STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF WATER RIGHTS
HAROLD CONKLING, Chief of Division

CLOVER CREEK COURT REFERENCE

REPORT ON

WATER SUPPLY & USE OF WATER

FROM

CLOVER CREEK
SHASTA COUNTY, CALIFORNIA

PREPARED UNDER THE DIRECTION OF
GORDON ZANDER, Hydraulic Engineer
By
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SACRAMENTO, CALIFORNIA
APRIL 1, 1928

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CLOVER CREEK AND TRIBUTARIES

SHASTA COUNTY

CALIFORNIA

Submitted to Accompany the Referee's Report

in the Case of Millville Ditch Company,

vs. Jesse Hufford, et al.

April 1, 1928

Submitted by GORDON ZANDER, Hydraulic Engineer

Approved April 1, 1928

Harold Conklin

Chief of Division of Water Rights

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STATE OF CALIFORNIA

DEPARTMENT OF PUBLIC WORKS

DIVISION OF WATER RIGHTS

Sacramento, California
April 1, 1928

Chief of Division of Water Rights,
Department of Public Works,
State of California.

Dear Sir:

The accompanying report on the "Water Supply and Use of Water from Clover Creek and its Tributaries, in Shasta County," is herewith submitted for your approval.

This report has been prepared pursuant to the order of reference, dated August 7, 1926, of the case, Millville Ditch Company, vs. Jesse Hufford, et al., by the Superior Court of Shasta County, whereby said case was referred to the Division of Water Rights of the Department of Public Works of the State of California under the provision of Section 24 of the Water Commission Act. The purpose of this report is to present engineering data relative to the water supply and water requirements of the lands involved in the above mentioned proceedings, which data were collected during a field investigation, made under the supervision of the undersigned.

The field investigation covered the period extending from June 1st to October 1st of the year 1927, and included measurements of the water supply and of the various diversions from the stream system, a study of

the duty of water on the irrigated lands, and a plane table survey of all diversion systems and irrigated areas.

Mr. T. R. Simpson, Assistant Hydraulic Engineer, was in charge of the work in the field during the period of investigation. Water master service was furnished by the field engineer as an incident of the investigation.

A set of maps has been prepared from the data collected, consisting of eighteen sheets on a scale of one inch to four hundred feet, and a kep map on a scale of one inch to one mile, and the same is herewith submitted as a part of this report. A map has also been prepared on a scale of one inch to twelve hundred feet, on which all diversion conduits and the entire area under irrigation from Clover Creek and its tributaries is shown, and the same is included in the pocket at the end of this report.

Respectfully submitted,

Gordon Zander

Hydraulic Engineer

REPORT

ON

WATER SUPPLY AND USE OF WATER

FROM

CLOVER CREEK AND ITS TRIBUTARIES

INTRODUCTION

The matter of the determination of the relative rights of the various water users from Clover Creek and its tributaries was brought before the Division of Water Rights of the Department of Public Works of the State of California by an order of the Superior Court of the State of California, in and for the County of Shasta, dated August 7, 1926, transferring the case of Millville Ditch Company vs. Jesse Hufford, et al., to said Division for investigation as referee, under authority contained in Section 24 of the Water Commission Act.

The suit mentioned above was instituted on the same day that it was transferred to the Division of Water Rights for investigation as Referee. For more than a month prior to the time of institution of the action, the flow of Clover Creek at the intake of the conduit of the plaintiff had entirely failed. During the period from August 18 to 20, 1926, Gordon Zander, Hydraulic Engineer of the Division of Water Rights, accompanied by T. R. Simpson, Water Master on North Cow and Oak Run Creeks, made a preliminary investigation of the situation. Continuous records of discharge of Clover Creek at Fern Bridge and all diversion from Clover

Creek above Fern Bridge were obtained by Mr. Simpson from August 18, 1926 to September 30, 1926. During this period the upper users of water from Clover Creek restricted their diversions to such an extent that some water flowed down the channel of Clover Creek and was available for diversion by the plaintiff. There are no users of water from Clover Creek below the plaintiff.

A conference of the water users on Clover Creek and its tributaries was called at Redding on March 8, 1927, for the purpose of making arrangements for conducting a field investigation during the summer of 1927. At the conference, an agreement was entered into by all parties to the proceedings, providing for an apportionment of the waters of Clover Creek and its tributaries among the water users in the ratios that their respective irrigated areas bear to the total area irrigated from the stream system. Such apportionment was to be operative during the 1927 season only, and it was further provided in the agreement that the rights of the various parties thereto should in no way be prejudiced by such distribution.

The agreement further provided for the appointment of a water master by the Division of Water Rights to distribute the waters of Clover Creek and its tributaries, during the 1927 season, in accordance with the plan of distribution set forth in the agreement. The irrigated areas were to be estimated by the water master and such estimates were to be used as the basis of apportionment of the water supply until such time as the areas, which they covered, had been surveyed and the results

of such survey had been computed.

The investigation in 1927 was commenced on June first and was terminated on October first.

GENERAL DESCRIPTION OF WATERSHED

Clover Creek has its source on the west slope of Dan Hunt Mountain at an elevation of about 6500 feet and its channel has a general southwesterly course to its confluence with Old Cow Creek near Millville, about ten miles east of Redding.

Arthur Lake is located near the head of the main branch of Clover Creek. A short distance below Arthur Lake, a few large springs contribute a fairly constant flow of about ten cubic feet per second.

Silver Creek which rises at Silver Lake is an important tributary of Clover Creek. A short distance below Silver Lake, a few large springs contribute a fairly constant flow of about five cubic feet per second.

South Clover Creek, commonly known as Dry Clover Creek, is another important tributary of Clover Creek. Its flow is largely derived from waste and return water from irrigation and from the Anderson Sawmill. Rose Briar, Slaughter Pole, and Wild Cat Creeks, the dry-weather flows of which are largely return and waste water, are tributaries of South Clover Creek.

Wyndham Creek is another tributary of Clover Creek. It has a normal dry-weather flow of about three cubic feet per second, which is partially derived from perennial springs and partially from waste and return water.

The watershed of Clover Creek covers an area of about 75 square miles. The eastern or upper portion of the watershed is mountainous and

is covered, for the most part, by a dense growth of timber and underbrush. The lower portion consists of rocky rolling foothills with a much lighter growth of vegetation.

The stream valley and the canyon floors are generally narrow, and most of the irrigable land is located in small areas separated by rocky brush-covered hills. The lower end of the valley widens out into the Millville Plains.

The elevation of the valley varies from about 700 feet at the lower end to about 3000 feet at the upper ranches on Clover Creek.

CLIMATE

The climate of the valley is typical of the interior valleys of California, and in common with the climate throughout the State, is characterized by a wet season and a dry season. The wet season extends from about October first to about May first, during which period approximately 88.4 per cent of the seasonal precipitation normally occurs. The precipitation, during the dry-weather season from about May first to about October first, which in an average year is approximately 11.6 per cent of the total, exercises considerable influence on the dry-weather flow of Clover Creek.

Records of precipitation have been collected at Redding for the past fifty-two years, and at McCloud for the past seventeen years, by the United States Weather Bureau. It is thought that the average precipitation at these two stations will be indicative of the average precipitation in the watershed of Clover Creek. The precipitation at these two stations for the seasonal year 1926-27 has been compared with the average mean in Table I of this report.

It will be noted that the total precipitation during the seasonal year of 1926-27 was 53.7 per cent greater than the average mean. However, practically all of this excess occurred during the two months of November and February, rather than being uniformly distributed, and the precipitation during the period from May first to September thirtieth in 1927, was only 8.6 per cent of the total average mean as compared with 11.6 per cent in an average year. Consequently, it is probable that the dry-weather flow of Clover Creek during the summer of 1927 was nearer to normal than the total precipitation would indicate.

SOIL.

The soil of the lands irrigated from Clover Creek and its tributaries varies in texture from a fine gravel and sandy formation to a sandy clay loam. The lands irrigated under the Millville Ditch are of a heavier texture and are comparatively level, whereas most of the remaining area irrigated from Clover Creek is of a more porous texture and is fairly steep. Where the land is porous and the topography is steep, the drainage is rapid and frequent applications of water are required to successfully grow crops, whereas in the level area in the vicinity of Millville, the natural drainage of water from the land is less rapid.

CROPS

Alfalfa and meadow are the principal crops irrigated by water users on Clover Creek and its tributaries, as grain is successfully grown without irrigation by the practice of summer fallow in years of normal precipitation.

Normally, in the case of alfalfa, four cuttings of hay are harvested with a seasonal yield of about five tons per acre; the fifth crop is usually pastured. The alfalfa crop in 1927 was considerably below normal. The stand of practically all of the old alfalfa was thin due to the drouths of 1924 and 1926, which largely accounts for the light crop in 1927, because abundant water was available for irrigation throughout the season.

The meadow grasses usually produce two cuttings of hay and pasturage throughout the remainder of the season. The meadows require comparatively heavy applications of water early in the season to produce hay, but after they are turned to pasture only light irrigation is practiced, because stock will kill out the grass if the land is boggy.

Small irrigated orchards and house gardens, usually found on each ranch, produce a variety of fruits and vegetables for home use, but are of little importance commercially.

The crop yields on a portion of the ranches, as estimated by the owners thereof, have been tabulated in Table 34.

RUN-OFF RECORDS

The standard method of collecting run-off records was used in the investigation. This consisted in the selection of a measuring station with a natural control of a permanent character. The station was equipped with a staff gage which was either read at frequent intervals by an observer, or automatically recorded by a float and clock device.

Sufficient current meter measurements were made at each station to construct a rating curve for same, and the records of gage heights for the various stations were applied to the respective rating curves to determine the corresponding discharges. All discharges obtained have been shown in tables included with this report, and are expressed in cubic feet per second. Multiplication by fifty converts cubic feet per second to miners inches under a four inch pressure, which is the common unit of measurement in this vicinity.

An automatic water stage recorder was installed on Clover Creek at Fern Bridge. Records were kept of all diversions from Clover Creek and its tributaries and of the flow in Clover Creek below the Millville Dam, which when combined, give the total net available water supply of the Clover Creek stream system.

Clover Creek. The discharge of Clover Creek at Fern Bridge for the period from June 1st to September 30, 1927, has been tabulated in Table 2. The discharge at this station, combined with all diversions above for the same period, has been tabulated in Table 3.

The estimated combined discharge of Clover Creek below the Millville Dam and all diversions from Clover Creek and its tributaries, for the period from June 1st to September 30, 1927, which represents the total net available water supply of the Clover Creek stream system, has been tabulated in Table 4.

The discharge of Clover Creek at Fern Bridge for the period from August 18th to September 30, 1926, has been tabulated in Table 5. The discharge at this station, combined with all diversions above for the same period, has been tabulated in Table 6.

The estimated discharge of Clover Creek below the Millville Dam for the period from June 1st to September 30, 1927, has been tabulated in Table 13. The discharge at this station, combined with all diversions from Clover Creek between Millville and Fern Bridge, has been tabulated in Table 12 for the purpose of comparison with the records in Table 2. The return flow in Clover Creek between Fern Bridge and Millville was thus determined, as is discussed later in the chapter entitled, "Return Flow and Channel Losses".

The hydrograph on Plate I of this report graphically shows the total net available water supply of Clover Creek and its tributaries, and the combined allotments that, it is assumed, is required to supply water to all of the lands irrigated from the stream system.

The hydrographs on Plate 2 of this report graphically show the relation between the discharge of Clover Creek at Fern Bridge, combined with all diversions above, during the period of low flow in 1926 with that in 1927.

Silver Creek. Silver Creek which heads above Silver Lake is an important tributary of Clover Creek. A few large springs in the lava formation below Silver Lake contribute a fairly constant flow of about five cubic feet per second. During the dry-weather seasons of 1926 and of 1927, the run-off from the drainage area above Silver Lake receded to less than one cubic foot per second.

The Worley Ditch, which has a maximum capacity of 2.50 cubic feet per seonc, is the only conduit that diverts water from Silver Creek.

Wyndham Creek. Wyndham Creek, which rises on the Worley Ranch, is a tributary of Clover Creek, the point of confluence being located about one-quarter of a mile above Fern Bridge. The flow of this stream is made up partially from the discharge of springs on the Worley Ranch and partially from waste and return water from irrigation on said ranch. It has a fairly constant dry-weather flow of about three cubic feet per second.

The Maxwell Ditch, which has a maximum capacity of 0.60 cubic foot per second, is the only conduit that diverts water from Wyndham Creek.

South Clover Creek. South Clover Creek, commonly called Dry Clover Creek, derives its dry-weather flow almost entirely from waste and return water from irrigation and milling uses under the Guttman, Bonde, and Mill Ditches. The point of confluence of South Clover Creek and Clover Creek is located on the Reineke Ranch.

South Clover Creek has three small tributaries, known as Wild Cat, Slaughter Pole and Rose Briar Creeks. The Stacher Wild Cat Ditch, the Stacher Slaughter Pole Ditch, and the Rice Rose Briar Ditch, respec-

tively, divert the entire dry-weather flows of the three tributaries of South Clover Creek. The estimated discharges of these three ditches, which, respectively, indicate the total flows of the three tributaries, during the period from June 1st to September 30, 1927, have been tabulated in Tables 29, 30, and 31 of this report.

Records were kept of the diversions made from Dry Clover Creek during 1927 and have been tabulated in Tables 25 to 28, inclusive, of this report. The Covey Ditch on Dry Clover Creek was not opened during the 1927 season.

USE OF WATER AND DIVERSION MEASUREMENTS

The waters of Clover Creek and its tributaries are used for domestic, stock watering, and milling purposes, and for the irrigation of 973.8 acres of land.

Practically all of the irrigated land is watered directly by artificial diversion systems, and very little of the land is sub-irrigated by seepage from diversion ditches and stream channels.

A plane table survey of the diversion systems and of the areas irrigated from Clover Creek and its tributaries was made by the Division of Water Rights during the investigation in 1927. The results of the survey have been plotted to a scale of one inch to four hundred feet and are shown on map sheets numbers one to eighteen, inclusive. A pocket map showing the entire area under litigation was also prepared on a scale of one inch to twelve hundred feet. A print of the pocket map is included in the pocket at the end of this report.

The diversion points of the various ditches on the Clover Creek stream system have been indicated on the maps by numbers one to twenty-six, inclusive. Starting with the uppermost diversion on the tributary farthest to the north as one, the diversions have been numbered consecutively downstream on the various forks taken in order from the north to the south.

The areas irrigated or sub-irrigated under the various diversion systems, as shown on map sheets one to eighteen, inclusive, were computed by the use of planimeters. An acreage table entitled, "Description of Areas Irrigated from Clover Creek and its Tributaries", is submitted as

Table 36 at the end of this report. It has been prepared from the data contained on the map sheets, showing the acreages, descriptions, and kind of crops on the irrigated areas. The use of water under each diversion is further discussed hereinafter, under the sub-heading, "Descriptions of Diversion Systems."

Continuous records were kept of the disposition made of the flow of Clover Creek and its tributaries by the various water users during the period between June 1st and September 30, 1927. Continuous records were also kept of the diversions above Fern Bridge during the period between August 18th and September 30, 1926. Measuring stations were selected on the various ditches at points as near as was practical to the respective intakes at which stations staff gages were installed. Automatic water stage recorders were installed on the Bonde Ditch and on the Mill Ditch, from which continuous records of gage heights were obtained. At the measuring stations on the various other ditches, records of gage heights were obtained by frequent readings by the engineer in charge of the investigation, supplemented with readings by unpaid observers. The gages were rated by weir and current meter measurements and the daily discharges were computed from the gage height records in the manner described in the previous chapter on "Run-off Records." The daily diversions of the various ditches are shown in Tables 7 to 11, inclusive, and Tables 13 to 31, inclusive, submitted at the end of this report. The number or numbers of the tables pertaining to each diversion are given under the description of that diversion hereinafter.

Measurements were made on each ditch for the purpose of determining the flow normally used for irrigation and the flow required to fill the ditch to capacity. These measurements are hereinafter referred to as the "normal irrigating head" and the "maximum capacity," respectively, of the conduit. The measurements were taken near the heads of the respective ditches and were made in the presence of the ditch owner or his representative whenever possible. It was the practice to have the ditch owner or his representative turn into the conduit the amount of water that he considered the normal irrigating head. The conduit was afterwards filled to capacity and a second measurement taken to determine the maximum capacity of the conduit. There was sufficient water in all instances to fill the conduits to maximum capacity.

Discharge measurements were taken with a current meter, float or weir. An accoustic current meter of the Price Type, which had been rated by the United States Geological Survey at the Bureau of Standards in Washington, D.C. was used. Float measurements consisted of timing the passage of a surface float over a measured distance along the conduit. The mean velocity for the measuring section was computed from the surface velocity by applying the factors of 0.72 and 0.80 for ditch and flume sections, respectively. The weir measurements were made with a portable galvanized iron 90° triangular notch.

DESCRIPTIONS OF DIVERSION SYSTEMS

The diversion systems from Clover Creek and its tributaries, taken up consecutively from 1 to 26, are described hereinafter. A summary of the

data contained under these descriptions is submitted in Table 35 at the end of this report. In this table, the names of the various diversion systems are listed alphabetically, and the corresponding number, name of stream from which diversion is made, and total acreage irrigated under the system is given for each.

Diversion 1 is that of the Worley Ditch, from the west side of Silver Creek in the SW¼ SW¼ of Section 16, T 33 N, R 1 E, M. D. B.& M. (See Map Sheet 1).

The conduit consists of an earth ditch from the intake down for about one mile at which point the water is conducted across the divide between Silver Creek and Wyndham Creek. Water diverted through the conduit is then turned down a draw at the head of Wyndham Creek for a distance of about one-quarter mile, at which point a main lateral re-diverts and conveys water around the south boundary of the irrigated land. A short distance below, there are two main laterals that convey water around the north boundary of the irrigated land.

A total area of 79.0 acres is served with water by the Worley Ditch as is set forth in Table 36. The entire area was irrigated in 1927. Of this area, 8.5 acres are devoted to orchard and garden, 6.1 acres to grain, and the remaining area of 64.4 acres produces meadow hay and meadow pasture. G. U. Worley is the only party interested in this ditch.

Water is used continuously throughout the irrigation season for domestic, stock watering, and irrigation purposes. It is estimated that about one-half of the water diverted through the Worley Ditch found its

way into Wyndham Creek in the form of waste and return from irrigation during the 1927 irrigation season.

A current meter measurement made on August 10, 1927 indicated a normal irrigating head of 2.50 cubic feet per second, which also represents the maximum capacity of the ditch. Since no other diversion is made from Silver Creek, there is always ample water to supply this ditch to a maximum capacity, even during a year of critical low flow such as 1926.

The flows diverted through the Worley Ditch during the periods from August 18th to September 30, 1926, and from June 1st to September 30, 1927, have been tabulated, respectively, in Tables 7 and 14 of this report.

A current meter measurement made on August 10, 1927 of the flow in the Worley Ditch at the first lateral showed 2.20 cubic feet per second at that point when 2.50 cubic feet per second were being diverted at the intake. It, therefore, appears that the transportation losses in this ditch are moderate.

Diversion 2 is that of the Guttman Ditch, from Clover Creek on the north side in the NE¼ NE¼ of Section 21., T 33 N, R 1 E, M.D.B. & M. (See Map Sheet 1).

The first one hundred yards of the conduit consists of a one foot by two feet wooden flume on the north side of the creek. The flume then crosses to the south side of the creek and the conduit from that point on is an earth ditch with three more stretches of wooden flume within the first one-half mile. About one and three-quarters miles from the head of the conduit, the Thomas Lateral branches off to the south and

leads to the M. E. Thomas Ranch about one mile distant from the head of the lateral. About one-quarter mile below the takeout of the Thomas Lateral, A. F. Ray has an upper lateral that conducts water about one-quarter mile to a draw. The draw is used to transport water about one-half mile to the P. Weigart Ranch which A. F. Ray has under contract to purchase. A. F. Ray has another lateral that diverts water from the Guttman Ditch at a point about three-quarters of a mile below the takeout of his upper lateral. The lower Ray Lateral conducts water about one-quarter of a mile to the northern portion of the P. Weigart Ranch. The Guttman Ditch leads about one hundred yards west from the takeout of the lower Ray Lateral and empties into the Mill Ditch. Hall and Cross convey water through the Guttman Ditch into a branch of the Bonde Ditch and thence into the Mill Ditch and on through the Mill Ditch system to the Ben Hall Ranch owned by Ben Hall and A. P. Cross.

A total area of 53.6 acres is served with water by the Guttman Ditch as is set forth in Table 36 of this report. The crops grown on these lands are also set forth in Table 36. A summary of the data given in Table 36 for this ditch follows:

Owner	Diversion	Interest	Irrigated Acres
P.Weigart(A.F.Ray)	2	13/24	23.5
M. E. Thomas	2	8/24	24.9
Ben Hall and	2	3/24	5.2
A. P. Cross	Total	1	53.6

All of the above land was irrigated in 1927 except 4.4 acres on the Thomas Ranch. Current meter measurements made of the flow in the

ditch on June 19, 1927, indicated a normal irrigating head of 3.00 cubic feet per second and a maximum capacity of 4.03 cubic feet per second.

Measurements made on August 7, 1927, showed a discharge of 3.00 cubic feet per second at the head of the ditch and 1.75 cubic feet per second in the ditch above the takeout of the Thomas Lateral, or a loss of 1.25 cubic feet per second in one and three-quarters miles. Some of the flume sections in the conduit were in poor condition, which partly accounts for the comparatively high transportation losses.

Records of the water diverted at Diversion 2 during the periods from August 18th to September 30, 1926, and from June 1st to September 30, 1927, have been tabulated, respectively, in Tables 8 and 15 of this report.

Water is used continuously throughout the irrigation season through the Guttman Ditch for domestic, stock watering and irrigation purposes. Considerable seepage and return water drains off of the P. Weigart (A. F. Ray) Ranch and is utilitzed on the T. J. Ray Ranch for irrigation purposes to supplement the water diverted thereupon through Diversion 3, hereinafter described.

Diversion 3 is that of the Bonde Ditch, from the south side of Clover Creek in the $NE\frac{1}{4}$ $NE\frac{1}{4}$ of Section 20, T 33 N , R.1 E, M. D. B. & M. (See Map Sheet 1.)

The conduit consists of an earth dich about three-quarters of a mile in length from the intake down to the first lateral: There are two stretches of one foot by two feet flume in the first one-half mile of the conduit. The first lateral is that of E. G. Weigart and is used to supply

water to that portion of his irrigated land which lies on the south side of Clover Creek. About three-quarters of a mile below the takeout of the E. G. Weigart Lateral, the Bonde Ditch divides into two branches. The south branch is used by John Krehbiel and T. J. Ray to convey water to their lands and the north branch is used to convey water into the Mill Ditch and thence through the Mill Ditch System to the lands of D. S. Hall, and Ben Hall and A. P. Cross.

A total area of 106.6 acres is served with water by the Bonde Ditch as is set forth in Table 36 of this report. A summary of the data given in Table 36 for this ditch follows:

Owner	Diversion	Interest	Irrigated Acres
E. G. Weigart	3	3/15	2.0
T. J. Ray	3	4/15	34.7
John Krehbiel	3	4/15	21.3
D.S.Hall, Ben Hall, and A. P. Cross	3	4/15	48.6
	Total	1	106.6

All of the above land was irrigated in 1927. The crops grown on the lands are set forth in Table 36. Current meter measurements made on July 28, 1927, indicated a normal irrigating head of 3.90 cubic feet per second and a maximum capacity of 4.82 cubic feet per second.

Measurements made on September 7, 1927, showed transportation losses of 0.31 cubic foot per second in the Bonde Ditch between its head and the E. G. Weigart Lateral, with 3.24 cubic feet per second being diverted from Clover Creek. This loss was considered moderate in a distance of three-quarters of a mile.

Records of the water diverted at Diversion 3 during the periods

from August 18th to September 30, 1926, and from June 1st to September 30, 1927, have been tabulated, respectively, in Tables 9 and 16 of this report.

Water is used continuously throughout the irrigation season through the Bonde Ditch for domestic, stock watering and irrigation purposes. The seepage and return water that drains from the John Krehbiel and T. J. Ray Ranches make up a large portion of the headwaters of South Clover Creek.

Diversion 4 is that of the Mill Ditch, from Clover Creek on the south side in the SW¼ NE¼ of Section 20, T 33 N, R 1 E, M.D.B. & M. (See Map Sheet 1).

The conduit is an earth ditch about one and three-quarters miles in length down to the first lateral of R. G. Wright. There are three short stretches of two feet by three feet wooden flume in the main conduit above the Wright Lateral. About one quarter of a mile below the takeout of the Wright Lateral, the Mill Ditch empties into a draw. Water is conveyed down the draw for about one-half of a mile to the Dunn Lateral which diverts a portion of the water to the L. Wright and E. I. Rock lands, and to the northern portion of the Fred Wheelock Ranch. About one-quarter of a mile below the Dunn Lateral, J. B. Anderson has an irrigation lateral which diverts water from the east side of the draw. The remaining water that may be flowing in the draw is diverted through the Anderson Mill Lateral on the west side of the draw about one-quarter of a mile below the Anderson Irrigation Lateral. At the terminal of the Anderson Mill Lateral

1 3/4 mi.
2 mi.
2 1/2 mi.
2 3/4 mi.
3 mi.

there is a three feet by three feet wooden forebay which is at the head of the penstock leading to the Anderson Mill. J. B. Anderson and Fred Wheelock also diverts some water from the Anderson Mill Lateral at a point immediately above the forebay for irrigation purposes. The water that is run through the Anderson Mill collects in a swale which has a southwesterly course. About 250 yards below the mill, Fred Wheelock diverts water from the south side of the swale for irrigation purposes. The remaining water in the swale flows into a creek which collects the drainage water from the central portion of the irrigated lands of Fred Wheelock. About 100 yards below the confluence of the swale and creek, there is a division box in the creek which divides the water flowing therein into two equal parts. The portion that is conveyed to the south in the South Lateral serves the ranches of J. S. Sheridan, M. A. Sheridan, and William Stacher with the exception of a small quantity which is purported to be the equivalent of the water turned into the Mill Ditch System from the Guttman Ditch which is conveyed to the ranch of Ben Hall and A. P. Cross. The other half of the water divided at the above mentioned division box that is conveyed to the west in the West Lateral, together with the drainage from the north portion of the Fred Wheelock Ranch, serves the lands of D. S. Hall, H. A. Klinger and A. P. Cross, and Ben Hall and A. P. Cross.

A total area of 206.1 acres is served with water by the Mill Ditch as is set forth in Table 36 of this report. The crops grown on these lands are also set forth in Table 36. A summary of the data given in Table 36 for this ditch follows:

Owner	Diversion	Interest	Irrigated Acres
R.G. Wright	4	1/12	9.0
L.Wright & E.I. Rock	4	1/16	6.6
Fred Wheelock	4	5/16	36.6
J. B. Anderson	4	1/4	30.9
	TOTAL	17/24	83.1

The remaining 7/24 interest in Diversion 4, together with the 1/8 interest in the Guttman Ditch and the 4/15 interest in the Bonde Ditch that are turned into the Mill Ditch by Ben Hall and A. P. Cross, passes on through the Fred Wheelock Ranch. The waste and return water from the Anderson Mill and Ranch and from the central and south portions of the Fred Wheelock Ranch commingles with this water. Immediately west of the Fred Wheelock Ranch all of this water has been customarily divided into two equal parts. The half that is conveyed in a westerly direction in the West Lateral picks up additional waste and return water from the northern portion of the Fred Wheelock Ranch, which return water is claimed by D. S. Hall for the irrigation of the lands immediately east of the area irrigated by H. A. Klinger and A. P. Cross. About one-quarter of a mile below the above-mentioned division box, Ben Hall and A. P. Cross take out of the West Lateral a quantity of water which is purported to be equal to that quantity turned into the Mill Ditch System by the Bonde Ditch, hereinabove described under Diversion 3. That half of the water, which is turned down the South Lateral by the above-mentioned division box, includes the water turned into the Mill Ditch System by the Guttman Ditch, hereinabove described under Diversion 2. Ben Hall and A. P. Cross take out of the South Lateral a quantity of water which is purported to

be equal to that quantity turned into the Mill Ditch System by the Guttman Ditch.

After subtracting the Guttman Ditch water from the South Lateral and the Bonde Ditch water from the West Lateral, the uses of which have been hereinabove described, respectively, under Diversion 2 and Diversion 3, the remaining water, which is entirely supplied by Diversion 4, is customarily divided as follows:

Owner	Diversion	Interest	Irrigated Acres
H.A.Klinger & A.P.Cross	4	3/4 West Lateral	45.0
D. S. Hall	4	1/4 West Lateral	21.1
J.S.Sheridan	4	1/3 South Lateral	10.1
M. A. Sheridan	4	1/3 South Lateral	21.3
William Stacher	4	1/3 South Lateral	25.5
		TOTAL	123.0

The normal irrigated area of 206.1 acres under Diversion 4 was all under irrigation in 1927.

The penstock through which power is developed to operate the Anderson Sawmill is a steel pipe two feet in diameter. The static head on the turbine is 39 feet. Under heavy sawing operations, a maximum head of about 10 cubic feet per second is required. During the warm weather season, only a small portion of the water that is utilized to operate the sawmill ever finds its way back to Clover Creek, because it passes through the West and South Laterals, described above, and across the lands irrigated thereunder, and is re-diverted for irrigation use from South Clover, Slaughter Pole, and Rose Briar Creeks. The mill was not operated during the period between July 18th and September 30, 1927, due to insufficient water.

Current meter measurements made on July 8, 1927, indicated a maximum capacity of 11.30 cubic feet per second and a normal irrigating head, when the Anderson Mill is not being operated, of 5.65 cubic feet per second. The ditch is run at maximum capacity, when the mill is being operated, if water is available.

Current meter measurements made on September 2, 1926, when 2.92 cubic feet per second were being diverted, and on July 8, 1927 when 11.30 cubic feet per second were being diverted, indicate that there is practically no net transportation loss in the Mill Ditch between the intake and the Wright Lateral. This is largely due to seepage collected from the Bonde Ditch which has a parallel course a short distance above.

Records of the water diverted at Diversion 4 during the periods from August 18th to September 30, 1926, and from June 1st to September 30, 1927, have been tabulated, respectively, in Tables 10 and 17 of this report.

Water is used continuously throughout the irrigation season through the Mill Ditch for domestic, stock watering, and irrigation purposes. During the spring and early su mer, when water is available, diversion is also made for sawmill purposes. The acreage that is irrigated by William Stacher under the Mill Ditch also receives supplemental water from Wild Cat Creek as is hereinafter described under Diversion 14.

Diversion 5 is that of the Rodgers Ditch from Clover Creek on the north side in the SW¼ NE¼ of Section 20, T 33 N, R 1 E, M.D.B. & M. (See Map Sheet 1).

The conduit is an earth ditch about one-half of a mile in length and is used to serve all of the lands irrigated by E. G. Weigart on the

north side of Clover Creek. The total normal irrigated area of 6.2 acres, as set forth in Table 36, was irrigated in 1927 under this ditch. The ditch is also used to supply domestic and stock water to the E. G. Weigart Ranch. The crops consist of 1.8 acres of garden, 2.6 acres of clover, and 1.8 acres of sudan grass.

Current meter measurements made on June 23, 1927, indicated a maximum capacity of 0.80 cubic foot per second, and a normal irrigating head of 0.40 cubic foot per second.

Records of the water diverted at Diversion 5 during the periods from August 18th to September 30, 1926, and from June 1st to September 30, 1927, have been tabulated, respectively, in Tables 11 and 18 of this report. Water is used continuously throughout the irrigation season, through the Rodgers Ditch for domestic, stock watering, and irrigation purposes.

Diversion 6 is that of John W. Maxwell, from Wyndham Creek on the north side in the SW¼ NW¼ of Section 19, T 33 N, R 1 E, M. D. B. & M. (See Map Sheet 2).

The conduit, commonly known as the Maxwell Ditch, is an earth ditch about one-quarter of a mile in length. The total normal irrigated area of 16.8 acres, as set forth in Table 36, was irrigated in 1927 under this ditch. The entire area is devoted to the production of meadow pasture.

Current meter measurements made on August 5, 1927, indicated a maximum capacity of 0.60 cubic foot per second, and a normal irrigating head of 0.50 cubic foot per second.

Records of the water diverted at Diversion 6 during the period from June 1st to September 30, 1927, have been tabulated in Table 24 of this report. Water is used continuously throughout the irrigation season for stock watering and irrigation purposes.

Diversion 7 is that of J. M. Cunningham from Clover Creek on the north side in the SE¼ NW¼ of Section 24, T 33 N, R 1 W, M. D. B. & M. (See Map Sheet 2).

The conduit, commonly known as the Cunningham Ditch, is an earth ditch about one-half of a mile in length. The total normal irrigated area of 52.7 acres, as set forth in Table 36, was irrigated in 1927 under this ditch. The crops consist of 27.6 acres of meadow hay, 24.5 acres of meadow pasture, and 0.6 acre of orchard interplanted with meadow.

Current meter measurements made on July 7, 1927, indicated a maximum capacity of 1.95 cubic feet per second, and a normal irrigating head of 1.40 cubic feet per second.

Records of the water diverted at Diversion 7 during the period from June 1st to September 30, 1927, have been tabulated in Table 19 of this report. Water is used continuously throughout the irrigation season for stock watering and irrigation purposes.

Diversion 8 is that of J. M. Cunningham from a spring situated in the NW¼ NW¼ of Section 24, T 33 N, R 1 W, M. D. B. & M. (See Map Sheet 2).

The channel leading from the spring for a distance of about one-eighth of a mile is utilized as a conduit for conveying water to the irrigated land. The total normal irrigated area of 6.0 acres, as set forth in Table 36, was irrigated from the spring in 1927. The crops consist of

0.5 acre of garden and 5.5 acres of meadow hay.

Several float measurements made of the flow of the spring indicated a discharge of about 0.10 cubic foot per second, all of which is continuously used by J. M. Cunningham for domestic, stock watering, and irrigation purposes. The flow of the spring did not vary appreciably during the 1927 irrigation season.

Diversion 9 is that of the Welch and Nailor Ditch, from Clover Creek on the north side in the SE¼ NW¼ of Section 22, T 33 N, R 1 W, M.D.B.& M. (See Map Sheet 11).

The conduit is an earth ditch about three miles in length down to the division box where the flow therein is commingled with the flow in the Welch and Strayer Ditch from Mill Creek. The division box divides the Clover Creek water into two equal parts, one-half going to the lands of Oscar Axner and Edward Rice, and the other half going to the lands of James W. Ballard, E. D. Herrick, and E. C. English.

A total area of 71.8 acres is irrigated under the Welch and Nailor Ditch as is set forth in Table 36 of this report. A summary of the data given in Table 36 for this ditch follows:

Owner	Diversion	Interest	Irrigated Acres
Oscar Axner	9	6/18	16.1
Edward Rice	9	3/18	10.4
James W. Ballard	9	1/18	1.5
E. D. Herrick	9	4/18	13.8
E. C. English	9	4/18	30.0
	TOTAL	1	71.8

All of the above land was irrigated in 1927, except 0.5 acre on the Oscar Axner Ranch. The crops grown on the above lands are set forth in Table 36.

Current meter measurements made of the flow in the ditch on July 21, 1927, indicated a maximum capacity of ?.82 cubic feet per second, and a normal irrigating head of 2.00 cubic feet per second.

The transportation losses in the Welch and Nailor Ditch are evidently quite small. On July 21, 1927, the loss between the intake and the division box three miles below with 2.00 cubic feet per second being diverted was 0.18 cubic foot per second.

Records of the water diverted at Diversion 9 during the period from June 1st to September 30, 1927, have been tabulated in Table 20 of this report. Water is used continuously throughout the irrigation season through the Welch and Nailor Ditch for domestic, stock watering, and irrigation purposes.

The irrigated lands of E. C. English as shown on Map Sheets 12 and 14 are served with water both from Clover Creek through the Welch and Nailor Ditch and from Mill Creek through the Welch and Strayer Ditch. The total irrigated area of E. C. English is 71.6 acres of which 41.6 acres have been included under the Welch and Strayer Ditch in the case of C. L. Lemm, et al., vs. John Rutherford, et al., in which all the rights to water from the North Cow Creek stream system are involved. The balance of 30.0 acres is considered irrigated from Clover Creek and has been so included under the Welch and Nailor Ditch. The lands of E. C. English also receive some return water from the irrigated lands of E. D. Herrick and Edward Rice.

Diversion 10 is that of the Yordy Upper Ditch, from Clover Creek on the north side in the SE¼ NW¼ of Section 22, T 33 N, R 1 W, M.D.B.& M. (See Map Sheet 11.)

The conduit consists of an earth ditch about one mile in length. The entire area that has been irrigated on the J. Yordy Ranch of 12.1 acres may be irrigated by means of the Yordy Upper Ditch. Of this area, 9.0 acres may also be irrigated from Diversion 11, hereinafter described.

J. Yordy is deceased and L. A. Yordy is administrator of the estate. No one was on the J. Yordy Ranch during the irrigation season of 1927 and no water was diverted through Diversion 10. Consequently, no measurements were made of the maximum capacity or normal irrigating head of the ditch. The ditch has a steep grade and irregular cross-section. The capacity is estimated to be several times the flow of water that would be necessary to adequately irrigate 12.1 acres.

Diversion 11 is that of the Yordy Lower Ditch, from Clover Creek on the north side in the NE$\frac{1}{4}$ NE$\frac{1}{4}$ of Section 28, T 33 N, R 1 W, M.D.B. & M. (See Map Sheet 11.)

The conduit consists of an earth ditch about one-eighth of a mile in length which terminates in a swale that has been utilized in spreading water over the irrigated area. 9.0 acres of the same area described hereinabove under Diversion 10 of the J. Yordy Estate may also be irrigated by means of this ditch.

No one was on the J. Yordy Ranch during the irrigation season of 1927 and no water was diverted through Diversion 11. Consequently, no measurements were made of the maximum capacity or normal irrigating head of the ditch. The size of the ditch indicates that the capacity is several times the flow of water that would be necessary to adequately irrigate 9.0 acres.

Diversion 12 is that of the Hufford Upper Ditch, from Clover Creek on the north side in the SW¼ SE¼ of Section 6, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 9.)

The conduit consists of an earth ditch about three-quarters of a mile in length. This ditch has been used by Jesse Hufford to irrigate all of his irrigated lands on the northwest side of Clover Creek. No land was irrigated on the Jesse Hufford Ranch in 1927, however, an area of 17.4 acres apparently has been irrigated in the past under Diversion 12. The balance of the land that has been irrigated on the Jesse Hufford Ranch of 6.3 acres is described hereinafter under Diversion 13.

Water was turned into the ditch under Diversion 12 on June 27, 1927, for the purpose of measuring the maximum capacity which was found to be 1.27 cubic feet per second. The normal irrigating head was not determined, since no one was present at that time who was familiar with the past irrigation practice under this ditch.

Diversion 13 is that of the Hufford Lower Ditch, from Clover Creek on the southeast side in the SW¼ SE¼ of Section 6, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 9).

The conduit consists of an earth ditch about one-half of a mile in length. This ditch has been used by Jesse Hufford to irrigate all of his irrigated lands on the southeast side of Clover Creek. No land was irrigated on the Jesse Hufford Ranch in 1927; however, an area of 6.3 acres apparently has been irrigated in the past under Diversion 13.

Water was turned into the ditch under Diversion 13 on June 27, 1927, for the purpose of measuring the maximum capacity, which was found

to be 1.44 cubic feet per second. The normal irrigating head was not determined, since no one was present at that time who was familiar with the past irrigation practice under this ditch.

Diversion 14 is that of the Wild Cat Ditch, from Wild Cat Creek on the northwest side in the NW¼ NE¼ of Section 2, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 5).

The conduit consists of an earth ditch about three-quarters of a mile in length with three short stretches of flumes across gulches within the first one-half mile. This ditch is used by William Stacher to convey supplemental water to the same area of 25.5 acres that is irrigated by him under the Mill Ditch, hereinabove described under Diversion 4.

Weir measurements made on June 27, 1927, indicated a maximum capacity of the ditch of 0.60 cubic foot per second, which was also the normal irrigating head.

Records of the water diverted at Diversion 14 during the period from June 1st to September 30, 1927, have been tabulated in Table 29 of this report. These records also represent the total flow of Wild Cat Creek at that point. Water is used continuously throughout the irrigation season through the Wild Cat Ditch for domestic, stock watering, and irrigation purposes. The amount of water available is dependent upon the amount of return to Wild Cat Creek from the irrigated lands above Diversion 14.

Diversion 15 is that of the Covey Ditch, from South Clover Creek on the southeast side in the NE¼ NE¼ of Section 2, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 5).

The conduit consists of an earth ditch about one-half of a mile in length. Jane Covey has a two-third interest in the ditch and William Stacher has a one-third interest. Jane Covey has irrigated a total area of 6.7 acres under this ditch, of which 5.4 acres lie within the William Stacher Ranch. No water was diverted for use through the Covey Ditch in 1927.

William Stacher proposes to connect Diversion 14 with a ditch leading to the northwest from Diversion 15, and divert the quantity of water, represented by his interest in the Covey Ditch, through the Wild Cat Ditch.

Water was turned through Diversion 15 on July 19, 1927, for the purpose of measuring the maximum capacity, which was found to be 0.64 cubic feet per second. Mr. Stacher stated that the maximum capacity also represented the normal irrigating head.

Diversion 16 is that of the Harper Ditch, from South Clover Creek on the northwest side in the SW¼ SE¼ of Section 2, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 5).

The conduit heads on the northwest side of South Clover Creek in an earth ditch which extends down about 200 yards and is followed by a 7 inch by 12 inch lumber flume leading across the creek to the southwest side. This is followed by an earth ditch about one-quarter of a mile in length to the place of use. A total area of 11.6 acres is served with water under this ditch. The crops consist of 1.1 acres of garden, orchard, and vines, and 10.5 acres of meadow hay and pasture. This entire area was irrigated in 1927.

Current meter measurements made on July 27, 1927, indicated a maximum capacity of the ditch of 1.00 cubic foot per second and a normal irrigating head of 0.80 cubic foot per second. No appreciable transportation loss was found in the ditch at that time.

Records of the water diverted at Diversion 16 during the period from June 1st to September 30, 1927, have been tabulated in Table 25 of this report. Water is used continuously throughout the irrigation season through the Harper Ditch for domestic, stock watering, and irrigation purposes by A. A. Harper.

Diversions 17 and 18 are those of the Hunt Ditch from an unnamed tributary of South Clover Creek and from South Clover Creek, respectively. Diversion 17 is located in the NW¼ NW¼ and Diversion 18 in the SE¼ NW¼ of Section 11, T 32 N, R 1 W, MD.B. & M. (See Map Sheet 5).

The conduit consists of an earth ditch about two miles in length. It is used to serve water to a total area of 4.9 acres, consisting of 0.1 acre of garden and 4.8 acres of pasture. The entire area was irrigated in 1927 subsequent to July 11th when the ditch was opened up. Prior to July 11th, J. M. Hunt borrowed water from a ditch which conveys water from Old Cow Creek across his property.

Weir measurements made on August 11, 1927, indicated a maximum capacity of the ditch of 0.66 cubic foot per second and a normal irrigating head of 0.40 cubic foot per second. With 0.40 cubic foot per second flowing in the ditch at that time, the transportation losses were 0.22 cubic foot per second.

Records of the water diverted through diversions 17 and 18 during the period from July 11th to September 30 1927, have been tabulated in Table 26 of this report. Water is ordinarily used continuously throughout the irrigation season for irrigation purposes. Water is not required from this source for domestic and stock watering purposes.

Diversion 19 is that of the Slaughter Pole Ditch, from Slaughter Pole Creek on the northwest side in the SW¼ SE¼ of Section 3, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 5).

The main conduit is an earth ditch about three-quarters of a mile in length on the northwest side of Slaughter Pole Creek. About 100 yards below the head of the ditch there is a lateral takeout in a flume which conveys water to the southeast side of the creek for a distance of about one-half of a mile. A total area of 14.5 acres is served with water under Diversion 19. The crops consist of 1.3 acres of grain, 4.6 acres of meadow hay, and 8.6 acres of pasture.

Current meter measurements made on June 21, 1927, indicate a maximum capacity of the ditch of 0.60 cubic foot per second which also represents the normal irrigating head. Water is used continuously throughout the irrigation season for stock watering and irrigation purposes.

Records of the water diverted at Diversion 19 during the period from June 1st to September 30, 1927, have been tabulated in Table 30 of this report. These records also represent the total flow of Slaughter Pole Creek at that point. The flow has its source entirely in return water from irrigated lands above.

Diversion 20 is that of the Rice South Clover Ditch, from South Clover Creek on the north side in the NE¼ SE¼ of Section 8, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 8).

The conduit consists of a small earth ditch about one-quarter of a mile in length with one short stretch of five inch by six inch wooden flume. Water is served to a total area of 1.3 acres of orchard by this ditch. Water is not used for domestic and stock watering purposes from this ditch. All of the land was irrigated in 1927.

Float measurements indicated a maximum capacity of the ditch of 0.25 cubic foot per second, which also represents the normal irrigating head..

Records of the water diverted at Diversion 20 during the period from June 1st to September 30, 1927, have been tabulated in Table 27 of this report. Water is used continuously throughout the irrigation season through this ditch for irrigation purposes.

Diversion 21 is that of the Rose Briar Ditch, from Rose Briar Creek on the southeast side in the SW¼ NW¼ of Section 4, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 7.)

The main conduit is an earth ditch about one-half of a mile in length, from the intake down to the division between two main laterals. Each lateral is about one-half mile in length. It is used to serve water to a total area of 27.4 acres, consisting of 0.1 acre of garden and 27.3 acres of meadow hay and pasture. All of the land under the ditch was irrigated in 1927.

Current meter measurements made on July 17, 1927, indicated a maximum capacity of the ditch of 1.20 cubic feet per second and a normal irrigating head of 1.0 cubic foot per second.

Records of the water diverted at Diversion 21 during the period from June 1st to September 30, 1927, have been tabulated in Table 31 of this report. These records also represent the total flow of Rose Briar Creek at that point. The amount of water available during the dry-weather season depends upon the return from land irrigated above.

Diversion 22 is that of the Reineke South Clover Ditch, from South Clover Creek on the south side in the NW¼ NE¼ of Section 18, T 32 N, R 1 W, M.D.B. & M. (See Map Sheet 10).

The conduit consists of an earth ditch about one-half of a mile in length from the intake down to the irrigated land. All of the irrigated land of Mrs. M. J. Reineke on the south side of Clover Creek is served with water from this ditch. The total normal irrigated area of 34.1 acres, as set forth in Table 36, was irrigated in 1927. The crops consist of 3.6 acres of garden and vineyard, 1.5 acres of alfalfa, and 29.0 acres of meadow hay and pasture.

Current meter measurements made on July 11, 1927, indicated a maximum capacity of the ditch of 1.20 cubic feet per second and a normal irrigating head of 0.70 cubic foot per second.

Records of the water diverted at Diversion 22 during the period from June 1st to september 30, 1927, have been tabulated in Table 28 of this report. Water is used continuously throughout the irrigation season through this ditch for stock watering and irrigation purposes. No water is required for domestic purposes.

Diversion 23 is that of the Reineke Clover Ditch from Clover Creek on the north side in the SW¼ NW¼ of Section 18, T 32 N , R 1 W, M.D.B. & M. (See Map Sheet 10.)

The conduit consists of an earth ditch about one and one-quarter miles in length. It is used to serve water to all of the irrigated lands of Mrs. M. J. Reineke lying on the north side of Clover Creek. The total normal irrigated area of 23.0 acres, as set forth in Table 36, was irrigated in 1927. The crops consist of 5.7 acres of orchard and garden, 0.8 acre of alfalfa, and 16.5 acres of meadow hay and pasture.

Current meter measurements made on July 11, 1927, indicated a maximum capacity of the ditch of 1.00 cubic foot per second and a normal irrigating head of 0.50 cubic foot per second.

Records of the water diverted at Diversion 23 during the period from June 1st to September 30, 1927, have been tabulated in Table 21 of this report. Water is used continuously throughout the irrigation season through this ditch for domestic, stock watering, and irrigation purposes.

Diversion 24 is that of the Webb Ditch, from Clover Creek on the north side in the SW¼ NE¼ of Section 28, T 32 N, R 2 W, M.D.B. & M. (See Map Sheet 15).

The conduit consists of an earth ditch about one mile in length with six short 11 inch by 12 inch wooden flume stretches. The total normal irrigated area of 9.1 acres, as set forth in Table 36, was irrigated in 1927. The crops consist of 4.0 acres of garden and orchard, 0.4 acre of alfalfa, and 4.7 acres of grain and hay.

Current meter measurements made on July 20, 1927, indicated a maximum capacity of the ditch of 0.52 cubic foot per second, which also represents the normal irrigating head.

Records of the water diverted at Diversion 24 during the period from June 1st to September 30, 1927, have been tabulated in Table 22 of this report. Water is used continuously for domestic, stock watering, and irrigation purposes.

Diversion 25 is that of the Heryford Pump, from Clover Creek on the south side in the SW¼ SW¼ of Section 32, T 32 N, R 2 W, M.D.B. & M. (See Map Sheet 16.)

The pump is 1 inch in size and is operated by means of a three-horse power gasoline engine. Water is elevated into a 1,000 gallon tank for the purpose of regulation. It is used for domestic purposes and for the irrigation of 0.1 acre of garden. This diversion has not been included in the suit on Clover Creek, because the amount of water diverted thereunder is negligible.

Diversion 26 is that of the Millville Ditch, from Clover Creek on the north side in the SE¼ NW¼ of Section 6, T 31 N, R 2 W, M.D.B. & M. (See Map Sheet 17).

The conduit heads on the north side of Clover Creek with about 200 yards of earth ditch. This is followed by a 2 feet by 2 feet wooden flume which conveys the water to the south side of the creek. An earth ditch then follows on the south side of the creek for a distance of about three miles.

The Millville Ditch is owned by the Millville Ditch Company, a corporation, incorporated in California on May 20, 1873. There are at present fourteen parties owning stock in the corporation as follows:

C. R. Hunt

J. P. Stevenson

J. P. Pederson

Oddfellows Cemetery

A. A. Shearin (L. A. Meeker)

Isaac Meeker

C. E. Overmeyer

G. E. Oaks (Sol Cohen)

Fred Asher

Mrs. Alta Davis

R. H. Bartell

F. M. Hackler Estate

J. J. Middleton

Mrs. Sarah Hunt

There are numerous laterals that take water out of the main ditch between the flume crossing over Clover Creek and its terminal. A total area of 206.6 acres is served with water by the ditch. Of this area 29.3 acres lie within the Town of Millville. A total area of 177.4 acres was irrigated in 1927. The crops grown are as set forth in Table 36 of this report.

Current meter measurements made on June 27, 1927, indicated a maximum capacity of the ditch of 6.55 cubic feet per second and a normal irrigating head of 5.00 cubic feet per second.

The diversion dam at the intake of the Millville Ditch is a timber frame structure with an earth fill on the front face. There are no diversions from Clover Creek below Diversion 26 and consequently, an attempt is made by the Millville Ditch Company to intercept the entire flow of the creek during the latter part of the summer. During September, 1927, the average seepage under and leakage through the dam was about 0.4 cubic foot per second.

Records of the water diverted at Diversion 26 during the period from June 1st to September 30, 1927, have been tabulated in Table 23 of this report. Water is used continuously throughout the irrigation season through the Millville Ditch for domestic, stock watering, and irrigation purposes.

METHOD OF IRRIGATION

The wild flooding method of irrigation is used on all lands irrigated from Clover Creek and its tributaries with the exception that orchard and garden lands are usually irrigated by the furrow method, by which the water is allowed to run from the main ditch into a lateral that feeds a desired number of furrows between the rows of trees and vegetables. By the wild flooding method the water is diverted from the main supply ditch, which usually runs along the high contour of the land, by numerous takeouts, in most instances made by shovel cuts in the ditch berm, and is allowed to spread out at random over the area lying below the ditch. Large heads are required on the porous soils in order to flush the water out over the land without excessive waste from deep percolation.

CHANNEL LOSSES AND RETURN FLOW

A portion of the flow of Clover Creek was spilled into Old Cow Creek below the Millville Dam at Diversion 26 during the summer of 1927 as is shown in Table 13 of this report. Table 13 has been combined with all diversions from Clover Creek between Millville and Fern Bridge which combination is shown in Table 12. Table 2 is a tabulation of the discharge of Clover Creek at Fern Bridge during the summer of 1927. The difference between Tables 12 and 2 shows the amount of return water that reached the channel of Clover Creek between Fern Bridge and Millville during the summer of 1927. The hydrographs on Plate 3 graphically show this difference.

The amount of natural flow in the tributaries of Clover Creek below Fern Bridge during the period between June 1st and September 30th is, normally, negligible. Consequently, the difference between the discharge of Clover Creek at Fern Bridge combined with all diversions above and the discharge of Clover Creek below Millville Dam combined with all diversions from Clover Creek and its tributaries, indicates the total return flow in the Clover Creek stream system. This is the difference between Tables 3 and 4, which has been shown graphically on the hydrographs on Plate 4 at the end of this report.

DUTY OF WATER

Records of the gross diversions on all of the systems diverting from Clover Creek and its tributaries were obtained from June 1st to September 30, 1927 and have been tabulated in Tables 14 to 31, inclusive. From these records, together with the acreages irrigated, as determined by a plane table survey during the period covered by the field investigation, the "duty of water," under the practice in 1927, of the respective systems has been computed. The "duty of water," as here used, was computed by dividing the total area of irrigated land served under a diversion system by the continuous flow equivalent of the gross amount of water diverted through that system, measured at the headgate, during the period between June 1st and September 30, 1927. A similar computation of the use during each month was also made and has been tabulated in Table 33 of this report.

It will be noted from Table 33 that the combined average rate of gross use during the four months for the acreage irrigated in 1927 was approximately one cubic foot per second to thirty-three acres. The average gross use during June was at the rate of one cubic foot per second to about twenty-eight acres, during July one cubic foot per second to about thirty acres, during August one cubic foot per second to about thirty-five acres, and during September one cubic foot per second to about thirty-nine acres. The acreage irrigated in 1927 was about nine per cent less than that normally irrigated.

The effectiveness and results of irrigation on the Clover Creek stream system were noted during the investigation and crop data were collected after the harvest season. The results of the crops harvested have been tabulated in Table 34.

The actual water requirements of crops as measured by evaporation and plant transpiration will undoubtedly be higher after about July first than prior thereto, due to higher temperature and lower humidity, but water applied to the land early in the season may be held in storage in the pore space of the soil by capillary action, and be available for the plant roots, as required, later in the season. For this reason the land is ordinarily filled with water early in the season when a large supply is available and the soil is usually kept filled as long as the run-off will so allow. Under these conditions, the diversions made from Clover Creek during the first part of the irrigation season are usually larger than those made during the latter part.

The only diversion systems serving land from the Clover Creek stream system where waste of water was not noted during the 1927 irrigation season were the Cunningham, Welch and Nailor, Reineke Clover, Webb, and Reineke South Clover Ditches. No deficiency in diversion was noted at any time for any of the ranches irrigated in 1927, even during the most critical period of low flow of Clover Creek.

A conjuctive analysis of Tables 33 and 34, with consideration being given to the occurrence of waste and adequacy of irrigation water during the most critical period of low flow, affords a basis for conclusions concerning the water requirements of the irrigated areas for successful production of crops. A summary of the data collected on those ditches serving lands that were adequately irrigated without waste follows:

Ditch	Acreage Irrigated	Average Diversion cu.ft./sec.	Estimated Transportation Loss in Per Cent	Estimated Net Delivery cu.ft./sec.	Net Duty Acres Per cu.ft./sec.
Cunningham	52.7	1.20	15 %	1.02	52
Welch & Nailor	71.3	2.05	44 %	1.15	62
Reineke Clover	23.0	0.54	45 %	0.30	77
Reineke South Clover	34.1	0.72	18 %	0.59	58
Webb	9.1	0.38	58 %	0.16	57
TOTAL	190.2	4.89	34 %	3.22	59

The estimated transportation losses in the above tabulation were obtained from the "Curve for the Approximation of Channel Losses in Small Earth Ditches," which was prepared from ditch transportation loss measure- on Emerson Creek, Butte Creek, Little Shasta River, North Cow Creek, and Cottonwood Creek. The transportation measurements that were made on various ditches in the Clover Creek stream system fit this curve very closely and it is thought to be indicative of reasonable transportation losses for all of the ditches in the Clover Creek stream system. A print of the curve is submitted as Plate 5 at the end of this report.

The above tabulation indicates that an average net duty of water of one cubic foot per second to about sixty acres of land will afford adequate water for successful growth of crops in the Clover Creek area.

The allotments of water that would be necessary to supply the various ranches irrigated from the Clover Creek stream system with a net duty of water of one cubic foot per second to sixty acres of land normally irrigated, with allowance made for transportation losses in accordance with the curve on Plate 5 of this report, have been tabulated in Table 37 of this report.

TABLE 1

CLIMATOLOGICAL DATA

Precipitation for Seasonal Year 1926-27 Compared with Mean Precipitation
Redding 1875-1927; McCloud 1910-1927

Month	Average Mean Redding and McCloud	Precipitation for Seasonal Year 1926-27			
		Redding	McCloud	Average Redding and McCloud	Per Cent of Total Mean
October	2.21	3.25	3.43	3.34	8.1
November	4.63	14.51	21.85	18.18	44.1
December	6.41	4.72	4.58	4.65	11.3
January	8.67	11.18	9.29	10.23	24.8
February	6.25	13.01	15.01	14.01	34.0
March	5.25	6.08	4.44	5.26	12.7
April	3.06	2.97	5.34	4.16	10.1
May	2.26	2.20	2.16	2.18	5.3
June	1.00	0.41	1.63	1.02	2.5
July	0.23	0.00	0.32	0.16	0.4
August	0,17	0.04	0.10	0.07	0.2
September	1.12	0.06	0.12	0.09	0.2
Total	41.26	58.43	68.27	63.35	153.7

NOTE: (Per cent of total mean from May 1st to September 30th in average year - 11.6%.
(Per cent of total mean from May 1st to September 30th in 1927 - 8.6%.

TABLE 2

CONTINUOUS RECORDS OF DISCHARGE OF CLOVER CREEK AT FERN BRIDGE FOR THE PERIOD FROM JUNE 1ST TO SEPTEMBER 30, 1927

Day	June	July	August	September	
1	35.0	19.3	9.8	6.8	
2	34.0	18.7	9.8	6.6	
3	33.0	18.1	9.8	6.8	
4	32.2	17.5	9.5	6.8	
5	31.5	17.5	9.2	6.8	
6	30.8	17.5	7.4	6.8	
7	30.0	17.5	7.4	6.8	
8	29.5	11.1	7.4	6.6	
9	28.8	11.8	7.4	6.8	
10	28.2	10.7	7.4	6.8	
11	27.5	10.4	7.2	6.8	
12	26.6	10.4	7.9	6.8	
13	25.5	10.7	7.7	7.0	
14	24.8	10.7	7.7	7.0	
15	24.0	10.4	7.4	6.4	
16	24.0	10.7	7.7	6.0	
17	24.0	11.1	7.4	6.2	
18	24.0	10.4	7.4	6.4	
19	23.0	10.4	7.4	6.8	
20	23.0	10.1	7.4	6.6	
21	23.0	10.1	7.2	6.6	
22	23.1	9.8	7.2	6.4	
23	21.3	10.1	7.0	6.2	
24	21.3	10.4	6.8	6.0	
25	21.3	10.4	7.0	6.0	
26	24.0	10.1	7.0	5.8	
27	23.0	10.1	7.0	6.0	
28	22.1	10.1	6.8	6.0	
29	20.6	9.8	6.8	6.0	
30	19.9	9.8	6.8	6.0	
31		9.8	6.8		
Total Sec. Feet Days:	778.0	375.5	236.7	194.6	4 Month Period
Mean Sec. Feet:	25.93	12.10	7.64	6.49	13.00
Maximum Sec. Feet:	35.0	19.3	9.8	7.0	35.0
Minimum Sec. Feet:	19.9	9.8	6.8	5.8	5.8
Total Acre-feet:	1542.8	744.6	469.4	385.9	3142.7

Gage Heights from Automatic Water Stage Recorder.

TABLE 3

ESTIMATED COMBINED DISCHARGE OF CLOVER CREEK AT FERN BRIDGE AND ALL DIVERSIONS ABOVE, FOR THE PERIOD JUNE 1ST TO SEPTEMBER 30, 1927

Day	June	July	August	September	
1	48.5	32.8	23.9	19.1	
2	47.5	32.2	24.0	18.95	
3	46.5	31.8	23.8	19.15	
4	45.7	31.4	23.6	19.1	
5	45.0	31.0	23.2	18.9	
6	44.3	30.5	22.6	19.1	
7	43.5	30.0	22.6	19.2	
8	43.0	29.9	22.6	19.1	
9	42.3	29.8	22.05	19.35	
10	41.7	28.7	22.05	19.55	
11	41.0	28.4	21.65	19.25	
12	40.7	28.4	21.3	18.9	
13	40.0	28.4	21.25	18.7	
14	39.5	28.4	21.2	18.6	
15	38.9	27.8	20.8	18.0	
16	38.7	26.6	21.1	17.4	
17	38.3	26.5	20.8	17.8	
18	37.7	25.8	20.8	18.2	
19	37.3	25.95	21.2	18.3	
20	37.0	25.4	21.2	18.0	
21	36.5	25.35	20.7	18.1	
22	36.2	25.05	20.7	18.1	
23	35.7	25.0	20.5	17.8	
24	35.7	24.6	20.3	17.6	
25	35.9	24.5	20.5	17.8	
26	37.5	24.2	20.5	17.3	
27	36.5	24.2	20.5	17.5	
28	35.6	24.2	20.1	17.5	
29	34.1	24.4	20.1	17.5	
30	33.4	24.0	20.1	17.5	
31		23.9	19.5		
Total Sec. Feet Days	1194.2	849.15	664.9	551.35	4 Month Period
Mean Sec. Feet	39.8	27.4	21.4	18.4	26.72
Maximum Sec. Feet	48.5	32.8	24.0	19.55	48.5
Minimum Sec. Feet	33.4	23.9	19.5	17.3	17.3
Total Acre-feet	2368.1	1683.9	1318.5	1093.3	6463.8

TABLE 4

ESTIMATED COMBINED DISCHARGE OF CLOVER CREEK BELOW MILLVILLE DAM AND ALL DIVERSIONS FROM CLOVER CREEK AND TRIBUTARIES, FOR THE PERIOD JUNE 1ST TO SEPTEMBER 30, 1927

Day	June	July	August	September	
1	59.95	39.3	29.25	23.6	
2	58.95	38.7	29.35	23.65	
3	57.95	38.3	29.15	23.65	
4	56.95	37.9	29.05	23.6	
5	55.95	37.5	28.45	23.4	
6	55.15	37.0	27.85	23.6	
7	54.35	36.5	27.85	23.7	
8	53.55	40.95	27.85	23.8	
9	52.75	35.95	27.3	23.85	
10	52.15	34.85	27.3	24.05	
11	50.95	34.75	26.35	23.75	
12	50.55	34.75	25.8	23.4	
13	49.75	34.45	25.75	23.2	
14	49.15	34.45	25.7	23.1	
15	48.35	33.7	25.3	22.5	
16	47.95	32.7	25.6	21.9	
17	47.45	32.6	25.3	22.3	
18	46.65	31.7	25.3	22.7	
19	46.05	31.85	25.7	22.6	
20	45.55	31.25	25.7	22.3	
21	43.75	31.0	25.3	22.4	
22	43.25	31.2	25.3	22.4	
23	42.55	30.75	25.1	22.1	
24	42.45	30.05	24.9	22.1	
25	42.45	29.95	25.1	22.3	
26	44.95	29.85	25.1	21.8	
27	43.75	29.85	25.1	22.0	
28	42.75	29.85	24.9	22.0	
29	41.2	29.85	24.9	22.0	
30	40.4	29.45	24.5	22.0	
31		29.35	24.2		
Total Sec. Feet Days:	1467.6	1040.3	814.3	685.75	4 Month Period
Mean Sec. Feet	48.92	33.53	26.24	22.86	32.83
Maximum Sec. Feet:	59.95	40.95	29.35	24.05	59.95
Minimum Sec. Feet:	40.4	29.35	24.2	21.8	21.8
Total Acre-feet:	2910.3	2062.9	1614.7	1359.8	7947.7

TABLE 5

CONTINUOUS RECORDS OF DISCHARGE OF CLOVER CREEK AT FERN BRIDGE, FOR THE PERIOD FROM AUGUST 18 TO SEPTEMBER 30TH 1926

Day	August	September	
1		5.0	
2		4.7	
3		4.5	
4		5.0	
5		5.0	
6		5.0	
7		5.2	
8		5.4	
9		5.4	
10		5.5	
11		5.0	
12		4.8	
13		5.0	
14		5.0	
15		5.0	
16		5.2	
17		5.2	
18	5.3	5.2	
19	5.5	5.2	
20	5.7	5.4	
21	5.7	5.4	
22	5.7	5.2	
23	5.2	5.2	
24	5.4	4.8	
25	5.7	4.7	
26	5.7	4.7	
27	5.2	4.7	
28	5.4	4.7	
29	5.5	4.8	
30	5.2	4.8	
31	5.0		
Total Sec. Feet Days	76.2	150.7	44 Day Period
Mean Sec. Feet	5.44	5.02	5.16
Maximum Sec. Feet	5.7	5.5	5.7
Minimum Sec. Feet	5.0	4.7	4.7
Total Acre-feet	151.1	298.8	449.9

TABLE 6

ESTIMATED COMBINED DISCHARGE OF CLOVER CREEK AT FERN BRIDGE AND ALL DIVERSIONS ABOVE, FOR THE PERIOD AUGUST 18TH TO SEPTEMBER 30, 1926

Day	August	September	
1		17.35	
2		17.05	
3		17.15	
4		17.05	
5		17.05	
6		17.05	
7		17.05	
8		16.85	
9		16.85	
10		16.95	
11		16.45	
12		16.25	
13		16.45	
14		16.45	
15		16.45	
16		16.65	
17		16.65	
18	17.75	16.65	
19	17.95	16.65	
20	18.15	16.85	
21	17.95	16.65	
22	17.95	16.45	
23	17.45	16.45	
24	17.65	16.05	
25	17.95	15.95	
26	17.95	15.95	
27	17.45	15.95	
28	17.65	15.95	
29	17.75	16.05	
30	17.45	16.05	
31	17.7		
Total Sec. Feet Days	248.75	497.40	44 Day Period
Mean Sec. Feet	17.78	16.58	16.97
Maximum Sec. Feet	18.15	17.35	18.15
Minimum Sec. Feet	17.45	15.95	15.95
Total Acre-feet	493.3	986.3	1479.6

TABLE 7

ESTIMATED DISCHARGE OF WORLEY DITCH ON SILVER CREEK AT HEAD, FOR THE PERIOD AUGUST 18 TO SEPTEMBER 30, 1926

Day	August	September	
1		2.5	
2		2.5	
3		2.5	
4		2.3	
5		2.3	
6		2.3	
7		2.3	
8		2.3	
9		2.3	
10		2.3	
11		2.3	
12		2.3	
13		2.3	
14		2.3	
15		2.3	
16		2.3	
17		2.3	
18	2.7	2.3	
19	2.7	2.3	
20	2.7	2.3	
21	2.7	2.3	
22	2.7	2.3	
23	2.7	2.3	
24	2.7	2.3	
25	2.7	2.3	
26	2.7	2.3	
27	2.7	2.3	
28	2.7	2.3	
29	2.7	2.3	
30	2.7	2.3	
31	2.7		
Total Sec. Feet Days	37.8	69.6	44 Day Period
Mean Sec. Feet	2.7	2.32	2.44
Maximum Sec. Feet	2.7	2.5	2.7
Minimum Sec. Feet	2.7	2.3	2.3
Total Acre-feet	75.0	138.0	213.0

TABLE 8

ESTIMATED DISCHARGE OF GUTTMAN DITCH ON CLOVER CREEK AT HEAD, FOR THE PERIOD AUGUST 18TH TO SEPTEMBER 30, 1926

Day	August	September	
1		3.4	
2		3.4	
3		3.4	
4		3.2	
5		3.0	
6		3.0	
7		2.8	
8		2.4	
9		2.4	
10		2.4	
11		2.4	
12		2.4	
13		2.4	
14		2.4	
15		2.4	
16		2.4	
17		2.4	
18	2.4	2.4	
19	2.4	2.4	
20	2.4	2.4	
21	2.4	2.4	
22	2.4	2.4	
23	2.4	2.4	
24	2.4	2.4	
25	2.4	2.4	
26	2.4	2.4	
27	2.4	2.4	
28	2.4	2.4	
29	2.4	2.4	
30	2.4	2.4	
31	2.4		
Total Sec. Feet Days:	33.6	77.4	44 Day Period
Mean Sec. Feet:	2.4	2.58	2.52
Maximum Sec. Feet:	2.4	3.4	3.4
Minimum Sec. Feet:	2.4	2.4	2.4
Total Acre-feet:	66.6	153.5	220.1

TABLE 9

ESTIMATED DISCHARGE OF BONDE DITCH ON CLOVER CREEK AT HEAD, FOR THE PERIOD AUGUST 18TH TO SEPTEMBER 30, 1926

Day	August	September	
1		3.25	
2		3.25	
3		3.25	
4		3.25	
5		3.25	
6		3.25	
7		3.25	
8		3.25	
9		3.25	
10		3.25	
11		3.25	
12		3.25	
13		3.25	
14		3.25	
15		3.25	
16		3.25	
17		3.25	
18	2.25	3.25	
19	2.25	3.25	
20	2.25	3.25	
21	2.25	3.25	
22	2.25	3.25	
23	2.25	3.25	
24	2.25	3.25	
25	2.25	3.25	
26	2.25	3.25	
27	2.25	3.25	
28	2.25	3.25	
29	2.25	3.25	
30	2.25	3.25	
31	2.7		
Total Sec. Feet Days	31.95	97.50	44 Day Period
Mean Sec. Feet	2.28	3.25	2.94
Maximum Sec. Feet	2.7	3.25	3.25
Minimum Sec. Feet	2.25	3.25	2.25
Total Acre-feet	63.4	193.3	256.7

TABLE 10

ESTIMATED DISCHARGE OF MILL DITCH ON CLOVER CREEK AT HEAD, FOR THE PERIOD AUGUST 18TH TO SEPTEMBER 30, 1926

Day	August	September	
1		2.9	
2		2.9	
3		3.2	
4		3.0	
5		3.2	
6		3.2	
7		3.2	
8		3.2	
9		3.2	
10		3.2	
11		3.2	
12		3.2	
13		3.2	
14		3.2	
15		3.2	
16		3.2	
17		3.2	
18	4.7	3.2	
19	4.7	3.2	
20	4.7	3.2	
21	4.5	3.0	
22	4.5	3.0	
23	4.5	3.0	
24	4.5	3.0	
25	4.5	3.0	
26	4.5	3.0	
27	4.5	3.0	
28	4.5	3.0	
29	4.5	3.0	
30	4.5	3.0	
31	4.5		
Total Sec. Feet Days:	63.6	93.2	44 Day Period
Mean Sec. Feet:	4.54	3.11	3.56
Maximum Sec. Feet:	4.7	3.2	4.7
Minimum Sec. Feet:	4.5	2.9	2.9
Total Acre-feet:	126.1	184.8	310.9

TABLE 11

ESTIMATED DISCHARGE OF RODGERS DITCH ON CLOVER CREEK AT HEAD, FOR THE PERIOD AUGUST 18TH TO SEPTEMBER 30, 1926

Day	August	September	
1		0.3	
2		0.3	
3		0.3	
4		0.3	
5		0.3	
6		0.3	
7		0.3	
8		0.3	
9		0.3	
10		0.3	
11		0.3	
12		0.3	
13		0.3	
14		0.3	
15		0.3	
16		0.3	
17		0.3	
18	0.4	0.3	
19	0.4	0.3	
20	0.4	0.3	
21	0.4	0.3	
22	0.4	0.3	
23	0.4	0.3	
24	0.4	0.3	
25	0.4	0.3	
26	0.4	0.3	
27	0.4	0.3	
28	0.4	0.3	
29	0.4	0.3	
30	0.4	0.3	
31	0.4		
Total Sec. Feet Days	5.6	9.0	44 Day Period
Mean Sec. Feet	0.4	0.3	0.33
Maximum Sec. Feet	0.4	0.3	4.0
Minimum Sec. Feet	0.4	0.3	0.3
Total Acre-feet	11.1	17.8	28.9

TABLE 12

ESTIMATED COMBINED DISCHARGE OF CLOVER CREEK BELOW MILLVILLE DAM AND ALL DIVERSIONS FROM CLOVER CREEK BETWEEN MILLVILLE AND FERN BRIDGE-1927

Day	June	July	August	September	
1	41.0	21.25	10.8	7.7	
2	40.0	20.65	10.8	7.7	
3	39.0	20.05	10.8	7.7	
4	38.0	19.45	10.6	7.7	
5	37.0	19.45	10.1	7.7	
6	36.2	19.45	8.3	7.7	
7	35.4	19.45	8.3	7.7	
8	34.6	17.6	8.3	7.7	
9	33.8	13.4	8.3	7.7	
10	33.2	12.3	8.3	7.7	
11	32.4	12.0	8.3	7.7	
12	31.4	12.0	8.8	7.7	
13	30.2	12.0	8.6	7.9	
14	29.4	12.0	8.6	7.9	
15	28.4	11.55	8.3	7.3	
16	28.2	12.05	8.6	6.9	
17	28.1	12.45	8.3	7.1	
18	27.9	11.55	8.3	7.3	
19	26.7	11.55	8.3	7.5	
20	26.5	11.2	8.3	7.3	
21	25.4	11.2	8.1	7.3	
22	24.3	11.4	8.1	7.1	
23	23.3	11.3	7.9	6.9	
24	23.2	11.3	7.7	6.9	
25	23.0	11.3	7.9	6.9	
26	26.6	11.3	7.9	6.7	
27	25.4	11.3	7.9	6.9	
28	24.4	11.3	7.9	6.9	
29	22.85	10.8	7.9	6.9	
30	22.05	10.8	7.8	6.9	
31		10.8	7.8		
Total Sec. Feet Days	897.9	424.2	265.9	221.0	4 Month Period
Mean Sec. Feet	29.93	13.68	8.57	7.37	14.81
Maximum Sec. Feet	41.0	21.25	10.8	7.9	41.0
Minimum Sec. Feet	22.05	10.8	7.7	6.9	6.9
Total Acre-feet	1780.5	841.2	527.3	438.2	3587.2

TABLE 13

ESTIMATED DISCHARGE OF CLOVER CREEK BELOW MILLVILLE DAM
1927

Day	June	July	August	September	
1	28.4	10.4	2.2	0.4	
2	27.4	9.8	2.2	0.4	
3	26.4	9.2	2.2	0.4	
4	25.4	8.6	2.0	0.4	
5	24.4	8.6	1.5	0.4	
6	23.6	8.6	0.8	0.4	
7	22.8	8.6	0.8	0.4	
8	22.0	8.6	0.8	0.4	
9	21.2	4.4	0.8	0.4	
10	20.6	3.3	0.8	0.4	
11	20.0	3.0	0.8	0.4	
12	19.0	3.0	0.8	0.4	
13	17.8	3.5	0.8	0.4	
14	17.0	3.5	0.8	0.4	
15	16.3	3.2	0.8	0.4	
16	16.1	3.5	0.8	0.4	
17	16.0	3.9	0.8	0.4	
18	15.8	3.0	0.8	0.4	
19	14.6	2.5	0.8	0.4	
20	14.4	2.2	0.8	0.4	
21	13.3	2.2	0.8	0.4	
22	12.2	2.2	0.8	0.4	
23	11.2	2.2	0.8	0.4	
24	11.1	2.2	0.8	0.4	
25	10.6	2.2	0.8	0.4	
26	14.2	2.2	0.8	0.4	
27	13.3	2.2	0.8	0.4	
28	12.8	2.2	0.4	0.4	
29	11.4	2.2	0.4	0.4	
30	10.6	2.2	0.4	0.4	
31		2.2	0.4		
Total Sec. Feet Days:	529.9	135.6	29.3	12.0	4 Month Period
Mean Sec. Feet:	17.66	4.37	0.95	0.4	5.78
Maximum Sec. Feet:	28.4	10.4	2.2	0.4	28.4
Minimum Sec. Feet:	10.6	2.2	0.4	0.4	0.4
Total Acre-feet:	1050.8	268.9	58.1	23.8	1401.6

TABLE 14

ESTIMATED DISCHARGE OF WORLEY DITCH ON SILVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	2.5	2.3	2.0	2.3	
2	2.5	2.3	2.0	2.3	
3	2.5	2.3	2.0	2.3	
4	2.5	2.3	2.3	2.3	
5	2.5	2.3	2.3	2.3	
6	2.5	2.3	2.3	2.3	
7	2.5	2.3	2.3	2.3	
8	2.5	2.3	2.3	2.3	
9	2.5	2.3	2.5	2.0	
10	2.5	2.3	2.5	2.0	
11	2.5	2.3	2.5	2.0	
12	2.5	2.3	2.5	2.0	
13	2.5	2.3	2.3	2.0	
14	2.5	2.3	2.3	2.0	
15	2.5	2.3	2.3	2.0	
16	2.5	2.3	2.3	2.0	
17	2.5	2.3	2.3	2.0	
18	2.3	2.3	2.3	2.3	
19	2.3	2.3	2.0	2.3	
20	2.3	2.3	2.0	2.3	
21	2.3	2.3	2.0	2.3	
22	2.5	2.3	2.0	2.3	
23	2.5	2.3	2.0	2.0	
24	2.5	2.0	2.0	2.0	
25	2.5	2.0	2.0	2.0	
26	2.3	2.0	2.0	2.0	
27	2.3	2.0	2.0	2.0	
28	2.3	2.0	2.0	2.0	
29	2.3	2.0	2.3	2.0	
30	2.3	2.0	2.3	2.0	
31		2.0	2.3		
Total Sec. Feet Days:	73.2	68.9	68.2	63.9	4 Month Period
Mean Sec. Feet:	2.44	2.22	2.20	2.13	2.25
Maximum Sec. Feet:	2.5	2.3	2.5	2.3	2.5
Minimum Sec. Feet:	2.3	2.0	2.0	2.0	2.0
Total Acre-feet:	145.2	136.6	135.2	126.7	543.7

TABLE 15

ESTIMATED DISCHARGE OF GUTTMAN DITCH ON CLOVER CREEK
ONE MILE BELOW HEAD
1927

Day	June	July	August	September	
1	2.4	2.4	1.8	1.8	
2	2.4	2.4	1.8	1.8	
3	2.4	2.4	1.8	1.8	
4	2.4	2.4	1.8	1.8	
5	2.4	2.2	1.8	1.8	
6	2.4	2.2	3.0	1.8	
7	2.4	2.1	3.0	1.8	
8	2.4	2.1	3.0	1.8	
9	2.4	2.1	3.0	1.8	
10	2.4	2.1	3.0	1.8	
11	2.4	2.1	3.0	1.8	
12	2.4	2.1	2.0	1.8	
13	2.8	1.8	2.0	1.8	
14	2.8	1.8	2.0	1.8	
15	2.8	1.8	2.0	1.8	
16	2.6	1.8	2.0	1.8	
17	2.4	1.8	2.0	1.8	
18	2.4	1.8	1.8	1.8	
19	3.0	1.8	1.8	1.8	
20	2.7	1.8	1.8	2.0	
21	2.7	1.8	1.8	2.0	
22	2.7	1.8	1.8	2.0	
23	2.8	1.8	1.8	1.8	
24	2.8	1.8	1.8	1.8	
25	3.0	1.8	1.8	1.8	
26	2.4	1.8	1.8	1.8	
27	2.4	1.8	2.0	1.8	
28	2.4	1.8	2.0	1.8	
29	2.4	1.8	2.0	1.8	
30	2.4	1.8	2.0	1.8	
31		1.8	2.0		
Total Sec. Feet Days	76.3	60.8	65.2	54.6	4 Month Period
Mean Sec. Feet	2.54	1.97	2.10	1.82	2.10
Maximum Sec. Feet	3.0	2.4	3.0	2.0	3.0
Minimum Sec. Feet	2.4	1.8	1.8	1.8	1.8
Total Acre-feet	151.3	120.6	129.3	108.3	509.5

TABLE 16

CONTINUOUS RECORDS OF DISCHARGE OF BONDE DITCH ON CLOVER CREEK, ONE-HALF MILE BELOW HEAD
1927

Day	June	July	August	September	
1	2.6	3.0	3.9	3.4	
2	2.6	3.0	4.0	3.45	
3	2.6	3.0	4.0	3.45	
4	2.6	3.0	4.0	3.4	
5	2.6	3.0	3.9	3.2	
6	2.6	3.0	3.7	3.2	
7	2.6	2.9	3.7	3.2	
8	2.6	2.9	3.7	3.4	
9	2.6	2.9	3.15	3.55	
10	2.6	2.9	3.15	3.55	
11	2.6	2.9	3.05	3.45	
12	3.2	2.9	3.2	3.4	
13	3.2	2.9	3.55	3.3	
14	3.2	2.9	3.6	3.2	
15	3.2	2.9	3.7	3.2	
16	3.2	2.9	3.9	3.2	
17	3.2	3.0	3.9	3.2	
18	3.0	3.4	3.9	3.4	
19	3.0	3.55	4.0	3.4	
20	3.0	3.9	4.0	3.2	
21	3.0	4.15	4.0	3.2	
22	3.3	4.25	4.0	3.3	
23	3.3	4.3	4.0	3.3	
24	3.3	4.4	4.0	3.2	
25	3.3	4.5	4.0	3.2	
26	3.0	4.5	4.0	2.9	
27	3.0	4.5	3.9	2.9	
28	3.0	4.5	3.9	2.9	
29	3.0	4.3	3.8	2.9	
30	3.0	3.9	3.6	2.9	
31		3.9	3.4		
Total Sec. Feet Days:	88.0	108.05	116.6	97.45	4 Month Period
Mean Sec. Feet:	2.93	3.49	3.76	3.25	3.36
Maximum Sec. Feet:	3.3	4.5	4.0	3.55	4.50
Minimum Sec. Feet:	2.6	2.9	3.05	2.9	2.60
Total Acre-feet:	174.5	214.3	231.2	193.2	813.2

Gage Heights from Automatic Water Stage Recorder.

TABLE 17

CONTINUOUS RECORDS OF DISCHARGE OF MILL DITCH ON CLOVER CREEK
ONE-FOURTH MILE BELOW HEAD
1927

Day	June	July	August	September	
1	5.6	5.4	6.0	4.4	
2	5.6	5.4	6.0	4.4	
3	5.6	5.4	5.8	4.4	
4	5.6	5.4	5.6	4.4	
5	5.6	5.4	5.6	4.4	
6	5.6	5.1	5.8	4.6	
7	5.6	5.0	5.8	4.7	
8	5.6	11.3	5.8	4.8	
9	5.6	10.5	5.6	5.0	
10	5.6	10.5	5.6	5.2	
11	5.6	10.5	5.5	5.0	
12	5.6	10.5	5.3	4.7	
13	5.6	10.5	5.3	4.2	
14	5.6	10.5	5.2	4.2	
15	5.6	10.2	5.0	4.2	
16	5.6	8.3	4.8	4.0	
17	5.6	7.7	4.8	4.2	
18	5.6	7.5	5.2	4.0	
19	5.6	7.5	5.8	3.7	
20	5.6	6.9	5.8	3.6	
21	5.1	6.7	5.3	3.7	
22	5.0	6.7	5.3	3.9	
23	5.0	6.3	5.3	4.3	
24	5.0	5.8	5.3	4.4	
25	5.0	5.6	5.3	4.6	
26	5.0	5.6	5.3	4.6	
27	5.4	5.6	5.2	4.6	
28	5.4	5.6	5.0	4.6	
29	5.4	6.3	4.8	4.6	
30	5.4	6.3	4.7	4.6	
31		6.2	4.6		
Total Sec. Feet Days:	163.7	226.2	166.4	132.0	4 Month Period
Mean Sec. Feet:	5.46	7.30	5.37	4.40	5.64
Maximum Sec. Feet:	5.6	11.3	6.0	5.2	11.3
Minimum Sec. Feet:	5.0	5.0	4.6	3.6	3.6
Total Acre-feet:	324.6	448.6	330.0	261.8	1365.0

Gage heights from automatic water stage recorder.

TABLE 18

ESTIMATED DISCHARGE OF RODGERS DITCH ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.4	0.4	0.4	0.4	
2	0.4	0.4	0.4	0.4	
3	0.4	0.6	0.4	0.4	
4	0.4	0.8	0.4	0.4	
5	0.4	0.6	0.4	0.4	
6	0.4	0.4	0.4	0.4	
7	0.4	0.2	0.4	0.4	
8	0.4	0.2	0.4	0.2	
9	0.4	0.2	0.4	0.2	
10	0.4	0.2	0.4	0.2	
11	0.4	0.2	0.4	0.2	
12	0.4	0.2	0.4	0.2	
13	0.4	0.2	0.4	0.4	
14	0.6	0.2	0.4	0.4	
15	0.8	0.2	0.4	0.4	
16	0.8	0.6	0.4	0.4	
17	0.6	0.6	0.4	0.4	
18	0.4	0.4	0.2	0.3	
19	0.4	0.4	0.2	0.3	
20	0.4	0.4	0.2	0.3	
21	0.4	0.3	0.4	0.3	
22	0.6	0.2	0.4	0.2	
23	0.8	0.2	0.4	0.2	
24	0.8	0.2	0.4	0.2	
25	0.8	0.2	0.4	0.2	
26	0.8	0.2	0.4	0.2	
27	0.4	0.2	0.4	0.2	
28	0.4	0.2	0.4	0.2	
29	0.4	0.2	0.4	0.2	
30	0.4	0.2	0.4	0.2	
31		0.2	0.4		
Total Sec. Feet Days:	15.0	9.7	11.8	8.8	4 Month Period
Mean Sec. Feet:	0.50	0.31	0.38	0.29	0.37
Maximum Sec. Feet:	0.8	0.8	0.4	0.4	0.8
Minimum Sec. Feet:	0.4	0.2	0.2	0.2	0.2
Total Acre-Feet	29.7	19.2	23.4	17.5	89.8

TABLE 19

ESTIMATED DISCHARGE OF CUNNINGHAM DITCH ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	1.8	1.4	1.0	1.0	
2	1.8	1.4	1.0	1.0	
3	1.8	1.4	1.0	1.0	
4	1.8	1.4	1.0	1.0	
5	1.8	1.4	1.0	1.0	
6	1.8	1.4	1.0	1.0	
7	1.8	1.4	1.0	1.0	
8	1.8	1.2	1.0	1.0	
9	1.8	1.2	1.0	1.0	
10	1.8	1.2	1.0	1.0	
11	1.6	1.2	1.0	1.0	
12	1.6	1.2	1.0	1.0	
13	1.6	1.2	1.0	1.0	
14	1.6	1.2	1.0	1.0	
15	1.6	1.05	1.0	1.0	
16	1.6	1.05	1.0	1.0	
17	1.6	1.05	1.0	1.0	
18	1.6	1.05	1.0	1.0	
19	1.6	1.05	1.0	1.0	
20	1.6	1.0	1.0	1.0	
21	1.6	1.0	1.0	1.0	
22	1.6	1.0	1.0	1.0	
23	1.6	1.0	1.0	1.0	
24	1.6	1.0	1.0	1.0	
25	1.6	1.0	1.0	1.0	
26	1.6	1.0	1.0	1.0	
27	1.6	1.0	1.0	1.0	
28	1.6	1.0	1.0	1.0	
29	1.6	1.0	1.0	1.0	
30	1.6	1.0	1.0	1.0	
31		1.0	1.0		
Total Sec. Feet Days:	50.0	35.45	31.0	30.0	4 Month Period
Mean Sec. Feet:	1.67	1.14	1.0	1.0	1.20
Maximum Sec. Feet:	1.8	1.4	1.0	1.0	1.8
Minimum Sec. Feet:	1.6	1.0	1.0	1.0	1.0
Total Acre-feet:	99.2	70.3	61.5	59.5	290.5

TABLE 20

ESTIMATED DISCHARGE OF WELCH AND NAILOR DITCH
ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	2.8	2.4	1.7	1.8	
2	2.8	2.4	1.7	1.8	
3	2.8	2.4	1.7	1.8	
4	2.8	2.4	1.7	1.8	
5	2.8	2.4	1.7	1.8	
6	2.8	2.4	1.8	1.8	
7	2.8	2.4	1.8	1.8	
8	2.8	2.0	1.8	1.8	
9	2.8	2.0	1.8	1.8	
10	2.8	2.0	1.8	1.8	
11	2.8	2.0	1.8	1.8	
12	2.8	2.0	1.8	1.8	
13	2.8	2.0	1.8	1.8	
14	2.8	2.0	1.8	1.8	
15	2.8	2.0	1.8	1.6	
16	2.8	2.0	1.8	1.6	
17	2.8	2.0	1.8	1.6	
18	2.8	2.0	1.8	1.6	
19	2.8	2.0	1.8	1.6	
20	2.8	2.0	1.8	1.6	
21	2.8	2.0	1.8	1.6	
22	2.8	1.7	1.8	1.6	
23	2.8	1.7	1.8	1.4	
24	2.8	1.7	1.8	1.4	
25	2.8	1.7	1.8	1.4	
26	2.8	1.7	1.8	1.4	
27	2.8	1.7	1.8	1.4	
28	2.8	1.7	1.8	1.4	
29	2.8	1.7	1.8	1.4	
30	2.8	1.7	1.8	1.4	
31		1.7	1.8		
Total Sec. Feet Days:	84.0	61.8	55.3	49.2	4 Month Period
Mean Sec. Feet:	2.80	2.00	1.79	1.64	2.05
Maximum Sec. Feet:	2.8	2.4	1.8	1.8	2.8
Minimum Sec. Feet:	2.8	1.7	1.7	1.4	1.4
Total Acre-feet:	166.6	122.5	109.7	97.6	496.4

TABLE 21

ESTIMATED DISCHARGE OF REINEKE CLOVER DITCH
ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	1.0	0.55	0.5	0.4	
2	1.0	0.55	0.5	0.4	
3	1.0	0.55	0.5	0.4	
4	1.0	0.55	0.5	0.4	
5	1.0	0.55	0.5	0.4	
6	1.0	0.55	0.4	0.4	
7	1.0	0.55	0.4	0.4	
8	1.0	0.5	0.4	0.4	
9	1.0	0.5	0.4	0.4	
10	1.0	0.5	0.4	0.4	
11	1.0	0.5	0.4	0.4	
12	1.0	0.5	0.4	0.4	
13	1.0	0.5	0.4	0.4	
14	1.0	0.5	0.4	0.4	
15	0.7	0.5	0.4	0.4	
16	0.7	0.5	0.4	0.4	
17	0.7	0.5	0.4	0.4	
18	0.7	0.5	0.4	0.4	
19	0.7	0.5	0.4	0.4	
20	0.7	0.5	0.4	0.4	
21	0.7	0.5	0.4	0.4	
22	0.7	0.5	0.4	0.4	
23	0.7	0.5	0.4	0.4	
24	0.7	0.5	0.4	0.4	
25	1.0	0.5	0.4	0.4	
26	1.0	0.5	0.4	0.4	
27	0.7	0.5	0.4	0.4	
28	0.7	0.5	0.4	0.4	
29	0.55	0.5	0.4	0.4	
30	0.55	0.5	0.4	0.4	
31		0.5	0.4		
Total Sec. Feet Days	25.5	15.85	12.9	12.0	4 Month Period
Mean Sec. Feet	0.85	0.51	0.42	0.40	0.54
Maximum Sec. Feet	1.0	0.55	0.5	0.4	1.0
Minimum Sec. Feet	0.55	0.5	0.4	0.4	0.4
Total Acre-feet	50.6	31.4	25.6	23.8	131.4

TABLE 22

ESTIMATED DISCHARGE OF WEBB DITCH ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.5	0.5	0.4	0.3	
2	0.5	0.5	0.4	0.3	
3	0.5	0.5	0.4	0.3	
4	0.5	0.5	0.4	0.3	
5	0.5	0.5	0.4	0.3	
6	0.5	0.5	0.3	0.3	
7	0.5	0.5	0.3	0.3	
8	0.5	0.3	0.3	0.3	
9	0.5	0.3	0.3	0.3	
10	0.5	0.3	0.3	0.3	
11	0.5	0.3	0.3	0.3	
12	0.5	0.3	0.3	0.3	
13	0.5	0.3	0.3	0.3	
14	0.5	0.3	0.3	0.3	
15	0.5	0.3	0.3	0.3	
16	0.5	0.3	0.3	0.3	
17	0.5	0.3	0.3	0.3	
18	0.5	0.3	0.3	0.3	
19	0.5	0.5	0.3	0.3	
20	0.5	0.5	0.3	0.3	
21	0.5	0.5	0.3	0.3	
22	0.5	0.5	0.3	0.3	
23	0.5	0.4	0.3	0.3	
24	0.5	0.4	0.3	0.3	
25	0.5	0.4	0.3	0.3	
26	0.5	0.4	0.3	0.3	
27	0.5	0.4	0.3	0.3	
28	0.5	0.4	0.3	0.3	
29	0.5	0.4	0.3	0.3	
30	0.5	0.4	0.4	0.3	
31		0.4	0.4		
Total Sec. Feet Days:	15.0	12.4	10.0	9.0	4 Month Period
Mean Sec. Feet:	0.50	0.40	0.32	0.30	0.38
Maximum Sec. Feet:	0.5	0.5	0.4	0.3	0.5
Minimum Sec. Feet:	0.5	0.3	0.3	0.3	0.3
Total Acre-feet:	29.7	24.6	19.8	17.8	91.9

TABLE 23

ESTIMATED DISCHARGE OF MILLVILLE DITCH ON CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	6.5	6.0	5.0	3.8	
2	6.5	6.0	5.0	3.8	
3	6.5	6.0	5.0	3.8	
4	6.5	6.0	5.0	3.8	
5	6.5	6.0	5.0	3.8	
6	6.5	6.0	4.0	3.8	
7	6.5	6.0	4.0	3.8	
8	6.5	5.0	4.0	3.8	
9	6.5	5.0	4.0	3.8	
10	6.5	5.0	4.0	3.8	
11	6.5	5.0	4.0	3.8	
12	6.5	5.0	4.5	3.8	
13	6.5	4.5	4.3	4.0	
14	6.5	4.5	4.3	4.0	
15	6.5	4.5	4.0	3.6	
16	6.5	4.7	4.3	3.2	
17	6.5	4.7	4.0	3.4	
18	6.5	4.7	4.0	3.6	
19	6.5	5.0	4.0	3.8	
20	6.5	5.0	4.0	3.6	
21	6.5	5.0	3.8	3.6	
22	6.5	5.5	3.8	3.4	
23	6.5	5.5	3.6	3.4	
24	6.5	5.5	3.4	3.4	
25	6.5	5.5	3.6	3.4	
26	6.5	5.5	3.6	3.2	
27	6.5	5.5	3.6	3.4	
28	6.0	5.5	4.0	3.4	
29	6.0	5.0	4.0	3.4	
30	6.0	5.0	3.8	3.4	
31		5.0	3.8		
Total Sec. Feet Days	193.5	163.1	127.4	108.8	4 Month Period
Mean Sec. Feet	6.45	5.26	4.11	3.63	4.86
Maximum Sec. Feet	6.5	6.0	5.0	4.0	6.5
Minimum Sec. Feet	6.0	4.5	3.4	3.2	3.2
Total Acre-feet	383.7	323.4	252.6	215.8	1175.5

TABLE 24

ESTIMATED DISCHARGE OF MAXWELL DITCH ON WYNDHAM CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.6	0.5	0.5	0.4	
2	0.6	0.5	0.5	0.4	
3	0.6	0.5	0.5	0.4	
4	0.6	0.5	0.5	0.4	
5	0.6	0.5	0.5	0.4	
6	0.6	0.5	0.5	0.4	
7	0.6	0.5	0.5	0.4	
8	0.6	0.5	0.5	0.4	
9	0.6	0.5	0.5	0.4	
10	0.6	0.5	0.5	0.4	
11	0.6	0.5	0.4	0.4	
12	0.6	0.5	0.4	0.4	
13	0.6	0.5	0.4	0.4	
14	0.6	0.5	0.4	0.4	
15	0.6	0.5	0.4	0.4	
16	0.6	0.5	0.4	0.4	
17	0.6	0.5	0.4	0.4	
18	0.6	0.5	0.4	0.4	
19	0.6	0.5	0.4	0.4	
20	0.6	0.5	0.4	0.4	
21	0.6	0.5	0.4	0.4	
22	0.6	0.5	0.4	0.4	
23	0.6	0.5	0.4	0.4	
24	0.6	0.5	0.4	0.4	
25	0.6	0.5	0.4	0.4	
26	0.6	0.5	0.4	0.4	
27	0.6	0.5	0.4	0.4	
28	0.6	0.5	0.4	0.4	
29	0.6	0.5	0.4	0.4	
30	0.6	0.5	0.4	0.4	
31	0.6	0.5	0.4	0.4	
Total Sec. Feet Days:	18.0	15.5	13.4	12.0	4 Month Period
Mean Sec. Feet:	0.60	0.50	0.43	0.40	0.48
Maximum Sec. Feet:	0.6	0.5	0.5	0.4	0.6
Minimum Sec. Feet:	0.6	0.5	0.4	0.4	0.4
Total Acre-feet:	35.7	30.7	26.6	23.8	116.8

TABLE 25

ESTIMATED DISCHARGE OF HARPER DITCH
ON DRY CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	1.0	0.8	0.8	0.6	
2	1.0	0.8	0.8	0.6	
3	1.0	0.8	0.8	0.6	
4	1.0	0.8	0.8	0.6	
5	1.0	0.8	0.8	0.6	
6	1.0	0.8	0.8	0.6	
7	1.0	0.8	0.8	0.6	
8	1.0	0.8	0.8	0.6	
9	1.0	0.8	0.8	0.6	
10	1.0	0.8	0.8	0.6	
11	0.8	0.8	0.6	0.6	
12	0.8	0.8	0.6	0.6	
13	0.8	0.8	0.6	0.6	
14	0.8	0.8	0.6	0.6	
15	0.8	0.8	0.6	0.6	
16	0.8	0.8	0.6	0.6	
17	0.8	0.8	0.6	0.6	
18	0.8	0.8	0.6	0.6	
19	0.8	0.8	0.6	0.6	
20	0.8	0.8	0.6	0.6	
21	0.8	0.8	0.6	0.6	
22	0.8	0.8	0.6	0.6	
23	0.8	0.8	0.6	0.6	
24	0.8	0.8	0.6	0.6	
25	0.8	0.8	0.6	0.6	
26	0.8	0.8	0.6	0.6	
27	0.8	0.8	0.6	0.6	
28	0.8	0.8	0.6	0.6	
29	0.8	0.8	0.6	0.6	
30	0.8	0.8	0.6	0.6	
31		0.8	0.6		
Total Sec. Feet Days	26.0	24.8	20.6	18.0	4 Month Period
Mean Sec. Feet	0.87	0.80	0.66	0.60	0.73
Maximum Sec. Feet	1.0	0.8	0.8	0.6	1.0
Minimum Sec. Feet	0.8	0.8	0.6	0.6	0.6
Total Acre-feet	51.6	49.2	40.8	35.7	177.3

TABLE 26

ESTIMATED DISCHARGE OF MILT HUNT DITCH
ON DRY CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1			0.5	0.4	
2		NO	0.5	0.4	
3			0.5	0.4	
4			0.5	0.4	
5			0.5	0.4	
6			0.5	0.4	
7			0.5	0.4	
8		DIVERSION	0.5	0.4	
9	NO		0.5	0.4	
10			0.5	0.4	
11		0.4	0.4	0.4	
12		0.4	0.4	0.4	
13		0.4	0.4	0.4	
14		0.4	0.4	0.4	
15		0.4	0.4	0.4	
16		0.4	0.4	0.4	
17		0.4	0.4	0.4	
18		0.4	0.4	0.4	
19	DIVERSION	0.4	0.4	0.4	
20		0.4	0.4	0.4	
21		0.5	0.4	0.4	
22		0.5	0.4	0.4	
23		0.5	0.4	0.4	
24		0.5	0.4	0.4	
25		0.5	0.4	0.4	
26		0.5	0.4	0.4	
27		0.5	0.4	0.4	
28		0.5	0.4	0.4	
29		0.5	0.4	0.4	
30		0.5	0.4	0.4	
31		0.5	0.4		
Total Sec. Feet Days	0.0	9.5	13.4	12.0	4 Month Period
Mean Sec. Feet	0.0	0.31	0.43	0.40	0.29
Maximum Sec. Feet	0.0	0.5	0.5	0.4	0.5
Minimum Sec. Feet	0.0	0.0	0.4	0.4	0.4
Total Acre-feet	0.0	18.8	26.6	23.8	69.2

TABLE 27

ESTIMATED DISCHARGE OF RICE DRY CLOVER DITCH
ON DRY CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.25	0.25	0.25	0.2	
2	0.25	0.25	0.25	0.2	
3	0.25	0.25	0.25	0.2	
4	0.25	0.25	0.25	0.2	
5	0.25	0.25	0.25	0.2	
6	0.25	0.25	0.25	0.2	
7	0.25	0.25	0.25	0.2	
8	0.25	0.25	0.25	0.2	
9	0.25	0.25	0.25	0.2	
10	0.25	0.25	0.25	0.2	
11	0.25	0.25	0.2	0.2	
12	0.25	0.25	0.2	0.2	
13	0.25	0.25	0.2	0.2	
14	0.25	0.25	0.2	0.2	
15	0.25	0.25	0.2	0.2	
16	0.25	0.25	0.2	0.2	
17	0.25	0.25	0.2	0.2	
18	0.25	0.25	0.2	0.2	
19	0.25	0.25	0.2	0.2	
20	0.25	0.25	0.2	0.2	
21	0.25	0.25	0.2	0.2	
22	0.25	0.25	0.2	0.2	
23	0.25	0.25	0.2	0.2	
24	0.25	0.25	0.2	0.2	
25	0.25	0.25	0.2	0.2	
26	0.25	0.25	0.2	0.2	
27	0.25	0.25	0.2	0.2	
28	0.25	0.25	0.2	0.2	
29	0.25	0.25	0.2	0.2	
30	0.25	0.25	0.2	0.2	
31		0.25	0.2		
Total Sec. Feet Days	7.50	7.75	6.70	6.0	4 Month Period
Mean Sec. Feet	0.25	0.25	0.22	0.20	0.23
Maximum Sec. Feet	0.25	0.25	0.25	0.2	0.25
Minimum Sec. Feet	0.25	0.25	0.2	0.2	0.2
Total Acre-feet	14.9	15.4	13.3	11.9	55.5

TABLE 28

ESTIMATED DISCHARGE OF REINEKE DRY CLOVER DITCH
ON DRY CLOVER CREEK AT HEAD
1927

Day	June	July	August	September	
1	1.2	0.8	0.7	0.5	
2	1.2	0.8	0.7	0.5	
3	1.2	0.8	0.7	0.5	
4	1.2	0.8	0.7	0.5	
5	1.2	0.8	0.7	0.5	
6	1.2	0.8	0.7	0.5	
7	1.2	0.8	0.7	0.5	
8	1.2	0.8	0.7	0.5	
9	1.2	0.8	0.7	0.5	
10	1.2	0.8	0.7	0.5	
11	1.0	0.7	0.6	0.5	
12	1.0	0.7	0.6	0.5	
13	1.0	0.7	0.6	0.5	
14	1.0	0.7	0.6	0.5	
15	1.0	0.7	0.6	0.5	
16	1.0	0.7	0.6	0.5	
17	1.0	0.7	0.6	0.5	
18	1.0	0.7	0.6	0.5	
19	1.0	0.7	0.6	0.5	
20	1.0	0.7	0.6	0.5	
21	0.8	0.7	0.6	0.5	
22	0.8	0.7	0.6	0.5	
23	0.8	0.7	0.6	0.5	
24	0.8	0.7	0.6	0.5	
25	0.8	0.7	0.6	0.5	
26	0.8	0.7	0.6	0.5	
27	0.8	0.7	0.6	0.5	
28	0.8	0.7	0.6	0.5	
29	0.8	0.7	0.6	0.5	
30	0.8	0.7	0.6	0.5	
31		0.7	0.6		
Total Sec. Feet Days:	30.0	22.7	19.6	15.0	4 Month Period
Mean Sec. Feet:	1.00	0.73	0.63	0.50	0.72
Maximum Sec. Feet:	1.2	0.8	0.7	0.5	1.2
Minimum Sec. Feet:	0.8	0.7	0.6	0.5	0.5
Total Acre-feet:	59.5	45.0	38.9	29.7	173.1

TABLE 29

ESTIMATED DISCHARGE OF WILD CAT DITCH
ON WILD CAT CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.6	0.5	0.3	0.4	
2	0.6	0.5	0.3	0.4	
3	0.6	0.5	0.3	0.4	
4	0.6	0.5	0.3	0.4	
5	0.6	0.5	0.3	0.4	
6	0.6	0.5	0.3	0.4	
7	0.6	0.5	0.3	0.4	
8	0.6	0.5	0.3	0.4	
9	0.6	0.5	0.3	0.4	
10	0.6	0.5	0.3	0.4	
11	0.6	0.4	0.3	0.4	
12	0.6	0.4	0.3	0.4	
13	0.6	0.4	0.3	0.4	
14	0.6	0.4	0.3	0.4	
15	0.6	0.4	0.3	0.4	
16	0.6	0.4	0.3	0.4	
17	0.6	0.4	0.3	0.4	
18	0.6	0.4	0.3	0.4	
19	0.6	0.4	0.3	0.4	
20	0.6	0.4	0.3	0.4	
21	0.6	0.4	0.4	0.4	
22	0.6	0.4	0.4	0.4	
23	0.6	0.4	0.4	0.4	
24	0.6	0.4	0.4	0.4	
25	0.6	0.4	0.4	0.4	
26	0.6	0.4	0.4	0.4	
27	0.6	0.4	0.4	0.4	
28	0.6	0.4	0.4	0.4	
29	0.6	0.4	0.4	0.4	
30	0.6	0.4	0.4	0.4	
31		0.4	0.4		
Total Sec. Feet Days	18.0	13.4	10.4	12.0	4 Month Period
Mean Sec. Feet	0.60	0.43	0.34	0.40	0.44
Maximum Sec. Feet	0.6	0.5	0.4	0.4	0.6
Minimum Sec. Feet	0.6	0.4	0.3	0.4	0.3
Total Acre-feet	35.7	26.6	20.6	23.8	106.7

TABLE 30

ESTIMATED DISCHARGE OF SLAUGHTER POLE DITCH
ON SLAUGHTER POLE CREEK AT HEAD
1927

Day	June	July	August	September	
1	0.6	0.5	0.3	0.3	
2	0.6	0.5	0.3	0.3	
3	0.6	0.5	0.3	0.3	
4	0.6	0.5	0.3	0.3	
5	0.6	0.5	0.3	0.3	
6	0.6	0.5	0.3	0.3	
7	0.6	0.5	0.3	0.3	
8	0.6	0.5	0.3	0.3	
9	0.6	0.5	0.3	0.3	
10	0.6	0.5	0.3	0.3	
11	0.6	0.5	0.3	0.3	
12	0.6	0.5	0.3	0.3	
13	0.6	0.5	0.3	0.3	
14	0.6	0.5	0.3	0.3	
15	0.6	0.5	0.3	0.3	
16	0.6	0.5	0.3	0.3	
17	0.6	0.5	0.3	0.3	
18	0.6	0.5	0.3	0.3	
19	0.6	0.5	0.3	0.3	
20	0.6	0.5	0.3	0.3	
21	0.6	0.4	0.3	0.3	
22	0.6	0.4	0.3	0.3	
23	0.6	0.4	0.3	0.3	
24	0.6	0.4	0.3	0.3	
25	0.6	0.4	0.3	0.3	
26	0.6	0.3	0.3	0.3	
27	0.6	0.3	0.3	0.3	
28	0.6	0.3	0.3	0.3	
29	0.6	0.3	0.3	0.3	
30	0.6	0.3	0.3	0.3	
31		0.3	0.3		
Total Sec. Feet Days	18.0	13.8	9.3	9.0	4 Month Period
Mean Sec. Feet	0.60	0.45	0.30	0.30	0.41
Maximum Sec. Feet	0.6	0.5	0.3	0.3	0.6
Minimum Sec. Feet	0.6	0.3	0.3	0.3	0.3
Total Acre-feet	35.7	27.4	18.4	17.8	99.3

TABLE 31

ESTIMATED DISCHARGE OF ROSE BRIAR DITCH
ON ROSE BRIAR CREEK AT HEAD
1927

Day	June	July	August	September	
1	1.2	1.2	1.0	0.8	
2	1.2	1.2	1.0	0.8	
3	1.2	1.2	1.0	0.8	
4	1.2	1.2	1.0	0.8	
5	1.2	1.2	1.0	0.8	
6	1.2	1.2	1.0	0.8	
7	1.2	1.2	1.0	0.8	
8	1.2	1.2	1.0	0.8	
9	1.2	1.2	1.0	0.8	
10	1.2	1.2	1.0	0.8	
11	1.2	1.2	0.8	0.8	
12	1.2	1.2	0.8	0.8	
13	1.2	1.2	0.8	0.8	
14	1.2	1.2	0.8	0.8	
15	1.2	1.2	0.8	0.8	
16	1.2	1.2	0.8	0.8	
17	1.2	1.2	0.8	0.8	
18	1.2	1.2	0.8	0.8	
19	1.2	1.2	0.8	0.8	
20	1.2	1.2	0.8	0.8	
21	1.2	1.0	0.8	0.8	
22	1.2	1.0	0.8	0.8	
23	1.2	1.0	0.8	0.8	
24	1.2	1.0	0.8	0.8	
25	1.2	1.0	0.8	0.8	
26	1.2	1.0	0.8	0.8	
27	1.2	1.0	0.8	0.8	
28	1.2	1.0	0.8	0.8	
29	1.2	1.0	0.8	0.8	
30	1.2	1.0	0.8	0.8	
31		1.0	0.8		
Total Sec. Feet Days	36.0	35.0	26.8	24.0	4 Month Period
Mean Sec. Feet	1.20	1.13	0.86	0.80	1.00
Maximum Sec. Feet	1.2	1.2	1.0	0.8	1.2
Minimum Sec. Feet	1.2	1.0	0.8	0.8	0.8
Total Acre-feet	71.4	69.4	53.1	47.6	241.5

TABLE 32

ESTIMATED ACREAGE IRRIGATED IN 1927 FROM CLOVER CREEK AND TRIBUTARIES COMPARED WITH NORMAL

Ranch	Ditch	Stream	Acreage Irrigated	
			Normal	1927
G. U. Worley	Worley	Silver	79.0	79.0
R. Weigart (A.F.Ray)	Guttman	Clover	23.5	23.5
M. E. Thomas	Guttman	Clover	24.9	19.5
Hall and Cross	Guttman	Clover	5.2	5.2
Hall and Cross	Bonde	Clover	18.9	18.9
E. G. Weigart	Bonde	Clover	2.0	2.0
T. J. Ray	Bonde	Clover	34.7	34.7
J. Krehbiel	Bonde	Clover	21.3	21.3
D. S. Hall	Bonde	Clover	29.7	29.7
D. S. Hall	Mill	Clover	21.1	21.1
R. G. Wright	Mill	Clover	9.0	9.0
J. B. Anderson	Mill	Clover	30.9	30.9
Wright and Rock	Mill	Clover	6.6	6.6
F. Wheelock	Mill	Clover	36.6	36.6
Klinger and Cross	Mill	Clover	45.0	45.0
J. S. Sheridan	Mill	Clover	10.1	10.1
M. A. Sheridan	Mill	Clover	21.3	21.3
Wm. Stacher	Mill) Wild Cat)	Clover) Wild Cat)	25.5	25.5
E. G. Weigart	Rodgers	Clover	6.2	6.2
F. M. Cunningham	Cunningham	Clover	52.7	52.7
F. M. Cunningham	Spring	Cunningham Spring	6.0	6.0
O. Axner	Welch and Nailor	Clover	16.1	15.6
J. W. Ballard	Welch and Nailor	Clover	1.5	1.5
E. C. English	Welch and Nailor	Clover	30.0	30.0
E. D. Herrick	Welch and Nailor	Clover	13.8	13.8
Edward Rice	Welch and Nailor	Clover	10.4	10.4
J. Yordy	Yordy Upper or Lower	Clover	9.0	0.0
J. Yordy	Yordy Upper	Clover	3.1	0.0
J. Hufford	Hufford Upper	Clover	17.4	0.0
J. Hufford	Hufford Lower	Clover	6.3	0.0
Mrs. M. J. Reineke	Reineke Clover	Clover	23.0	23.0
Dan Hunt, Jr.	Webb	Clover	9.1	9.1
Millville Ditch Co.	Millville	Clover	206.6	177.4
D. Covey	Covey	Dry Clover	6.7	0.0
A. A. Harper	Harper	Dry Clover	11.6	11.6
J. M. Hunt	Milt Hunt	Dry Clover	4.9	2.7
Joe Rice	Rice Dry Clover	Dry Clover	1.3	1.3
Mrs. M. J. Reineke	Reineke Dry Clover	Dry Clover	34.1	34.1
Wm. Stacher	Slaughter Pole	Slaughter Pole	14.5	8.8
Joe Rice	Rose Briar	Rose Briar	27.4	27.4
J. W. Maxwell	Maxwell	Wyndham	16.8	16.8
TOTAL - CLOVER CREEK AND TRIBUTARIES			973.8	888.3

TABLE 33

USE OF WATER IN 1927 FOR IRRIGATION FROM CLOVER CREEK AND TRIBUTARIES

Diversion Ditch	Acreage Irrigated 1927	Gross Diversion-Acre-feet-1927					Rate of Use in 1927 Expressed in Acres Irrigated per Cubic Foot per Sec.				
		June	July	August	Sept.	6/1 to 9/30	June	July	August	Sept.	6/1 to 9/30
Worley	79.0	145.2	136.6	135.2	126.7	543.7	32	36	36	37	35
Guttman	48.2	151.3	120.6	129.3	108.3	509.5	19	25	23	26	23
Bonde	106.6	174.5	214.3	231.2	193.2	813.2	36	31	28	33	32
Mill and Wild Cat	206.1	360.3	475.2	350.6	285.6	1471.7	34	27	36	43	34
Rodgers	6.2	29.7	19.2	23.4	17.5	89.8	12	20	16	21	17
Cunningham	52.7	99.2	70.3	61.5	59.5	290.5	32	46	53	53	44
Welch and Nailor	71.3	166.6	122.5	109.7	97.6	496.4	25	36	40	44	35
Reineke Clover	23.0	50.6	31.4	25.6	23.8	131.4	27	45	55	58	42
Webb	9.1	29.7	24.6	19.8	17.8	91.9	18	23	28	30	24
Millville	177.4	383.7	323.4	252.6	215.8	1175.5	28	34	43	49	37
Harper	11.6	51.6	49.2	40.8	35.7	177.3	13	15	17	19	16
Milt Hunt	2.7	0.0	18.8	26.6	23.8	69.2	--	9	6	7	9
Rice Dry Clover	1.3	14.9	15.4	13.3	11.9	55.5	5	5	6	7	6
Reineke Dry Clover	34.1	59.5	45.0	38.9	29.7	173.1	34	47	54	68	48
Slaughter Pole	8.8	35.7	27.4	18.4	17.8	99.3	15	20	29	29	21
Rose Briar	27.4	71.4	69.4	53.1	47.6	241.5	23	24	32	34	27
Maxwell	16.8	35.7	30.7	26.6	23.8	116.8	28	34	39	42	35
Total	882.3	1859.6	1794.0	1556.6	1336.1	6546.3	28	30	35	39	33

TABLE 34

ESTIMATED CROP YIELDS ON TYPICAL LANDS IRRIGATED FROM CLOVER CREEK AND TRIBUTARIES
1927

Owner	Crop	Acres	Number of Cuttings	Estimated Yield: Tons	Tons Per Acre	Rating
J. B. Anderson	Clover & Alfalfa Hay	22.6	1.5	35.0	1.5	Fair
	Orchard	5.9				Fair
	Garden	2.4				Fair
Oscar Axner	Pasture	3.7	--	--	--	Good
	Sudan Sorghum	1.0	2.0	4.0	4.0	Good
	Corn	1.0	--	--	--	Good
	Beans	0.5	--	0.5		Good
	Potatoes	0.5	--	0.2	0.4	Fair
	Garden	0.8	--	--	--	Good
	Orchard	8.1	--	--	--	Good
James W. Ballard	Grain	1.5	--	3.0	2.0	Good
J. M. Cunningham	Pasture	58.7	--	--	--	Excellent
E. C. English	Pasture	30.0	--	--	--	Excellent
Ben Hall & A.P.Cross	Pasture	24.1	--	--	--	Good
A. A. Harper	Meadow Hay	7.6	1.0	6.0	0.8	Fair
	Alfalfa Hay	1.0	2.0	1.5	1.5	Poor
	Wheat	2.0	1.0	1.0	0.5	Fair
	Garden	0.8	--	--	--	Fair
	Orchard	0.2	--	--	--	Fair
E. D. Herrick	Pasture	11.7	--	--	--	Good
	Orchard	0.2	--	--	--	Good
	Garden	1.9	--	--	--	Good
Dan G. Hunt, Jr.	Grain	6.0	--	6.0	1.0	Good
	Garden & Orchard	3.1	--	--	--	Good
J. M. Hunt	Pasture	2.6	--	--	--	Good
	Garden	0.1	--	--	--	Good

TABLE 34 (Contd.)

Name of Owner	Crop	Acres	Number of Cuttings	Estimated Yield: Tons	Tons Per Acre	Rating
John Krehbiel	Alfalfa	10.7	1.0	10.0	1.0	Fair
	Pasture	7.1	--	--	--	Good
	Garden	1.5	--	--	--	Good
	Corn	2.0	--	--	--	Good
John W. Maxwell	Pasture	16.8	--	---	--	Good
Millville Ditch Co.	Hay	34.8		35	1.0	Fair
	Alfalfa	13.3		27	2.0	Good
	Corn	13.3		27	2.0	Good
	Pasture	89.3	--	--	--	Good
	Garden, Orchard, Vineyard & Cemetery	26.7	--	--	--	Good
T. J. Ray	Meadow Hay	30.0	1.0	30.0	1.0	Fair
	Garden	2.1	--	--	--	Fair
	Orchard	2.6	--	--	--	Fair
Mrs. M. J. Reineke	Meadow Hay: Alfalfa Hay	16.0	1.0	18.0	1.1	Good
		7.0	1.0	7.0	1.0	Fair
	Wheat	4.0	--	1.2	0.3	Poor
	Pasture	17.1	--	--	--	Excellent
	Garden	5.0	--	--	--	Good
	Orchard	8.0	--	--	--	Good
Joe Rice	Meadow Hay	15.0	1.0	12.0	0.8	Fair
	Pasture	11.2	--	--	--	Good
	Garden	1.0	--	--	--	Good
	Orchard	1.5	--	--	--	Good
J. S. and M. A. Sheridan	Meadow Hay	12.0	1.0	12.0	1.0	Fair
	Pasture	19.4	--	--	---	Good
Wm. Stacher	Meadow Hay	20.0	1.0	10.0	0.5	Poor
	Alfalfa	2.0	1.0	2.0	1.0	Fair
	Oats	3.0	1.0	1.5	0.5	Fair
	Barley	1.0	1.0	0.5	0.5	Fair
	Pasture	6.1	--	--	--	Good
	Garden	0.2	--	--	--	Good
	Orchard	2.0	--	--	--	Good

TABLE 34 (Cohtd.)

Name of Owner	Crop	Acres	Number of Cuttings	Estimated Yield: Tons	Tons Per Acre	Rating
M. E. Thomas	Pasture	13.1	--	--	--	Good
	Garden	2.5	--	--	--	Good
	Orchard	3.9	--	--	--	Fair
E. G. Weigart	Alfalfa & Clover	6.2	1.5	12.0	2.0	Good
	Garden	1.0				Good
	Corn	1.0	--	--	--	Good
P. Weigart (A. F. Ray)	Alfalfa	5.0	3.0	11.0	2.0	Good
	Oats	1.5	1.0	2.0	1.2	Good
	Pasture	14.9	--	--	--	Good
	Garden	0.5	--	--	--	Good
	Orchard	1.6	--	--	--	Good
Fred Wheelock	Meadow Hay	30.0	1.0	30.0	1.0	Fair
	Pasture	3.3	--	--	--	Good
	Garden	1.7	--	--	--	Good
	Orchard	1.6	--	---	--	Good
G. U. Worley	Meadow Hay	50.0	1.0	100.0	2.0	Good
	Wheat(Hay)	7.0	1.0	7.0	1.0	Good
	Pasture	13.6	--	--	--	Good
	Garden	1.5	--	--	--	Poor
	Orchard	6.9	--	--	--	Good
L. Wright and E. I. Rock	Pasture	6.2	--	--	--	Good
	Orchard	0.4	--	--	--	Poor
R. G. Wright	Meadow Hay	4.3	1.0	3.0	0.9	Fair
	Corn	1.0	--	--	--	Good
	Pasture	1.4	--	--	--	Excellent
	Garden	1.8	--	--	--	Excellent
	Orchard	0.5	--	--	--	Good

TABLE 35

SUMMARY OF DIVERSION SYSTEMS

DIVERTING FROM CLOVER CREEK AND TRIBUTARIES

(Arranged Alphabetically)

Name of Diversion System	Diversion Number	Source	Acreage Irrigated On Individual Ranches — Owner	Acres	Total Acreage Irrigated Under Diversion System
Bonde Ditch	3	Clover Creek	Ben Hall & A. P. Cross	18.9	
			E.G.Weigart	2.0	
			T. J. Ray	34.7	
			John Krehbiel	21.3	
			D. S. Hall	29.7	106.6
Covey Ditch	15	Dry Clover Creek	Jane Covey	6.7	6.7
Cunningham Ditch	7	Clover Creek	J. M. Cunningham	52.7	52.7
Guttman Ditch	2	Clover Creek	P.Weigart (A.F.Ray)	23.5	
			M.E.Thomas	24.9	
			Ben Hall and A.P. Cross	5.2	53.6
Harper Ditch	16	Dry Clover Creek	A. A. Harper	11.6	11.6
Heryford Pump	25	Clover Creek	Milt Heryford	0.1	0.1
Hufford Lower Ditch	13	Clover Creek	Jesse Hufford	6.3	6.3
Hufford Upper Ditch	12	Clover Creek	Jesse Hufford	17.4	17.4
Hunt Ditch	17 & 18	Dry Clover Creek	J. M. Hunt	4.9	4.9
Maxwell Ditch	6	Wyndham Creek	John W. Maxwell	16.8	16.8

TABLE 35 (Contd.)

Name of Diversion System	Diversion Number	Source	Acreage Irrigated On Individual Ranches — Owner	Acres	Total Acreage Irrigated Under Diversion System
Mill Ditch	4	Clover Creek	D. S. Hall	21.1	
			R. G. Wright	9.0	
			J.B.Anderson	30.9	
			L.Wright and E. I. Rock	6.6	
			Fred Wheelock	36.6	
			Harvey Klinger & A. P. Cross	45.0	
			J. S. Sheridan	10.1	
			M. A. Sheridan	21.3	
			Wm. Stacher	25.5	206.1
Millville Ditch	26	Clover Creek	Millville Ditch Company	206.6	206.6
Reineke Clover	23	Clover Creek	Mrs. M.J.Reineke	23.0	23.0
Reineke South Clover	22	Dry Clover Creek	Mrs. M. J. Reineke	34.1	34.1
Rice South Clover	20	Dry Clover Creek	Joe Rice	1.3	1.3
Rodgers Ditch	5	Clover Creek	E. G. Weigart	6.2	6.2
Rose Briar Ditch	21	Rose Briar Creek	Joe Rice	27.4	27.4
Slaughter Pole Ditch	19	Slaughter Pole Creek	Wm. Stacher	14.5	14.5
Spring Ditch	8	Cunningham Spring	J.M.Cunningham	6.0	6.0
Webb Ditch	24	Clover Creek	Dan G. Hunt, Jr.	9.1	9.1
Welch and Nailor Ditch	9	Clover Creek	Oscar Axner	16.1	
			James W.Ballard	1.5	
			E. C. English	30.0	
			E. D. Herrick	13.8	
			Edward Rice	10.4	71.8

TABLE 35 (Contd.)

Name of Diversion System	Diversion Number	Source	Acreage Irrigated On Individual Ranches		Total Acreage Irrigated Under Diversion System
			Owner	Acres	
Wild Cat Ditch	14	Wild Cat Creek	Wm. Stacher	(Used in Conjunction with Diversion 4)	
Worley Ditch	1	Silver Creek	G. U. Worley	79.0	79.0
Yordy Lower Ditch	11	Clover Creek	J. Yordy Estate L.A.Yordy, Admstr.	(Used in Conjunction With Diversion 10	
Yordy Upper Ditch	10	Clover Creek	J.Yordy Estate L.A.Yordy, Admstr.	12.1	12.1
TOTAL				973.9	973.9

TABLE 36

DESCRIPTION OF AREAS IRRIGATED

FROM CLOVER CREEK AND ITS TRIBUTARIES

Name of Owner	Name of Ditch	Acreage Irr.	Total	Description	Crop	Map Sheet
Anderson, J. B.	Mill	0.8		SW¼ NW¼ S 25 T 33 N R 1 W	Orch. Mead.Hay	3
	Diversion 4	0.4		SW¼ NW¼ S 25 T33 N R 1 W	Orch.	3
		1.4		NW¼ SW¼ S 25 T 33 N R 1 W	Orch. Mead.Hay	3
		0.2		NW¼ SW¼ S 25 T 33 N R 1 W	Orch.	3
		0.1		NW¼ SW¼ S 25 T 33 N R 1 W	Gar.	3
		4.9		NW¼ SW¼ S 25 T 33 N R 1 W	Mead. Hay	3
		1.1		NW¼ SW¼ S 25 T 33 N R 1 W	Past.	3
		0.9		NW¼ SW¼ S 25 T 33 N R 1 W	Mead. Hay	3
		3.1		NW¼ SW¼ S 25 T 33 N R 1 W	Orch. Mead.Hay	3
		2.3		NW¼ SW¼ S 25 T 33 N R 1 W	Orch. Mead.Hay	3
		2.4		NW¼ SW¼ S 25 T 33 N R 1 W	Grain	3
		4.8		NW¼ SW¼ S 25 T 33 N R 1 W	Meadow Hay	3
		0.4		NE¼ SW¼ S 25 T 33 N R 1 W	Grain	3
		7.7		SW¼ SW¼ S 25 T 33 N R 1 W	Mead. Hay	3
		0.4		SW¼ SW¼ S 25 T 33 N R 1 W	Grain	3
			30.9			
			30.9	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Axner, Oscar	Welch and Nailor Diversion 9	3.0		SE¼ NW¼ S 30 T 33 N R 1 W	Orch.Gar. Vineyard	12
		0.5		SE¼ NW¼ S 30 T 33 N R 1 W	Ber.Orch. Clover	12
		0.8		SE¼ NW¼ S 30 T 33 N R 1 W	Berries	12
		0.5		SE¼ NW¼ S 30 T 33 N R 1 W	Orch.	12
		1.2		SE¼ NW¼ S 30 T 33 N R 1 W	Brush	12
		0.1		SE¼ NW¼ S 30 T 33 N R 1 W	Berries	12
		2.4		SE¼ NW¼ S 30 T 33 N R 1 W	Past.	12
		0.1		SE¼ NW¼ S 30 T 33 N R 1 W	Past.	12
		* 0.5		NE¼ SW¼ S 30 T 33 N R 1 W	No Crop	12
		0.4		NE¼ SW¼ S 30 T 33 N R 1 W	Past.	12
		0.1		NE¼ SW¼ S 30 T 33 N R 1 W	Past.	12
		1.7		NE¼ SW¼ S 30 T 33 N R 1 W	Gard.	12
		4.8		NE¼ SW¼ S 30 T 33 N R 1 W	Orch.	12
			16.1			
			16.1	GRAND TOTAL		
Ballard, James W.	Welch and Nailor Diversion 9	1.5		SW¼ SE¼ S 30 T 33 N R 1 W	Grain	12
			1.5			
			1.5	GRAND TOTAL		
Covey, Jane	Covey	*5.4**		NW¼ SE¼ S 2 T 32 N R 1 W	No Crop	5
	Diversion 15	*1.3		NE¼ SE¼ S 2 T 31 N R W	No Crop	5
			6.7			
			6.7	GRAND TOTAL		

* Not irrigated at time of survey.

** Land owned by Wm. Stacher, but used by Jane Covey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Cunningham, J. M.	Cunningham Diversion # 7	1.8		SE¼ NW¼ S 24 T 33 N R 1 W	Brushy Pasture	2
		5.1		SW¼ NW¼ S 24 T 33 N R 1 W	Brushy Pasture	2
		4.2		SW¼ NW¼ S 24 T 33 N R 1 W	Brushy Pasture	2
		0.4		SW¼ NW¼ S 24 T 33 N R 1 W	Meadow	2
		0.8		SW¼ NW¼ S 24 T 33 N R 1 W	— Meadow	2
		6.6		SE¼ NE¼ S 23 T 33 N R 1 W	Brushy Pasture	2
		5.8		SE¼ NE¼ S 23 T 33 N R 1 W	Brushy Pasture	2
		10.4		SE¼ NE¼ S 23 T 33 N R 1 W	Meadow	2
		0.2		SE¼ NE¼ S 23 T 33 N R 1 W	Meadow	2
		0.6		SE¼ NE¼ S 23 T 33 N R 1 W	Orchard & Meadow	2
		1.0		SE¼ NE¼ S 23 T 33 N R 1 W	Brushy Pasture	2
		3.8		SW¼ NE¼ S 23 T 33 N R 1 W	Meadow Hay	2
		2.5		NW¼ NE¼ S23 T 33 N R 1 W	Meadow Hay	2
		9.5		NE¼ NE¼ S 23 T 33 N R 1 W	Meadow Hay	2
			52.7	Total		
	Spring Diversion # 8	4.1		NE¼ NE¼ S 23 T 33 N R 1 W	Meadow Hay	2
		0.8		NE¼ NE¼ S 23 T 33 N R 1 W	Meadow Hay	2
		0.5		NW¼ NW¼ S 24 T 33 N R 1 W	Meadow Hay	2
		0.5		NW¼ NW¼ S 24 T 33 N R 1 W	Garden	2
		0.1		NW¼ NW¼ S 24 T 33 N R 1 W	Meadow	2
			6.0			
			58.7	GRAND TOTAL		

TABLE 36 (Contd.)

NAME OF OWNER	NAME OF DITCH	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
English, E.C.	Welch and	6.8		NE¼ NW¼ S 35		
	Nailor			T 33 N R 2 W	Past.	14
		4.0		NE¼ NW¼ S 35		
	Diversion			T 33 N R 2 W	Past.	14
	# 9	*0.6		NE¼ NW¼ S 35		
	or Welch			T 33 N R 2 W	Past.	14
	and Strayer	3.9		NE¼ NW¼ S 35		
	from Mill			T 33 N R 2 W	Hay	14
		1.5		NE¼ NW¼ S 35		
				T 33 N R 2 W	Hay	14
		0.2		NE¼ NW¼ S 35	Meadow	
				T 33 N R 2 W	Hay	14
		3.4		NW¼ NE¼ S 35	Meadow	
				T 33 N R 2 W	Hay	14
		7.9		NW¼ NE¼ S 35	Meadow	
				T 33 N R 2 W	Hay	14
		1.1		NW¼ NE¼ S 35		
				T 33 N R 2 W	Hay	14
		1.6		NW¼ NE¼ S 35		
				T 33 N R 2 W	Hay	14
		0.3		NW¼ NE¼ S 35		
				T 33 N R 2 W	Past.	14
		0.6		NW¼ NE¼ S 35		
				T33 N R 2 W	Past.	14
		1.0		NW¼ NE¼ S 35		
				T 33 N R 2 W	Past.	14
		4.2		NW¼ NE¼ S 35		
				T 33 N R 2 W	Past.	14
		12.0		NW¼ SE¼ S 35		
				T 33 N R 2 W	Past.	14
		2.0		NW¼ SE¼ S 35		
				T 33 N R 2 W	Past.	14
		0.7		NW¼ SE¼ S 35		
				T 33 N R 2 W	Past.	14
		0.1		NW¼ SE¼ S 35		
				T 33 N R 2 W	Past.	14
		0.4		NW¼ SE¼ S 35		
				T 33 N R 2 W	Orch.	14
		0.1		NW¼ SE¼ S 35		
				T 33 N R 2 W	Vineyard	14
		0.5		NW¼ SE¼ S 35		
				T 33 N R 2 W	Gar.	14
		0.1		NW¼ SE¼ S 35		
				T 33 N R 2 W	Garden	14

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
English, E.C. (Contd.)	Welch and Nailor	0.5		NW¼ SE¼ S 35 T 33 N R 2 W	Clover	14
	Diversion # 9 or Welch & Strayer From Mill Creek	0.6		NW¼ SE¼ S 35 T 33 N R 2 W	Clover	14
		1.6		NW¼ SE¼ S 35 T 33 N R 2 W	Clover	14
		5.4		SE¼ NW¼ S 35 T 33 N R 2 W	Pasture	14
		*1.7		SE¼ NW¼ S 35 T 33 N R 2 W	Pasture	14
		0.9		SW¼ SW¼ S 30 T 33 N R 1 W	Meadow	12
		7.9		SW¼ SW¼ S 30 T 33 N R 1 W	Swampy Meadow	12
			**71.6			
	Welch & Strayer		**41.6			
	Welch & Nailor		**30.0	GRAND TOTAL		
Hall, Ben & Cross, A. P.	Guttman Diversion # 2	0.4		Lot 2 S 3 T 32 N R 1 W	Orch	5
		2.3		Lot 2 S 3 T 32 N R 1 W	Vineyd, Orch, Past	5
		0.4		Lot 2 S 3 T 32 N R 1 W	Gar.	5
		1.1		SW¼ SW¼ S 34 T 33 N R 1 W	Orch.	5
		1.0		SE¼ SW¼ S 34 T 33 N R 1 W	Orch.	5
			5.2			
	Bonde	2.2		SE¼ SW¼ S 34 T 33 N R 1 W	Past.	4
	Diversion 3	1.9		SE¼ SW¼ S 34 T 33 N R 1 W	Past.	5
		0.2		SE¼ SW¼ S 34 T 33 N R 1 W	Past.	5
		0.1		SE¼ SW¼ S 34 T 33 N R 1 W	Past.	5
		1.8		Lot 2 S 3 T 32 N R 1 W	Brushy Pasture	5
		0.1		Lot 2 S 3 T 32 N R 1 W	Pasture	5
		0.4		Lot 2 S 3 T 32 N R 1 W	Pasture	5

* Not Irrigated At Time of Survey.

** The total area of 71.6 acres was the complete acreage of all irrigated land of E. C. English surveyed in 1927. This area is served with commingled water from North Cow and Clover Creeks. 41.6 acres of this are have been included under the North Cow Creek survey, and only the difference of 30.0 acres is considered the grand total area irrigated from Clover Creek.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Hall, Ben & Cross, A. P. (cond.)	Bonde Diversion # 3	2.0		Lot 2 S 3 T 32 N R 1 W	Past.	5
		5.2		Lot 2 S 3 T 32 N R 1 W	Past.	5
		0.9		Lot 2 S 3	Brushy	
				T 32 N R 1 W	Pasture	5
		3.5		SW¼ SW¼ S 34	Brushy	
				T 33 N R 1 W	Pasture	5
		0.6		SW¼ SW¼ S 34		
				T 33 N R 1 W	Pasture	4
			18.9			
			24.1	GRAND TOTAL		
Hall, D. S.	Mill Diversion # 4	1.5		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		0.2		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		1.5		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		2.1		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		0.8		NW¼ NE¼ S 34 @	Brushy	
				T 33 N R 1 W	Pasture	4
		1.1		NW¼ NE¼ S 34		
				T 33 N R 1 W	Orch.	4
		0.8		SE¼ NW¼ S 34		
				T 33 N R 1 W	Past.	4
		7.2		NE¼ NW¼ S 34		
				T 33 N R 1 W	Past.	4
		0.2		NE¼ NW¼ S 34	Brushy	
				T 33 N R 1 W	Pasture	4
		0.3		NE¼ NW¼ S 34		
				T 33 N R 1 W	Pasture	4
		1.6		NW¼ NE¼ S34		
				T 33 N R 1 W	Pasture	4
		2.7		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		0.2		NW¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
		0.9		NE¼ NE¼ S 34		
				T 33 N R 1 W	Pasture	4
			21.1			

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map
Hall, D. S. (Contd.)	Bonde	8.6		SE¼ NE¼ S 34 T 33 N R 1 W	Brushy	
					Pasture	4
	Diversion # 3	1.1		SE¼ NE¼ S 34 T 33 N R 1 W	Orchard	
					Pasture	4
		6.7		NE¼ SE¼ S 34 T 33 N R 1 W	Brushy	
					Pasture	4
		4.5		NW¼ SE¼ S 34 T 33 N R 1 W	Brushy	
					Pasture	4
		4.7		NW¼ SE¼ S 34 T 33 N R 1 W	Brushy	
					Pasture	4
		0.6		NW¼ SE¼ S 34 T 33 N R 1 W	Orchard	
					Pasture	4
		1.5		SW¼ NE¼ S 34 T 33 N R 1 W	Orchard	
					Pasture	4
		2.0		SW¼ NE¼ S 34 T 33 N R 1 W	Brushy	
					Pasture	4
			29.7			
			50.8	GRAND TOTAL		
Harper, A. A.	Harper	0.1		NW¼ NE¼ S 11 T 32 N R 1 W	Garden	5
	Diversion # 16	0.3		NW¼ NE¼ S 11 T 32 N R 1 W	Gardan	5
		1.1		NW¼ NE¼ S 11 T 32 N R 1 W	Meadow Hay	5
		5.0		NE¼ NW¼ S 11 T 32 N R 1 W	Meadow Hay	5
		1.2		NE¼ NW¼ S 11 T 32 N R 1 W	Meadow Hay	5
		2.2		NE¼ NW¼ S 11 T 32 N R 1 W	Meadow Hay	5
		0.2		NE¼ NW¼ S 11 T 32 N R 1 W	Meadow Hay	5
		0.8		NE¼ NW¼ S 11 T 32 N R 1 W	Pasture	5
		0.1		NE¼ NW¼ S 11 T 32 N R 1 W	Vine-yard	5
		0.4		NE¼ NW¼ S 11 T 32 N R 1 W	Gar.	5
		0.2		NE¼ NW¼ S 11 T 32 N R 1 W	Orch.	5
			11.6	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Herrick, E.D.	Welch and Nailor Diversion # 9	2.8		SE¼ SW¼ S 25 T 33 N R 2 W	Pasture	13
		0.3		SE¼ SW¼ S 25 T 33 N R 2 W	Garden	13
		0.6		SE¼ SW¼ S 25 T 33 N R 2 W	Meadow	13
		0.4		SE¼ SW¼ S 25 T 33 N R 2 W	Clover	13
		1.8		SW¼ SE¼ S 25 T 33 N R 2 W	Clover	13
		0.4		SW¼ SE¼ S 25 T 33 N R 2 W	Meadow	13
		1.3		SW¼ SE¼ S 25 T 33 N R 2 W	Garden	13
		0.2		SW¼ SE¼ S 25 T 33 N R 2 W	Orch.	13
		0.2		SW¼ SE¼ S 25 T 33 N R 2 W	Pasture	13
		2.5		SW¼ SE¼ S 25 T 33 N R 2 W	Seeded Alfalfa	13
		0.1		NW¼ SE¼ S 25 T 33 N R 2 W	Pasture	13
		0.8		NW¼ SE¼ S 25 T 33 N R 2 W	Seeded Alfalfa	13
		2.1		NW¼ SE¼ S 25 T 33 N R 2 W	Timber & Brush	13
		0.3		SE¼ SE¼ S 25 T 33 N R 2 W	Garden	13
			13.8			
			13.8	GRAND TOTAL		
Heryford, Milt	Pump Diversion 25	0.1		SW¼ SW¼ S 32 T 32 N R 2 W	Garden	16
			0.1			
			0.1	GRAND TOTAL		
Hufford, Jesse	Hufford Upper	*0.3		SW¼ NE¼ S 7 T 32 N R 1 W	Orch.	9
		*6.1		SW¼ NE¼ S 7 T 32 N R 1 W	Pasture	9

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Hufford, Jesse (Contd.)	Hufford Upper	*0.3		SW¼ NE¼ S 7 T 32 N R 1 W	Aband.	
					Orch.	9
		*0.2		NW¼ NE¼ S 7		
				T 32 N R 1 W	Orch.	9
		*0.5		SW¼ SE¼ S 6	Aband.	
				T 32 N R 1 W	Orch.	9
		*3.9		SW¼ SE¼ S 6		
				T 32 N R 1 W	Past.	9
		*6.1		NW¼ NE¼ S 7		
				T 32 N R 1 W	Pasture	9
			17.4			
	Hufford Lower	*2.3		NW¼ NE¼ S 7		
				T 32 N R 1 W	Pasture	9
		*0.1		NW¼ NE¼ S 7		
				T 32 N R 1 W	Pasture	9
		*3.9		NE¼ NE¼ S 7		
				T 32 N R 1 W	Pasture	9
			6.3			
			23.7	GRAND TOTAL		
Hunt, Dan G., Jr.	Webb	0.5		NE¼ SE¼ S 29		
				T 32 N R 2 W	Hay	15
	Diversion # 24	0.4		NE¼ SE¼ S 29		
				T 32 N R 2 W	Alfalfa	15
		1.1		NE¼ SE¼ S 29	Garden	
				T 32 N R 2 W	Orchard	15
		0.8		SE¼ SE¼ S 29	Garden	
				T 32 N R 2 W	Orchard	15
		0.3		SE¼ SE¼ S 29	Garden	
				T 32 N R 2 W	Orchard	15
		2.1		SE¼ SE¼ S 29	Hay	
				T 32 N R 2 W	Garden	15
		3.9		SE¼ SE¼ S 29		
				T 32 N R 2 W	Grain	15
			9.1			
			9.1	GRAND TOTAL		

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Hunt, J. M.	Hunt	0.1		SE¼ NE¼ S 16 T 32 N R 1 W	Garden	8
	Diversions # 17 & # 18	0.6		SE¼ NE¼ S 16 T 32 N R 1 W	Pasture	8
		0.2		SE¼ NE¼ S 16 T 32 N R 1 W	Pasture	8
		1.3		SW¼ NE¼ S 16 T 32 N R 1 W	Pasture	8
		*2.2		SW¼ NE¼ S 16 T 32 N R 1 W	Pasture	8
		0.5		SW¼ NE¼ S 16 T 32 N R 1 W	Pasture	8
			4.9			
			4.9	GRAND TOTAL		
Klinger, Harvey & Cross, A. P.	Mill	1.5		SW¼ NW¼ S 34 T 33 N R 1 W	Grain	4
	Diversion # 4	1.5		SW¼ NW¼ S 34 T 33 N R 1 W	Brushy Pasture	4
		0,1		SW¼ NW¼ S 34 T 33 N R 1 W	Orch.	4
		1.4		SE¼ NE¼ S 33 T 33 N R 1 W	Orch.	7
		0.9		SE¼ NE¼ S 33 T 33 N R 1 W	Pasture	7
		0.3		SE¼ NE¼ S 33 T 33 N R 1 W	Pasture	7
		3.5		SE¼ NE¼ S 33 T 33 N R 1 W	Grain	7
		2.5		SE¼ NE¼ S 33 T 33 N R 1 W	Grain	7
		0.4		SE¼ NE¼ S 33 T 33 N R 1 W	Garden	7
		0.5		SE¼ NE¼ S 33 T 33 N R 1 W	Garden	7
		1.1		NE¼ NE¼ S 33 T 33 N R 1 W	Grain	7
		3.6		NE NE S 33 T 33 N R 1 W	Brushy Pasture	7
		10.1		NW¼ NW¼ S 34 T 33 N R 1 W	Pasture	4

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Klinger, Harvey & Cross, A. P. (Contd.)	L Mill	3.2		NW¼ NW¼ S 34 T 33 N R 1 W	Past.	4
	Diversion # 4	7.2		NW¼ NW¼ S 34 T 33 N R 1 W	Past.	4
		1.0		NW¼ NW¼ S 34 T 33 N R 1 W	Brushy Pasture	4
		0.7		NW¼ NW¼ S 34 T 33 N R 1 W	Brushy Pasture	4
		0.7		NE¼ NW¼ S 34 T 33 N R 1 W	Brushy Pasture	4
		4.0		NE¼ NW¼ S 34 T 33 N R 1 W	Brushy Pasture	4
		0.8		NE¼ NW¼ S 34 T 33 N R 1 W	Pasture	4
			45.0			
			45.0	GRAND TOTAL		
Krehbiel, John	Bonde	4.5		SE¼ NE¼ S 25 T 33 N R 1 W	Pasture	3
	Diversion # 3	4.2		SE¼ NE¼ S 25 T 33 N R 1 W	Alfalfa	3
		6.5		SE¼ NE¼ S 25 T 33 N R 1 W	Alfalfa	3
		0.6		SE¼ NE¼ S 25 T 33 N R 1 W	Garden	3
		0.9		SE¼ NE¼ S 25 T 33 N R 1 W	Garden	3
		1.9	18.6	SE¼ NE¼ S 25 T 33 N R 1 W	Pasture	3
		* 2.0		SW¼ NE¼ S 25 T 33 N R 1 W	Meadow	3
		* 0.7		NW¼ SE¼ S 25 T 33 N R 1 W	Meadow	3
			21.3			
			21.3	GRAND TOTAL		
Maxwell, John W.	Maxwell, Diversion 6	16.8		SE¼ NE¼ S 24 T 33 N R 1 W	Pasture	2
			16.8			
			16.8	GRAND TOTAL		

* Sub-irrigated

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Millville Ditch Company	Millville Diversion # 26	2.2	✓	NE¼ SE¼ S 11 T 31 N R 3 W	Cemetery	18
		0.3	✓	SW¼ NE¼ S 11 T 31 N R 3 W	Corn	18
		1.9	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Corn	18
		*9.9	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Pasture	18
		0.5	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Alfalfa	18
		6.4	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Grain	18
		1.6	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Cemetery	18
		2.8	✗	NW¼ SE¼ S 11 T 31 N R 3 W	Pasture	18
		3.3	24.4 ✗	NW¼ SE¼ S 11 T 31 N R 3 W	Corn	18
		0.4	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Corn	18
		1.2	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Hay	18
		13.8	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Pasture	18
		2.7	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Pasture	18
		0.6	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Hay	18
		0.2	✓	SW¼ SE¼ S 11 T 31 N R 3 W	Orchard	18
		1.6	20.5 ✓	SW¼ SE¼ S 11 T 31 N R 3 W	Alfalfa	18
		4.6	✗	NE¼ SW¼ S 11 T 31 N R 3 W	Alfalfa	18
		2.6	✗	NE¼ SW¼ S 11 T 31 N R 3 W	Corn	18
		0.4	7.6 ✗	NE¼ SW¼ S 11 T 31 N R 3 W	Alfalfa	18
		0.8	✓	SE¼ SW¼ S 11 T 31 N R 3 W	Alfalfa	18
		4.4	✓	SE¼ SW¼ S 11 T 31 N R 3 W	Corn	18
	6.3	1.1	✓	SE¼ SW¼ S 11 T 31 N R 3 W	Grain	18

* Not irrigated at time of survey

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Millville Ditch Company (Cont.)	Millville Diversion # 26	2.1		SE¼ SW¼ S 11 T 31 N R 3 W	Pasture	18
		5.2		SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		0.8		SE½ SW¼ S 11 T 31 N R 3 W	Fallow	18
		0.5		SE½ SW¼ S 11 T 31 N R 3 W	Hay	18
		10.0	18.6	SE¼ SW¼ S 11 T 31 N R 3 W	Pasture	18
		1.8		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Grain	18
		0.5		SE¼ SW½ S 11 T 31 N R 3 W	Garden & Yard	18
		5.5		SE¼ SW¼ S 11 T 31 N R 3 W	Garden	18
		0.5		SE½ SW¼ S 11 T 31 N R 3 W	Garden & Yard	18
		2.1		SE¼ SW¼ S 11 T 31 N R 3 W	Alfalfa	18
		0.2		SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		0.3		SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		0.3	9.4	SE¼ SW¼ S 11 T 31 N R 3 W	Grain	18
		0.2		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Grain	18
		0.1		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Yard & Garden	18
		2.9		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Pasture	18
		5.0		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		0.3		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		0.8		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Yard & Garden	18
		2.1		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Pasture	18
		2.2		Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Hay	18
		1.7	34.3	Town of Millville SE¼ SW¼ S 11 T 31 N R 3 W	Pasture	18
			17.1			

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Millville Ditch Company (Contd.)	Millville Diversion # 26	0.3		Town of Millville	Grain	18
		0.5		Town of Millville	Pasture	18
		0.1		Town of Millville	Garden & Orchard	18
		0.8		Town of Millville	Pasture	18
		0.4		Town of Millville	Pasture	18
		0.9		Town of Millville	Garden	18
		0.7		Town of Millville	Pasture	18
		0.1		Town of Millville	Garden	18
		2.8		Town of Millville	Pasture	18
		0.7		Town of Millville	Pasture	18
		2.7		Town of Millville	Garden & Orchard	18
		1.2		Town of Millville	Pasture	18
		0.3	X	SE¼ SE¼ S 10 T 31 N R 3 W	Yard and Garden	18
		0.2		NE¼ NE¼ S 15 T 31 N R 3 W	Yard	18
		0.4	X	SE¼ SE¼ S 10 T 31 N R 3 W	Pasture	18
		2.2	X	SE¼ SE¼ S 10 T 31 N R 3 W	Vineyard	18
		2.0		NE¼ NE¼ S 15 T 31 N R 3 W	Garden	18
		2.6		NE¼ NE¼ S 15 T 31 N R 3 W	Hay	18
		4.4		NE¼ SE¼ S 10 T 31 N R 3 W	Pasture	18
		9.2	X	SE¼ SE¼ S 10 T 31 N R 3 W	Pasture	18
		0.4	X	SE¼ SE¼ S 15 T 31 N R 3 W	Corn	18
		0.2	X	SE¼ SE¼ S 10 T 31 N R 3 W	Yard and Garden	18

12.7

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Millville Ditch Company (Contd.)	Millville Diversion # 26	1.0		Town of Millville	Garden	18
		2.8		NW¼ SW¼ S 6 T 31 N R 2 W	Garden	17
		1.4		NE¼ SE¼ S 1 T 31 N R 3 W	Hay	17
		3.8		NE¼ SE¼ S 1 T 31 N R 3 W	Pasture	17
		1.2		NE¼ SE¼ S 1 T 31 N R 3 W	Grain	17
		3.2		SE¼ SE¼ S 1 T 31 N R 3 W	Grain	17
		0.3		SE¼ SE¼ S 1 T 31 N R 3 W	Pasture	17
		0.5		SW¼ SE¼ S 1 T 31 N R 3 W	Pasture	17
		0.8		SW¼ SE¼ S 1 T 31 N R 3 W	Grain	17
		1.8		SW¼ SE¼ S 1 T 31 N R 3 W	Pasture	17
		8.8		SE¼ SW¼ S 1 T 31 N R 3 W	Pasture	17
		4.5		NE¼ NW¼ S 12 T 31 N R 3 W	Pasture	17
		3.5		NE¼ NW¼ S 12 T 31 N R 3 W	Pasture	17
		2.8		NE¼ NW¼ S 12 T 31 N R 3 W	Pasture	17
		0.4	11.2	NE¼ NW¼ S 12 T 31 N R 3 W	Garden	17
		0.2		SE¼ NW¼ S 12 T 31 N R 3 W	Pasture	17
		*6.0		NW¼ NW¼ S 12 T 31 N R 3 W	Hay & Pasture	17
		*3.3		NW¼ NW¼ S 12 T 31 N R 3 W	Hay	17
		*0.1		NE¼ NE¼ S 11 T 31 N R 3 W	Hay & Pasture	17
		*0.2		SE¼ NE¼ S 11 T 31 N R 3 W	Hay & Pasture	17
		*4.8		SW¼ NW¼ S 12 T 31 N R 3 W	Hay & Pasture	17
		*1.2		SW¼ NW¼ S 12 T 31 N R 3 W	Hay	17

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
		6.0				
Millville Ditch Company (Contd.)	Millville Diversion # 26	0.8		SW¼ NW¼ S 12 T 31 N R 3 W	Garden	17
		0.5		SW¼ NW¼ S 12 T 31 N R 3 W	Garden	17
		0.2		SW¼ NW¼ S 12 T 31 N R 3 W	Garden	17
		0.5		SW¼ NW¼ S 12 T 31 N R 3 W	Garden	17
		1.5		SW¼ NW¼ S 12 T 31 N R 3 W	Alfalfa	17
		3.1		SW¼ NW¼ S 12 T 31 N R 3 W	Plowed Land	17
		* 0.3	12.9	SW¼ NW¼ S 12 T 31 N R 3 W	Hay	17
		*3.4		SE¼ NE¼ S 11 T 31 N R 3 W	Hay	17
		1.8		SE¼ NE¼ S 11 T 31 N R 3 W	Alfalfa	17
		0.4		NW¼ SW¼ S 12 T 31 N R 3 W	Garden	17
			206.6			
			206.6	GRAND TOTAL		
Ray, T. J.	Bonde	1.5		SE¼ NW¼ S 30 T 33 N R 1 E	Garden	3
	Diversion # 3	0.6		SE¼ NW¼ S 30 T 33 N R 1 E	Garden & Lawn	3
		0.6		SE¼ NW¼ S 30 T 33 N R 1 E	Meadow Hay	3
		0.6		SE¼ NW¼ S 30 T 33 N R 1 E	Meadow Hay	3
		6.0		SE¼ NW¼ S 30 T 33 N R 1 E	Meadow Hay	3
		1.8		SE¼ NW¼ S 30 T 33 N R 1 E	Garden	3
		2.2		SE¼ NW¼ S 30 T 33 N R 1 E	Summer Fallow	3
		2.4		SE¼ NW¼ S 30 T 33 N R 1 E	Orch. & Pasture	3
		2.8		SE¼ NW¼ S 30 T 33 N R 1 E	Swampy Pasture	3

* Not Irrigated At Time of Survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acres Irr. Irr.	Acres Irr. Total	Description	Crop	Map Sheet
Ray, T. J. (Contd.)	Bondo Diversion # 3	*0.5		SE¼ NW¼ S 30 T 33 N R 1 E	Meadow	
		0.6		SE¼ NW¼ S 30 T 33 N R 1 E	Hay Grain	3 3
		*0.9		SW¼ NE¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		*5.8		SW¼ NE¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		0.4		SW¼ NE¼ S 30 T 33 N R 1 E	 Pasture	 3
		*0.5		NW¼ SE¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		6.3		NW¼ SE¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		0.2		NW¼ SE¼ S 30 T 33 N R 1 E	 Pasture	 3
		0.1		NE¼ SW¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		0.2		NE¼ SW¼ S 30 T 33 N R 1 E	Meadow Hay	 3
		0.7		NE¼ SW¼ S 30 T 33 N R 1 E	 Pasture	 3
			34.7			
			34.7	GRAND TOTAL		
Reineke, Mrs. M. J.	Reineke Clover Diversion # 23	0.1		SE¼ NE¼ S 13 T 32 N R 2 W	Pasture	10
		0.1		SE¼ NE¼ S 13 T 32 N R 2 W	Pasture	10
		0.1		NE¼ SE¼ S 13 T 32 N R 2 W	Pasture	10
		0.1		NE¼ SE¼ S 13 T 32 N R 2 W	Garden	10
		0.2		NE¼ SE¼ S 13 T 32 N R 2 W	Orchard	10
		1.8		NW¼ SE¼ S 13 T 32 N R 2 W	Orchard	10
		0.1		NW¼ SE¼ S 13 T 32 N R 2 W	Garden	10
		0.2		NW¼ SE¼ S 13 T 32 N R 2 W	Garden	10

* Sub-Irrigated

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr.		Description	Crop	Map Sheet
		2.1				
Reineke,	Reineke	0.4		NW¼ SE¼ S 13	Brushy	
Mrs. M. J.	Clover			T 32 N R 2 W	Pasture	10
(Contd.)	Diversion	0.2		NW¼ SE¼ S 13	Brushy	
	# 23			T 32 N R 2 W	Pasture	10
		0.8		NW¼ SE¼ S 13		
				T 32 N R 2 W	Alfalfa	10
		1.1		NW¼ SE¼ S 13	Meadow	
				T 32 N R 2 W	Hay	10
		5.4		NE¼ SW¼ S 13	Meadow	
				T 32 N R 2 W	Hay	10
		0.8		NE¼ SW¼ S 13		
				T 32 N R 2 W	Orchard	10
		1.0		NW¼ SW¼ S 13	Meadow	
				T 32 N R 2 W	Hay	10
		0.6		SW¼ SW¼ S 13	Meadow	
				T 32 N R 2 W	Hay	10
		4.4		SW¼ SW¼ S 13	Meadow	
				T 32 N R 2 W	Hay	10
		1.5		NE¼ SE¼ S 13		
				T 32 N R 2 W	Grain	10
		2.0		NE¼ SE¼ S 13	Orchard &	
				T 32 N R 2 W	Pasture	10
		0.3		S½ Lot 2 NW¼ S18	Orchard &	
				T 32 N R 1 W	Pasture	10
		0.2		S½ Lot 2 NW¼ S18	Orchard &	
				T 32 N R 1 W	Pasture	10
			23.0			
		3.9				
	Reineke	0.9		NE¼ SE¼ S 13	Orchard &	
	South			T 32 N R 2 W	Pasture	10
	Clover	0.6		NE¼ SE¼ S 13	Orchard &	
	Diversion			T 32 N R 2 W	Pasture	10
	# 22	1.2		NE¼ SE¼ S 13	Orchard &	
				T 32 N R 2 W	Pasture	10
		1.3		NE¼ SE¼ S 13		
				T 32 N R 2 W	Meadow	10
		0.3		NE¼ SE¼ S 13	Vineyard	
				T 32 N R 2 W		10
		0.1		NE¼ SE¼ S 13		
				T 32 N R 2 W	Garden	10
		4.9		N½ Lot 1 NW¼ S18		
				T 32 N R 1 W	Meadow	10

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map
Reineke, Mrs. M. J. (Contd.)	Reineke South Clover Diversion # 22	2.7		S½Lot1NW¼S18 T 32 N R 1 W	Meadow Hay	10
		0.3		S½Lot 1NW¼S18: T 32 N R 1 W	Meadow Hay	10
		0.2		N½Lot 2NW¼S18: T 32 N R 1 W	Meadow Hay	10
		0.7		N½Lot 2NW¼S18: T 32 N R 1 W	Pasture	10
		0.1		N½Lot 2NW¼S18: T 32 N R1W	Pasture	10
		0.2		S½Lot 2NW¼S18: T 32 N R 1 W	Pasture	10
		0.4		S½Lot 2NW¼S18: T 32 N R 1 W	Pasture	10
		0.9		S½Lot2 NW¼S18: T32 N R 1 W	Garden	10
		0.9		S½Lot 2NW¼S18: T 32 N R 1 W	Meadow	10
		4.7		S½Lot 2NW¼S18: T32 N R 1 W	Meadow	10
		6.6		S½Lot 2NW¼S18: T 32 N R 1 W	Meadow	10
		14.0 0.3		S½Lot 2NW¼S18: T 32 N R 1 W	Alfalfa	10
		1.2		N½Lot2 SW¼S18: T 32 N R 1 W	Alfalfa	10
		2.3		N½Lot 2SW¼S18: T 32 N R 1 W	Garden	10
		0.9		N½Lot2 SW¼S18: T 32 N R 1 W	Pasture	10
		0.4		N½Lot2 SW¼S18: T 32 N R 1 W	Pasture	10
		1.9		N½Lot2 SW¼S18: T 32 N R 1 W	Meadow	10
		6.8 0.1		N½Lot2 SW¼S18: T 32 N R 1 W	Pasture	10
		1.6		SE¼ SW¼ S 13 T 32 N R 2 W	Meadow	10
			34.1			
			57.1	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Rice, Edward	Welch and Nailor Diversion # 9	1.3		NE¼ SE¼ S 25 T 33 N R 2 W	Meadow	13
		8.9		SE¼ NE¼ S 25 T 33 N R 2 W	Clover	13
		0.2		SW¼ NW¼ S 30 T 33 N R 1 W	Clover	13
			10.4			
			10.4	GRAND TOTAL		
Rice, Joe	Rose Briar Diversion # 21	0.2		NW¼ NE¼ S 8 T 32 N R 1 W	Pasture	8
		1.2		NW¼ NE¼ S 8 T 32 N R 1 W	Pasture	8
		1.2		NW¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		0.5		NW¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		6.9		NW¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		2.1		NW¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		0.1		NW¼ NE¼ S 8 T 32 N R 1 W	Garden	8
		3.0		NE¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		8.6		NE¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		1.4		NE¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
		1.7		NE¼ N E¼ S 8 T 32 N R 1 W	Brushy Pasture	8
		0.5		SW¼ NE¼ S 8 T 32 N R 1 W	Meadow Hay	8
			27.4			
	Rice Dry Clover, Diversion # 20	1.3		SW¼ NE¼ S 8 T 32 N R 1 W	Orchard	8
			1.3			
			28.7	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	MAP Sheet
Sheridan, J. S.	Mill Diversion # 4	0.3		NE¼ NE¼ S 3 T 32 N R 1 W	Meadow Hay	5
		0.2		NE¼ NE¼ S 3 T 32 N R 1 W	Brushy Pasture	5
		2.2		W½Lot2 NW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		3.8		W ½Lot2 NW¼S2 T 32 N R 1 W	Meadow Hay	5
		3.1		W½Lot2 NW¼ S2 T 32 N R 1 W	Brushy Pasture	5
		0.5		W½Lot2 NW¼ S2: T 32 N R 1 W	Orchard	5
			10.1			
			10.1	GRAND TOTAL		
Sheridan, M. A.	Mill Diversion # 4	0.1		W½Lot1 NW¼ S2: T 32 N R 1 W	Orchard & Pasture	5
		0.1		W½Lot2 NW¼ S2: T 32 N R 1 W	Orchard & Pasture	5
		0.2		W½Lot2 NW S 2: T 32 N R 1 W	Pasture	5
		0.1		W½Lot2 NW¼ S2: T 32 N R 1 W	Meadow Hay	5
		0.1		W½Lot2 NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		0.3		W½Lot 2NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		5.3		E½Lot2 NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		0.2		E½Lot2 NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		0.2		E½Lot2 NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		0.1		E½Lot2 NW¼ S2: T 32 N R 1 W	Brushy Pasture	5
		7.6		E½Lot2 NW¼ S2: T 32 N R 1 W	Meadow Hay	5
		0.9		E½Lot2 NW¼ S2: T 32 N R 1 W	Meadow Hay	5
		0.4		E½Lot2 NW¼ S2: T 32 N R 1 W	Orchard & Pasture	5

TABLE 36 (Contd.)

NAME OF OWNER	NAME OF DITCH	Acreage Irr. IRR.	Acreage Irr. TOTAL	DESCRIPTION	CROP	MAP SHEET
Sheridan, M. A. (Contd.)	Mill Diversion # 4	0.3		E½Lot2 NW¼ S2	Brushy	
				T 32 N R 1 W	Pasture	5
		1.8		E½Lot 1NW¼ S	Brushy	
				T 32 N R 1 W	Pasture	5
		2.6		E½Lot 1NW¼S2	Meadow	
				T 32 N R 1 W	Hay	5
		0.4		E½Lot 1NW¼S2	Orchard &	
				T 32 N R 1 W	Pasture	5
		0.6		E½Lot 1NW¼ S2	Meadow	
				T 32 N R 1 W	Hay	5
			21.3			
			21.3	GRAND TOTAL		
Stacher, Wm.	Slaughter Pole Diversion # 19	0.4		SE¼ SW¼ S 3		
				T 32 N R 1 W	Pasture	5
		0.4		SE¼ SW¼ S 3		
				T 32 N R 1 W	Pasture	5
		0.1		SE¼ SW¼ S 3		
				T 32 N R 1 W	Pasture	5
		0.5		SE¼ SW¼ S 3		
				T 32 N R 1 W	Pasture	5
		0.5		SE¼ SW¼ S 3	Wire	
				T 32 N R 1 W	Grass	5
		*4.6		NE¼ NW¼ S 10		
				T 32 N R 1 W	Pasture	5
		*1.1		SE¼ NW¼ S 10		
				T 32 N R 1 W	Pasture	5
		1.0		NE¼ NW S 10		
				T 32 N R 1 W	Pasture	5
		0.1		NE¼ NE¼ S 9		
				T 32 N R 1 W	Grain	8
		0.2		NW¼ NW¼ S 10		
				T 32 N R 1 W	Grain	5
		1.5		NW¼ NW¼ S 10	Meadow	
				T 32 N R 1 W	Hay	5
		1.0		SW¼ NW¼ S 10	Meadow	
				T 32 N R 1 W	Hay	5
		1.0		SW¼ NW¼ S 10	Meadow	
				T 32 N R 1 W	Hay	5
		0.6		SW¼ NW¼ S 10		
				T 32 N R 1 W	Grain	5

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acres Irr. Irr.	Acres Irr. Total	Description	Crop	Map Sheet
Stacher, Wm. (Contd.)	Slaughter Pole Diversion # 19	1.1		SE¼ NE¼ S 9 T 32 N R 1 W	Meadow Hay	8
		0.4		SE¼ NE¼ S 9 T 32 N R 1 W	Grain	8
			14.5			
	Mill or Wild Cat Diversion # 4 or #14	1.2		NW¼ SW¼ S 2 T 32 N R 1 W	Meadow Hay	5
		0.2		NW¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		0.9		NE¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		0.6		NE¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		0.2		NE¼ SW¼ S 2 T 32 N R 1 W	Pasture	5
		0.8		NE¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		0.5		NE¼ SW¼ S 2 T 32 N R 1 W	Pasture	5
		5.3		NE¼ SW¼ S2 T 32 N R 1 W	Meadow Hay	5
		0.2		NE¼ SW¼ S 2 T 32 N R 1 W	Garden	5
		0.4		NE¼ SW¼ S 2 T 32 N R 1 W	Garden	5
		3.2		NE¼ SW¼ S 2 T 32 N R 1 W	Orchard	5
		0.3		NE¼ SW¼ S 2 T 32 N R 1 W	Pasture	5
		0.2		NE¼ SW¼ S 2 T 32 N R 1 W	Meadow Hay	5
		0.1		NW¼ SE¼ S 2 T 32 N R 1 W	Orchard	5
		6.4		SE¼ SW¼ S 2 T 32 N R 1 W	Meadow Hay	5
		2.6		SE¼ SW¼ S 2 T 32 N R 1 W	Pasture	5
		0.8		SE¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Stacher, Wm. (Contd.)	Mill or Wild Cat Diversion #4 or #14	1.0		SE¼ SW¼ S 2 T 32 N R 1 W	Brushy Pasture	5
		0.6		SE¼ SW¼ S 2 T 32 N R 1 W	Meadow Hay	5
			25.5			
			40.0	GRAND TOTAL		
Thomas, M. E.	Guttman Diversion # 2	0.9		NW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		1.3		NW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.3		NE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.3		NE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.1		NE¼ SE¼ S 30 T 33 N R 1 E	Garden	3
		*2.3		NE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		*3.1		SE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		2.8		SE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		3.3		SE¼ SE¼ S 30 T 33 N R 1 E	Orchard	3
		0.2		SE¼ SE¼ S 30 T 33 N R 1 E	Orchard	3
		0.1		SE¼ SE¼ S 30 T 33 N R 1 E	Orchard	3
		1.8		SE¼ SE¼ S 30 T 33 N R 1 E	Garden	3
		0.1		SE¼ SE¼ S 30 T 33 N R 1 E	Orchard	3
		0.5		SE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.5		SE¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.2		SW¼ SE¼ S 30 T 33 N R 1 E	Garden	3
		0.3		SW¼ SE¼ S 30 T 33 N R 1 E	Orchard	3

* Not irrigated at time of survey.

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Thomas, M. E. (Contd.)	Guttman	0.1		SW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
	Diversion # 2	0.3		SW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		4.7		SW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		1.3		SW¼ SE¼ S 30 T 33 N R 1 E	Pasture	3
		0.4		SW¼ SE¼ S 30 T 33 N R 1 E	Garden	3
			24.9			
			24.9	GRAND TOTAL		
Weigart, E. G.	Rodger	0.1		Lot 11 SW¼ S20 T 33 N R 1 E	Clover	1
	Diversion # 5	0.5		Lot 11 SW¼ S20 T 33 N R 1 E	Garden	1
		0.8		Lot 11 SW¼ S20 T 33 N R 1 E	Garden	1
		1.8		Lot 12 SW¼ S20 T 33 N R 1 E	Sudan Grass	1
		2.5		Lot 12 SW¼ S20 T 33 N R 1 E	Clover	1
		0.5		Lot 12 SW¼ S20 T 33 N R 1 E	Garden	1
			6.2			
	Bonde Diversion # 3	1.2		Lot 13 SW¼ S20 T 33 N R 1 E	Clover	1
		0.8		Lot 12 SW¼ S20 T 33 N R 1 E	Clover	1
			2.0			
			8.2	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Weigart, P.	Guttman	3.2		SE¼ NE¼ S 30		
				T 33 N R 1 E	Alfalfa	3
(Ray, A. F.)	Diversion	3.5		NW¼ NE¼ S 30		
	# 2			T 33 N R 1 E	Hay	3
		4.5		NE¼ NE¼ S 30		
				T 33 N R 1 E	Hay	3
		1.3		NE¼ NE¼ S 30		
				T 33 N R 1 E	Hay	3
		5.7		SE¼ NE¼ S 30		
				T 33 N R 1 E	Hay	3
		1.0		SE¼ N E¼ S30		
				T 33 N R 1 E	Hay	3
		0.3		SE¼ NE¼ S30		
				T 33 N R 1 E	Garden	3
		0.3		SE¼ NE¼ S 30		
				T 33 N R 1 E	Pasture	3
		0.8		SE¼ NE¼ S 30		
				T 33 N R 1 E	Pasture	3
		1.6		SE¼ NE¼ S 30		
				T 33 N R 1 E	Orchard	3
		1.3		SE¼ NE¼ S 30		¼
				T 33 N R 1 E	Grain	3
			23.5			
			23.5	GRAND TOTAL		
Wheelock, Fred	Mill Diversion # 4	1.4		SE¼ NE¼ S 26	Brushy	
				T 33 N R 1 W	Pasture	4
		2.3		SE¼ NE¼ S 26		
				T 33 N R 1 W	Pasture	4
		1.2		SE¼ NE¼ S 26		
				T 33 N R 1 W	Pasture	4
		1.2		SE¼ NE¼ S 26		
				T 33 N R 1 W	Pasture	4
		0.1		SE¼ NE¼ S 26		
				T 33 N R 1 W	Pasture	4
		0.2		SE¼ NE¼ S 26		
				T 33 N R 1 W	Orchard	4
		0.6		SE¼ N E¼ S 26		
				T 33 N R 1 W	Orchard	4

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Wheelock, Fred (Contd.)	Mill Diversion # 4	0.6		SE¼ NE¼ S 26 T 33 N R 1 W	Orchard	4
		0.7		SE¼ NE¼ S 26 T 33 N R 1 W	Garden	4
		0.6		SE¼ NE¼ S 26 T 33 N R 1 W	Garden	4
		0.6		SE¼ NE¼ S 26 T 33 N R 1 W	Garden	4
		0.4		SE¼ NE¼ S 26 T 33 N R 1 W	Meadow Hay	4
		9.2		NE¼ SE¼ S 26 T 33 N R 1 W	Meadow Hay	4
		3.0		NE¼ SE¼ S 26 T 33 N R 1 W	Meadow Hay	4
		1.3		NE¼ SE¼ S 26 T 33 N R 1 W	Meadow Hay	4
		10.1		NE¼ SE¼ S 26 T 33 N R 1 W	Meadow Hay	4
		1.5		NE¼ SE¼ S 26 T 33 N R 1 W	Orch. & Mead. Hay	4
		0.8		NE¼ SE¼ S 26 T 33 N R 1 W	Pasture	4
		0.3		NE¼ SE¼ S 26 T 33 N R 1 W	Pasture	4
		0.1		NE¼ SE¼ S 26 T 33 N R 1 W	Pasture	4
		0.4		NE¼ SE¼ S 26 T 33 N R 1 W	Garden	4
			36.6			
			36.6	GRAND TOTAL		
Worley, G.U.	Worley	0.6		SW¼ SE¼ S 18 T 33 N R 1 E	Brushy Pasture	2
	Diversion # 1	3.2		SW¼ SE¼ S 18 T 33 N R 1 E	Brushy Pasture	2
		4.6		SW¼ SE¼ S 18 T 33 N R 1 E	Brushy Pasture	2
		1.7		SW¼ SE½ S 18 T 33 N R 1 E	Pastu re	2

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Worley, G.U. (Contd.)	Worley Diversion # 1	4.8		SW¼ SE¼ S 18 T 33 N R 1 E	Meadow Hay	2
		0.2		SE¼ SE¼ S 18 T 33 N R 1 E	Brushy Pasture	2
		0.3		SE¼ SE¼ S 18 T 33 N R 1 E	Pasture	2
		0.2		SE¼ SE¼ S 18 T 33 N R 1 E	Pasture	2
		1.1		SE¼ SE¼ S18 T 33 N R 1 E	Pasture	2
		0.1		NE¼ NE¼ S 19 T 33 N R 1 E	Orchard	2
		0.5		NE¼ NE¼ S 19 T 33 N R 1 E	Garden	2
		0.3		NE¼ N E¼ S 19 T 33 N R 1 E	Pasture	2
		0.5		NE¼ NE¼ S 19 T 33 N R 1 E	Pasture	2
		0.7		NE¼ NE¼ S 19 T 33 N R 1 E	Pasture	2
		2.5		NE¼ NE¼ S 19 T 33 N R 1 E	Orch. & Mead. Hay	2
		3.4		NE¼ NE¼ S 19 T 33 N R 1 E	Meadow Hay	2
		0.5		NW¼ NE¼ S 19 T 33 N R 1 E	Orchard	2
		1.0		NW¼ NE¼ S 19 T 33 N R 1 E	Garden	2
		1.5		NW¼ NE¼ S 19 T 33 N R 1 E	Pasture	2
		2.8		NW¼ NE¼ S 19 T 33 NR 1 E	Orch. & Mead. Hay	2
		19.2		NW¼ NE¼ S 19 T 33 N R 1 E	Meadow Hay	2
		1.6		NW¼ NE¼ S 19 T 33 N R 1 E	Meadow Hay	2
		2.9		NW¼ NE¼ S 19 T 33 N R 1 E	Grain	2
		0.1		SE¼ SW¼ S 18 T 33 N R 1 E	Pasture	2
		17.3		NE¼ NW¼ S 19 T 33 N R 1 E	Meadow Hay	2

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Worley, G.U. (Contd.)	Worley Diversion # 1	3.2		NE¼ NW¼ S 19 T 33 N R 1 E	Grain	2
		0.8		NE¼ NW¼ S 19 T 33 N R 1E	Orchard	2
		0.2		NE¼ NW¼ S 19 T 33 N R 1 E	Pasture	2
		0.6		NE¼ NW¼ S 19 T 33 N R 1 E	Pasture	2
		0.3		NE¼ NW¼ S 19 T 33 N R 1 E	Meadow	2
		0.2		SE¼ NW¼ S 19 T 33 N R 1 E	Orchard	2
		0.3		SE¼ NW¼ S 19 T 33 N R 1 E	Pasture	2
		0.9		SE¼ NW¼ S 19 T 33 N R 1 E	Meadow	2
		0.9		SE¼ NW¼ S 19 T 33 N R 1 E	Meadow Hay	2
			79.0			
			79.0	GRAND TOTAL		
Wright, L. Rock, E. I.	Mill Diversion # 4			SE¼ SW¼ S24	Meadow	
		0.2		T 33 N R 1 W	Hay	2
		0.4		NE¼ NW¼ S 25 T 33 N R 1 W	Orch.	3
		1.0		NE¼ NW¼ S 25 T 33 N R 1 W	Meadow Hay	3
		0.6		NE¼ NW¼ S 25 T 33 N R 1 W	Meadow	3
		0.2		NE¼ NW¼ S 25 T 33 N R 1 W	Pasture	3
		0.4		NE¼ NW¼ S 25 T 33 N R 1 W	Pasture	3
		1.1		NW¼ NW¼ S 25 T 33 N R 1 W	Meadow Hay	3
		0.8		NW¼ NW¼ S 25 T 33 N R 1 W	Pasture	3
		1.6		SW¼ SW¼ S 24 T 33 N R 1 W	Pasture	2
		0.3		SW¼ SW¼ S 24 T 33 N R 1 W	Meadow Hay	2
			6.6			
			6.6	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Wright, R.G.	Mill	0.6		Lot 1 S 30 T 33 N R 1 E	Pasture	3
	Diversion # 4	0.5		Lot 1 S 30 T 33 N R 1 E	Pasture	3
		0.5		Lot 1 S 30 T 33 N R 1 E	Garden	3
		0.2		Lot 1 S 30 T 33 N R 1 E	Garden	3
		0.5		Lot 1 S 30 T 33 N R 1 E	Meadow Hay	3
		0.9		Lot 1 S 30 T 33 N R 1 E	Meadow Hay	3
		0.2		Lot 2 S 30 T 33 N R 1 E	Garden	3
		0.1		Lot 2 S 30 T 33 N R 1 E	Garden	3
		0.1		Lot 2 S 30 T 33 N R 1 E	Meadow Hay	3
		0.2		Lot 2 S 30 T 33 N R 1 E	Garden	3
		0.2		Lot 2 S 30 T 33 N R 1 E	Pasture	3
		0.1		Lot 2 S 30 T 33 N R 1 E	Pasture	3
		0.4		Lot 2 S 30 T 33 N R 1 E	Garden	3
		0.5		Lot 2 S 30 T 33 N R 1 E	Orchard	3
		0.9		Lot 2 S 30 T 33 N R 1 E	Garden	3
		1.3		Lot 2 S 30 T 33 N R 1 E	Hay	3
		1.8		Lot 2 S 30 T 33 N R 1 E	Meadow Hay	3
			9.0			
			9.0	GRAND TOTAL		

TABLE 36 (Contd.)

Name of Owner	Name of Ditch	Acreage Irr. Irr.	Acreage Irr. Total	Description	Crop	Map Sheet
Yordy, Jay	Yordy Upper	*0.3		$SW\frac{1}{4}$ $SE\frac{1}{4}$ S 21 T 33 N R 1 W	No Crop	11
	Diversion # 10	*0.3		$SW\frac{1}{4}$ $SE\frac{1}{4}$ S 21 T 33 N R 1 W	No Crop	11
		*1.4		$SE\frac{1}{4}$ $SE\frac{1}{4}$ S 21 T 33 N R 1 W	No Crop	11
		*0.7		$SE\frac{1}{4}$ $SE\frac{1}{4}$ S 21 T 33 N R 1 W	No Crop	11
		*0.2		$NW\frac{1}{4}$ $NE\frac{1}{4}$ S 28 T 33 N R 1 W	Orch. & Garden	11
		*0.2		$NW\frac{1}{4}$ $NE\frac{1}{4}$ S 28 T 33 N R 1 W	No Crop	11
			3.1			
	Yordy Upper or Lower Diversion #10 or #11	*0.1		$NE\frac{1}{4}$ $NE\frac{1}{4}$ S 28 T 33 N R 1 W	Berries	10
		*8.2		$NE\frac{1}{4}$ $NE\frac{1}{4}$ S 28 T 33 N R 1 W	No Crop	11
		*0.7		$NW\frac{1}{4}$ $NE\frac{1}{4}$ S 28 T 33 N R 1 W	No Crop	11
			9.0			
			12.1	GRAND TOTAL		

* Not irrigated at time of survey.

TABLE 37

Estimated Gross Allotments Necessary

To Supply a Net Duty of Water of One

Cubic Foot Per Second to 60 Acres.

Ditch	Acreage Irrigated	Net Allotment at Land c.f.s.	Ditch Length Miles	Estimated Conveyance Loss--%	Gross Allotment At Intake, Cu. Ft. / Second.
Bonde	106.6	1.78	2	27	2.45
Covey	6.7	0.11	1/2	56	0.25
Cunningham	52.7	0.88	1/2	15	1.05
Guttman	53.6	0.89	3	52	1.85
Harper	11.6	0.19	1/4	25	0.25
Hufford Lower	6.3	0.11	1/2	56	0.25
Hufford Upper	17.4	0.29	3/4	36	0.45
Hunt	4.9	0.08	2	80	0.40
Maxwell	16.8	0.28	1/4	16	0.35
Mill	206.1	3.44	4	28	4.80
Millville	206.6	3.44	3	22	4.40
Reineke Clover	23.0	0.38	1 1/4	45	0.70
Reineke South Clover	34.1	0.57	1/2	18	0.70
Rice South Clover	1.3	0.02	1/4	67	0.15
Rodgers	6.2	0.10	1/2	56	0.25
Rose Briar	27.4	0.46	1	35	0.70
Slaughter Pole	14.5	0.24	3/4	39	0.40
Spring	6.0	0.10	0	0	0.10
Webb	9.1	0.15	1	58	0.35
Welch & Nailor	71.8	1.20	3	44	2.15
Worley	79.0	1.32	2	34	2.00
Yordy Upper	12.1	0.20	1	50	0.40
TOTAL	973.8	16.23		33	24.40

Note: - The Wild Cat and Yordy Lower Ditches are used in conjunction, respectively, with Diversions 4 and 10.

HYDROGRAPH OF NET AVAILABLE WATER SUPPLY ON CLOVER CR. & ALL TRIB'S 1927

June | July | August | September

Cubic Feet per Second

60
50
40
30
20
10

Discharge of Clover Creek below Millville Dam combined with all diversions from Clover Creek Stream System.

1927

1928

Deficiency

Combined gross allotments based on net duty of 1 cu. ft./sec. to 60 acres.

PLATE 1

PLATE 4

HYDROGRAPH
-OF-
CLOVER CREEK
-SHOWING-
WATER SUPPLY ABOVE FERN BRIDGE
1926 & 1927

June | July | August | September

Cubic Feet per Second

60
50
40
30
20
10

Combined Discharge of Clover Creek at Fern Bridge and all Diversions above - 1927

Combined Discharge of Clover Creek at Fern Bridge and all Diversions above - 1926.

PLATE 4

HYDROGRAPH
-OF-
CLOVER CREEK
SHOWING
ACCRETION TO FLOW
BETWEEN
FERN BRIDGE & MILLVILLE
1927

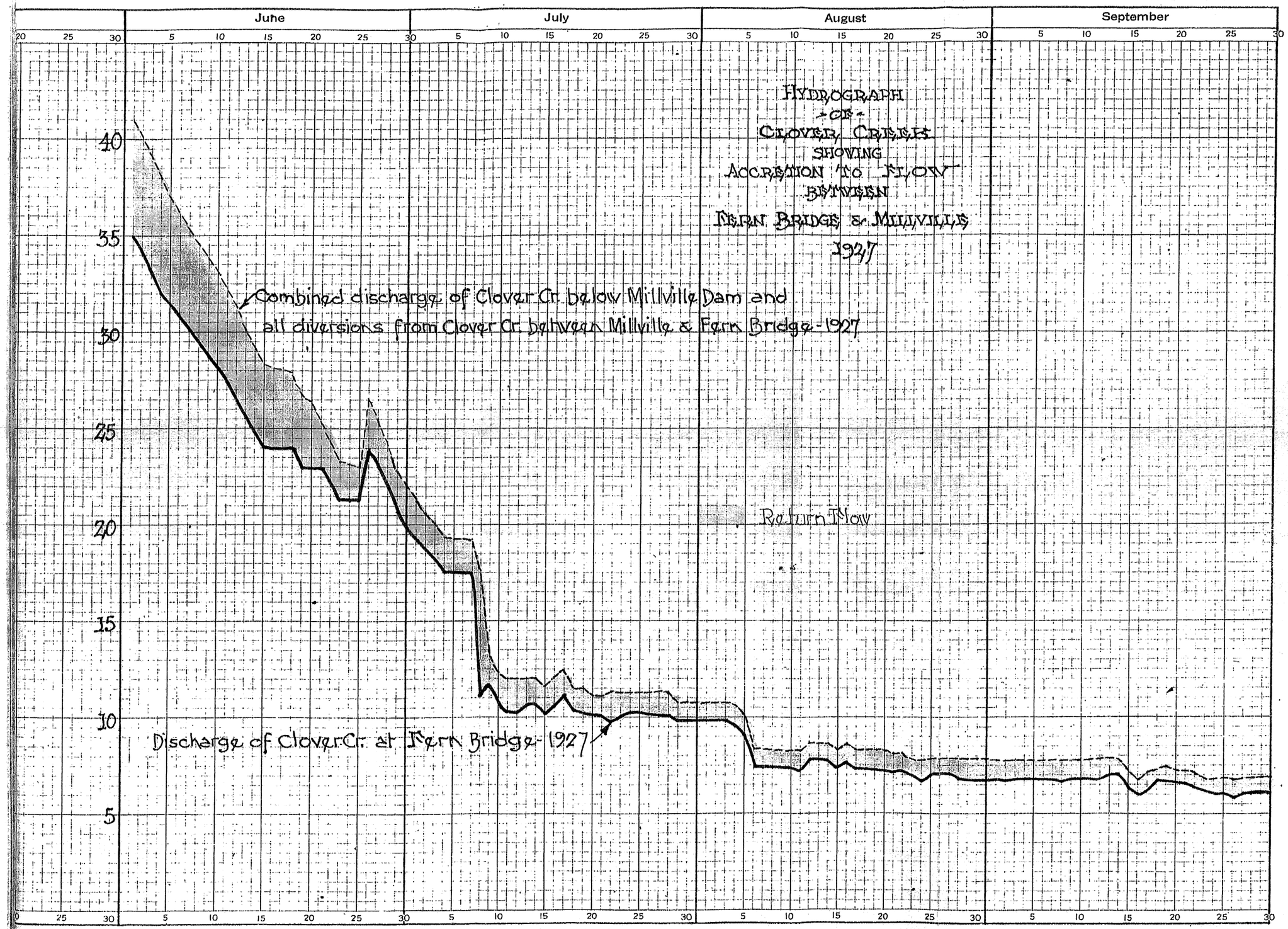

PLATE 3

HYDROGRAPH
OF
CLOVER CREEK
SHOWING
TOTAL RETURN FLOW IN STREAM SYSTEM
1927

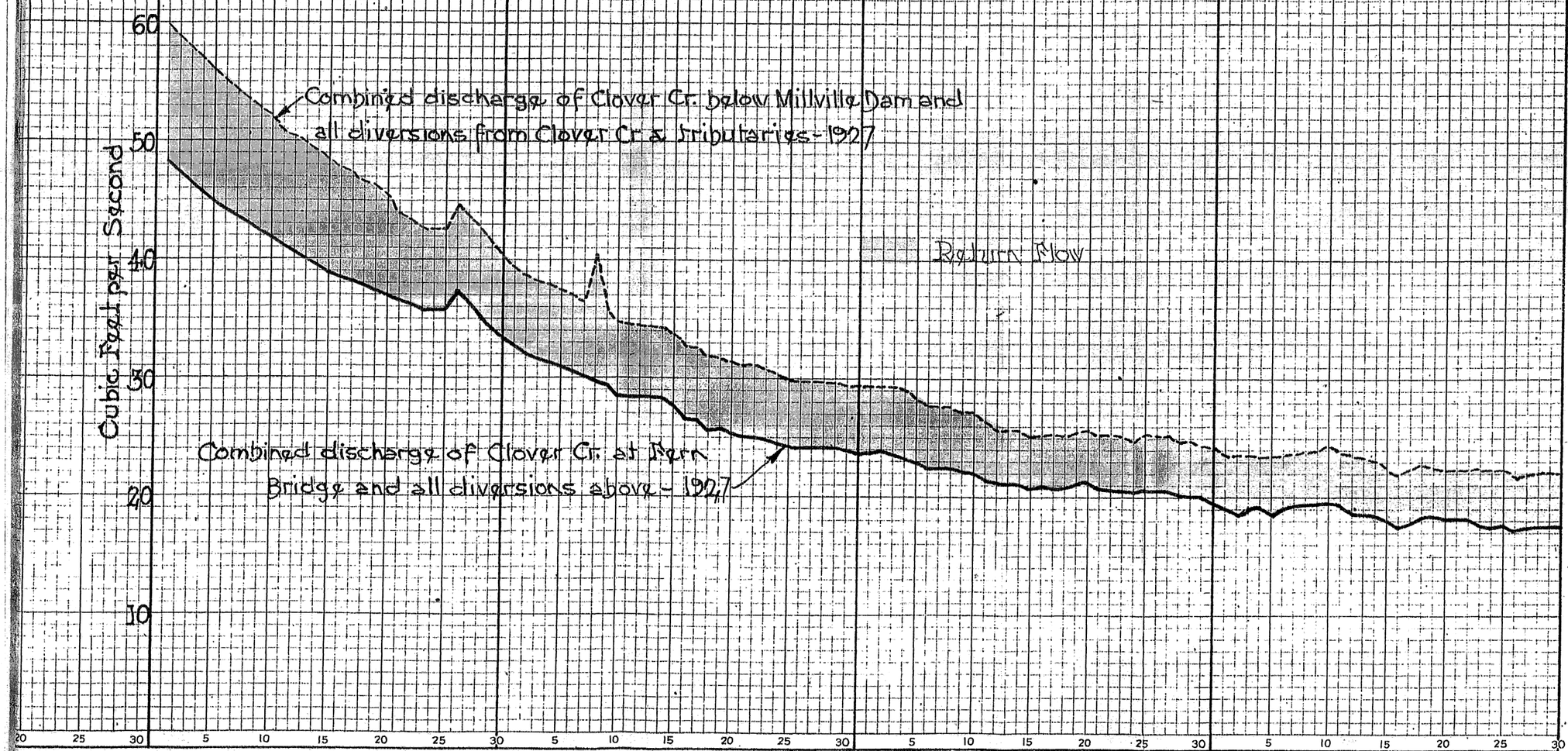

PLATE 4

No

PLATE 5

Curve for the Approximation of Conveyance Losses in Small Earth Ditches

Flow in Cubic Feet per Second

30 29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

0 10 20 30 40 50 60 70 80 90 100

Emerson Creek Area
Butte Creek Area
Little Shasta Div Area
Cow Creek Area
Cottonwood Creek Area
Clover Creek Area

Plate 5