floyd River	R	At mouth	20	94N	45W	13.1
106	Orange City Slough	West Branch Floyd River	L	Road crossing, west line	28	95N	44W	4.29
107	Orange City Slough	West Branch Floyd River	L	Road crossing, west line	12	94N	45W	11.3
108	Orange City Slough	West Branch Floyd River	L	Road crossing, north line	22	94N	45W	17.3
109	Orange City Slough	West Branch Floyd River	L	At mouth	28	94N	45W	21.2
110	West Branch Floyd River	Floyd River	R	Road crossing, north line (gage near Maurice)	32	94N	45W	181
111	Unnamed creek	West Branch Floyd River	L	Road crossing, west line	26	94N	45W	5.98
112	Unnamed creek	West Branch Floyd River	L	At mouth	32	94N	45W	11.1
113	West Branch Floyd River	Floyd River	R	Road crossing, south (county) line	32	94N	45W	194

DRAINAGE AREAS OF IOWA STREAMS

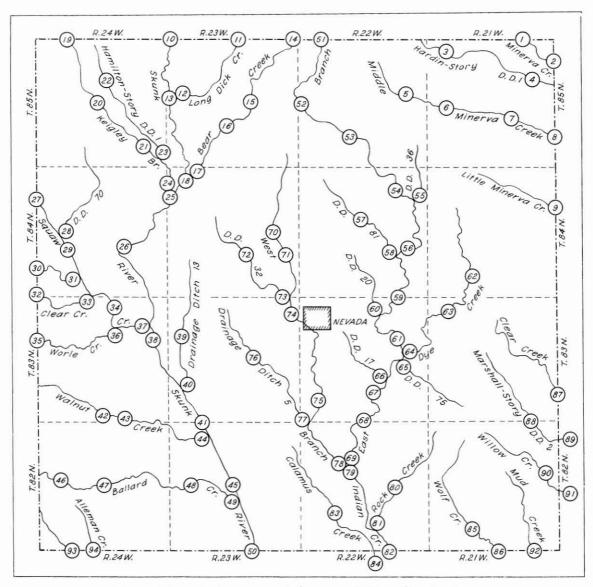


Figure 85. Drainage area index map of Story County, Iowa.

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Minerva Creek	Iowa River	R	Road crossing, north	2	85N	21W	30.1
2	Minerva Creek	Iowa River	R	(county) line East (county) line	12	85N	21W	32.4
3	Hardin-Story Drainage Ditch 1	Minerva Creek	R	Road crossing, west line	5	85N	21W	6.5
4	Hardin-Story Drainage Ditch 1	Minerva Creek	R	Road crossing, west line	12	85N	21W	12.7
5	Middle Minerva Creek	Minerva Creek	R	Road crossing, west line	13	85N	22W	4.5
6	Middle Minerva Creek	Minerva Creek	R	Road crossing, west line	20	85N	21W	11.9
7	Middle Minerva Creek	Minerva Creek	R	Road crossing, west line	23	85N	21W	21.4
8	Middle Minerva Creek	Minerva Creek	R	East (county) line	25	85N	21W	30.2
9	Little Minerva Creek	Middle Minerva Creek	R	Road crossing, east (county) line	12	84N	21W	7.28
10	Skunk River	Mississippi River	R	North (county) line	6	85N	23W	173
11	Long Dick Creek	Skunk River	L	Road crossing, north (county) line	3	85N	23W	25.2
12	Long Dick Creek	Skunk River	L	At mouth	18	85N	23W	33.4
13	Skunk River	Mississippi River	R	Below Long Dick Creek	18	85N	23W	218
14	Bear Creek	Skunk River	L	Road crossing, north (county) line	1	85N	23W	11.5
15	Bear Creek	Skunk River	L	Road crossing, north line	22	85N	23W	20
16	Bear Creek	Skunk River	L	Road crossing, NW1/4	28	85N	23W	24.8
17	Bear Creek	Skunk River	L	At mouth	6	84N	23W	31.8
18	Skunk River	Mississippi River	R	Below Bear Creek	6	84N	23W	258
19	Keigley Branch	Skunk River	R	Road crossing, north (county) line	5	85N	24W	18.1
20	Keigley Branch	Skunk River	R	Road crossing, north line	21	85N	24W	28.8
21	Keigley Branch	Skunk River	R	Road crossing, west line	36	85N	24W	31.9
22	Hamilton-Story Drainage Ditch 1	Keigley Branch	L	Road crossing, north line	15	85N	24W	5.85
23	Hamilton-Story Drainage Ditch 1	Keigley Branch	L	At mouth	36	85N	24W	10.7
24	Keigley Branch	Skunk River	R	At mouth	7	84N	23W	46.8
25	Skunk River	Mississippi River	R	Below Keigley Branch	7	84N	23W	306
26	Skunk River	Mississippi River	R	Gage above Ames, SW1/4	23	84N	24W	315
27	Squaw Creek	Skunk River	R	Road crossing, west (county) line	7	84N	24W	150
28	Drainage Ditch 70	Squaw Creek	L	At mouth	20	84N	24W	9.02
29	Squaw Creek	Skunk River	R	Road crossing, west 1/2	20	84N	24W	170
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		Table I	10. 00 Olory	County				
30	Onion Creek	Squaw Creek	R	Road crossing, west (county) line	30	84N	24W	15.6
31	Onion Creek	Squaw Creek	R	At mouth	29	84N	24W	19.4
32	Clear Creek	Squaw Creek	R	Road crossing, west (county) line	31	84N	24W	6.62
33	Clear Creek	Squaw Creek	R	At mouth	33	84N	24W	9.14
				Road crossing, south 1/2				
34	Squaw Creek	Skunk River	R	(discontinued gage at Ames)	3	83N	24W	204
35	Worle Creek	Squaw Creek	R	Road crossing, west (county) line	18	83N	24W	10.1
36	Worle Creek	Squaw Creek	R	At mouth	10	83N	24W	17.5
37	Squaw Creek	Skunk River	R	At mouth	12	83N	24W	227
38	Skunk River	Mississippi River	R	Road crossing, north line (gage below Ames)	13	83N	24W	556
39	Drainage Ditch 13	Skunk River	L	Road crossing, north line	18	83N	23W	6.18
40	Drainage Ditch 13	Skunk River	L	At mouth	30	83N	23W	13.2
41	Skunk River	Mississippi River	R	Road crossing, north line	5	82N	23W	585
42	Walnut Creek	Skunk River	R	Road crossing, west line	34	83N	24W	7.48
43	Walnut Creek	Skunk River	R	Road crossing, SE¼	34	83N	24W	12.5
44	Walnut Creek	Skunk River	R	At mouth	5	82N	23W	20.1
45	Skunk River	Mississippi River	R	Road crossing, NE¼	21	82N	23W	611
46	Ballard Creek	Skunk River	R	Road crossing, west line	17	82N	24W	4.65
47	Ballard Creek	Skunk River	R	Road crossing, west line	15	82N	24W	10.3
48	Ballard Creek	Skunk River	R	Road crossing, west line	17	82N	23W	21.5
49	Ballard Creek	Skunk River	R	At mouth	22	82N	23W	28.9
50	Skunk River	Mississippi River	R	South (county) line	34	82N	23W	649
51	East Branch Indian Creek	Indian Creek	L	North (county) line	5	85N	22W	9.84
52	East Branch Indian Creek	Indian Creek	L	Road crossing, north line	19	85N	22W	16.3
53	East Branch Indian Creek	Indian Creek	L	Road crossing, west line	27	85N	22W	26.3
54	East Branch Indian Creek	Indian Creek	L	Road crossing, north line	11	84N	22W	37.2
55	Drainage Ditch 36	East Branch Indian Creek	L	At mouth	12	84N	22W	8.3
56	East Branch Indian Creek	Indian Creek	L	Road crossing, north line	26	84N	22W	51.8
57	Drainage Ditch 81	East Branch Indian Creek	R	Road crossing, west line	15	84N	22W	5.99
58	Drainage Ditch 81	East Branch Indian Creek	R	At mouth	26	84N	22W	11.6
59	East Branch Indian Creek	Indian Creek	L	Road crossing, north line	2	83N	22W	65.7
60	Drainage Ditch 20	East Branch Indian Creek	R	At mouth	10	83N	22W	5.87
61	East Branch Indian Creek	Indian Creek	L	Road crossing, east 1/2	14	83N	22W	76.4
62	Dye Creek	East Branch Indian Creek	L	Road crossing, north line	33	84N	21W	7.37
63	Dye Creek	East Branch Indian Creek	L	Road crossing, west line	5	83N	21W	14.6
64	Dye Creek	East Branch Indian Creek	L	At mouth	14	83N	22W	25.8
65	Drainage Ditch 75	East Branch Indian Creek	L	At mouth	23	83N	22W	7.31

66	Drainage Ditch 17	East Branch Indian Creek	R	At mouth	27	83N	22W	9.48
67	East Branch Indian Creek	Indian Creek	L	Road crossing, NE1/4	27	83N	22W	121
68	East Branch Indian Creek	Indian Creek	L	Road crossing, west line	34	83N	22W	126
69	East Branch Indian Creek	Indian Creek	L	At mouth	16	82N	22W	134
70	West Branch Indian Creek	Indian Creek	R	Road crossing, north line	23	84N	23W	9.8
71	West Branch Indian Creek	Indian Creek	R	Road crossing, north line	25	84N	23W	15.6
72	Drainage Ditch 32	West Branch Indian Creek	R	Road crossing, north line	27	84N	23W	7.48
73	Drainage Ditch 32	West Branch Indian Creek	R	At mouth	1	83N	23W	14
74	West Branch Indian Creek	Indian Creek	R	Road crossing, north line	12	83N	23W	36
75	West Branch Indian Creek	Indian Creek	R	Road crossing, north line	31	83N	22W	43.7
76	Drainage Ditch 5	West Branch Indian Creek	R	Road crossing, north line	22	83N	23W	9.27
77	Drainage Ditch 5	West Branch Indian Creek	R	At mouth	6	82N	22W	18.3
78	West Branch Indian Creek	Indian Creek	R	At mouth	16	82N	22W	68.4
79	Indian Creek	Skunk River	L	Below confluence East and West Branches	16	82N	22W	202
80	Rock Creek	Indian Creek	L	Road crossing, north line	23	82N	22W	6.61
81	Rock Creek	Indian Creek	L	At mouth	34	82N	22W	11.5
82	Indian Creek	Skunk River	L	South (county) line	34	82N	22W	219
83	Calamus Creek	Indian Creek	R	Road crossing, NE1/4	29	82N	22W	6.78
84	Calamus Creek	Indian Creek	R	At mouth	3	81N	22W	15.2
85	Wolf Creek	Indian Creek	L	Road crossing, NW corner	33	82N	21W	9.43
86	Wolf Creek	Indian Creek	L	Road crossing, south (county) line	34	82N	21W	12.7
87	Clear Creek	Indian Creek	L	Road crossing, east (county) line	25	83N	21W	7.52
88	Marshall-Story Drainage Ditch 2	Clear Creek	R	Road crossing, north line	2	82N	21W	6.26
89	Marshall-Story Drainage Ditch 2	Clear Creek	R	At mouth	5	82N	20W	13.1
00	Willow Crook	Class Crask	Ъ	Dood areasing west 1/2	40	OONI	04147	4.40
90	Willow Creek	Clear Creek	R	Road crossing, west 1/2	13	82N	21W	4.16
91	Willow Creek	Clear Creek	R	At mouth	20	82N	20W	8.13
92	Mud Creek	Clear Creek	R	Road crossing, south (county) line	35	82N	21W	6.78
93	Fourmile Creek	Des Moines River	L	Road crossing, south (county) line	32	82N	24W	4.65
94	Alleman Creek	Fourmile Creek	L	Road crossing, south (county) line	33	82N	24W	3.26

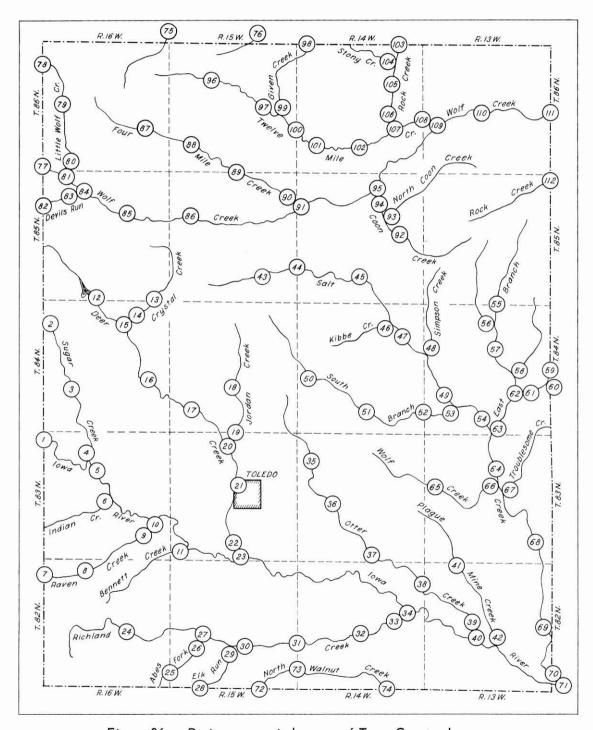


Figure 86. Drainage area index map of Tama County, lowa.

			Bank	Nk Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Iowa River	Mississippi River	R	Road crossing, west (county) line	6	83N	16W	1800
2	Sugar Creek	Iowa River	L	Road crossing, north line	7	84N	16W	4.81
3	Sugar Creek	Iowa River	L	Road crossing, north line	29	84N	16W	10.7
4	Sugar Creek	Iowa River	L	At mouth	9	83N	16W	21.6
5	Iowa River	Mississippi River	R	Road crossing, SW1/4	9	83N	16W	1828
6	Indian Creek	Iowa River	R	At mouth	22	83N	16W	7.36
7	Raven Creek	Iowa River	R	Road crossing, west (county) line	6	82N	16W	14.9
8	Raven Creek	Iowa River	R	Road crossing, west line	4	82N	16W	20.4
9	Raven Creek	Iowa River	R	At mouth	25	83N	16W	26.4
10	Iowa River	Mississippi River	R	Below Raven Creek	25	83N	16W	1872
11	Bennett Creek	Iowa River	R	At mouth	31	83N	15W	7.72
12	Deer Creek	Iowa River	L	At Union Grove dam, SW1/4	33	85N	16W	11
13	Crystal Creek	Deer Creek	L	Road crossing, north line	1	84N	16W	6.91
14	Crystal Creek	Deer Creek	L	At mouth	10	84N	16W	12.9
15	Deer Creek	Iowa River	L	Below Crystal Creek	10	84N	16W	30.9
16	Deer Creek	Iowa River	L	Road crossing, west line	24	84N	16W	41
17	Deer Creek	Iowa River	L	Road crossing, west line	29	84N	15W	50.7
18	Jordan Creek	Deer Creek	L	Road crossing, north line	28	84N	15W	5.08
19	Jordan Creek	Deer Creek	L	At mouth	4	83N	15W	10.6
20	Deer Creek	Iowa River	L	Below Jordan Creek	4	83N	15W	70.6
21	Deer Creek	Iowa River	L	Road crossing, west 1/2 (gage at Toledo)	15	83N	15W	76.4
22	Deer Creek	Iowa River	L	At mouth	34	83N	15W	85.6
23	Iowa River	Mississippi River	R	Below Deer Creek	34	83N	15W	1984
24	Richland Creek	Iowa River	R	West line	23	82N	16W	8.68
25	Abes Fork	Richland Creek	R	Road crossing, west line	31	82N	15W	6.63
26	Abes Fork	Richland Creek	R	At mouth	20	82N	15W	9.53
27	Richland Creek	Iowa River	R	Below Abes Fork	20	82N	15W	27.6
28	Elk Run	Richland Creek	R	Road crossing, south (county) line	32	82N	15W	6.77
29	Elk Run	Richland Creek	R	At mouth	27	82N	15W	10.2
30	Richland Creek	Iowa River	R	Road crossing, north 1/2	27	82N	15W	41.6
31	Richland Creek	Iowa River	R	West line	19	82N	14W	47.1

32	Richland Creek	Iowa River	R	Road crossing, west line (gage near Haven)	22	82N	14W	56.1
33	Richland Creek	Iowa River	R	At mouth	13	82N	14W	60.3
34	Iowa River	Mississippi River	R	Below Richland Creek	13	82N	14W	2072
35	Otter Creek	Iowa River	L	Road crossing, NE1/4	7	83N	14W	9.38
36	Otter Creek	Iowa River	L	Road crossing, north line	20	83N	14W	18.6
37	Otter Creek	Iowa River	L	Road crossing, south 1/2	34	83N	14W	28.4
38	Otter Creek	Iowa River	L	Road crossing, NE1/4	12	82N	14W	35.8
39	Otter Creek	Iowa River	L	At mouth	21	82N	13W	41.2
40	Iowa River	Mississippi River	R	Below Otter Creek	21	82N	13W	2121
41	Plague Mine Creek	Iowa River	L	Road crossing, north 1/2	5	82N	13W	4.03
42	Plague Mine Creek	Iowa River	L	At mouth	22	82N	13W	10.8
43	Salt Creek	Iowa River	L	Road crossing, south 1/2	26	85N	15W	6.52
44	Salt Creek	Iowa River	L	Road crossing, west line	30	85N	14W	12.3
45	Salt Creek	Iowa River	L	Road crossing, west line	27	85N	14W	22.1
46	Kibbe Creek	Salt Creek	R	At mouth	11	84N	14W	5.27
47	Salt Creek	Iowa River	L	Road crossing, west line	12	84N	14W	33.4
48	Simpson Creek	Salt Creek	L	At mouth	18	84N	13W	10.2
49	Salt Creek	Iowa River	L	Road crossing, west line	29	84N	13W	49.6
50	South Branch Salt Creek	Salt Creek	R	Road crossing, center	19	84N	14W	8.81
51	South Branch Salt Creek	Salt Creek	R	Road crossing, north line	34	84N	14W	16.8
52	South Branch Salt Creek	Salt Creek	R	Road crossing, west line	31	84N	13W	23.5
53	South Branch Salt Creek	Salt Creek	R	At mouth	29	84N	13W	30.9
54	Salt Creek	Iowa River	L	Road crossing, west line	34	84N	13W	85.2
55	East Branch Salt Creek	Salt Creek	L	Road crossing, north line	3	84N	13W	8.3
56	Unnamed creek	East Branch Salt Creek	R	At mouth	3	84N	13W	6.34
57	East Branch Salt Creek	Salt Creek	L	Road crossing, north line	15	84N	13W	19
58	Unnamed creek	East Branch Salt Creek	L	At mouth	23	84N	13W	5.39
59	Stein Creek	East Branch Salt Creek	L	Road crossing, east (county) line	13	84N	13W	23.3
60	Unnamed creek	Stein Creek	L	At mouth	24	84N	13W	16.2
61	Stein Creek	East Branch Salt Creek	L	At mouth	26	84N	13W	42.4
62	East Branch Salt Creek	Salt Creek	L	Below Stein Creek	26	84N	13W	70.4
63	East Branch Salt Creek	Salt Creek	L	At mouth	34	84N	13W	74.6
64	Salt Creek	Iowa River	L	Road crossing, north line	15	83N	13W	167
65	Wolf Creek	Salt Creek	R	Road crossing, center	18	83N	13W	6.61
66	Wolf Creek	Salt Creek	R	At mouth	15	83N	13W	13.2
67	Troublesome Creek	Salt Creek	L	At mouth	15	83N	13W	9.96
68	Salt Creek	Iowa River	L	Road crossing, north line (gage near Elberon)	36	83N	13W	201

69	Salt Creek	Iowa River	L	Road crossing, north line	24	82N	13W	217
70	Salt Creek	Iowa River	L	At mouth	31	82N	12W	223
71	Iowa River	Mississippi River	R	Below Salt Creek	31	82N	12W	2361
72	North Walnut Creek	Walnut Creek	L	Road crossing, south (county) line	35	82N	15W	3.43
73	North Walnut Creek	Walnut Creek	L	Road crossing, west line	31	82N	14W	6.2
74	North Walnut Creek	Walnut Creek	L	Road crossing, south (county) line	35	82N	14W	14.5
75	Unnamed creek	Mosquito Creek	R	At mouth	31	87N	15W	5.8
76	Unnamed creek	Mosquito Creek	R	Road crossing, west line	35	87N	15W	4.08
77	Wolf Creek	Cedar River	R	West (county) line	31	86N	16W	64.2
78	Little Wolf Creek	Wolf Creek	L	West (county) line	7	86N	16W	10.6
79	Little Wolf Creek	Wolf Creek	L	Road crossing, north line	19	86N	16W	15.8
80	Little Wolf Creek	Wolf Creek	L	At mouth	5	85N	16W	22.3
81	Wolf Creek	Cedar River	R	Below Little Wolf Creek	5	85N	16W	89.4
82	Devils Run	Wolf Creek	R	Road crossing, west (county) line	7	85N	16W	7.35
83	Devils Run	Wolf Creek	R	At mouth	8	85N	16W	10.4
84	Wolf Creek	Cedar River	R	Below Devils Run	8	85N	16W	100
85	Wolf Creek	Cedar River	R	Road crossing, west line	11	85N	16W	110
86	Wolf Creek	Cedar River	R	Road crossing, west line	17	85N	15W	122
87	Four Mile Creek	Wolf Creek	L	Road crossing, west line	25	86N	16W	4.72
88	Four Mile Creek	Wolf Creek	L	Road crossing, west line	29	86N	15W	11.6
89	Four Mile Creek	Wolf Creek	L	Road crossing, north line	3	85N	15W	17.6
90	Four Mile Creek	Wolf Creek	L	At mouth	7	85N	14W	21.3
91	Wolf Creek	Cedar River	R	Below Four Mile Creek	7	85N	14W	159
92	Coon Creek	Wolf Creek	R	Road crossing, south 1/2	14	85N	14W	8.56
93	North Coon Creek	Coon Creek	R	At mouth	10	85N	14W	8.17
94	Coon Creek	Wolf Creek	R	At mouth	3	85N	14W	23.8
95	Wolf Creek	Cedar River	R	Below Coon Creek	3	85N	14W	190
96	Twelve Mile Creek	Wolf Creek	R	Road crossing, west line	9	86N	15W	5.99
97	Twelve Mile Creek	Wolf Creek	L	Road crossing, west line	24	86N	15W	13.6
98	Given Creek	Twelve Mile Creek	L	North (county) line	6	86N	14W	3.86
99	Given Creek	Twelve Mile Creek	L	At mouth	24	86N	15W	10.6
100	Twelve Mile Creek	Wolf Creek	L	Road crossing, west line	30	86N	14W	29.7
101	Twelve Mile Creek	Wolf Creek	L	Road crossing, west line	29	86N	14W	36.1
102	Twelve Mile Creek	Wolf Creek	L	Road crossing, west line	27	86N	14W	44.8
103		Twelve Mile Creek	L	North (county) line	2	86N	14W	11.9
104	Stony Creek	Rock Creek	R	At mouth	2	86N	14W	6.87
105	Rock Creek	Twelve Mile Creek	L	North line	14	86N	14W	24.4

106	Rock Creek	Twelve Mile Creek	L	At mouth	23	86N	14W	30
107	Twelve Mile Creek	Wolf Creek	L	Below Rock Creek	23	86N	14W	77.1
108	Twelve Mile Creek	Wolf Creek	L	At mouth	19	86N	13W	79.8
109	Wolf Creek	Cedar River	R	Below Twelve Mile Creek	19	86N	13W	277
110	Wolf Creek	Cedar River	R	Road crossing, NE1/4	21	86N	13W	287
111	Wolf Creek	Cedar River	R	Road crossing, east (county) line	24	86N	13W	299
112	Rock Creek	Cedar River	R	Road crossing, east (county) line	1	85N	13W	10.4

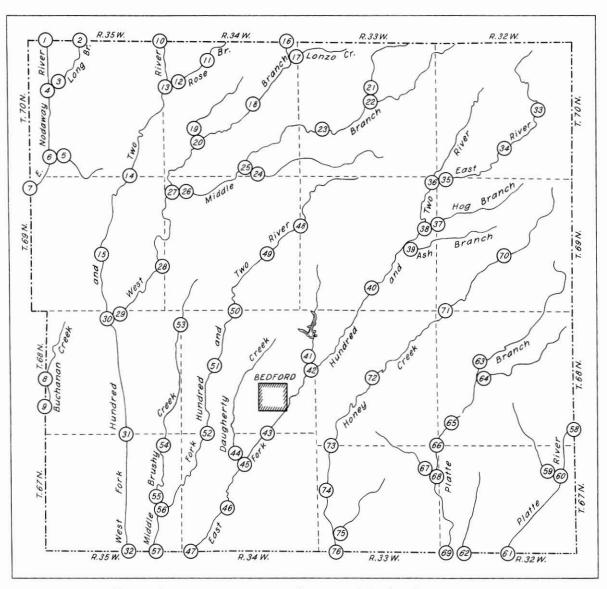


Figure 87. Drainage area index map of Taylor County, lowa.

			Bank	Point of determination of drainage area			Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	East Nodaway River	Nodaway River	L	Road crossing, north (county) line	6	70N	35W	251
2	Long Branch	East Nodaway River	L	Road crossing, north (county) line	4	70N	35W	7.03
3	Long Branch	East Nodaway River	L	At mouth	17	70N	35W	14.8
4	East Nodaway River	Nodaway River	L	Below Long Branch	17	70N	35W	271
5	Unnamed creek	East Nodaway River	L	At mouth	31	70N	35W	6.18
6	East Nodaway River	Nodaway River	L	Below unnamed creek	31	70N	35W	288
7	East Nodaway River	Nodaway River	L	Road crossing, west (county) line	6	69N	35W	291
8	Buchanan Creek	Nodaway River	L	West (county) line	19	68N	35W	4.82
9	Buchanan Creek	Nodaway River	L	West (county) line	30	68N	35W	9.26
10	West Fork Hundred and Two River	Hundred and Two River	R	Road crossing, north (county) line	1	70N	35W	17.9
11	Rose Branch	West Fork Hundred and Two River	L	Road crossing, west line	4	70N	34W	7.53
12	Rose Branch	West Fork Hundred and Two River	L	At mouth	7	70N	34W	10.3
13	West Fork Hundred and Two River	Hundred and Two River	R	Below Rose Branch	7	70N	34W	31.9
14	West Fork Hundred and Two River	Hundred and Two River	R	Road crossing, north line	2	69N	35W	41.1
15	West Fork Hundred and Two River	Hundred and Two River	R	Road crossing, west 1/2	22	69N	35W	49.5
16	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Road crossing, north (county) line	6	70N	33W	24.5
17	Lonzo Creek	West Branch Hundred and Two River	L	At mouth	1	70N	34W	7.53
18	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Road crossing, west line	14	70N	34W	41
19	Unnamed creek	West Branch Hundred and Two River	R	At mouth	29	70N	34W	5.5
20	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Below unnamed creek	29	70N	34W	50.5
21	Unnamed creek	Middle Branch Hundred and Two River	R	At mouth	15	70N	33W	8.94

22	Middle Branch Hundred and Two River	West Branch Hundred and Two River	L	Below unnamed creek	15	70N	33W	18.1
23	Middle Branch Hundred and Two River	West Branch Hundred and Two River	L	Road crossing, west line	19	70N	33W	29.4
24	Unnamed creek	Middle Branch Hundred and Two River	L	At mouth	34	70N	34W	8.84
25	Middle Branch Hundred and Two River	West Branch Hundred and Two River	L	Below unnamed creek	34	70N	34W	43.8
26	Middle Branch Hundred and Two River	West Branch Hundred and Two River	L	At mouth	6	69N	34W	51.6
27	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Below Middle Branch Hundred and Two River	6	69N	34W	106
28	West Branch Hundred and Two River	West Fork Hundred and Two River	L	Road crossing, north line	25	69N	35W	116
29	West Branch Hundred and Two River	West Fork Hundred and Two River	L	At mouth	10	68N	35W	125
30	West Fork Hundred and Two River	Hundred and Two River	R	Below West Branch Hundred and Two River	10	68N	35W	182
31	West Fork Hundred and Two River	Hundred and Two River	R	North line	3	67N	35W	195
32	West Fork Hundred and Two River	Hundred and Two River	R	State line	34	67N	35W	212
33	East River	East Fork Hundred and Two River	L	Road crossing, north line	23	70N	32W	6.27
34	East River	East Fork Hundred and Two River	L	Road crossing, west line	27	70N	32W	10.4
35	East River	East Fork Hundred and Two River	L	At mouth	1	69N	33W	19.2
36	East Fork Hundred and Two River	Hundred and Two River	L	Below East River	1	69N	33W	26
37	Hog Branch	East Fork Hundred and Two River	L	At mouth	13	69N	33W	7.83
38	East Fork Hundred and Two River	Hundred and Two River	L	Below Hog Branch	13	69N	33W	40.6
39	Ash Branch	East Fork Hundred and Two River	L	At mouth	23	69N	33W	4.66
40	East Fork Hundred and Two River	Hundred and Two River	L	Road crossing, north line	34	69N	33W	54.4
41	Unnamed creek	East Fork Hundred and Two River	R	At mouth	24	68N	34W	8.12

42	East Fork Hundred and Two River	Hundred and Two River	L	Below unnamed creek	24	68N	34W	78.6
43	East Fork Hundred and Two River	Hundred and Two River	L	North line	3	67N	34W	87.8
44	Daugherty Creek	East Fork Hundred and Two River	R	At mouth	9	67N	34W	6
45	East Fork Hundred and Two River	Hundred and Two River	L	Below Daugherty Creek	9	67N	34W	98.2
46	East Fork Hundred and Two River	Hundred and Two River	L	West line	21	67N	34W	105
47	East Fork Hundred and Two River	Hundred and Two River	L	State line	31	67N	34W	111
48	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	West line	18	69N	33W	7.29
49	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	Road crossing, N 1/2	23	69N	34W	14.1
50	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	Road crossing, north line	4	68N	34W	24.4
51	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	Road crossing, north line	20	68N	34W	32.9
52	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	Road crossing, north line	5	67N	34W	38.7
53	Brushy Creek	Middle Fork Hundred and Two River	R	Road crossing, SE¼	12	68N	35W	3.17
54	Brushy Creek	Middle Fork Hundred and Two River	R	North line	1	67N	35W	10.2
55	Brushy Creek	Middle Fork Hundred and Two River	R	At mouth	24	67N	35W	14.2
56	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	Below Brushy Creek	24	67N	35W	58.9
57	Middle Fork Hundred and Two River	East Fork Hundred and Two River	R	State line	35	67N	35W	62.1
58	Platte River	Missouri River	L	Road crossing, east (county) line	36	68N	32W	255
59	Unnamed creek	Platte River	R	At mouth	12	67N	32W	8.26
60	Platte River	Missouri River	L	Below unnamed creek	12	67N	32W	271
	Platte River	Missouri River				67N	32W	282
61			L	Road crossing, state line	28			
62	Unnamed creek	Platte River	R	State line	30	67N	32W	4.57
63	Platte Branch	Platte River	R	Road crossing, north line	16	68N	32W	11.2
64	Unnamed creek	Platte Branch	L	At mouth	16	68N	32W	6.52

65	Platte Branch	Platte River	R	Road crossing, north line	31	68N	32W	24.9
66	Platte Branch	Platte River	R	Road crossing, north line	1	67N	33W	33.6
67	Unnamed creek	Platte Branch	R	At mouth	12	67N	33W	5.08
68	Platte Branch	Platte River	R	Below unnamed creek	12	67N	33W	41.7
69	Platte Branch	Platte River	R	State line	30	67N	32W	49.9
70	Honey Creek	Platte River	R	Road crossing, west line	22	69N	32W	6.31
71	Honey Creek	Platte River	R	Road crossing, north line	6	68N	32W	16
72	Honey Creek	Platte River	R	Road crossing, north line	22	68N	33W	28.1
73	Honey Creek	Platte River	R	Road crossing, north line	5	67N	33W	36.7
74	Honey Creek	Platte River	R	Road crossing, north line	17	67N	33W	42.9
75	Unnamed creek	Honey Creek	L	At mouth	29	67N	33W	5.26
76	Honey Creek	Platte River	R	Road crossing, state line	29	67N	33W	52.9

DRAINAGE AREAS OF IOWA STREAMS

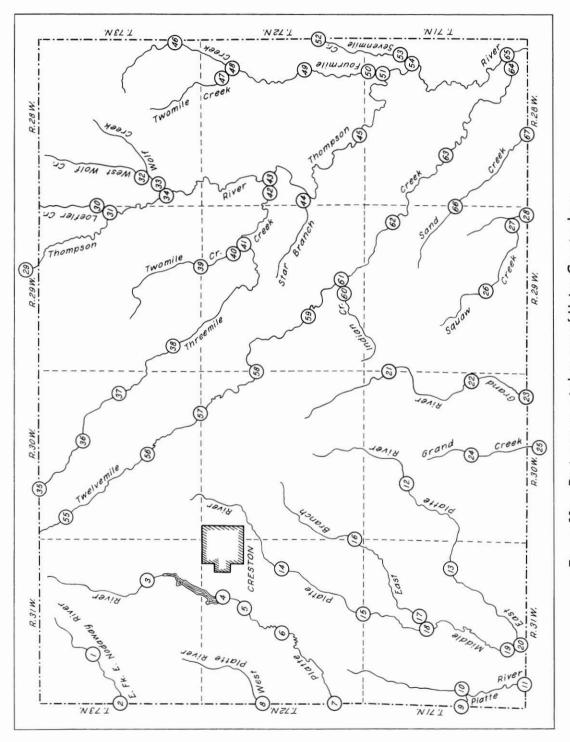


Figure 88. Drainage area index map of Union County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 88 Union County

	Name of street	Tallerter	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	East Fork East Nodaway River	East Nodaway River	L	Road crossing, north line	17	73N	31W	4.63
2	East Fork East Nodaway River	East Nodaway River	L	West (county) line	18	73N	31W	12.9
3	Platte River	Missouri River	L	Road crossing, NE1/4	26	73N	31W	7.91
4	Platte River	Missouri River	L	At dam, SE¼	3	72N	31W	15.7
5	Platte River	Missouri River	L	Road crossing, south 1/2	10	72N	31W	20.3
6	Platte River	Missouri River	L	Road crossing, north line	21	72N	31W	28.1
7	Platte River	Missouri River	L	Road crossing, west (county) line	31	72N	31W	36.1
8	West Platte River	Platte River	R	West (county) line	18	72N	31W	4.63
9	Platte River	Missouri River	L	Road crossing, west (county) line	19	71N	31W	92.1
10	Unnamed creek	Platte River	L	At mouth	19	71N	31W	5.86
11	Platte River	Missouri River	L	Road crossing, south (county) line	31	71N	31W	103
12	East Platte River	Platte River	L	Road crossing, west line	9	71N	30W	8.39
13	East Platte River	Platte River	Ĺ	Road crossing, west line	24	71N	31W	15.5
14	Middle Platte River	East Platte River	R	Road crossing, north line	23	72N	31W	9.62
15	Middle Platte River	East Platte River	R	Road crossing, north line	3	71N	31W	15.9
16	East Branch Middle Platte River	Middle Platte River	L	Road crossing, west line	31	72N	30W	9.11
17	East Branch Middle Platte River	Middle Platte River	L	At mouth	16	71N	31W	17.3
18	Middle Platte River	East Platte River	R	Below East Branch Middle Platte River	16	71N	31W	39.6
19	Middle Platte River	East Platte River	R	At mouth	33	71N	31W	44.7
20	East Platte River	Platte River	L	Below Middle Platte River	33	71N	31W	66.3
21	Grand River	Missouri River	L	Road crossing, west line	6	71N	29W	5.7
22	Grand River	Missouri River	L	Road crossing, north line	25	71N	30W	14.7
23	Grand River	Missouri River	L	Road crossing, south (county) line	36	71N	30W	22.3
24	Grand Creek	Grand River	R	Road crossing, north line	27	71N	30W	5.72
25	Grand Creek	Grand River	R	At mouth	3	70N	30W	10.6
26	Squaw Creek	East Fork Grand River	R	Road crossing, west line	27	71N	29W	4.38
27	Squaw Creek	East Fork Grand River	R	At mouth	36	71N	29W	8.6
28	East Fork Grand River	Grand River	L	Road crossing, south (county) line	36	71N	29W	11.7

FINAL Drainage Areas of Iowa Streams.xls Table No. 88 Union County

29	Thompson River	Grand River	L	Below West Branch Creek	34	74N	29W	129
30	Loefler Creek	Thompson River	L	At mouth	13	73N	29W	6.58
31	Thompson River	Grand River	L	Below Loefler Creek	13	73N	29W	145
32	West Wolf Creek	Wolf Creek	R	At mouth	30	73N	28W	5.69
33	Wolf Creek	Thompson River	L	At mouth	30	73N	28W	10
34	Thompson River	Grand River	L	Below Wolf Creek	30	73N	28W	160
35	Threemile Creek	Thompson River	R	Road crossing, north (county) line	5	73N	30W	13.4
36	Threemile Creek	Thompson River	R	Road crossing, south 1/2	10	73N	30W	17.6
37	Threemile Creek	Thompson River	R	Road crossing, north line	24	73N	30W	24.3
38	Threemile Creek	Thompson River	R	Road crossing, north line	31	73N	29W	32.6
39	Twomile Creek	Threemile Creek	L	North line	3	72N	29W	6.27
40	Twomile Creek	Threemile Creek	L	At mouth	11	72N	29W	10.9
41	Threemile Creek	Thompson River	R	Below Twomile Creek	11	72N	29W	52.6
42	Threemile Creek	Thompson River	R	At mouth	18	72N	28W	56.8
43	Thompson River	Grand River	L	Below Threemile Creek	18	72N	28W	230
44	Star Branch	Thompson River	R	At mouth	19	72N	28W	5.33
45	Thompson River	Grand River	L	Road crossing, south 1/2	33	72N	28W	244
46	Fourmile Creek	Thompson River	L	Road crossing, north line	36	73N	28W	5.53
47	Twomile Creek	Fourmile Creek	R	At mouth	11	72N	28W	5.69
48	Fourmile Creek	Thompson River	L	Below Twomile Creek	11	72N	28W	19.4
49	Fourmile Creek	Thompson River	L	Road crossing, SE1/4	23	72N	28W	28.9
50	Fourmile Creek	Thompson River	L	At mouth	2	71N	28W	32.8
51	Thompson River	Grand River	L	Below Fourmile Creek	2	71N	28W	285
52	Sevenmile Creek	Thompson River	L	East (county) line	25	72N	28W	12.5
53	Sevenmile Creek	Thompson River	L	At mouth	12	71N	28W	20.1
54	Thompson River	Grand River	L	Below Sevenmile Creek	12	71N	28W	306
55	Twelvemile Creek	Thompson River	R	Road crossing, north line	7	73N	30W	4.79
56	Twelvemile Creek	Thompson River	R	Road crossing, west line	27	73N	30W	14
57	Twelvemile Creek	Thompson River	R	Road crossing, north line	2	72N	30W	21.8
58	Twelvemile Creek	Thompson River	R	NW corner	18	72N	29W	29.8
59	Twelvemile Creek	Thompson River	R	Road crossing, west line	21	72N	29W	40.1
60	Indian Creek	Twelvemile Creek	R	At mouth	34	72N	29W	7.36
61	Twelvemile Creek	Thompson River	R	Below Indian Creek	34	72N	29W	50.4
62	Twelvemile Creek	Thompson River	R	Road crossing, north line	12	71N	29W	59.5
63	Twelvemile Creek	Thompson River	R	Road crossing, north line	20	71N	28W	68
64	Twelvemile Creek	Thompson River	R	At mouth	36	71N	28W	77.2
65	Thompson River	Grand River	L	Below Twelvemile Creek	36	71N	28W	390
66	Sand Creek	Thompson River	R	Road crossing, west line	19	71N	28W	3.55

FINAL Drainage Areas of Iowa Streams.xls Table No. 88 Union County

67 Sand Creek Thompson River R Road crossing, south (county) line 33 71N 28W 8.4

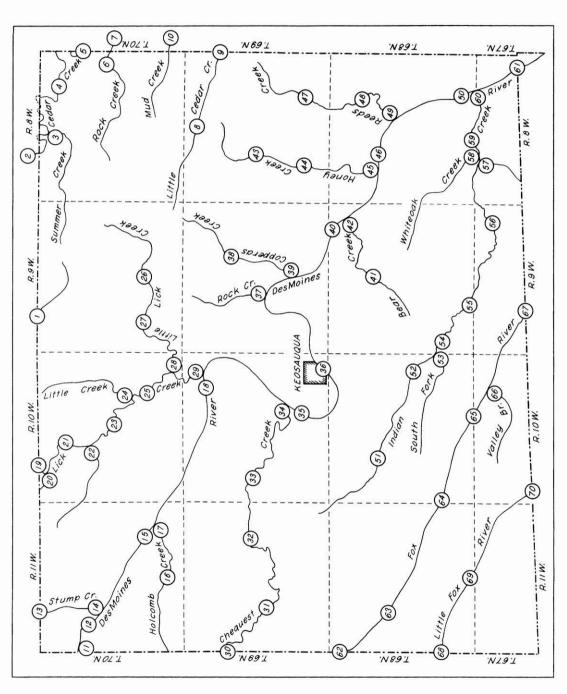


Figure 89. Drainage area index map of Van Buren County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 89 Van Buren County

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
No.	l language of graph	Cadar Craal		Description		701	9W	7.47
1	Unnamed creek Cedar Creek	Cedar Creek Skunk River	R	North (county) line	5	70N	900 8W	7.47
2	Cedar Creek	Skunk River	R	Road crossing, west line	32	71N	844	407
3	Summer Creek	Cedar Creek	R	At mouth	4	70N	W8	9.8
4	Cedar Creek	Skunk River	R	Road crossing, south 1/2	2	70N	W8	435
5	Cedar Creek	Skunk River	R	East (county) line	12	70N	8W	440
6	Rock Creek	Cedar Creek	R	Road crossing, south 1/2	13	70N	8W	9.92
7	Rock Creek	Cedar Creek	R	At mouth	18	70N	7W	13.1
8	Little Cedar Creek	Cedar Creek	R	Road crossing, west line	3	69N	8W	8.76
9	Little Cedar Creek	Cedar Creek	R	Road crossing, east (county) line	12	69N	8W	15.7
10	Mud Creek	Little Cedar Creek	L	Road crossing, north 1/2	31	70N	7W	5
11	Vesser Creek	Des Moines River	R	At mouth	7	70N	11W	7.23
12	Des Moines River	Mississippi River	R	Road crossing, NW1/4	17	70N	11W	13739
13	Stump Creek	Des Moines River	L	North (county) line	5	70N	11W	11.1
14	Stump Creek	Des Moines River	L	At mouth	17	70N	11W	16.5
15	Des Moines River	Mississippi River	R	Road crossing, NE1/4	26	70N	11W	13770
16	Holcomb Creek	Des Moines River	R	Road crossing, west line	34	70N	11W	6.35
17	Holcomb Creek	Des Moines River	R	At mouth	25	70N	11W	13.1
18	Des Moines River	Mississippi River	R	Road crossing, SE1/4	2	69N	10W	13807
19	Lick Creek	Des Moines River	L	Road crossing, NW1/4	5	70N	10W	23.3
20	Unnamed creek	Lick Creek	R	At mouth	5	70N	10W	5.56
21	Lick Creek	Des Moines River	L	Road crossing, north 1/2	9	70N	10W	31.9
22	Unnamed creek	Lick Creek	R	At mouth	16	70N	10W	7.04
23	Lick Creek	Des Moines River	L	Road crossing, NW1/4	22	70N	10W	43.4
24	Little Creek	Lick Creek	L	At mouth	23	70N	10W	7.88
25	Lick Creek	Des Moines River	L	Road crossing, west 1/2	26	70N	10W	54.6
26	Little Lick Creek	Lick Creek	L	West line	27	70N	9W	9.4
27	Little Lick Creek	Lick Creek	L	West line	29	70N	9W	17.6
28	Little Lick Creek	Lick Creek	L	At mouth	36	70N	10W	24.2
29	Lick Creek	Des Moines River	L	At mouth	1	69N	10W	82.7
30	Chequest Creek	Des Moines River	R	West (county) line	7	69N	11W	85.5
31	Chequest Creek	Des Moines River	R	Road crossing, NE1/4	20	69N	11W	95.1
32	Chequest Creek	Des Moines River	R	Road crossing, south 1/2	14	69N	11W	108
33	Chequest Creek	Des Moines River	R	West line	17	69N	10W	115
34	Chequest Creek	Des Moines River	R	At mouth	27	69N	10W	125
35	Des Moines River	Mississippi River	R	Road crossing, east 1/2	27	69N	10W	14025

FINAL Drainage Areas of Iowa Streams.xls Table No. 89 Van Buren County

				Road crossing, SW1/4				
36	Des Moines River	Mississippi River	R	(gage at Keosauqua)	36	69N	10W	14038
37	Rock Creek	Des Moines River	L	At mouth	21	69N	9W	6.63
38	Copperas Creek	Des Moines River	L	Road crossing, north line	15	69N	9W	5.26
39	Copperas Creek	Des Moines River	L	At mouth	27	69N	9W	13.6
40	Des Moines River	Mississippi River	R	Road crossing, NE1/4	2	68N	9W	14075
41	Bear Creek	Des Moines River	R	Road crossing, SW1/4	10	68N	9W	6.98
42	Bear Creek	Des Moines River	R	At mouth	1	68N	9W	15.7
43	Honey Creek	Des Moines River	L	Road crossing, north line	20	69N	W8	7.35
44	Honey Creek	Des Moines River	L	Road crossing, north line	32	69N	W8	12.8
45	Honey Creek	Des Moines River	L	At mouth	8	68N	8W	18.7
46	Des Moines River	Mississippi River	R	Road crossing, north 1/2	17	68N	W8	14118
47	Reeds Creek	Des Moines River	L	Road crossing, north line	35	69N	W8	6.42
48	Reeds Creek	Des Moines River	L	Road crossing, NW1/4	11	68N	W8	14.2
49	Reeds Creek	Des Moines River	L	At mouth	15	68N	W8	20.5
50	Des Moines River	Mississippi River	R	Road crossing, south 1/2	35	68N	W8	14153
51	Indian Creek	Des Moines River	R	Road crossing, NE1/4	17	68N	10W	11.4
52	Indian Creek	Des Moines River	R	Road crossing, west 1/2	24	68N	10W	19.2
53	South Fork Indian Creek	Indian Creek	R	At mouth	30	68N	9W	6.32
54	Indian Creek	Des Moines River	R	Road crossing, south 1/2	30	68N	9W	29.2
55	Indian Creek	Des Moines River	R	Road crossing, west line	33	68N	9W	34.5
56	Indian Creek	Des Moines River	R	Road crossing, SW1/4	1	67N	9W	48.2
57	Flat Rock Creek	Indian Creek	R	At mouth	5	67N	W8	5.53
58	Whiteoak Creek	Indian Creek	L	At mouth	5	67N	W8	6.32
59	Indian Creek	Des Moines River	R	Road crossing, south 1/2	33	68N	W8	68
60	Indian Creek	Des Moines River	R	At mouth	35	68N	W8	73.8
61	Des Moines River	Mississippi River	R	South (state) line	12	67N	W8	14238
62	Fox River	Mississippi River	R	West (county) line	6	68N	11W	134
63	Fox River	Mississippi River	R	Road crossing, NE¼ Road crossing, SW¼	17	68N	11W	146
64	Fox River	Mississippi Divor	R	3 .	30	68N	10W	161
04	rox Rivei	Mississippi River	K	(discontinued gage at Cantril)	30	OOIN	1000	101
65	Fox River	Mississippi River	R	Road crossing, south 1/2	34	68N	10W	173
66	Valley Branch	Fox River	R	At mouth	2	67N	10W	5.3
67	Fox River	Mississippi River	R	South (state) line	17	67N	9W	188
68	Little Fox River	Fox River	R	West (county) line	30	68N	11W	16.9
69	Little Fox River	Fox River	R	Road crossing, west line	34	68N	11W	27.2
70	Little Fox River	Fox River	R	Road crossing, south (state) line	18	67N	10W	36.3

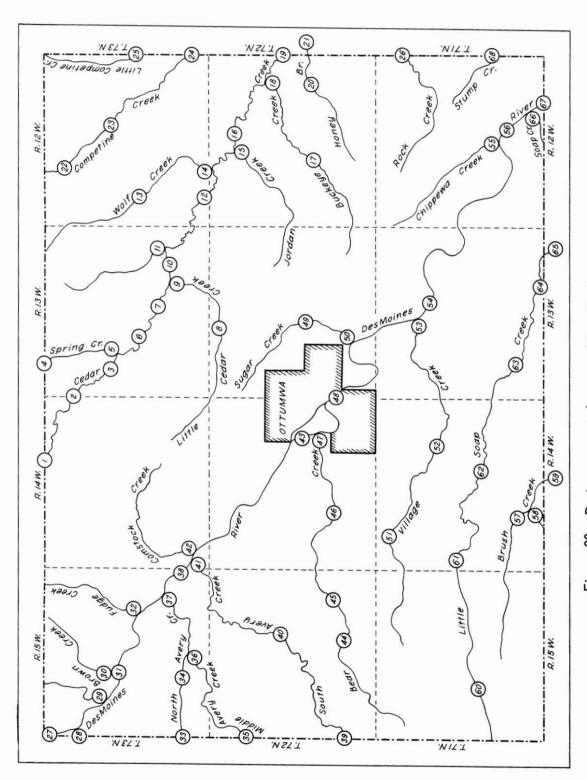


Figure 90. Drainage area index map of Wapello County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 90 Wapello County

	N	-	Bank	Point of determination of drainage area				Drainage area	
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)	
1	Cedar Creek	Skunk River	R	North (county) line	3	73N	14W	40.4	
2	Cedar Creek	Skunk River	R	Road crossing, west line	7	73N	13W	50.5	
3	Cedar Creek	Skunk River	R	Road crossing, west 1/2	17	73N	13W	56.4	
4	Spring Creek	Cedar Creek	L	Road crossing, north (county) line	5	73N	13W	5.5	
5	Spring Creek	Cedar Creek	L	At mouth	17	73N	13W	12.1	
6	Cedar Creek	Skunk River	R	Road crossing, west line	21	73N	13W	73.4	
7	Cedar Creek	Skunk River	R	Road crossing, NW1/4	27	73N	13W	82.5	
8	Little Cedar Creek	Cedar Creek	R	Road crossing, NE1/4	5	72N	13W	5.7	
9	Little Cedar Creek	Cedar Creek	R	At mouth	26	73N	13W	11.3	
10	Cedar Creek	Skunk River	R	Road crossing, center	26	73N	13W	95.1	
11	Unnamed creek	Cedar Creek	L	At mouth	25	73N	13W	8.36	
12	Cedar Creek	Skunk River	R	Road crossing, west line	32	73N	12W	113	
13	Wolf Creek	Cedar Creek	L	Road crossing, west line	20	73N	12W	8.5	
14	Wolf Creek	Cedar Creek	L	At mouth	5	72N	12W	14.9	
15	Jordan Creek	Cedar Creek	R	At mouth	4	72N	12W	6.97	
16	Cedar Creek	Skunk River	R	Road crossing, west line	3	72N	12W	140	
17	Buckeye Creek	Cedar Creek	R	Road crossing, SW1/4	21	72N	12W	9.92	
18	Buckeye Creek	Cedar Creek	R	At mouth	13	72N	12W	15.7	
19	Cedar Creek	Skunk River	R	East (county) line	13	72N	12W	165	
20	Honey Branch	Cedar Creek	R	Road crossing, west line	24	72N	12W	5.26	
21	Honey Branch	Cedar Creek	R	At mouth	19	72N	11W	9.69	
22	Competine Creek	Cedar Creek	L	Road crossing, west line	4	73N	12W	5.76	
23	Competine Creek	Cedar Creek	L	Road crossing, center	15	73N	12W	12.5	
24	Competine Creek	Cedar Creek	L	East (county) line	36	73N	12W	23	
25	Little Competine Creek	Competine Creek	L	East (county) line	24	73N	12W	4.35	
26	Rock Creek	Cedar Creek	R	Road crossing, east (county) line	1	71N	12W	9.97	
27	Des Moines River	Mississippi River	R	Road crossing, NW1/4	6	73N	15W	13130	
28	Miller Creek	Des Moines River	R	At mouth	7	73N	15W	32	
29	Unnamed creek	Des Moines River	L	At mouth	17	73N	15W	5.93	
30	Brown Creek	Des Moines River	L	At mouth	16	73N	15W	6.06	
31	Des Moines River	Mississippi River	R	Below Brown Creek	16	73N	15W	13177	
32	Fudge Creek	Des Moines River	L	At mouth	23	73N	15W	8.76	
33	North Avery Creek	Des Moines River	R	Road crossing, west (county) line	31	73N	15W	11.4	

FINAL Drainage Areas of Iowa Streams.xls Table No. 90 Wapello County

34	North Avery Creek	Des Moines River	R	Road crossing, north 1/2	33	73N	15W	14.3
35	Middle Avery Creek	North Avery Creek	R	Road crossing, west (county) line	7	72N	15W	34.2
36	Middle Avery Creek	North Avery Creek	R	At mouth	33	73N	15W	42.8
37	North Avery Creek	Des Moines River	R	At mouth	25	73N	15W	60.3
38	Des Moines River	Mississippi River	R	Road crossing, NE1/4	36	73N	15W	13257
39	South Avery Creek	Des Moines River	R	Road crossing, west (county) line	30	72N	15W	29.5
40	South Avery Creek	Des Moines River	R	Road crossing, east 1/2	15	72N	15W	40.6
41	South Avery Creek	Des Moines River	R	At mouth	31	73N	14W	51.6
42	Comstock creek	Des Moines River	L	At mouth	31	73N	14W	9.61
				Road crossing, east 1/2				
43	Des Moines River	Mississippi River	R	(Blackhawk Street, Ottumwa)	23	72N	14W	13344
44	Bear Creek	Des Moines River	R	Road crossing, south 1/2	27	72N	15W	5.12
45	Bear Creek	Des Moines River	R	Road crossing, east 1/2	26	72N	15W	11.5
46	Bear Creek	Des Moines River	R	Road crossing, west line	28	72N	14W	20.4
47	Bear Creek	Des Moines River	R	At mouth	23	72N	14W	24.5
48	Des Moines River	Mississippi River	R	Vine Street crossing, SW¼ (gage at Ottumwa)	30	72N	13W	13374
49	Sugar Creek	Des Moines River	L	Road crossing, NE¼	21	72N	13W	6.78
50	Sugar Creek	Des Moines River	L	At mouth	32	72N	13W	14.2
51	Village Creek	Des Moines River	R	Road crossing, NW1/4	5	71N	14W	9.57
52	Village Creek	Des Moines River	R	Road crossing, NW1/4	14	71N	14W	18.8
53	Village Creek	Des Moines River	R	At mouth	9	71N	13W	27.2
54	Des Moines River	Mississippi River	R	Road crossing, south 1/2	10	71N	13W	13435
55	Chippewa Creek	Des Moines River	L	At mouth Road crossing, south 1/2	28	71N	12W	6.35
56	Des Moines River	Mississippi River	R	(discontinued gage at Eldon)	27	71N	12W	13465
57	Brush Creek	Soap Creek	L	Road crossing, west 1/2	33	71N	14W	8.98
58	Coins Creek	Brush Creek	R	At mouth	33	71N	14W	5.56
59	Brush Creek	Soap Creek	L	At mouth	10	70N	14W	17.6
60	Little Soap Creek	Soap Creek	L	Road crossing, SE1/4	20	71N	15W	8.12
61	Little Soap Creek	Soap Creek	L	Road crossing, SW1/4	18	71N	14W	18.6
62	Little Soap Creek	Soap Creek	L	Road crossing, south 1/2	22	71N	14W	25
63	Little Soap Creek	Soap Creek	L	Road crossing, north line	32	71N	13W	32.4
64	Little Soap Creek	Soap Creek	L	Road crossing, west line	35	71N	13W	37.7
65	Little Soap Creek	Soap Creek	L	At mouth	1	70N	13W	42.4
66	Soap Creek	Des Moines River	R	At mouth	35	71N	12W	253
	•							

FINAL Drainage Areas of Iowa Streams.xls Table No. 90 Wapello County

67	Des Moines River	Mississippi River	R	South (county) line	35	71N	12W	13722
68	Stump Creek	Des Moines River	L	East (county) line	25	71N	12W	2.42

Figure 91. Drainage area index map of Warren County lowa

FINAL Drainage Areas of Iowa Streams.xls Table No. 91 Warren County

			Bank	Point of determination of dra		Drainage area		
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	North River	Des Moines River	R	Road crossing, west (county) line	6	76N	25W	265
2	Badger Creek	North River	L	Road crossing, west (county) line	19	77N	25W	42.5
3	Badger Creek	North River	L	At mouth	33	77N	25W	52.4
4	North River	Des Moines River	R	Below Badger Creek	33	77N	25W	324
5	North River	Des Moines River	R	West line	25	77N	25W	338
6	North River	Des Moines River	R	Road crossing, west line (gage near Norwalk)	20	77N	24W	349
7	Middle Creek	North River	L	Road crossing, SW corner	2	77N	25W	5.05
8	Middle Creek	North River	L	Road crossing, west line (gage near Norwalk)	6	77N	24W	10.9
9	Middle Creek	North River	L	At mouth	10	77N	24W	20.4
10	North River	Des Moines River	R	Below Middle Creek	10	77N	24W	380
11	North River	Des Moines River	R	Road crossing, center	12	77N	24W	387
12	North River	Des Moines River	R	At mouth	36	78N	23W	400
13	Middle Creek	Des Moines River	R	Road crossing, west (county) line	30	76N	25W	285
14	Clanton Creek	Middle River	R	West (county) line	7	75N	25W	151
15	Clanton Creek	Middle River	R	At mouth	28	76N	25W	160
16	Middle Creek	Des Moines River	R	Below Clanton Creek	28	76N	25W	451
17	Middle Creek	Des Moines River	R	Road crossing, south 1/2	14	76N	25W	462
18	Felters Branch	Middle River	R	At mouth	7	76N	24W	7.67
19	Middle Creek	Des Moines River	R	Below Felters Branch	7	76N	24W	478
20	Unnamed creek	Middle River	R	At mouth	3	76N	24W	6.31
21	Cavitt Creek	Middle River	R	At mouth	3	76N	24W	9.22
22	Middle Creek	Des Moines River	R	Below Cavitt Creek	3	76N	24W	500
23	Middle Creek	Des Moines River	R	Road crossing, west line (gage near Indianola)	31	77N	23W	506
24	Deer Creek	Middle River	R	At mouth	30	77N	23W	8.82
25	Middle Creek	Des Moines River	R	Road crossing, west line	22	77N	23W	524
26	Butcher Creek	Middle River	R	Road crossing, west line	25	77N	23W	9.86
27	Butcher Creek	Middle River	R	At mouth	9	77N	22W	19
28	Middle Creek	Des Moines River	R	At mouth	9	77N	22W	558
29	Des Moines River	Mississippi River	R	Below Middle River	9	77N	22W	11019

FINAL Drainage Areas of Iowa Streams.xls Table No. 91 Warren County

30	South River	Des Moines River	R	West (county) line	19	74N	25W	54.5
31	Broadhorn Creek	South River	L	Road crossing, west (county) line	6	74N	25W	8.51
32	Broadhorn Creek	South River	L	At mouth	3	74N	25W	15.5
33	South River	Des Moines River	R	Below Broadhorn Creek	3	74N	25W	83.8
34	Box Elder Creek	South River	R	At mouth	2	74N	25W	6.15
35	South River	Des Moines River	R	Road crossing, north line	1	74N	25W	94.6
36	Painter Creek	South River	L	Road crossing, west line	21	75N	25W	7.66
37	Painter Creek	South River	L	At mouth	24	75N	25W	15.7
38	South River	Des Moines River	R	Below Painter Creek	24	75N	25W	118
39	South River	Des Moines River	R	West line	7	75N	24W	128
40	Squaw Creek	South River	R	Road crossing, south (county) line	36	74N	25W	79.6
41	Squaw Creek	South River	R	North line	33	74N	24W	89.8
42	Skinaway Creek	Squaw Creek	R	At mouth	22	74N	24W	7.22
43	Papoose Creek	Squaw Creek	L	At mouth	9	74N	24W	7.98
44	Squaw Creek	South River	R	Below Papoose Creek	9	74N	24W	113
45	Squaw Creek	South River	R	North line	34	75N	24W	120
46	Unnamed creek	Squaw Creek	R	At dam (gage near Indianola)	14	75N	24W	5.61
47	Squaw Creek	South River	R	At mouth	3	75N	24W	136
48	South River	Des Moines River	R	Below Squaw Creek	3	75N	24W	276
49	Otter Creek	South River	R	Road crossing, south (county) line	32	74N	23W	104
50	Otter Creek	South River	R	Road crossing, SW1/4	17	74N	23W	114
51	Turkey Creek	Otter Creek	R	At mouth	33	75N	23W	6.78
52	Otter Creek	South River	R	Road crossing, west line	34	75N	23W	138
53	Unnamed creek	Otter Creek	R	At mouth	27	75N	23W	6.85
54	Otter Creek	South River	R	North line	22	75N	23W	156
55	Otter Creek	South River	R	At mouth	34	76N	23W	168
56	South River	Des Moines River	R	Below Otter Creek	34	76N	23W	458
57	South River	Des Moines River	R	Road crossing, NE¼ (gage near Ackworth)	19	76N	22W	474
58	Short Creek	South River	L	Road crossing, west line	23	76N	23W	6.37
59	Short Creek	South River	L	At mouth	18	76N	22W	11.6
60	South River	Des Moines River	R	Road crossing, NW1/4	17	76N	22W	491
61	South River	Des Moines River	R	Road crossing, NE1/4	3	76N	22W	503
62	Coal Creek	South River	R	Road crossing, west line	4	75N	22W	11.2
63	Coal Creek	South River	R	East (county) line	25	76N	22W	22
64	Fly Creek	Coal Creek	R	At mouth	30	76N	21W	5.83

FINAL Drainage Areas of Iowa Streams.xls Table No. 91 Warren County

65	Coon Creek	Coal Creek	R	Road crossing, west line	8	75N	21W	6.64
66	Coal Creek	South River	R	East (county) line	12	76N	22W	64.2
67	Coal Creek	South River	R	At mouth	23	77N	22W	74.7
68	South River	Des Moines River	R	Below Coal Creek	23	77N	22W	586
69	South River	Des Moines River	R	At mouth	12	77N	22W	590
70	Des Moines River	Mississippi River	R	Below South River	12	77N	22W	11655
71	Des Moines River	Mississippi River	R	Below Camp Creek	12	77N	22W	11699
72	Whitebreast Creek	Des Moines River	R	Road crossing, south (county) line	35	74N	22W	243
73	Stony Creek	Whitebreast Creek	L	North line	9	73N	22W	8.29
74	Stony Creek	Whitebreast Creek	L	At mouth	27	74N	22W	12.6
75	Whitebreast Creek	Des Moines River	R	Below Stony Creek	27	74N	22W	258
76	Mill Branch	Whitebreast Creek	L	Road crossing, west line	32	74N	22W	8.27
77	Mill Branch	Whitebreast Creek	L	At mouth	27	74N	22W	13.8
78	Winn Branch	Whitebreast Creek	R	At mouth	13	74N	22W	6.8
79	Wolf Creek	Whitebreast Creek	L	Road crossing, west line	17	74N	22W	5.67
80	North Wolf Creek	Wolf Creek	L	At mouth	17	74N	22W	8.1
81	Wolf Creek	Whitebreast Creek	L	Road crossing, west line	11	74N	22W	18.7
82	Flank Creek	Wolf Creek	L	Road crossing, west line	34	75N	22W	9.67
83	Flank Creek	Wolf Creek	L	At mouth	11	74N	22W	15.4
84	Wolf Creek	Whitebreast Creek	L	At mouth	18	74N	21W	38.4
85	Whitebreast Creek	Des Moines River	R	Below Wolf Creek	18	74N	21W	323

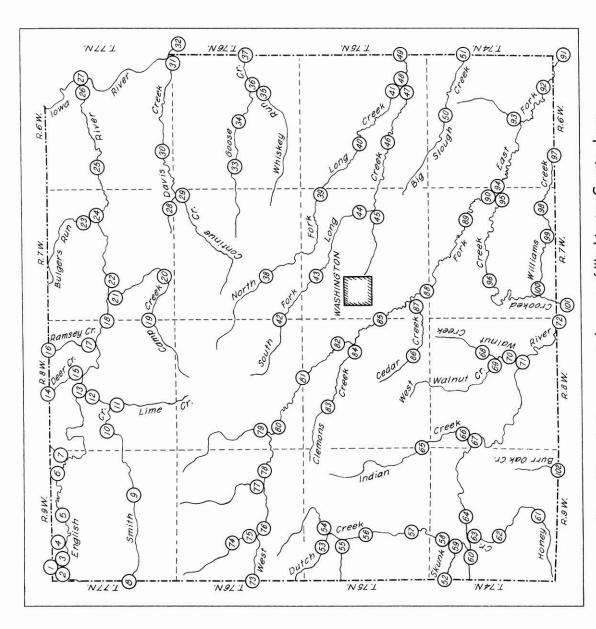


Figure 92. Drainage area index map of Washington County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 92 Washington County

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to		Describera	Sec	Т	R	(sq mi)
No.	North Corl. Coolinh Divor	Francisch Divor	<u> </u>	Description		771	0\\\	24.4
1	North Fork English River	English River	L	At mouth	6	77N	9W	314
2	South Fork English River	English River	R	At mouth	6	77N	9W	128
3	English River	Iowa River	R	Below confluence North and South Forks	6	77N	9W	442
4	Teener Creek	English River	L	At mouth	5	77N	9W	6.31
5	English River	Iowa River	R	Road crossing, west line	3	77N	9W	455
6	English River	Iowa River	R	Road crossing, west line	1	77N	9W	460
7	Birch Creek	English River	L	At mouth	1	77N	9W	6.54
8	Smith Creek	English River	R	Road crossing, west (county) line	19	77N	9W	11.8
9	Smith Creek	English River	R	Road crossing, west line	26	77N	9W	20.7
10	Smith Creek	English River	R	Road crossing, north line	19	77N	8W	28.8
11	Lime Creek	Smith Creek	R	At mouth	16	77N	8W	9.28
12	Smith Creek	English River	R	At mouth	9	77N	8W	40.9
13	English River	Iowa River	R	Below Smith Creek	9	77N	8W	514
14	Deer Creek	English River	L	Road crossing, north (county) line	4	77N	8W	37.8
15	Deer Creek	English River	L	At mouth	10	77N	8W	40.4
13	Deel Oleek	Liigiisii Kivei	L	Road crossing, north	10			
16	Ramsey Creek	English River	L	(county) line	2	77N	W8	6.05
17	Ramsey Creek	English River	L	At mouth	14	77N	W8	8.36
18	English River	Iowa River	R	Road crossing, east line (gage near Kalona)	13	77N	8W	573
19	Camp Creek	English River	R	Road crossing, west line	30	77N	7W	8.83
20	Camp Creek	English River	R	Road crossing, west line	33	77N	7W	14.7
21	Camp Creek	English River	R	At mouth	17	77N	7W	20.7
22	English River	Iowa River	R	Road crossing, SW1/4	17	77N	7W	599
23	Bulgers Run	English River	L	At mouth	14	77N	7W	6.23
24	English River	Iowa River	R	Below Bulgers Run	14	77N	7W	616
25	English River	Iowa River	R	Road crossing, west line	17	77N	6W	626
26	English River	Iowa River	R	At mouth	11	77N	6W	638
27	Iowa River	Mississippi River	R	Below English River	11	77N	6W	4254
28	Davis Creek	Iowa River	R	Road crossing, west line	36	77N	7W	1.96
29	Continue Creek	Davis Creek	R	At mouth	1	76N	7W	8.99
30	Davis Creek	Iowa River	R	Road crossing, south 1/2	32	77N	6W	17
31	Davis Creek	Iowa River	R	At mouth	31	77N	5W	29.1
32	Iowa River	Mississippi River	R	Road crossing, north 1/2 (gage near Lone Tree)	6	76N	5W	4293

FINAL Drainage Areas of Iowa Streams.xls Table No. 92 Washington County

33	Goose Creek	Iowa River	R	Road crossing, west line	17	76N	6W	5.67
34	Goose Creek	Iowa River	R	Road crossing, west line	22	76N	6W	13.8
35	Whiskey Run	Goose Creek	R	At mouth	23	76N	6W	9.76
36	Goose Creek	Iowa River	R	Below Whiskey Run	23	76N	6W	28.4
37	Goose Creek	Iowa River	R	Road crossing, east (county) line	24	76N	6W	33.5
38	North Fork Long Creek	Long Creek	L	Road crossing, west line	28	76N	7W	7.83
39	North Fork Long Creek	Long Creek	L	Road crossing, SE1/4	1	75N	7W	18.5
40	North Fork Long Creek	Long Creek	L	Road crossing, west line	16	75N	6W	25.3
41	North Fork Long Creek	Long Creek	L	At mouth	26	75N	6W	33.4
42	South Fork Long Creek	Long Creek	R	Road crossing, NW corner	31	76N	7W	5.89
43	South Fork Long Creek	Long Creek	R	Road crossing, west line	4	75N	7W	9.91
44	South Fork Long Creek	Long Creek	R	Road crossing, north line	23	75N	7W	16.4
45	Unnamed creek	South Fork Long Creek	R	At mouth	24	75N	7W	7.05
46	South Fork Long Creek	Long Creek	R	Road crossing, west line	28	75N	6W	29.7
47	South Fork Long Creek	Long Creek	R	At mouth	26	75N	6W	34.9
48	Long Creek	Iowa River	R	Below confluence North and South Forks	26	75N	6W	68.4
49	Long Creek	Iowa River	R	Road crossing, east (county) line	25	75N	6W	71.9
50	Big Slough Creek	Buffington Creek	L	Road crossing, SW1/4	3	74N	6W	7.09
51	Big Slough Creek	Buffington Creek	L	Road crossing, east (county) line	12	74N	6W	11
52	Skunk River	Mississippi River	R	West (county) line	6	74N	9W	2750
53	Dutch Creek	Skunk River	L	North line	8	75N	9W	6.21
54	Unnamed creek	Dutch Creek	L	At mouth	9	75N	9W	7.73
55	Unnamed creek	Dutch Creek	R	At mouth	17	75N	9W	5.35
56	Dutch Creek	Skunk River	L	Road crossing, NW corner	21	75N	9W	24.7
57	Dutch Creek	Skunk River	L	Road crossing, NW1/4	33	75N	9W	36.8
58	Dutch Creek	Skunk River	L	At mouth	8	74N	9W	40.4
59	Skunk River	Mississippi River	R	Below Dutch Creek	8	74N	9W	2794
60	Richland Creek	Skunk River	R	At mouth	8	74N	9W	35.7
61	Honey Creek	Skunk River	R	Road crossing, north line	34	74N	9W	6.61
62	Honey Creek	Skunk River	R	West line	21	74N	9W	18.7
63	Honey Creek	Skunk River	R	At mouth	8	74N	9W	21.7
64	Skunk River	Mississippi River	R	Road crossing, SE1/4	9	74N	9W	2854
65	Indian Creek	Skunk River	L	Road crossing, west line	31	75N	8W	8.19
66	Indian Creek	Skunk River	L	At mouth	18	74N	W8	15.8
67	Skunk River	Mississippi River	R	Below Indian Creek	18	74N	8W	2879

FINAL Drainage Areas of Iowa Streams.xls Table No. 92 Washington County

68	Walnut Creek	Skunk River	L	Road crossing, west 1/2	14	74N	8W	6.77
69	West Walnut Creek	Walnut Creek	R	At mouth	23	74N	8W	7.97
70	Walnut Creek	Skunk River	L	At mouth	26	74N	8W	18.4
71	Skunk River	Mississippi River	R	Below Walnut Creek	26	74N	8W	2911
		• •		Road crossing, NE1/4				
72	Skunk River	Mississippi River	R	(discontinued gage at	1	73N	8W	2916
		• •		Coppock)				
72	West Fork Creeked Creek	Crooked Crook	R	Road crossing, west	10	76N	9W	10.1
73	West Fork Crooked Creek	Crooked Creek	K	(county) line	19	/ OIN	900	19.1
74	Unnamed creek	West Fork Crooked Creek	L	Road crossing, west line	16	76N	9W	5.36
75	Unnamed creek	West Fork Crooked Creek	L	At mouth	20	76N	9W	10.4
76	West Fork Crooked Creek	Crooked Creek	R	Road crossing, north line	28	76N	9W	32.7
77	Unnamed creek	West Fork Crooked Creek	L	At mouth	26	76N	9W	7.84
78	West Fork Crooked Creek	Crooked Creek	R	Road crossing, west line	25	76N	9W	44.8
79	Unnamed creek	West Fork Crooked Creek	L	At mouth	30	76N	8W	9.23
80	West Fork Crooked Creek	Crooked Creek	R	Road crossing, west line	29	76N	8W	58.4
81	West Fork Crooked Creek	Crooked Creek	R	Road crossing, north line	3	75N	8W	69
82	West Fork Crooked Creek	Crooked Creek	R	Road crossing, NE1/4	14	75N	8W	75.7
83	Clemons Creek	West Fork Crooked Creek	R	Road crossing, west line	9	75N	8W	4.89
84	Clemons Creek	West Fork Crooked Creek	R	At mouth	14	75N	8W	10.3
85	West Fork Crooked Creek	Crooked Creek	R	Road crossing, SE1/4	24	75N	8W	94.1
86	Cedar Creek	West Fork Crooked Creek	R	Road crossing, NW1/4	35	75N	8W	6.69
87	Cedar Creek	West Fork Crooked Creek	R	At mouth	31	75N	7W	10
88	West Fork Crooked Creek	Crooked Creek	R	Road crossing, west 1/2	32	75N	7W	108
89	West Fork Crooked Creek	Crooked Creek	R	Road crossing, south 1/2	11	74N	7W	117
90	West Fork Crooked Creek	Crooked Creek	R	At mouth	24	74N	7W	124
91	East Fork Crooked Creek	Crooked Creek	L	Road crossing, west line	6	73N	5W	93.1
92	East Fork Crooked Creek	Crooked Creek	L	Road crossing, E 1/2	35	74N	6W	101
93	Unnamed creek	East Fork Crooked Creek	R	At mouth	28	74N	6W	8.21
94	East Fork Crooked Creek	Crooked Creek	L	At mouth	24	74N	7W	122
0.5	One also d One als	Charle Disease		Below confluence East	0.4	7481	7 \ \ /	0.40
95	Crooked Creek	Skunk River	L	and West Forks	24	74N	7W	246
96	Crooked Creek	Skunk River	L	Road crossing, SE1/4	17	74N	7W	256
97	Williams Creek	Crooked Creek	L	South (county) line	32	74N	6W	5.54
98	Williams Creek	Crooked Creek	L	Road crossing, west line	36	74N	7W	9.35
99	Williams Creek	Crooked Creek	L	Road crossing, SE1/4	34	74N	7W	16.7
100	Williams Creek	Crooked Creek	L	At mouth	31	74N	7W	21.8
101	Crooked Creek	Skunk River	L	At mouth	1	73N	8W	286
102	Burr Oak Creek	Walnut Creek	L	South (county) line	36	74N	9W	4.85

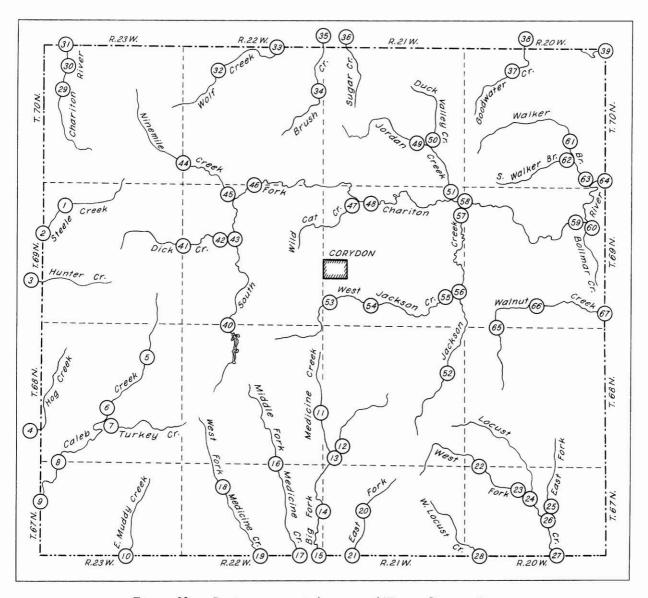


Figure 93. Drainage area index map of Wayne County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 93 Wayne County

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to			Sec	Т	R	Drainage area (sq mi)
No.				Description				
1	Steele Creek	Weldon River	L	North line	7	69N	23W	10.2
2	Steele Creek	Weldon River	L	West (county) line	18	69N	23W	15.6
3	Hunter Creek	Steele Creek	L	At mouth	25	69N	24W	8.12
4	Hog Creek	Steele Creek	L	at mouth	26	68N	24W	7.78
5	Caleb Creek	Weldon River	L	Road crossing, center	11	68N	23W	8.12
6	Caleb Creek	Weldon River	L	Road crossing, north line	28	68N	23W	23.2
7	Turkey Creek	Caleb Creek	L	At mouth	28	68N	23W	6.49
8	Caleb Creek	Weldon River	L	Road crossing, north line	6	67N	23W	37
9	Caleb Creek	Weldon River	L	West (county) line	7	67N	23W	45.9
10	East Muddy Creek	Thompson River	L	South (state) line	22	67N	23W	6.71
11	Big Fork Medicine Creek	East Medicine Creek	R	Road crossing, SE1/4	24	68N	22W	8.68
12	Unnamed creek	Big Fork Medicine Creek	L	At mouth	31	68N	21W	11.3
13	Big Fork Medicine Creek	East Medicine Creek	R	Below unnamed creek	31	68N	21W	22.9
14	Big Fork Medicine Creek	East Medicine Creek	R	North line	13	67N	22W	29.2
15	Big Fork Medicine Creek	East Medicine Creek	R	South (state) line	24	67N	22W	32.3
16	Middle Fork Medicine Creek	Big Fork Medicine Creek	R	Road crossing, NE corner	3	67N	22W	7.28
17	Middle Fork Medicine Creek	Big Fork Medicine Creek	R	South (state) line	24	67N	22W	13.3
18	West Fork Medicine Creek	Big Fork Medicine Creek	R	Road crossing, north line	8	67N	22W	9.53
19	West Fork Medicine Creek	Big Fork Medicine Creek	R	Road crossing, south (state) line	22	67N	22W	17.8
20	East Fork Medicine Creek	East Medicine Creek	L	Road crossing, north line	17	67N	21W	5.07
21	East Fork Medicine Creek	East Medicine Creek	L	Road crossing, south (state) line	20	67N	21W	11.2
22	West Fork Locust Creek	Locust Creek	R	Road crossing, north line	6	67N	20W	5.71
23	West Fork Locust Creek	Locust Creek	R	At mouth	9	67N	20W	11.4
24	Locust Creek	Grand River	L	Below West Fork Locust Creek	9	67N	20W	22.8
25	East Fork Locust Creek	Locust Creek	L	At mouth	15	67N	20W	5.91
26	Locust Creek	Grand River	L	Below East Fork Locust Creek	15	67N	20W	30.4
27	Locust Creek	Grand River	L	South (state) line	22	67N	20W	33.2
28	West Locust Creek	Locust Creek	R	South (state) line	19	67N	20W	5.85
29	Chariton River	Missouri River	L	North line	18	70N	23W	9.55
30	Chariton River	Missouri River	L	Road crossing, north line	8	70N	23W	16
31	Chariton River	Missouri River	L	Road crossing, north (county) line	6	70N	23W	22
32	Wolf Creek	Chariton River	R	Road crossing, north 1/2	8	70N	22W	12.5

FINAL Drainage Areas of Iowa Streams.xls Table No. 93 Wayne County

33	Wolf Creek	Chariton River	R	Road crossing, north (county) line	3	70N	22W	18.9
34	Brush Creek	Wolf Creek	R	North line	13	70N	22W	7.16
35	Brush Creek	Wolf Creek	R	At mouth	30	71N	21W	11.2
36	Sugar Creek	Wolf Creek	R	At mouth	32	71N	21W	6.16
37	Goodwater Creek	Chariton River	R	West line	9	70N	20W	6.3
38	Goodwater Creek	Chariton River	R	At mouth	34	71N	20W	9.96
39	Chariton River	Missouri River	L	Road crossing, east (county) line	1	70N	20W	248
40	South Fork Chariton River	Chariton River	R	North line	5	68N	22W	7.71
41	Dick Creek	South Fork Chariton River	L	West line	18	69N	22W	8.61
42	Dick Creek	South Fork Chariton River	L	At mouth	16	69N	22W	15.1
43	South Fork Chariton River	Chariton River	R	Below Dick Creek	16	69N	22W	36.2
44	Ninemile Creek	South Fork Chariton River	L	West line	31	70N	22W	10.9
45	Ninemile Creek	South Fork Chariton River	L	At mouth	4	69N	22W	17.1
46	South Fork Chariton River	Chariton River	R	Road crossing, SE corner	33	70N	22W	58
47	Wild Cat Creek	South Fork Chariton River	R	At mouth	5	69N	21W	7.59
48	South Fork Chariton River	Chariton River	R	Road crossing, SE¼	5	69N	21W	80.2
49	Jordan Creek	South Fork Chariton River	L	Road crossing, west line	26	70N	21W	8.14
50	Duck Valley Creek	Jordan Creek	L	At mouth	26	70N	21W	5.2
51	Jordan Creek	South Fork Chariton River	L	At mouth	1	69N	21W	18.2
52	Jackson Creek	South Fork Chariton River	R	North line	13	68N	21W	6.98
53	West Jackson Creek	Jackson Creek	L	Road crossing, SW1/4	30	69N	21W	9
54	West Jackson Creek	Jackson Creek	L	Road crossing, west line	33	69N	21W	17.8
55	West Jackson Creek	Jackson Creek	L	At mouth	25	69N	21W	28.8
56	Jackson Creek	South Fork Chariton River	R	Below West Jackson Creek	25	69N	21W	44.3
57	Jackson Creek	South Fork Chariton River	R	At mouth	1	69N	21W	54.4
58	South Fork Chariton River	Chariton River	R	Below Jackson Creek	1	69N	21W	164
59	South Fork Chariton River	Chariton River	R	West line	12	69N	20W	181
60	Bollmar Creek	South Fork Chariton River	R	At mouth	12	69N	20W	7.63
61	Walker Branch	South Fork Chariton River	L	Road crossing, north line	26	70N	20W	7.67
62	South Walker Branch	Walker Branch	R	At mouth	26	70N	20W	6.36
63	Walker Branch	South Fork Chariton River	L	At mouth	36	70N	20W	16.1
64	South Fork Chariton River	Chariton River	R	East (county) line	36	70N	20W	208
65	Walnut Creek	Chariton River	R	North line	5	68N	20W	6.96
66	Walnut Creek	Chariton River	R	NW corner	34	69N	20W	12.8
67	Walnut Creek	Chariton River	R	Road crossing, east (county) line	36	69N	20W	18.1

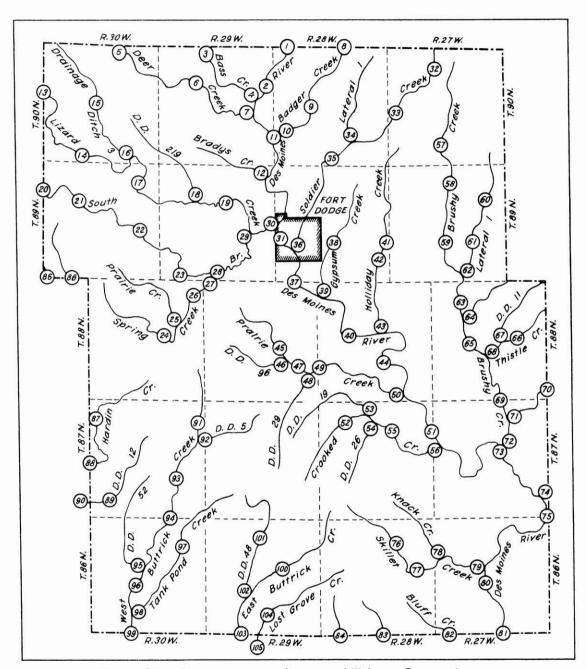


Figure 94. Drainage area index map of Webster County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 94 Webster County

			Bank	Point of determination of dra		Drainage area		
Area	Name of stream	Tributary to			Ĭ	Т	R	Drainage area (sq mi)
No.				Description	Sec	ı	K	(34 1111)
1	Des Moines River	Mississippi River	R	North (county) line	6	90N	28W	3656
2	Des Moines River	Mississippi River	R	Road crossing, north line	13	90N	29W	3664
3	Bass Creek	Des Moines River	R	Road crossing, north 1/2	4	90N	29W	8.68
4	Bass Creek	Des Moines River	R	At mouth	13	90N	29W	15.9
5	Deer Creek	Des Moines River	R	Road crossing, west line	2	90N	30W	12
6	Deer Creek	Des Moines River	R	Road crossing, west line	9	90N	29W	20.7
7	Deer Creek	Des Moines River	R	At mouth	24	90N	29W	31.3
8	Badger Creek	Des Moines River	L	North (county) line	3	90N	28W	8.67
9	Badger Creek	Des Moines River	L	Road crossing, north line	20	90N	28W	14.9
10	Badger Creek	Des Moines River	L	At mouth	30	90N	28W	19.3
11	Des Moines River	Mississippi River	R	Below Badger Creek	30	90N	28W	3734
12	Bradys Creek	Des Moines River	R	At mouth	1	89N	29W	7.97
13	Lizard Creek	Des Moines River	R	Road crossing, west (county) line	18	90N	30W	224
14	Lizard Creek	Des Moines River	R	Road crossing, west line	33	90N	30W	233
15	Drainage Ditch 3	Lizard Creek	L	Road crossing, north line	21	90N	30W	8.22
16	Drainage Ditch 3	Lizard Creek	L	At mouth	35	90N	30W	16.4
17	Lizard Creek	Des Moines River	R	Road crossing, north line (gage near Clare)	11	89N	30W	257
18	Drainage Ditch 3	Lizard Creek	L	At mouth	8	89N	29W	7.47
19	Lizard Creek	Des Moines River	R	Road crossing, north 1/2	15	89N	29W	275
20	South Branch Lizard Creek	Lizard Creek	R	West (county) line	7	89N	30W	90.8
21	South Branch Lizard Creek	Lizard Creek	R	Road crossing, north line	17	89N	30W	97.6
22	South Branch Lizard Creek	Lizard Creek	R	Road crossing, west line	24	89N	30W	107
23	South Branch Lizard Creek	Lizard Creek	R	Road crossing, west line	32	89N	29W	114
24	Spring Creek	South Branch Lizard Creek	R	Road crossing, SW1/4	14	88N	30W	10.1
25	Prairie Creek	Spring Creek	L	At mouth	14	88N	30W	7.53
26	Spring Creek	South Branch Lizard Creek	R	Road crossing, south 1/2	1	88N	30W	24
27	Spring Creek	South Branch Lizard Creek	R	At mouth	33	89N	29W	31.8
28	South Branch Lizard Creek	Lizard Creek	R	Below Spring Creek	33	89N	29W	147
29	South Branch Lizard Creek	Lizard Creek	R	At mouth	23	89N	29W	157
30	Lizard Creek	Des Moines River	R	At mouth	19	89N	28W	437
31	Des Moines River	Mississippi River	R	Gage at Fort Dodge, SW1/4	19	89N	28W	4190
32	Soldier Creek	Des Moines River	L	Road crossing, north line	9	90N	27W	4.39
33	Soldier Creek	Des Moines River	L	Road crossing, NW1/4	19	90N	27W	12.9
34	Lateral 1	Soldier Creek	R	At mouth	26	90N	28W	6.67
35	Soldier Creek	Des Moines River	L	Road crossing, west line	34	90N	28W	28.3

FINAL Drainage Areas of Iowa Streams.xls Table No. 94 Webster County

				,				
36	Soldier Creek	Des Moines River	L	At mouth	19	89N	28W	37.8
37	Des Moines River	Mississippi River	R	North line	2	88N	29W	4233
38	Gypsum Creek	Des Moines River	L	Road crossing, north line	27	89N	28W	6.72
39	Gypsum Creek	Des Moines River	L	At mouth	6	88N	28W	10.4
40	Des Moines River	Mississippi River	R	Road crossing, SE¼ (discontinued gage at Kalo)	17	88N	28W	4259
41	Holliday Creek	Des Moines River	L	Road crossing, north line	25	89N	28W	7.04
42	Holliday Creek	Des Moines River	L	Road crossing, SW1/4	25	89N	28W	13.2
43	Holliday Creek	Des Moines River	L	At mouth	15	88N	28W	22.4
44	Des Moines River	Mississippi River	R	North line	27	88N	28W	4290
45	Prairie Creek	Des Moines River	R	Road crossing, west line	23	88N	29W	6.84
46	Drainage Ditch 96	Prairie Creek	R	At mouth	23	88N	29W	9.01
47	Prairie Creek	Des Moines River	R	Road crossing, west line	25	88N	29W	17.4
48	Drainage Ditch 29	Prairie Creek	R	At mouth	25	88N	29W	7.41
49	Prairie Creek	Des Moines River	R	Road crossing, west line	30	88N	28W	26.5
50	Prairie Creek	Des Moines River	R	At mouth	35	88N	28W	34.3
51	Des Moines River	Mississippi River	R	Road crossing, SW1/4	7	87N	27W	4335
52	Crooked Creek	Des Moines River	R	Road crossing, north line	8	87N	28W	9.66
53	Drainage Ditch 19	Crooked Creek	L	At mouth	4	87N	28W	6.05
54	Drainage Ditch 26	Crooked Creek	R	At mouth	10	87N	28W	5.4
55	Crooked Creek	Des Moines River	R	Road crossing, east 1/2	10	87N	28W	23.1
56	Crooked Creek	Des Moines River	R	At mouth	18	87N	27W	31.8
57	Brushy Creek	Des Moines River	L	Road crossing, north line	33	90N	27W	8.42
58	Crooked Creek	Des Moines River	L	Road crossing, north line	10	89N	27W	14.8
59	Brushy Creek	Des Moines River	L	Road crossing, north line	28	89N	27W	22.9
60	Lateral 1	Brushy Creek	L	Road crossing, west line	12	89N	27W	4.18
61	Lateral 1	Brushy Creek	L	Road crossing, north line	26	89N	27W	10.7
62	Lateral 1	Brushy Creek	L	At mouth	34	89N	27W	19.7
63	Brushy Creek	Des Moines River	L	Road crossing, north line	8	88N	27W	50.1
64	Joint Drainage Ditch 204	Brushy Creek	L	At mouth	8	88N	27W	6
65	Brushy Creek	Des Moines River	L	Road crossing, west line	16	88N	27W	64.4
66	Thistle Creek	Brushy Creek	L	Road crossing, west line	23	88N	27W	5.16
67	Drainage Ditch 11	Thistle Creek	R	At mouth	22	88N	27W	7.93
68	Thistle Creek	Brushy Creek	L	At mouth	21	88N	27W	14
69	Brushy Creek	Des Moines River	L	Road crossing, north line	3	87N	27W	88.5
70	Drainage Ditch 72	Brushy Creek	L	Road crossing, east (county) line	36	88N	27W	4.36
71	Drainage Ditch 72	Brushy Creek	L	At mouth	3	87N	27W	7.22
72	Brushy Creek	Des Moines River	L	At mouth	15	87N	27W	108
73	Des Moines River	Mississippi River	R	Below Brushy Creek	15	87N	27W	4489
74	Boone River	Des Moines River	L	At mouth	36	87N	27W	906

FINAL Drainage Areas of Iowa Streams.xls Table No. 94 Webster County

75	Des Moines River	Mississippi River	R	Road crossing, north line	1	86N	27W	5403
76	Skillet Creek	Des Moines River	R	Road crossing, west line	11	86N	28W	9.36
77	Skillet Creek	Des Moines River	R	Road crossing, west line	13	86N	28W	15.6
78	Knack Creek	Skillet Creek	L	At mouth	18	86N	27W	8.28
79	Skillet Creek	Des Moines River	R	At mouth	16	86N	27W	31.8
80	Des Moines River	Mississippi River	R	Road crossing, north 1/2	21	86N	27W	5452
81	Des Moines River	Mississippi River	R	South (county) line	34	86N	27W	5461
82	Bluff Creek	Des Moines River	R	South (county) line	31	86N	27W	4.36
83	Drainage Ditch 107	Bluff Creek	R	South (county) line	34	86N	28W	3.82
84	Beaver Creek	Des Moines River	R	Road crossing, south (county) line	32	86N	28W	4.04
85	East Cedar Creek	Cedar Creek	L	Road crossing, south (county) line	31	89N	30W	20.8
86	Welshs Slough	East Cedar Creek	L	Road crossing, south (county) line	32	89N	30W	5.6
87	Hardin Creek	North Raccoon River	L	Road crossing, north line	7	87N	30W	8.19
88	Hardin Creek	North Raccoon River	L	Road crossing, west (county) line	19	87N	30W	16.1
89	Drainage Ditch 12	Hardin Creek	L	Road crossing, west line	32	87N	30W	4.85
90	Drainage Ditch 12	Hardin Creek	L	At mouth	35	87N	31W	7.84
91	West Buttrick Creek	Buttrick Creek	R	Road crossing, east 1/2	12	87N	30W	11.4
92	Drainage Ditch 5	West Buttrick Creek	L	At mouth	12	87N	30W	9.88
93	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	26	87N	30W	31.5
94	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	2	86N	30W	38.4
95	Drainage Ditch 52	West Buttrick Creek	R	At mouth	16	86N	30W	7.89
96	West Buttrick Creek	Buttrick Creek	R	Road crossing, north line	21	86N	30W	51.5
97	Tank Pond Creek	West Buttrick Creek	L	Road crossing, north line	14	86N	30W	11.2
98	Tank Pond Creek	West Buttrick Creek	L	At mouth	33	86N	30W	19.6
99	West Buttrick Creek	Buttrick Creek	R	Road crossing, south (county) line	33	86N	30W	80.1
100	East Buttrick Creek	Buttrick Creek	L	Road crossing, west line	14	86N	29W	9.98
101	Drainage Ditch 48	East Buttrick Creek	R	Road crossing, north line	9	86N	29W	8.48
102	Drainage Ditch 48	East Buttrick Creek	R	At mouth	28	86N	29W	12.5
103	East Buttrick Creek	Buttrick Creek	L	Road crossing, south (county) line	32	86N	29W	27.9
104	Lost Grove Creek	East Buttrick Creek	L	Road crossing, north line	34	86N	29W	7.89
105	Lost Grove Creek	East Buttrick Creek	L	At mouth	4	85N	29W	10.1

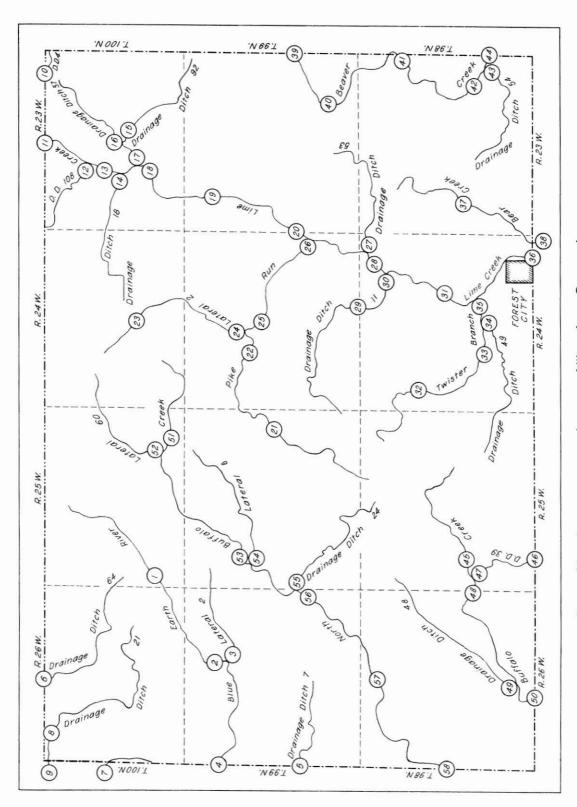


Figure 95. Drainage area index map of Winnebago County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 95 Winnebago County

			Bank	Point of determination of drainage area				Drainage area
Area	Name of stream	Tributary to		B de Co.	Sec	Т	R	(sq mi)
No.	Disc Forth Birds	Mississia Disease		Description				0.00
1	Blue Earth River	Minnesota River	R	Road crossing, north line	31	100N	25W	9.98
2	Blue Earth River	Minnesota River	R	Road crossing, north line	10	99N	26W	18.6
3	Lateral 2	Blue Earth River	L	At mouth	10	99N	26W	6.34
4	Blue Earth River	Minnesota River	R	Road crossing, west (county) line	7	99N	26W	36.3
5	Drainage Ditch 7	Blue Earth River	L	West (county) line	19	99N	26W	4.78
6	Drainage Ditch 64	Coon Creek	L	Road crossing, north (state) line	9	100N	26W	14.1
7	Drainage Ditch 68, 136	Coon Creek	L	Road crossing, north line	24	100N	27W	8.72
8	Drainage Ditch 21	Drainage Ditch 68, 136	R	Road crossing, west line	8	100N	26W	10.1
9	Drainage Ditch 21	Drainage Ditch 68, 136	R	At mouth	12	100N	27W	11.2
10	Drainage Ditch 4	Lime Creek	L	Road crossing, north (state) line	12	100N	23W	10.3
11	Lime Creek	Shell Rock River	R	Road crossing, north (state) line	9	100N	23W	74
12	Drainage Ditch 108	Lime Creek	R	At mouth	16	100N	23W	11.8
13	Lime Creek	Shell Rock River	R	Road crossing, west 1/2	21	100N	23W	88.3
14	Drainage Ditch 18	Lime Creek	R	At mouth	20	100N	23W	9.26
15	Drainage Ditch 92	Lime Creek	L	Road crossing, north line	27	100N	23W	4.8
16	Drainage Ditch 57	Drainage Ditch 92	R	At mouth	21	100N	23W	7.05
17	Drainage Ditch 92	Lime Creek	L	At mouth	28	100N	23W	13.5
18	Lime Creek	Shell Rock River	R	Road crossing, west line	28	100N	23W	113
19	Lime Creek	Shell Rock River	R	Road crossing, north line	8	99N	23W	121
20	Lime Creek	Shell Rock River	R	Road crossing, NW corner	30	99N	23W	133
21	Pike Run	Lime Creek	R	Road crossing, north line	24	99N	25W	10.8
22	Pike Run	Lime Creek	R	Road crossing, west line	16	99N	24W	19.7
23	Lateral 2	Pike Run	L	Road crossing, west line	27	100N	24W	5.66
24	Lateral 2	Pike Run	L	At mouth	16	99N	24W	14.1
25	Pike Run	Lime Creek	R	Road crossing, west line	15	99N	24W	36.3
26	Pike Run	Lime Creek	R	At mouth	25	99N	24W	41.8
27	Drainage Ditch 53	Lime Creek	L	At mouth	1	98N	24W	6.77
28	Lime Creek	Shell Rock River	R	Road crossing, center	1	98N	24W	186
29	Drainage Ditch 11	Lime Creek	R	Road crossing, north line	3	98N	24W	6.89
30	Drainage Ditch 11	Lime Creek	R	At mouth	2	98N	24W	13.4
31	Lime Creek	Shell Rock River	R	Road crossing, north line	23	98N	24W	205

FINAL Drainage Areas of Iowa Streams.xls Table No. 95 Winnebago County

32	Twister Branch	Lime Creek	R	Road crossing, north line	18	98N	24W	3.6
33	Twister Branch	Lime Creek	R	Road crossing, west line	28	98N	24W	10.3
34	Drainage Ditch 49	Twister Branch	R	At mouth	27	98N	24W	9.23
35	Twister Branch	Lime Creek	R	At mouth	27	98N	24W	22.1
36	Lime Creek	Shell Rock River	R	South (county) line	36	98N	24W	234
37	Bear Creek	Lime Creek	L	Road crossing, west line	20	98N	23W	7.99
38	Bear Creek	Lime Creek	L	At mouth	1	97N	24W	13.4
39	Beaver Creek	Lime Creek	L	East (county) line	24	99N	23W	8.97
40	Beaver Creek	Lime Creek	L	Road crossing, north line	35	99N	23W	21.3
41	Beaver Creek	Lime Creek	L	Road crossing, east 1/2	12	98N	23W	30
42	Beaver Creek	Lime Creek	L	Road crossing, north line	26	98N	23W	38.8
43	Drainage Ditch 54	Beaver Creek	R	At mouth	25	98N	23W	8.93
44	Beaver Creek	Lime Creek	L	Road crossing, east (county) line	25	98N	23W	48.9
45	Buffalo Creek	East Fork Des Moines River	L	Road crossing, west line	20	98N	25W	11.2
46	Drainage Ditch 39	Buffalo Creek	-	South (county) line	32	98N	25W	7.47
47	Drainage Ditch 39	Buffalo Creek	-	At mouth	19	98N	25W	10.2
48	Buffalo Creek	East Fork Des Moines River	L	Road crossing, west line	19	98N	25W	23
49	Drainage Ditch 48	Buffalo Creek	R	At mouth	33	98N	26W	7.75
50	Buffalo Creek	East Fork Des Moines River	L	South (county) line	33	98N	26W	38.3
51	North Buffalo Creek	Buffalo Creek	R	Road crossing, west line	36	100N	25W	6.73
52	Lateral 60	North Buffalo Creek	R	At mouth	35	100N	25W	6.07
53	North Buffalo Creek	Buffalo Creek	R	Road crossing, west line	8	99N	25W	17.9
54	lateral 8	North Buffalo Creek	L	At mouth	18	99N	25W	10.6
55	Drainage Ditch 24	North Buffalo Creek	L	At mouth	24	99N	26W	7.79
56	North Buffalo Creek	Buffalo Creek	R		2 4 25	99N	26W	40.4
57	North Buffalo Creek	Buffalo Creek	R	Road corssing, north line Road crossing, west line	3	98N	26W	51.6
57 58	North Buffalo Creek	Buffalo Creek	r R	•	ა 18	98N	26W	63.6
00	NOTH DUITALO CIEEK	Dullalo Cleek	К	West (county) line	10	SOIN	Z0VV	03.0

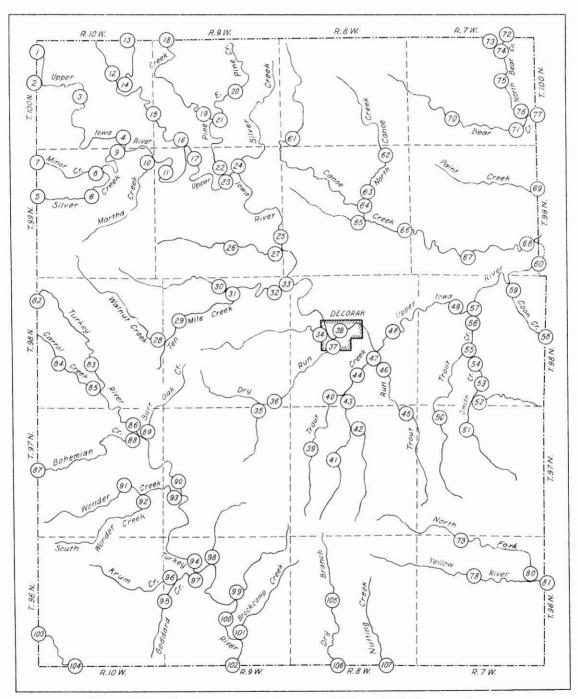


Figure 96. Drainage area index map of Winneshiek County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 96 Winneshiek County

	Bank Point of determination of drainage area				<u>.</u>			
Area	Name of stream	Tributary to						Drainage area
No.				Description	Sec	Т	R	(sq mi)
1	Upper Iowa River	Mississippi River	R	Road crossing, west (county) line	7	100N	10W	248
2	Nichols Creek	Upper Iowa River	R	At mouth	18	100N	10W	17.5
3	Upper Iowa River	Mississippi River	R	Road crossing, center	21	100N	10W	273
4	Upper Iowa River	Mississippi River	R	Road crossing, SE1/4	35	100N	10W	287
5	Silver Creek	Upper Iowa River	R	Road crossing, west (county) line	18	99N	10W	14.7
6	Silver Creek	Upper Iowa River	R	Road crossing, west line	15	99N	10W	23.1
7	Minor Creek	Silver Creek	L	Road crossing, west (county) line	6	99N	10W	5.12
8	Minor Creek	Silver Creek	L	At mouth	10	99N	10W	8.53
9	Silver Creek	Upper Iowa River	R	At mouth	2	99N	10W	35.4
10	Martha Creek	Upper Iowa River	R	At mouth	6	99N	9W	7.07
11	Upper Iowa River	Mississippi River	R	Road crossing, SW1/4	6	99N	9W	333
12	Unnamed creek	Upper Iowa River	L	Road crossing, north line	23	100N	10W	7.96
13	Unnamed creek	Unnamed creek	L	Road crossing, north (state) line	11	100N	10W	5.4
14	Unnamed creek	Unnamed creek	L	At mouth	23	100N	10W	7.38
15	Unnamed creek	Upper Iowa River	L	Road crossing, west line	30	100N	9W	18.7
16	Unnamed creek	Upper Iowa River	L	At mouth	32	100N	9W	24.3
17	Upper Iowa River	Mississippi River	R	Road crossing, NE1/4	5	99N	9W	361
18	Pine Creek	Upper Iowa River	L	Road crossing, north (state) line	7	100N	9W	10
19	Pine Creek	Upper Iowa River	L	Road crossing, center	28	100N	9W	19.9
20	East Pine Creek	Pine Creek	L	Road crossing, east 1/2	22	100N	9W	5.9
21	East Pine Creek	Pine Creek	L	At mouth	28	100N	9W	11.4
22	Pine Creek	Upper Iowa River	L	At mouth	10	99N	9W	35.9
23	Upper Iowa River	Mississippi River	R	Below Pine Creek	10	99N	9W	403
24	Silver Creek	Upper Iowa River	L	At mouth	10	99N	9W	7.88
25	Upper Iowa River	Mississippi River	R	Road crossing, east 1/2	25	99N	9W	420
26	Unnamed creek	Upper Iowa River	R	Road crossing, SE1/4	27	99N	9W	6.09
27	Unnamed creek	Upper Iowa River	R	At mouth	25	99N	9W	12.6
28	Walnut Creek	Ten Mile Creek	L	At mouth	18	98N	9W	8.31
29	Ten Mile Creek	Upper Iowa River	R	Road crossing, north line	18	98N	9W	11.3
30	Unnamed creek	Ten Mile Creek	L	At mouth	3	98N	9W	10.4
31	Ten Mile Creek	Upper Iowa River	R	Below unnamed creek	3	98N	9W	28
32	Ten Mile Creek	Upper Iowa River	R	At mouth	1	98N	9W	31.8
33	Upper Iowa River	Mississippi River	R	Below Ten Mile Creek	1	98N	9W	467

FINAL Drainage Areas of Iowa Streams.xls Table No. 96 Winneshiek County

				,				
34	Unnamed creek	Upper Iowa River	R	At mouth	17	98N	8W	10.6
35	Unnamed creek	Dry Run	R	At mouth	35	98N	9W	6.82
36	Dry Run	Upper Iowa River	R	West line	36	98N	9W	14.1
37	Dry Run	Upper Iowa River	R	At mouth	17	98N	8W	21.1
38	Upper Iowa River	Mississippi River	R	SW¼ (gage at Decorah)	16	98N	8W	511
39	Trout Creek	Upper Iowa River	R	North line	18	97N	8W	7.76
40	Trout Creek	Upper Iowa River	R	Road crossing, SW¼	33	98N	8W	15
41	Unnamed creek	Trout Creek	R	Road crossing, NE1/4	17	97N	8W	4.04
42	Unnamed creek	Unnamed creek	R	At mouth	4	97N	8W	10.7
43	Unnamed creek	Trout Creek	R	At mouth	33	98N	W8	17.3
44	Trout Creek	Upper Iowa River	R	Road crossing, SW1/4	27	98N	8W	36.5
45	Trout Run	Trout Creek	R	Road crossing, NW1/4	1	97N	W8	5.96
46	Trout Run	Trout Creek	R	At mouth	23	98N	W8	11.9
47	Trout Creek	Upper Iowa River	R	At mouth	23	98N	W8	50.7
40	Upper Jourg Diver	Mississippi Diver	D	East 1/2 (discontinued	11	LADO	0147	ECO
48	Upper Iowa River	Mississippi River	R	gage near Decorah)	14	98N	W8	568
49	Upper Iowa River	Mississippi River	R	At dam, east 1/2	8	98N	7W	584
50	Trout Creek	Upper Iowa River	R	Road crossing, SW1/4	5	97N	7W	8.07
51	Smith Creek	Trout Creek	R	Road crossing, NW1/4	9	97N	7W	6.59
52	Unnamed creek	Smith Creek	R	At mouth	34	98N	7W	6.26
53	Smith Creek	Trout Creek	R	North line	33	98N	7W	15.1
54	Smith Creek	Trout Creek	R	At mouth	21	98N	7W	20.2
55	Trout Creek	Upper Iowa River	R	Below Smith Creek	21	98N	7W	35.4
56	Trout Creek	Upper Iowa River	R	At mouth	9	98N	7W	39.6
57	Upper Iowa River	Mississippi River	R	Below Trout Creek	9	98N	7W	624
58	Coon Creek	Upper Iowa River	R	East (county) line	13	98N	7W	11.7
59	Coon Creek	Upper Iowa River	R	At mouth	2	98N	7W	19.8
60	Upper Iowa River	Mississippi River	R	East (county) line	36	98N	7W	651
61	Canoe Creek	Upper Iowa River	L	Road crossing, south 1/2	31	100N	8W	8.88
62	North Canoe Creek	Canoe Creek	L	Road crossing, east 1/2	2	99N	8W	11.2
63	North Canoe Creek	Canoe Creek	L	At mouth	22	99N	8W	19.5
64	Canoe Creek	Upper Iowa River	L	Below North Canoe Creek	22	99N	8W	36.3
65	Unnamed creek	Canoe Creek	R	At mouth	22	99N	8W	5.39
66	Canoe Creek	Upper Iowa River	L	Road crossing, SE1/4	24	99N	8W	47.2
67	Canoe Creek	Upper Iowa River	L	Road crossing, NE1/4	33	99N	7W	58.9
68	Canoe Creek	Upper Iowa River	L	At mouth	25	99N	7W	67.3
69	Paint Creek	Upper Iowa River	L	East (county) line	13	99N	7W	7.45
70	Bear Creek	Upper Iowa River	L	Road crossing, SW1/4	28	100N	7W	11.2
71	Bear Creek	Upper Iowa River	L	West line	36	100N	7W	19.7
72	North Bear Creek	Bear Creek	L	Road crossing, north	11	100N	7W	11.5
				(state) line				
73	Unnamed creek	North Bear Creek	R	At mouth	11	100N	7W	9.09

FINAL Drainage Areas of Iowa Streams.xls Table No. 96 Winneshiek County

74	North Bear Creek	Bear Creek	L	Below unnamed creek	11	100N	7W	20.8
75	North Bear Creek	Bear Creek	L	Road crossing, SW1/4	14	100N	7W	28.5
76	North Bear Creek	Bear Creek	L	At mouth	25	100N	7W	33.7
77	Bear Creek	Upper Iowa River	L	East (county) line	25	100N	7W	55.4
78	Yellow River	Mississippi River	R	Road crossing, SE1/4	9	96N	7W	10.3
79	North Fork Yellow River	Yellow River	L	Road crossing, west line	4	96N	7W	5.86
80	North Fork Yellow River	Yellow River	L	At mouth	13	96N	7W	15
81	Yellow River	Mississippi River	R	East (county) line	13	96N	7W	35.4
82	Turkey River	Mississippi River	R	Road crossing, west (county) line	7	98N	10W	95.9
83	Turkey River	Mississippi River	R	Road crossing, north line	28	98N	10W	107
84	Carrol Creek	Turkey River	R	Road crossing, NW corner	29	98N	10W	6.91
85	Carrol Creek	Turkey River	R	At mouth	34	98N	10W	12.3
86	Turkey River	Mississippi River	R	Road crossing, north line	11	97N	10W	134
87	Bohemian Creek	Turkey River	R	West (county) line	18	97N	10W	18.3
88	Bohemian Creek	Turkey River	R	At mouth	11	97N	10W	28.4
89	Burr Oak Creek	Turkey River	L	At mouth	11	97N	10W	4.82
90	Turkey River	Mississippi River	R	Road crossing, NE¼ (gage at Spillville)	19	97N	9W	177
91	Wonder Creek	Turkey River	R	Road crossing, SW1/4	23	97N	10W	9.65
92	South Wonder Creek	Wonder Creek	R	At mouth	24	97N	10W	7.43
93	Wonder Creek	Turkey River	R	At mouth	19	97N	9W	19.6
94	Turkey River	Mississippi River	R	Road crossing, NE1/4	8	96N	9W	211
95	Goddard Creek	Turkey River	R	Road crossing, north line	19	96N	9W	7.11
96	Krum Creek	Goddard Creek	L	At mouth	18	96N	9W	9.56
97	Goddard Creek	Turkey River	R	At mouth	8	96N	9W	19.7
98	Unnamed creek	Turkey River	L	At mouth	9	96N	9W	5.47
99	Unnamed creek	Turkey River	L	At mouth	15	96N	9W	8.74
100	Turkey River	Mississippi River	R	Road crossing, SE¼	21	96N	9W	250
101	Brockcamp Creek	Turkey River	L	At mouth	27	96N	9W	6.7
102	Turkey River	Mississippi River	R	South (county) line	34	96N	9W	264
103	Little Turkey River	Turkey River	R	West (county) line	30	96N	10W	72.4
104	Little Turkey River	Turkey River	R	South (county) line	32	96N	10W	80.7
105	Dry Branch	Turkey River	L	North line	20	96N	W8	6.49
106	Dry Branch	Turkey River	L	South (county) line	33	96N	8W	14.9
107	Nutting Creek	Turkey River	L	South (county) line	35	96N	8W	9.76

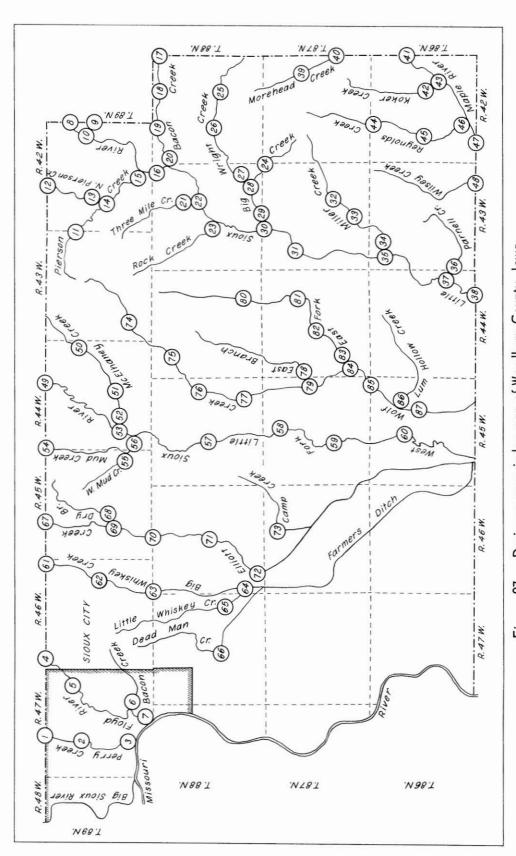


Figure 97. Drainage area index map of Woodbury County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 97 Woodbury County

			Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	Perry Creek	Missouri River	L	North (county) line	4	89N	47W	54.5
			_	Road crossing, west line				
2	Perry Creek	Missouri River	L	(gage at 38th Street in Sioux City)	9	89N	47W	65.1
3	Perry Creek	Missouri River	L	At mouth	32	89N	47W	73.3
4	Floyd River	Missouri River	L	Road crossing, north (county) line	6	89N	46W	887
5	Floyd River	Missouri River	L	Road crossing, west 1/2	12	89N	47W	901
6	Bacon Creek	Floyd River	L	At mouth	27	89N	47W	6.54
7	Floyd River	Missouri River	L	At mouth	34	89N	47W	921
8	Little Sioux River	Missouri River	L	East (county) line	12	89N	42W	2416
9	Bitter Creek	Little Sioux River	L	At mouth	13	89N	42W	14.4
10	Little Sioux River	Missouri River	L	Below Bitter Creek	13	89N	42W	2432
				Road crossing, west line				
11	Pierson Creek	Little Sioux River	R	(gage at 38th Street in Sioux City)	7	89N	42W	7.5
12	North Pierson Creek	Pierson Creek	L	Road crossing, north (county) line	4	89N	42W	20.4
13	North Pierson Creek	Pierson Creek	L	At mouth	20	89N	42W	28.1
14	Pierson Creek	Little Sioux River	R	Below North Pierson Creek	20	89N	42W	46.1
15	Pierson Creek	Little Sioux River	R	At mouth	34	89N	42W	55.4
16	Little Sioux River	Missouri River	L	Road crossing, north 1/2 (gage at Correctionville)	1	88N	43W	2500
17	Bacon Creek	Little Sioux River	L	road crossing, east (county) line	1	88N	42W	10.5
18	Bacon Creek	Little Sioux River	L	Road crossing, west line	2	88N	42W	20.6
19	Bacon Creek	Little Sioux River	L	Road crossing, west line	4	88N	42W	27.3
20	Bacon Creek	Little Sioux River	L	At mouth	1	88N	43W	33.6
21	Three Mile Creek	Little Sioux River	R	At mouth	15	88N	43W	7.5
22	Little Sioux River	Missouri River	L	Below Three Mile Creek	15	88N	43W	2547
23	Rock Creek	Little Sioux River	R	At mouth	21	88N	43W	11.2
24	Big Creek	Little Sioux River	L	Road crossing, west line	6	87N	42W	10.4
25	Wright Creek	Big Creek	R	Road crossing, west line	23	88N	42W	7.21
26	Wright Creek	Big Creek	R	Road crossing, west line	21	88N	42W	14.8
27	Wright Creek	Big Creek	R	At mouth	35	88N	43W	21.9

FINAL Drainage Areas of Iowa Streams.xls Table No. 97 Woodbury County

28	Big Creek	Little Sioux River	L	Below Wright Creek	35	88N	43W	35.3
29	Big Creek	Little Sioux River	L	At mouth	4	87N	43W	40.5
30	Little Sioux River	Missouri River	L	Below Big Creek	4	87N	43W	2614
31	Little Sioux River	Missouri River	L	Road crossing, SW1/4	8	87N	43W	2624
32	Miller Creek	Little Sioux River	L	North line	27	87N	43W	8.29
33	Miller Creek	Little Sioux River	L	West line	34	87N	43W	16.1
34	Miller Creek	Little Sioux River	L	At mouth	6	86N	43W	24.9
35	Little Sioux River	Missouri River	L	Below Miller Creek	6	86N	43W	2663
36	Parnell Creek	Little Sioux River	L	At mouth	25	86N	44W	8.17
37	Little Sioux River	Missouri River	L	Below Parnell Creek	25	86N	44W	2686
38	Little Sioux River	Missouri River	L	South (county) line	35	86N	44W	2697
39	Morehead Creek	Maple River	R	Road crossing, west line	13	87N	42W	5.45
40	Morehead Creek	Maple River	R	East (county) line	25	87N	42W	11.4
41	Maple River	Little Sioux River	L	road crossing, east (county) line	13	86N	42W	567
42	Koker Creek	Maple River	R	At mouth	23	86N	42W	8.27
43	Maple River	Little Sioux River	L	Below Koker Creek	23	86N	42W	587
44	Reynolds Creek	Maple River	R	Road crossing, NW1/4	4	86N	42W	8.21
45	Reynolds Creek	Maple River	R	Road crossing, north line (gage near Danbury)	20	86N	42W	19.8
46	Reynolds Creek	Maple River	R	At mouth	33	86N	42W	24.5
47	Maple River	Little Sioux River	L	South (county) line	32	86N	42W	628
48	Wilsey Creek	Maple River	R	South (county) line	35	86N	43W	9.77
49	West Fork Little Sioux River	Little Sioux River	R	North (county) line	3	89N	44W	241
50	McElhaney Creek	West Fork Little Sioux River	L	Road crossing, north line	13	89N	44W	6.55
51	McElhaney Creek	West Fork Little Sioux River	L	Road crossing, north line	27	89N	44W	13.5
52	McElhaney Creek	West Fork Little Sioux River	L	At mouth	30	89N	44W	19
53	West Fork Little Sioux River	Little Sioux River	R	Below McElhaney Creek	30	89N	44W	274
54	Mud Creek	West Fork Little Sioux River	R	Road crossing, north (county) line	6	89N	44W	49
55	West Mud Creek	Mud Creek	R	At mouth	25	89N	45W	7.84
56	Mud Creek	West Fork Little Sioux River	R	At mouth	31	89N	44W	68.8
57	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	21	88N	45W	359
58	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	10	87N	45W	372
59	West Fork Little Sioux River	Little Sioux River	R	Road crossing, north line	28	87N	45W	383
60	West Fork Little Sioux River	Little Sioux River	R	Road crossing, SE¼ (gage at Holly Springs)	9	86N	45W	399
61	Big Whiskey Creek	West Fork Little Sioux River	R	North (county) line	1	89N	46W	29.8
62	Big Whiskey Creek	West Fork Little Sloux River	R	Road crossing, north line	23	89N	46W	37.5
63	Big Whiskey Creek	West Fork Little Sloux River	R	Road crossing, north line	6	88N	46W	51.4
50	Zig Willowy Clock	oct on Endo Gloux Mivol	1.	rada orodonig, norun into	9	3014		01.7

FINAL Drainage Areas of Iowa Streams.xls Table No. 97 Woodbury County

64	Big Whiskey Creek	West Fork Little Sioux River	R	Road crossing, NE1/4	31	88N	46W	62.4
65	Little Whiskey Creek	Big Whiskey Creek	R	Road crossing, SW1/4	24	88N	47W	10.2
66	Dead Man Creek	Big Whiskey Creek	R	Road crossing, east 1/2	21	88N	47W	10.4
67	Elliott Creek	Big Whiskey Creek	L	Road crossing, north (county) line	4	89N	45W	9.86
68	Dry Branch	Elliott Creek	L	At mouth	20	89N	45W	9.98
69	Elliott Creek	Big Whiskey Creek	L	Below Dry Branch	20	89N	45W	24.7
70	Elliott Creek	Big Whiskey Creek	L	Road crossing, north line	3	88N	46W	35.3
71	Elliott Creek	Big Whiskey Creek	L	Road crossing, north line	22	88N	46W	47
72	Elliott Creek	Big Whiskey Creek	L	Road crossing, NE1/4	31	87N	46W	58.6
73	Camp Creek	Elliott Creek	L	Road crossing, south 1/2	3	89N	46W	8.61
74	Wolf Creek	West Fork Little Sioux River	L	Road crossing, west line	29	88N	43W	8.06
75	Wolf Creek	West Fork Little Sioux River	L	Road crossing, north line	8	88N	44W	16.4
76	Wolf Creek	West Fork Little Sioux River	L	Road crossing, west 1/2	13	88N	45W	25.5
77	Wolf Creek	West Fork Little Sioux River	L	Road crossing, north line	35	88N	45W	35.3
78	East Branch Wolf Creek	Wolf Creek	L	At mouth	13	87N	45W	12
79	Wolf Creek	West Fork Little Sioux River	L	Below East Branch Wolf Creek	13	87N	45W	53.6
80	East Fork Wolf Creek	Wolf Creek	L	Road crossing, north line	35	88N	44W	9.34
81	East Fork Wolf Creek	Wolf Creek	L	North line	14	87N	44W	18.8
82	East Fork Wolf Creek	Wolf Creek	L	Road crossing, north line	21	87N	44W	27
83	East Fork Wolf Creek	Wolf Creek	L	At mouth	30	87N	44W	36
84	Wolf Creek	West Fork Little Sioux River	L	Below East Fork Wolf Creek	30	87N	44W	92.9
85	Wolf Creek	West Fork Little Sioux River	L	Road crossing, north line	1	86N	45W	102
86	Lum Hollow Creek	Wolf Creek	L	At mouth	11	86N	45W	9.72
87	Wolf Creek	West Fork Little Sioux River	L	Road crossing, NW¼ (gage near Holly Springs)	14	86N	45W	118

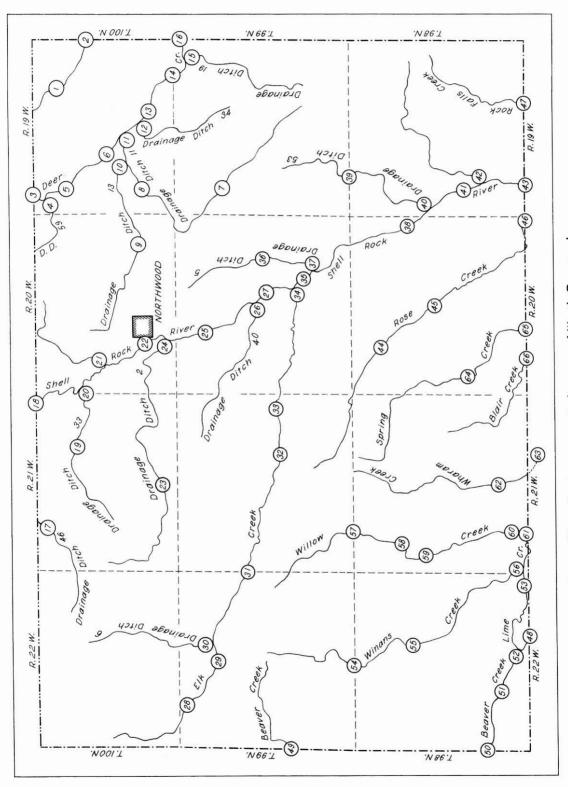


Figure 98. Drainage area index map of Worth County, lowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 98 Worth County

			Bank	Point of determination of dr	ainage a	ırea		Drainage area
Area No.	Name of stream	Tributary to		Description	Sec T R (sq m)	(sq mi)		
1	Unnamed creek	Cedar River	R	Road crossing, north line	14	100N	19W	5.88
2	Unnamed creek	Cedar River	R	Road crossing, east (county) line	24	100N	19W	9.07
3	Deer Creek	Cedar River	R	Road crossing, north (state) line	7	100N	19W	17
4	Drainage Ditch 59	Deer Creek	R	At mouth	7	100N	19W	5.56
5	Deer Creek	Cedar River	R	Road crossing, west line	17	100N	19W	25.6
6	Deer Creek	Cedar River	R	Road crossing, north line	28	100N	19W	32.2
7	Drainage Ditch 11	Deer Creek	R	Road crossing, west line	8	99N	19W	8.9
8	Drainage Ditch 11	Deer Creek	R	Road crossing, west line	29	100N	19W	15.1
9	Drainage Ditch 13	Drainage Ditch 11	L	Road crossing, west line	25	100N	20W	6.48
10	Drainage Ditch 13	Drainage Ditch 11	L	At mouth	29	100N	19W	11.9
11	Drainage Ditch 11	Deer Creek	R	At mouth	27	100N	19W	28.7
12	Drainage Ditch 34	Deer Creek	R	At mouth	27	100N	19W	5.94
13	Deer Creek	Cedar River	R	Road crossing, north line	34	100N	19W	67.5
14	Deer Creek	Cedar River	R	Road crossing, SE1/4	35	100N	19W	74.3
15	Drainage Ditch 19	Deer Creek	R	At mouth	1	99N	19W	7.19
16	Deer Creek	Cedar River	R	Road crossing, east (county) line	1	99N	19W	85.7
17	Drainage Ditch 46	Goose Creek	R	Road crossing, center	8	100N	21W	8.21
18	Shell Rock River	West Fork Cedar River	L	North (state) line		100N	21W	247
19	Drainage Ditch 33	Shell Rock River	R	Road crossing, SW1/4	14	100N	21W	8.61
20	Drainage Ditch 33	Shell Rock River	R	At mouth	18	100N	20W	11.6
21	Unnamed creek	Shell Rock River	L	At mouth	20	100N	20W	14.4
22	Shell Rock River	West Fork Cedar River	L	Road crossing, north line	32	100N	20W	277
23	Drainage Ditch 2	Shell Rock River	R	Road crossing, east 1/2	33	100N	21W	9.25
24	Drainage Ditch 2	Shell Rock River	R	At mouth	32	100N	20W	19.1
25	Shell Rock River	West Fork Cedar River	L	Road crossing, north line (gage near Northwood)	9		20W	300
26	Drainage Ditch 40	Shell Rock River	R	At mouth	15	99N	20W	8.77
27	Shell Rock River	West Fork Cedar River	L	Road crossing, north line				313
28	Elk Creek	Shell Rock River	R	Road crossing, north 1/2				8.68
29	Elk Creek	Shell Rock River	R	West line				17.3
30	Drainage Ditch 6	Elk Creek	L	At mouth				9.89
31	Elk Creek	Shell Rock River	- R	Road crossing, west line	18	99N	21W	35.4
32	Elk Creek	Shell Rock River	R	Road crossing, west line	23	99N	21W	44.6
33	Elk Creek	Shell Rock River	R	Road crossing, center	24	99N	21W	52.4

FINAL Drainage Areas of Iowa Streams.xls Table No. 98 Worth County

34	Elk Creek	Shell Rock River	R	At mouth	27	99N	20W	58.8
35	Shell Rock River	West Fork Cedar River	L	Road crossing, east 1/2	27	99N	20W	374
36	Drainage Ditch 59	Shell Rock River	L	Road crossing, north line	23	99N	20W	5.46
37	Drainage Ditch 59	Shell Rock River	L	At mouth	26	99N	20W	10.5
38	Shell Rock River	West Fork Cedar River	L	Road crossing, north line	13	98N	20W	395
39	Drainage Ditch 53	Shell Rock River	L	Road crossing, north line	5	98N	19W	5.62
40	Drainage Ditch 53	Shell Rock River	L	At mouth	18	98N	19W	12.8
41	Shell Rock River	West Fork Cedar River	L	Road crossing, north line	30	98N	19W	413
42	Unnamed creek	Shell Rock River	L	At mouth	29	98N	19W	8.88
				Road crossing, south				
43	Shell Rock River	West Fork Cedar River	L	(county) line	32	98N	19W	425
44	Rose Creek	Shell Rock River	R	Road crossing, north line	8	98N	20W	6.23
45	Rose Creek	Shell Rock River	R	Road crossing, west line	15	98N	20W	15.8
46	Rose Creek	Shell Rock River	R	Road crossing, south	36	98N	20W	25.7
40	Nose Creek	Shell Rock River	IX	(county) line	30	3011	2000	23.1
47	Rock Falls Creek	Shell Rock River	L	Road crossing, south	34	98N	19W	6.65
71			_	(county) line	J- 1			
48	Lime Creek	Shell Rock River	R	South (county) line	34	98N	22W	304
49	Beaver Creek	Lime Creek	L	West (county) line	19	99N	22W	8.97
50	Beaver Creek	Lime Creek	L	Road crossing, west	30	98N	22W	48.9
			_	(county) line				
51	Beaver Creek	Lime Creek	L	Road crossing, west line	28	98N	22W	54.9
52	Beaver Creek	Lime Creek	L	At mouth	34	98N	22W	64.8
53	Lime Creek	Shell Rock River	R	Road crossing, SE¼	36	98N	22W	376
54	Winans Creek	Lime Creek	L	Road crossing, north line	4	98N	22W	7.04
55	Winans Creek	Lime Creek	L	Road crossing, north line	15	98N	22W	16.8
56	Winans Creek	Lime Creek	L	At mouth	36	98N	22W	25.2
57	Willow Creek	Lime Creek	L	Road crossing, north line	5	98N	21W	6.65
58	Willow Creek	Lime Creek	L	Road crossing, west line	8	98N	21W	12.2
59	Willow Creek	Lime Creek	L	Road crossing, center	18	98N	21W	19.9
60	Willow Creek	Lime Creek	L	At mouth	32	98N	21W	24.3
61	Lime Creek	Shell Rock River	R	Below Willow Creek	32	98N	21W	428
62	Wharam Creek	Lime Creek	L	Road crossing, north line	34	98N	21W	6.88
63	Wharam Creek	Lime Creek	L	Road crossing, west line	2	97N	21W	12.7
64	Spring Creek	Lime Creek	L	Road crossing, north line	30	98N	20W	7.85
65	Spring Creek	Lime Creek	L	Road crossing, south (county) line	33	98N	20W	13
				Road crossing, south				
66	Blair Creek	Spring Creek	R	(county) line	32	98N	20W	4.67
				(CCGITCY) IIIIC				

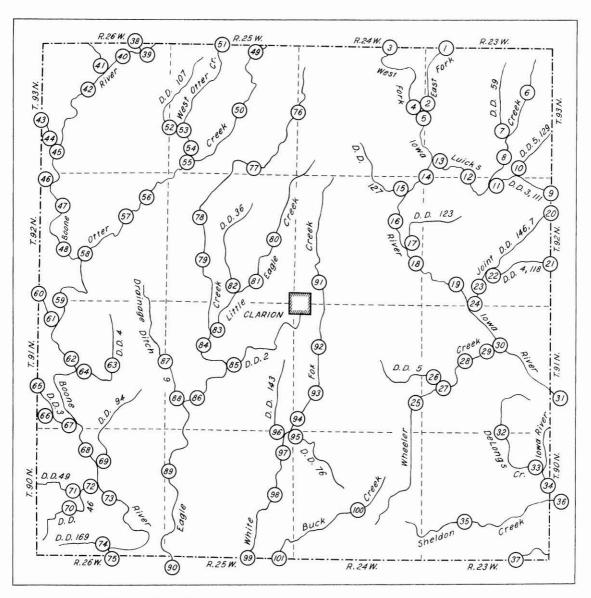


Figure 99. Drainage area index map of Wright County, Iowa.

FINAL Drainage Areas of Iowa Streams.xls Table No. 99 Wright County

	N. C.	T 11	Bank	Point of determination of drainage area				Drainage area
Area No.	Name of stream	Tributary to		Description	Sec	Т	R	(sq mi)
1	East Fork Iowa River	Iowa River	L	North (county) line	5	93N	23W	188
2	East Fork Iowa River	Iowa River	L	At mouth	19	93N	23W	198
3	West Fork Iowa River	Iowa River	R	North (county) line	2	93N	24W	132
4	West Fork Iowa River	Iowa River	R	At mouth	19	93N	23W	149
5	Iowa River	Mississippi River	R	Below confluence East and West Forks	19	93N	23W	347
6	Luicks Creek	Iowa River	L	Road crossing, north line	14	93N	23W	5.93
7	Drainage Ditch 59	Luicks Creek	R	At mouth	27	93N	23W	6.22
8	Luicks Creek	Iowa River	L	Road crossing, north line	34	93N	23W	16.3
9	Joint Drainage Ditch 3, 111	Luicks Creek	L	Road crossing, east (county) line	1	92N	23W	7.2
10	Joint Drainage Ditch 5, 129	Joint Drainage Ditch 3, 111	R	At mouth	35	93N	23W	5.25
11	Joint Drainage Ditch 3, 111	Luicks Creek	L	At mouth	3	92N	23W	17.3
12	Luicks Creek	Iowa River	L	Road crossing, north line	4	92N	23W	36.6
13	Luicks Creek	Iowa River	L	At mouth	31	93N	23W	44.4
14	Iowa River	Mississippi River	R	Road crossing, west line	6	92N	23W	398
15	Drainage Ditch 127	Iowa River	R	At mouth	1	92N	24W	5.68
16	Iowa River	Mississippi River	R	Road crossing, north line	14	92N	24W	406
17	Drainage Ditch 123	Iowa River	L	At mouth	24	92N	24W	10.2
18	Iowa River	Mississippi River	R	Road crossing, north line (gage near Rowan)	25	92N	24W	429
19	Iowa River	Mississippi River	R	Road crossing, north line	32	92N	23W	441
20	Joint Drainage Ditch 146, 7	Iowa River	L	Road crossing, east (county) line	12	92N	23W	8.08
21	Joint Drainage Ditch 4, 118	Joint Drainage Ditch 146, 7	L	Road crossing, east (county) line	25	92N	23W	6.01
22	Joint Drainage Ditch 4, 118	Joint Drainage Ditch 146, 7	L	At mouth	28	92N	23W	8.35
23	Joint Drainage Ditch 146, 7	Iowa River	L	Road crossing, north line	33	92N	23W	24.1
24	Joint Drainage Ditch 146, 7	Iowa River	L	At mouth	4	91N	23W	29.4
25	Wheeler Creek	Iowa River	R	Road crossing, east 1/2	25	91N	24W	8.13
26	Drainage Ditch 5	Wheeler Creek	L	At mouth	19	91N	23W	10.3
27	Wheeler Creek	Iowa River	R	Below Drainage Ditch 5	19	91N	23W	23.4
28	Wheeler Creek	Iowa River	R	Road crossing, west line	16	91N	23W	30.4
29	Wheeler Creek	Iowa River	R	At mouth	10	91N	23W	37.2
30	Iowa River	Mississippi River	R	Below Wheeler Creek	10	91N	23W	515
31	Iowa River	Mississippi River	R	Road crossing, NW1/4	30	91N	22W	523

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32	DeLongs Creek	Iowa River	R	Road crossing, north line	3	90N	23W	7.36
33	DeLongs Creek	Iowa River	R	At mouth	12	90N	23W	14.2
34	Iowa River	Mississippi River	R	Road crossing, east 1/2	13	90N	23W	570
35	Sheldon Creek	Iowa River	R	Road crossing, west line	28	90N	23W	10.4
36	Sheldon Creek	Iowa River	R	At mouth	19	90N	22W	19.7
37	South Fork Iowa River	Iowa River	R	Road crossing, south (county) line	35	90N	23W	30
38	Boone River	Des Moines River	L	North (county) line	2	93N	26W	73.3
39	East Branch Boone River	Boone River	L	At mouth	2	93N	26W	55.1
40	Boone River	Des Moines River	L	Road crossing, west line	2	93N	26W	132
41	Joint Drainage Ditch 1, 145, 61	Boone River	R	At mouth	9	93N	26W	9.35
42	Boone River	Des Moines River	L	Road crossing, north line	16	93N	26W	147
43	Prairie Creek	Boone River	R	Road crossing, west (county) line	30	93N	26W	139
44	Prairie Creek	Boone River	R	At mouth	30	93N	26W	142
45	Boone River	Des Moines River	L	Below Prairie Creek	30	93N	26W	301
46	Joint Drainage Ditch 3, 47	Boone River	R	At mouth	6	92N	26W	6.09
47	Boone River	Des Moines River	L	Road crossing, west 1/2	8	92N	26W	315
48	Boone River	Des Moines River	L	Road crossing, west 1/2	20	92N	26W	322
49	Otter Creek	Boone River	L	Road crossing, west line	2	93N	25W	5.66
50	Otter Creek	Boone River	L	Road crossing, north line	22	93N	25W	14.6
51	West Otter Creek	Otter Creek	R	Road crossing, north (county) line	4	93N	25W	20.6
52	Drainage Ditch 107	West Otter Creek	R	At mouth	19	93N	25W	10.3
53	West Otter Creek	Otter Creek	R	Below Drainage Ditch 107	19	93N	25W	36.6
54	West Otter Creek	Otter Creek	R	At mouth	31	93N	25W	39
55	Otter Creek	Boone River	L	Below West Otter Creek	31	93N	25W	59.2
56	Otter Creek	Boone River	L	Road crossing, west line	12	92N	26W	65.7
57	Otter Creek	Boone River	L	Road crossing, NW corner	14	92N	26W	75.5
58	Otter Creek	Boone River	L	At mouth	29	92N	26W	83.7
59	Boone River	Des Moines River	L	Road crossing, north line	5	91N	26W	418
60	Drainage Ditch 9	Boone River	R	Road crossing, west (county) line	31	92N	26W	15.4
61	Drainage Ditch 9	Boone River	R	At mouth	7	91N	26W	16.8
62	Boone River	Des Moines River	L	Road crossing, SE1/4	17	91N	26W	440
63	Drainage Ditch 4	Boone River	L	Road crossing, north line	22	91N	26W	4.93
64	Drainage Ditch 4	Boone River	L	At mouth	17	91N	26W	13.1

FINAL Drainage Areas of Iowa Streams.xls Table No. 99 Wright County

				Dand annains west				
65	Drainage Ditch 3	Boone River	R	Road crossing, west (county) line	30	91N	26W	14.4
66	Drainage Ditch 19	Drainage Ditch 3	R	At mouth	31	91N	26W	9.88
67	Drainage Ditch 3	Boone River	R	At mouth	32	91N	26W	26.5
68	Boone River	Des Moines River	L	Road crossing, north line	9	90N	26W	490
69	Drainage Ditch 94	Boone River	L	At mouth	9	90N	26W	8.67
70	Drainage Ditch 46	Boone River	R	Road crossing, south 1/2	20	90N	26W	3.34
71	Drainage Ditch 49	Drainage Ditch 46	L	At mouth	16	90N	26W	6.34
72	Drainage Ditch 46	Boone River	R	At mouth	16	90N	26W	11
73	Boone River	Des Moines River	L	Road crossing, NW1/4	22	90N	26W	512
74	Drainage Ditch 169	Boone River	R	At mouth	34	90N	26W	8.41
75	Boone River	Des Moines River	L	Road crossing, south (county) line	34	90N	26W	531
76	Eagle Creek	Boone River	L	Road crossing, NE corner	24	93N	25W	6.17
77	Eagle Creek	Boone River	L	Road crossing, west line	35	93N	25W	15.4
78	Eagle Creek	Boone River	L	Road crossing, north line	17	92N	25W	22.9
79	Eagle Creek	Boone River	L	Road crossing, north line	29	92N	25W	27.4
80	Little Eagle Creek	Eagle Creek	L	Road crossing, NW corner	24	92N	25W	8.62
81	Little Eagle Creek	Eagle Creek	L	Road crossing, north line	35	92N	25W	16.1
82	Drainage Ditch 36	Little Eagle Creek	R	At mouth	34	92N	25W	5.42
83	Little Eagle Creek	Eagle Creek	L	At mouth	9	91N	25W	26.8
84	Eagle Creek	Boone River	L	Road crossing, north line	17	91N	25W	62.8
85	Drainage Ditch 2	Eagle Creek	L	At mouth	16	91N	25W	7.58
86	Eagle Creek	Boone River	L	Road crossing, west line	29	91N	25W	76.9
87	Drainage Ditch 9	Eagle Creek	R	Road crossing, west line	18	91N	25W	4.8
88	Drainage Ditch 9	Eagle Creek	R	At mouth	30	91N	25W	10.4
89	Eagle Creek	Boone River	L	Road crossing, north line	18	90N	25W	97.2
90	Eagle Creek	Boone River	L	At mouth	6	89N	25W	108
91	White Fox Creek	Boone River	L	Road crossing, north line	32	92N	24W	9.14
92	White Fox Creek	Boone River	L	Road crossing, north line	17	91N	24W	16.5
93	White Fox Creek	Boone River	L	Road crossing, west line	29	91N	24W	25.5
94	White Fox Creek	Boone River	L	Road crossing, west line	31	91N	24W	34.5
95	Drainage Ditch 76	White Fox Creek	L	At mouth	36	91N	25W	7.3
96	Drainage Ditch 143	White Fox Creek	R	At mouth	1	90N	25W	6.84
97	White Fox Creek	Boone River	L	Road crossing, north line	12	90N	25W	50
98	White Fox Creek	Boone River	L	Road crossing, north line	24	90N	25W	62
99	White Fox Creek	Boone River	L	South (county) line	34	90N	25W	76.4
100	Buck Creek	White Fox Creek	L	Road crossing, west line	22	90N	24W	4.64
101	Buck Creek	White Fox Creek	L	South (county) line	36	90N	25W	10.2