

TC

824

C2

A2

no. 94:

14

v. 1

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

14



State of California
THE RESOURCES AGENCY
Department of Water Resources

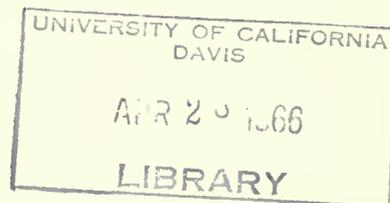
BULLETIN No. 94-14

94:14
Vol. 1
Text

LAND AND WATER USE IN
AMERICAN RIVER
HYDROGRAPHIC UNIT

Volume I: Text

DECEMBER 1965



HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

State of California
THE RESOURCES AGENCY
Department of Water Resources

State of California
The Resources Agency
Department of Water Resources
Sacramento District

To the Reader:

Plates for this final edition of Bulletin No. 94-14, "Land and Water Use in American River Hydrographic Unit", were not printed as no significant changes were found necessary. Volume II: Plates, of the preliminary edition of this report, may be used for reference purposes.

DECEMBER 1965

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

LIBRARY
UNIVERSITY OF CALIFORNIA

THE UNIVERSITY OF CHICAGO
LIBRARY

THE UNIVERSITY OF CHICAGO
LIBRARY
1207 EAST 58TH STREET
CHICAGO, ILLINOIS 60637
TEL: 773-936-3000
WWW.CHICAGO.LIBRARY.EDU

State of California
THE RESOURCES AGENCY
Department of Water Resources

BULLETIN No. 94-14

LAND AND WATER USE IN
AMERICAN RIVER
HYDROGRAPHIC UNIT

Volume I: Text

DECEMBER 1965

HUGO FISHER
Administrator
The Resources Agency

EDMUND G. BROWN
Governor
State of California

WILLIAM E. WARNE
Director
Department of Water Resources

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

PREVIOUS SERIES 94 BULLETINS

Bulletin 94 series is being published by the Department of Water Resources for the information and use of all interested agencies and the general public. Earlier bulletins in this series are:

- Bulletin No. 94-1, "Land and Water Use in Tule River Hydrographic Unit".
- Bulletin No. 94-2, "Land and Water Use in Trinity River Hydrographic Unit".
- Bulletin No. 94-3, "Land and Water Use in Yuba-Bear Rivers Hydrographic Unit".
- Bulletin No. 94-4, "Land and Water Use in Smith River Hydrographic Unit".
- Bulletin No. 94-5, "Land and Water Use in Shasta-Scott Valleys Hydrographic Unit".
- Bulletin No. 94-6, "Land and Water Use in Klamath River Hydrographic Unit".
- Bulletin No. 94-7, "Land and Water Use in Mad River-Redwood Creek Hydrographic Unit".
- Bulletin No. 94-8, "Land and Water Use in Eel River Hydrographic Unit".
- Bulletin No. 94-9, "Land and Water Use in Lost River-Butte Valley Hydrographic Unit". (Preliminary Edition)
- Bulletin No. 94-10, "Land and Water Use in Mendocino Coast Hydrographic Unit". (Preliminary Edition)
- Bulletin No. 94-11, "Land and Water Use in Russian River Hydrographic Unit". (Preliminary Edition)
- Bulletin No. 94-12, "Land and Water Use in Sacramento Valley West Hydrographic Unit". (Preliminary Edition)
- Bulletin No. 94-13, "Land and Water Use in Putah-Cache Creeks Hydrographic Unit".
- Bulletin No. 94-14, "Land and Water Use in American River Hydrographic Unit". (Preliminary Edition)

FOREWORD

In 1956, the State Legislature declared:

"... that in providing for the full development and utilization of the water resources of this State it is necessary to obtain for consideration by the Legislature and the people, information as to the water which can be made available for exportation from the watersheds in which it originates without depriving those watersheds of water necessary for beneficial use therein ..."

The Department of Water Resources was therefore directed to conduct the necessary investigations to compile this information.

For purposes of these studies, the State was divided into major hydrologic areas which, in turn, were subdivided into hydrographic units, generally comprising watersheds of individual rivers. Basic data on water use, land use, land classification, streamflows, ground water, and water quality are being collected by hydrographic units throughout the State. The collection and processing of these data and the publication of the results, for use by the Legislature and all others concerned, are being accomplished in two phases.

The first phase is concerned with the land and water use and land classification data. Reports of the Bulletin No. 94 series present these data for individual hydrographic units before the other studies are completed for the same areas. Following collection and processing of this material, these bulletins are distributed in preliminary form and reviewed at public hearings. Final editions are then published including summaries of the hearings and resulting revisions. These bulletins are an essential source of data for the subsequent water requirements studies, and when complete, will provide detailed data for the entire State.

This land and water use report is the fourteenth of the series to be published in the first phase of the investigations. It is the final edition of Bulletin No. 94-14 following public hearings held in the American River area in June 1965.

The second phase begins with an inventory of water resources in each area, including streamflows, ground water, and water quality characteristics. Estimates of future water requirements to be based on the land and water use studies and projections of foreseeable future development, are also being made.

Results of these water resources and water requirements studies will be published in the second series of reports. These will be designated the Bulletin No. 142 series, and generally cover groups of hydrographic units.

These water resources and future water requirements bulletins will provide the basis for outlining the additional projects needed to meet the State's growing water needs. By interrelating the projected water requirements of all areas of the State with the available local supplies, by decades, a recommended sequence and timing for the State's future water development plans will be established. Besides thus forming the chief basis for the Department of Water Resources' all-important project staging program, the data of water resources and water requirements will be a most valuable guide for water development planning by federal and local, as well as state agencies.

TABLE OF CONTENTS

	<u>Page</u>
FOREWORD	iii
LETTER OF TRANSMITTAL	xi
ORGANIZATION, DEPARTMENT OF WATER RESOURCES	xii
ORGANIZATION, CALIFORNIA WATER COMMISSION	xiii
ACKNOWLEDGMENT	xiv
PUBLIC HEARING	xv
CHAPTER I. INTRODUCTION	1
Organization of Report	2
General Description of Area	3
Location and Extent	3
Historical and Present Development	5
Natural Features	16
Climate	19
Water Resources	23
Local Agencies Concerned with Water Development	23
CHAPTER II. WATER USE	29
Present Water Use	29
Water Rights	31
Surface Water Diversions	32
Numbering System for Surface Water Diversions	35
Descriptions of Surface Water Diversions	35
Records of Surface Water Diversions	37
Index to Surface Water Diversions	39

TABLE OF CONTENTS (continued)

	<u>Page</u>
Imports and Exports	40
Imports	40
Exports	41
Consumptive Use	42
 CHAPTER III. LAND USE	 91
Historical Land Use	91
Present Land Use	91
Methods and Procedures	92
Irrigated Lands	94
Naturally High Water Table Lands	94
Dry-farmed Lands	95
Urban Lands	95
Recreation Lands	96
Native Vegetation	97
 CHAPTER IV. LAND CLASSIFICATION	 105
Methods and Procedures	106
Major Categories of Land Classes	106
Irrigable Lands	106
Urban Lands	108
Recreational Lands	109
Miscellaneous Lands	109
 CHAPTER V. SUMMARY	 117
Water Use	117
Land Use	119
Land Classification	119

TABLE OF CONTENTS (continued)

TABLES

<u>Table No.</u>		<u>Page</u>
1	Areas of Subunits in American River Hydrographic Unit	8
2	Mean Annual Precipitation at Selected Stations in or near American River Hydrographic Unit.	22
3	Summary of Temperature Data at Selected Stations in or near American River Hydrographic Unit	22
4	Recorded Runoff at Selected Stations in or near American River Hydrographic Unit . . .	27
5	Stream Gaging Stations in or near American River Hydrographic Unit	28
6	Descriptions of Surface Water Diversions in American River Hydrographic Unit	44
7	Monthly Records of Surface Water Diversions in American River Hydrographic Unit, 1960 . . .	71
8	Monthly Records of Imports and Exports, American River Hydrographic Unit, 1960 . . .	77
9	Index to Surface Water Diversions, American River Hydrographic Unit	78
10	Land Use in American River Hydrographic Unit, 1960	98
11	Irrigated Lands in American River Hydrographic Unit, 1960	99
12	Classification of Lands in American River Hydrographic Unit	111
13	Land Classification Standards	112

TABLE OF CONTENTS (continued)

ILLUSTRATIONS

	<u>Page</u>
Folsom Dam and Reservoir	4
Recreation at Folsom Reservoir	4
Camping	13
Fishing	13
Ice House Reservoir	15
American River Flume	15
Silver Creek Canyon	17
High Sierras	17
Old Loon Lake Dam	21
Snow Surveyors	21
New Loon Lake Dam	26
Union Valley Dam Under Construction	26
Spill from South Canal	34
Towle Canal Diversion Structure	34
Recorder on Diamond Ditch	38
Diversion Dam	38
Example of Land Use Delineated on Aerial Photograph . .	93
Example of Land Classification Delineated on Aerial Photograph	107

FIGURES

Figure No.

1	1960 Land Use	121
2	Classification of Lands	121

TABLE OF CONTENTS (Continued)

APPENDIXES

<u>Appendix</u>		<u>Page</u>
A	Statewide Water Resources and Water Requirements Program	A-1
B	Reports on Related Investigations and Other References	B-1
C	Legal Considerations	C-1
D	Detailed Descriptions of Certain Surface Water Diversions	D-1
E	Present Development of Projects Under Construction by Other Agencies	E-1

DEPARTMENT OF WATER RESOURCES

BOX 388
SACRAMENTO

September 8, 1965

Honorable Edmund G. Brown, Governor
and Members of the Legislature
of the State of California

Gentlemen:

I have the honor to transmit Bulletin No. 94-14, entitled "Land and Water Use in American River Hydrographic Unit", the fourteenth of a series of reports of the Department of Water Resources, which present detailed basic data of land use, classification of land, water use, and apparent water rights within certain hydrographic units of the State. These studies are being conducted pursuant to legislation sponsored by former Senator Edwin J. Regan and codified under Section 232 of the Water Code.

The preliminary edition of this bulletin was published in October 1964 and was subsequently distributed for review. In June 1965, the Department of Water Resources held public hearings to receive comments from interested individuals and agencies of findings set forth in the bulletin. After consideration of these comments, necessary revisions were made.

The information contained in this series of reports will provide a basis for future estimates of the amount of water which originates within each watershed, the amount which can be used beneficially within each area, and the amount of surplus or deficiency if any. The completed series will provide invaluable reference material relating our water resources to land classification and use.

The data presented in this bulletin will help concerned interests determine how best to develop and use the water resources of the American River Hydrographic Unit. The bulletin discusses history, natural features, climate, and economy of the unit. Maps of present land use and classification of lands illustrate the text.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "William E. Warne".

Director

State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES

EDMUND G. BROWN, Governor of California
HUGO FISHER, Administrator, The Resources Agency
WILLIAM E. WARNE, Director, Department of Water Resources
ALFRED R. GOLZE', Chief Engineer
JOHN R. TEERINK, Assistant Chief Engineer, Area Management

SACRAMENTO DISTRICT

Carl A. Werner District Engineer
M. Guy Fairchild Chief, Planning Section

The investigation leading to this report
was conducted by
and the preliminary report prepared by

James L. Welsh Senior Engineer, Water Resources

Assisted by

Robert R. Stuart Assistant Civil Engineer
Allan R. Black Assistant Land and Water Use Analyst
Frederick L. Montgomery. . Assistant Land and Water Use Analyst
Paul Garcia. Water Resources Technician I
William R. Fissel. Water Resources Technician I
Darryl C. McCalister Engineering Aid II

Preparation of the final report
was under the supervision of

Warren J. Cole Senior Engineer, Water Resources

Statewide aspects of the
Water Resources and Water Requirement Program
are coordinated under the direction of the
Statewide Planning Office

John M. Haley. Chief
Wayne MacRostie. Chief, Planning Investigation Branch
James L. Welsh . . . Chief, Water Utilization Analysis Section

CALIFORNIA WATER COMMISSION

RALPH M. BRODY, Chairman, Fresno

WILLIAM H. JENNINGS, Vice Chairman, La Mesa

JOHN W. BRYANT, Riverside

JOHN P. BUNKER, Gustine

IRA J. CRISMAN, Visalia

JOHN J. KING, Petaluma

EDWIN KOSTER, Grass Valley

NORRIS POULSON, La Jolla

MARION R. WALKER, Ventura

-----0-----

WILLIAM M. CARAH
Executive Secretary

ORVILLE L. ABBOTT
Engineer

ACKNOWLEDGMENT

The Department of Water Resources gratefully acknowledges the contribution of information by the numerous water users and residents of the American River Hydrographic Unit and by agencies of the federal, state, and local governments.

Special mention is made of the helpful cooperation of the Forest Service, United States Department of Agriculture; Placer County Water Agency; Pacific Gas and Electric Company; Sacramento Municipal Utility District; El Dorado Irrigation District; Foresthill Public Utility District; Georgetown Divide Public Utility District; and the Farm Advisors of El Dorado and Placer Counties.

PUBLIC HEARING
on
Preliminary Edition
of
Bulletin No. 94-14
"Land and Water Use in American River Hydrographic Unit"

In accordance with Section 232 of the Water Code, the State Department of Water Resources held public hearings on June 9, 1965, in Auburn, California, and June 16, 1965, in Placerville, California, to receive comments from agencies, groups, and local interests on the preliminary edition of Bulletin No. 94-14, "Land and Water Use in American River Hydrographic Unit". The hearings were attended by about 25 persons, including local people, and representatives from federal, state, and local governmental agencies.

After consideration of both verbal and written comments, it was concluded by the Department that many suggested revisions be incorporated in the bulletin before final publication.

Transcripts of the June 9 and 16, 1965, public hearings and copies of the Department's response to written comments, are on file with the Department of Water Resources in Sacramento and are available for review by the public.

Verbal comments were made at the hearings by the following persons:

Mr. Harry Dunlop, Secretary-Manager, El Dorado
Irrigation District, P. O. Box 152,
Placerville, California

Mr. Stanley R. Leger, Watershed Officer,
El Dorado National Forest, Government Center,
Placerville, California

Mr. Charles E. Matson, U. S. Department of
Agriculture, Soil Conservation Service,
Government Center, Placerville, California

Written comments were received from the following:

Mr. J. W. Carniglia, Civil Engineer, Sacramento
Municipal Utility District, 6201 S Street,
Sacramento, California

Plates showing the location of the unit, land and water
use, and classification of lands were published with the prelimi-
nary edition of the bulletin.

CHAPTER I. INTRODUCTION

This bulletin presents basic data on land and water use in the American River Hydrographic Unit. These data cover present land and water use, classification of lands, systems used to divert surface waters, histories of diversions, apparent water right pertinent to each diversion, purpose and extent of use of diversion, seasonal quantities of water diverted during 1960 and an estimate of present consumptive use of water in the unit. A general description and brief history of the area are also included.

These basic data were gathered during the period 1959-62 in compliance with Chapter 61, Statutes of 1956, as amended by Chapter 2025, Statutes of 1959, and codified in Section 232 of the Water Code of the State of California. This legislation provides for an inventory of water resources and water requirements of the State. This is the fourteenth in a series of bulletins being prepared under this authorization. The text of Section 232, with a discussion of its history and implications, is included in this bulletin as Appendix A.

These data provide the basis for future determination of the quantities of water reasonably required for future beneficial use in the American River Hydrographic Unit. Estimates of these quantities have been made and presented in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," June 1955. Final

determinations of future water requirements will be based on estimates of: (1) future land use, (2) economic patterns, (3) population, (4) industrial and agricultural development, and (5) recreational needs.

Organization of Report

This bulletin consists of five chapters, five appendixes and three plates. Chapter I contains a general description of the American River Hydrographic Unit. Chapter II presents data on present uses of water and includes information pertaining to surface water diversion systems, water rights, quantities of water diverted, and consumptive use. Chapter III includes a history of land use within the unit and a tabulation of present land use. Chapter IV includes an explanation of land classification criteria and a tabulation of lands classified with regard to their potential for irrigated agriculture and for recreational purposes. Chapter V summarizes the data presented in the bulletin.

Appendix A presents the text of Section 232 of the California Water Code and a discussion of the pertinent responsibilities and work program of the Department of Water Resources. Appendix B lists related investigations and other references pertinent to the American River Hydrographic Unit. Appendix C, "Legal Considerations," presents a short summary of California Water Law, a review of litigation involving water rights in the American River Hydrographic Unit and a tabulation of applications to appropriate water in the unit.

Appendix D, "Detailed Descriptions of Certain Surface Water Diversions," presents details of diversion systems which could not be adequately described in tables contained in Chapter II. The diversions are arranged alphabetically by owner or operating entity. Appendix E presents descriptions of facilities recently completed and under construction by other agencies.

Plate 1 shows the location of the hydrographic units north of the Tehachapi Mountains and the present status of the land and water use investigations leading to the publishing of the Bulletin No. 94 series of reports. The location of the subunits within the American River Hydrographic Unit is also shown. Areas of present land uses and the location of diversion systems are shown on Plate 2. The classification of lands is shown on Plate 3.

General Description of Area

Location and Extent

The American River Hydrographic Unit, shown on Plate 1, "Location of Unit," is situated within the Sacramento River Basin on the western slopes of the Sierra Nevada Range. The hydrographic unit comprises that part of the American River Basin above Folsom Dam. The unit is roughly 50 miles in width at the crest of the Sierras, narrowing to about 3 miles in width at Folsom Dam, and is approximately 60 miles in length. It contains 1,863 square miles of drainage area. The major area is in El Dorado and Placer Counties, with the small remaining area in Alpine, Amador, Nevada, and Sacramento Counties.



Folsom Dam
and Reservoir



Recreation at
Folsom Reser-
voir

The hydrographic unit is bounded on the west by Folsom Dam and the watersheds of minor streams tributary to the Sacramento River; on the northwest and north by the Yuba and Bear Rivers; on the east by the Truckee River and streams tributary to Lake Tahoe; on the southeast by the Carson River; and on the south by the Cosummes and Mokelumne Rivers.

For purposes of this report, the American River Hydrographic Unit has been divided into 11 subunits as shown on Plate 1, "Location of Unit." The area of each subunit is shown in Table 1.

Historical and Present Development

The early development of the American River Hydrographic Unit came as a result of individuals seeking profit from the abundance of natural resources of the area.

In 1828, while opening the coast route to Oregon, Jedediah Smith and other trappers of the American Fur Company, are reported to have traversed the lower edge of the unit and found gold. An expedition sent by the fur company to develop the gold was massacred by Indians. In 1844, John C. Fremont passed through the American River Hydrographic Unit while on a government surveying party.

John Marshall's historic discovery of gold near Coloma in January 1848, triggered the start of rapid development within the hydrographic unit. In 1849 and the early 1850's, thousands of miners and prospectors responded to the call of gold. It is estimated that about 50,000 persons migrated into the American River area during the early years

of the gold rush. The population of El Dorado County jumped from virtually zero to over 20,000 persons in 1850.

Much of the mining in the unit took place in the Iowa Hill, Volcanoville, Yankee Jim, Dutch Flat, and Forest-hill areas of Placer County and the Georgetown, Kelsey, and Placerville areas of El Dorado County. During these early years, the miners worked the available surface deposits individually. These easy-to-obtain shallow river gravels soon became exhausted, and it was necessary to wash larger and larger amounts of gravel for profitable operation. Other mining methods were developed and tried. Among these were the miner's cradle and sluice box. Later ground-sluicing methods were used, and finally hydraulic mining was developed. Each of the new methods required increasingly larger amounts of water.

Hydraulic mining was developed in the Nevada City area by Edward E. Mattison in 1853. He found that by using a hose and nozzle, a stream of water under pressure could be used to undermine and wash the gravel into sluice boxes. This was a great improvement over earlier methods and led to the construction of many small dams, reservoirs and canals to supply the water and pressure. One of the first organized groups to develop water was the Rock Creek Water Company, a predecessor of the present day Georgetown Divide Public Utility District. Other agencies and groups of individuals soon followed suit.

Hydraulicking, though a boon to gold mining, proved to be a detriment to agriculture and a hazard to river

navigation. The discharge of mining debris to the streams caused the low-water plain at Sacramento to raise 5 feet or more by 1879. This resulted in more frequent flooding of the adjacent agricultural lands. The damage caused, not only at Sacramento, but in all the lowlands, resulted in a Federal Court injunction in 1884. This court decision, handed down by Judge Lorenzo Sawyer, prohibited all hydraulic mining in areas tributary to the Sacramento River except that done behind a retaining wall or dam. The increased cost of operation required to comply with this injunction and a static price for gold resulted in an almost complete cessation of hydraulic mining. In 1893 the United States Congress, through the Caminetti Act and its amendments, created the California Debris Commission to study practical methods whereby hydraulic mining could be resumed. Although the commission was not successful in restoring hydraulic mining to its former pre-dominant position in the local economy, it still licenses hydraulic mining operations and requires that they be carried on behind debris control dams. The commission constructed one debris control structure in this unit, the North Fork Dam on the North Fork American River.

Following the Sawyer decision of 1884, gold mining declined and mineral output remained relatively low in the unit until the depression of the 1930's. The high price of gold guaranteed by the federal government during the depression caused a revival of gold mining activity. With the stabilization of the price of gold in 1933, gold mining again declined. About \$10,000 in gold was mined in El Dorado County in 1959.

TABLE 1

AREAS OF SUBUNITS IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(in acres)

Subunit	Alpine:		Amador:		El Dorado:		Nevada:		Placer:		Sacramento:		Total Area	
	County:	County:	County:	County:	County:	County:	County:	County:	County:	County:	County:	County:	acres	: square miles
Blue Canyon	0	0	0	298	34,699	0	0	34,997	55					
Coloma	0	0	162,299	0	0	0	0	162,299	253					
Folsom	0	0	46,953	0	12,350	1,324	0	60,627	95					
Foresthill	0	0	0	0	98,643	0	0	98,643	154					
French Meadows	0	0	658	0	130,327	0	0	130,985	205					
Greenwood	0	0	36,655	0	24,689	0	0	61,344	96					
Placerville	0	0	64,472	0	0	0	0	64,472	101					
Royal Gorge	0	0	0	80	90,171	0	0	90,251	141					
Rubicon River	0	0	94,783	0	107,271	0	0	202,054	315					
Silver Creek	0	0	113,357	0	0	0	0	113,357	177					
Silver Lake	<u>12,581</u>	<u>10,537</u>	<u>150,222</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>173,340</u>	<u>271</u>					
TOTAL	12,581	10,537	669,399	378	498,150	1,324	0	1,192,369	1,863					

Although in the past gold has received most of the attention in the American River Hydrographic Unit, other minerals and mineral products have had a substantial impact upon the economy of the unit. The more important of these are: limestone, slate, sand, gravel, and crushed stone. In addition, copper, clay, asbestos, and chromite have been mined within the unit. Small amounts of both coal and iron were mined in the late 1880's. The post World War II building boom gave rise to an increase in the production of such commodities as limestone, shale, and crushed stone used extensively in the building trades. In 1959 crushed stone accounted for over 66 percent of the total value of El Dorado County's mineral production.

Agricultural development closely followed the discovery of gold, spurred by the attendant need to supply the demands of the mining population. In 1849 and 1850 the first planting of potatoes and other vegetables in large patches was attempted in the vicinity of Union Bar and Coloma. In 1851 the first attempt at raising grain was made by William Crone who planted barley in Greenwood Valley. Fruit trees, first planted in the Coloma area, were also cultivated at Gold Hill, Pilot Hill, and near Placerville.

From 1850 to 1870, as mining activity declined, substantial acreages were cultivated within the small valleys in the lower elevations of the unit. Many of these areas were irrigated using the ditches previously built for mining purposes. As early as 1855 more than 8,000 acres of land had been fenced, with nearly 5,000 acres under cultivation in

El Dorado and Placer Counties. Of the cultivated acreage about 3,000 acres were planted to wheat, barley, oats, and hay. In the late 1880's orchardists began to utilize the still existing mining ditches for irrigation, and by 1920 pears had become the predominant crop with an estimated acreage of 5,000 acres.

In the American River Basin, lumbering is the principal industry, with large stands of timber found at altitudes above 3,000 feet. Ponderosa pine is the predominate species below 6,000 feet. Sugar pine, white fir, Douglas fir, and incense cedar occupy smaller but profitable stands between the 2,000- and 6,000-foot elevations. Above 6,000 feet the principal species are red and white firs.

Timber production in the unit first began in conjunction with mining operations. During the first years of the gold rush, timber was used mainly for buildings and for fuel. With improvements in mining techniques, timber was also utilized for rockers, troughs, shoring timbers, and flumes. With the discovery of silver and gold in Nevada, lumber from the upper reaches of the unit was shipped into the mining areas of Virginia City and Carson City. In 1855, there were at least 40 sawmills in the unit. By 1870, due to decreased mining activity, sawmills declined in number to about 25. There are approximately 130 timber operators in the unit. The majority are small operators engaged in logging only. The largest operator, as reported in 1960, was the Michigan-California Lumber Company, located at Camino, with an output of over 69,000,000 board-feet. Other large operators are the

Stockton Box Company and Hughes Brothers both at Foresthill and the Placerville Lumber Company at Placerville and Smith Flat. Almost all of the manufacturing activity within the unit is attributable to these lumber firms. In Placer County during 1956, 38 of the 57 manufacturing firms were engaged in lumbering activities. Since the four firms mentioned account for approximately one-third of the salaries and wages within the hydrographic unit, the impact of the lumbering industry on the economy of this unit is evident.

The American River Basin is extensively used for recreation. The most intensive recreational use is found at Folsom Lake and in the areas adjacent to U. S. Highway 40 and U. S. Highway 50. The headwater streams of the river system are extensively used for trout fishing. To supplement this heavy pressure the State Department of Fish and Game has conducted a trout planting program for many years. In the lower reaches of the unit, migratory species, principally salmon and steelhead were an important fishery before the completion of Folsom Dam.

Other recreational activities, in addition to fishing, include camping, picnicking, vacationing, swimming, and boating in the summer, and skiing in the winter. All of the winter recreation takes place along and adjacent to U. S. Highway 40 and U. S. Highway 50, as other roads are generally inaccessible. Recreational use in El Dorado National Forest during 1960 has been estimated at 1,900,000 visitor days.

Water development in the American River Basin began in the mid 1800's to supply the mines. Early development

consisted of small diversion structures and mining ditches. About 1870 the Rock Creek Water Company, a predecessor of the Georgetown Divide Public Utility District, constructed a small timber crib dam on Gerle Creek to form Loon Lake. Releases supplied the Georgetown Ditch previously constructed in about 1850 for mining purposes. In 1881-82 the crib dam was replaced with a masonry dam increasing the storage capacity to about 8,000 acre-feet. Recently, the Sacramento Municipal Utility District completed construction of a new dam at Loon Lake with a storage capacity of 76,500 acre-feet as part of its comprehensive American River hydroelectric development project.

Present development on the North Fork American River consists of Lake Valley, Big, and North Fork Reservoirs, which have an aggregate storage of about 25,000 acre-feet. Regulated releases of water from Lake Valley Reservoir are conveyed by natural watercourse and conduit to the Drum System of the Pacific Gas and Electric Company for generation of hydroelectric power, irrigation, industrial and domestic use.

On the Middle Fork system, present development consists of Loon Lake which serves the Georgetown Divide area with irrigation and domestic water.

Existing water developments on the South Fork American River are the hydroelectric power facilities of the Pacific Gas and Electric Company and the irrigation facilities of the El Dorado Irrigation District. Storage releases from Silver Lake Reservoir and Twin Lakes Reservoir on the Silver Fork, and Medley Lakes Reservoir on Pyramid Creek, regulate flows in the South Fork. The El Dorado Ditch, which diverts



Camping



Fishing

from the South Fork, supplies the major irrigation and domestic uses of the area from Pollock Pines to west of Placerville. The ditch flow is regulated enroute by the El Dorado Forebay which diverts the bulk of the flow to the El Dorado Powerhouse, located on the south bank of the South Fork American River. This plant has an installed power capacity of 21,000 kilowatts. About 4 miles below the plant, flow is again diverted to the American River Flume which conveys it some 12 miles downstream to the American River Powerhouse. This plant has an installed power capacity of 5,600 kilowatts. Additional irrigation supplies for the El Dorado Irrigation District are received from Jenkinson Lake on Sly Park Creek via the Camino Conduit, from Weber Reservoir on Weber Creek via the New Weber Ditch, and from the Cosumnes River via the Diamond Ditch.

Sacramento Municipal Utility District is currently constructing a multi-stage hydroelectric project on the Middle Fork and South Fork American River system. The project is discussed in Appendix E.

Existing developments on the main stem of the American River consist of Folsom Dam, Reservoir and power facilities. Folsom Dam is a major feature of the Central Valley Project with primary purposes of flood control, power, navigation and water conservation for irrigation, municipal, industrial uses and salinity control. The reservoir has a storage capacity of 1,000,000 acre-feet and the power facilities an installed capacity of 162,000 kilowatts. Diversions are made from Folsom Reservoir to Hinkle and Baldwin Reservoirs which serve the San Juan Suburban Water District, and by pipeline

Ice House
Reservoir



Courtesy of Sacramento Municipal Utility District



American River
Flume

to the existing Natomas Ditch which was formerly served by a gravity diversion out of the South Fork American River. Both of these diversions serve lands in the Sacramento Valley Floor Hydrographic Unit.

Natural Features

The American River Hydrographic Unit is a generally mountainous area with elevations varying from about 225 feet in the vicinity of Folsom Reservoir to 10,380 feet above sea level at Round Top Mountain, in the southeast corner of the unit. Valley and foothill lands constitute only 0.3 percent and 27 percent, respectively, of the total area. The development of agricultural lands has been largely confined to those lands at the lower elevations along U. S. Highway 40 on the north, areas in the vicinity of Greenwood and Cool, and along U. S. Highway 50 on the south.

The hydrographic unit lies on the western slope of the Sierra Nevada Range, extending to the edge of the Sacramento Valley Floor. The Sierra Nevada Range is essentially a tilted block fault, dipping gently beneath the sediments of the valley floor on the west, and descending abruptly into the Great Basin Region along a series of bold fault scarps on the east. The geologic age of the basin formations vary from Mississippian to Recent. The oldest formations lie in a northwest-trending zone part way up the west slope of the mountains, where they have been folded and metamorphosed by the intruding granitic mass which forms the core of the range. The granitic core is exposed at higher elevations throughout

Silver Creek
Canyon



Courtesy of Sacramento Municipal Utility District



High Sierra

most of the range. Many of the larger ridges are capped by Tertiary volcanics and/or gold-bearing river gravels. The present stream channels are filled with Recent boulders and gravels.

The peaks on the crest of the Sierras in eastern Placer County show evidence of Pleistocene glaciation in the upper elevations. The general region is not strongly active seismically, although numerous faults are known to exist within the American River Basin.

Soils of the American River Hydrographic Unit can be broadly described as falling into three major zones dependent on their present and probable future use. These three zones are the Foothill Zone, the Upland Agricultural Zone, and the Forest-recreational Zone.

The Foothill Zone is comprised of rather shallow, somewhat rocky, red-colored upland soils that are presently being utilized largely for range grazing. The area is typified by a generous cover of oaks and grasses or spotty stands of dense chaparral. This zone occupies an elevation band beginning on the valley floor on the west, running east to about the 1,800-foot contour.

The Upland Agricultural Zone, comprises a broad belt that runs in a northwesterly direction across the watershed extending from the Cool-Georgetown area on the north to the Placerville-Camino area on the south. Soils in this zone are characteristically deep, reddish-brown in color, fertile, and quite permeable. Some scattered surface and profile rock can be observed in some areas. Native vegetation varies

from oaks and grasses at lower elevations to commercially important mixed coniferous timber stands at higher elevations. As evidenced by the large acreages of pears and apples planted in this zone, the area is highly suited for deciduous orchards.

The third major soil zone, the Forest-recreational Zone, comprises the major acreage of the watershed. This zone is typified by large areas of rough, broken and stony land normally found in the higher elevations of the Sierra Nevada Range. Many of the soils in this zone, though they possess physical properties normally associated with agricultural lands, were classified as being best suited to remain in some sort of forest management program due to climatic limitations.

Climate

The American River Hydrographic Unit experiences a wide variety of climates. The summers are warm and dry and the winters cool and wet. There is some thunderstorm activity at the higher elevations during the summer, but the total precipitation from these storms is negligible. The unequal seasonal precipitation is illustrated by the fact that on the average 10 percent of the annual precipitation occurs in one day, 25 percent occurs in 12 days, and 50 percent occurs in 60 days, during the winter. The summers by contrast receive less than one percent of the annual precipitation.

The importance of snowfall in the unit is great. Melting snow contributes an estimated 40 percent of the annual runoff of the American River. By April 1, with the average snow line located near the 5,000-foot elevation the

snowpack covers 55 percent of the watershed. At the 5,000-foot elevations 35 percent of the annual precipitation occurs as snow while at 7,000 feet 75 percent occurs as snow.

The elevation of greatest total precipitation for the American River Basin is near 5,500 feet which is the elevation where orographic lifting of moist tropical marine air masses is most active. To the east in the higher elevations, precipitation totals diminish.

Table 2 shows the mean annual precipitation at selected stations within and adjacent to the American River Hydrographic Unit.

Temperatures in the hydrographic unit are influenced by prevailing air masses, elevation, and drainage of cold dense air from higher elevations into the valley. When dry air enters and occupies the American River Watershed from the east, the extremes of both summer heat and winter cold are more pronounced. Summer temperatures will at times exceed 100 degrees at lower elevations, while very low winter temperatures are often experienced at higher elevations.

Table 3 presents data on temperature and length of frost free period for six representative weather stations. The temperatures presented are the arithmetic means of the daily maximum and minimum temperatures and the extreme maximum and minimum temperatures for the indicated period of record. The length of the frost free period represents the average period, in days, between the last day in spring and the first day in fall when the minimum daily temperature is above 32 degrees Fahrenheit.

Old Loon Lake
Dam

Courtesy of Sacramento
Municipal Utility District



Snow Surveyors

TABLE 2

MEAN ANNUAL PRECIPITATION AT SELECTED STATIONS
IN OR NEAR AMERICAN RIVER HYDROGRAPHIC UNIT

Station	Elevation in feet	1959-60 Precipitation in inches	Average Seasonal* Precipitation in inches	Snow- fall in inches	Period of record
Folsom	350	17.63	23.25	0	1871-1962
Auburn	1,300	27.59	34.17	1	1870-1962
Placerville	1,890	31.44	38.48	34	1874-1962
El Dorado P. H.	1,920	42.12	47.06	-	1936-1962
Colfax	2,418	41.53	44.68	28	1870-1962
Georgetown	2,701	41.62	46.23	32	1940-1962
Foresthill	3,200	44.51	49.88	50	1937-1962
Blue Canyon	5,280	58.75	67.01	179	1940-1962
Soda Springs	6,750	57.61	64.02	398	1930-1962
Twin Lakes	7,829	34.98	44.88	367	1919-1962

TABLE 3

SUMMARY OF TEMPERATURE DATA AT SELECTED STATIONS
IN OR NEAR AMERICAN RIVER HYDROGRAPHIC UNIT

Station	Elevation in feet	Mean temperatures, in °F Min. Max.	Extreme temperatures, in °F Min. Max.	Average length of frost free period in days	Period of record
Folsom	350	47 75	15 113	271	1931-52
Auburn	1,300	47 74	17 110	271	1931-52
Placerville	1,890	39 72	8 114	170	1931-52
Colfax	2,418	46 71	11 110	225	1931-52
Blue Canyon	5,280	38 62	-5 99	144	1944-52
Twin Lakes	7,829	25 52	-26 90	27	1931-52

* Based on or adjusted to the 50-year base period from
July 1910 to June 1960.

Water Resources

Streamflow in the American River Basin is influenced by snowmelt which delays spring runoff beyond the main precipitation period and into the late spring and summer months.

Runoff records of 10 years or longer are available for 23 stream gaging stations. The station, American River at Fair Oaks, has the longest period of record 57 years. It is situated on the main stream about 10 miles below Folsom Dam in the Sacramento Valley Floor Hydrographic Unit.

Pertinent streamflow records of the American River Basin are summarized in Tables 4 and 5, to illustrate runoff characteristics and the individual station period of record.

In 1960, during which most of the diversions in this unit were measured, runoff at the Fair Oaks gage was 65 percent of the average annual discharge for 1904-1961, eliminating the effect of Folsom Reservoir operation since 1956. During the May-October period, runoff recorded was approximately 47 percent of the long-term average for this six-month period.

Local Agencies Concerned with Water Development

Local agencies that are concerned with water development in the American River Hydrographic Unit include El Dorado Irrigation District, public utility districts, and several miscellaneous water service agencies.

The El Dorado Irrigation District is situated adjacent to the unit's southern boundary and serves irrigation, municipal, and domestic users. A brief discussion concerning the district and its surface water diversions is

contained in Appendix D. Other water agencies serving agricultural interests and other users are Georgetown Divide Public Utility District, Coloma-Lotus Ranch Ditch (an unincorporated mutual water company), and Pacific Gas and Electric Company.

A portion of the water supplied to meet urban requirements in the unit is delivered by the municipal water department of Placerville, and public utility districts near Foresthill, Georgetown, and Pollock Pines. Along the northwest boundary of the unit, urban areas are served by the Pacific Gas and Electric Company either directly or through other water service agencies. Other urban service is received from commercial water companies, mutual water companies, county water districts, and other miscellaneous water service agencies.

Agencies presently active in water development in the American River Hydrographic Unit are the Georgetown Divide Public Utility District, the Placer County Water Agency, and the Sacramento Municipal Utility District. The Georgetown Divide Public Utility District is developing storage and improving conduit conditions in the Pilot Creek area of the Middle Fork American River. The Placer County Water Agency is developing the Upper American River Basin waters for power and for use in western Placer County in the Sacramento Valley Floor Hydrographic Unit. One of the initial units under construction is French Meadows Dam and Reservoir on the Middle Fork American River. The Sacramento Municipal Utility District is developing the waters of the Rubicon River and

South Fork American River for the production of power.

Developments by the above-mentioned districts are discussed in detail in Appendix E.



New Loon La
Dam

Courtesy of Sacramento Municipal Utility District



Union Valley
Dam Under
Construction

TABLE 4

RECORDED RUNOFF* AT SELECTED STATIONS
IN OR NEAR
AMERICAN RIVER HYDROGRAPHIC UNIT

	North Fork American River at North Fork Dam:	Middle Fork American River near Auburn:	South Fork American River near Camino:	American River at Fair Oaks
Drainage Area (sq. mi.)	343	619	497	1,889
Period of Record	1941-1961	1911-1961	1922-1961	1904-1961
Annual Discharge				
Maximum (af)	1,098,000	1,909,000	1,274,000	5,710,000
Date	1952	1952	1951	1907
Minimum (af)	234,800	229,000	117,000	530,000
Date	1961	1924	1924	1924
Average (af)	575,600	997,700	607,300	2,702,000
Discharge-1960 (af)	374,700	670,400	417,200	1,755,000
Percent of average	65	67	69	65
Monthly Discharge				
Maximum (af)	317,400	588,000	392,400	1,520,000
Month and year	12/55	5/15	5/52	3/07
Minimum (af)	1,380	1,380	272	972,000
Month and year	9/44	9/31	10/29	8/24
Instantaneous Discharge				
Maximum (cfs)	49,100	79,000	49,800	180,000
Date	12/23/55	12/23/55	12/23/55	11/21/50
Minimum (cfs)	0	20	1.2	3.6
Date	(a)	9/6/31	8/24/31	8/16/24
		9/19/34		

* Data obtained from USGS Water Supply Papers.

(a) Zero flow several days in August and September 1944.

TABLE 5
 STREAM GAGING STATIONS*
 IN OR NEAR
 AMERICAN RIVER HYDROGRAPHIC UNIT

Station	: Period : of record
North Fork American River near Colfax	1911-41
North Fork American River at North Fork Dam	1941-61
North Fork American River at Rattlesnake Bridge	1930-37 1938-55
Middle Fork American River near Auburn	1911-61
Middle Fork American River at French Meadows	1951-61
Rubicon River near Georgetown	1909-14 1943-61
Pilot Creek near Georgetown	1946-60
South Fork American River near Camino	1922-61
South Fork American River at Coloma	1929-41
South Fork American River near Kyburz	1922-61
South Fork American River near Lotus	1951-61
Silver Fork of South Fork American River near Kyburz	1924-44
Alder Creek near White Hall	1922-61
Echo Lake Conduit near Phillips	1923-61
Plum Creek near Riverton	1922-39
Pyramid Creek near Phillips	1922-61
Silver Creek near Placerville	1921-61
Silver Creek at Union Valley	1924-60
Silver Lake Outlet near Kirkwood	1922-61
South Fork Silver Creek near Ice House	1924-61
Twin Lakes Outlet near Kirkwood	1922-61
Weber Creek near Salmon Falls	1943-59
American River at Fair Oaks	1904-61

* United States Geological Survey Water Supply Papers listing 10 years or more of record.

CHAPTER II. WATER USE

Present water requirements in the American River Hydrographic Unit are met almost entirely by diversion of surface runoff. The water use survey conducted for this report, results of which are discussed herein, was limited to the investigation of those individual uses of surface water exceeding 10 acre-feet per year. The survey, encompassing diversion of water for all purposes, developed information concerning: (1) location of the surface water diversion point, (2) description of the diversion structure and system, (3) use of the diverted water, (4) amount of water diverted, and (5) the apparent water right under which the diversion was made.

Present Water Use

Quantities of water diverted from selected surface sources during 1960 were measured. These measured quantities do not necessarily represent average diversion amounts, since in any single year the quantity diverted will be influenced by precipitation during the growing season and the available streamflow. As was shown in Tables 2 and 4, the precipitation runoff in 1960 was well below normal. Considerations other than the available water supply, such as economic factors, may also affect the relation of any diversion record to typical operating conditions. The diversion quantities reported in Table 7 represent the actual amounts of water taken from the respective sources, and therefore include the recoverable and irrecoverable losses incidental to the primary use.

The location of water wells and the measurement of their yields were not covered in this investigation since it was determined that their importance was minor in the unit. However, areas irrigated by ground water as well as surface water, were determined in the land use survey described in Chapter III.

A large part of the urban water use in the unit is supplied by Pacific Gas and Electric Company. Urban areas receiving water from Pacific Gas and Electric Company by way of the Boardman Canal System are listed below:

<u>Area</u>	<u>Delivery made to</u>
Alta	Individual water users
Auburn ¹	Individual water users
	Morgan Tract Water Users Association
	Oak Ridge Mutual Water Company
Colfax	Alpine Meadows Property Owners Association, Inc.
	McGee Irrigation Company ²
	Riverview Estate Water Supply
Gold Run	Individual water users
Shady Glenn	Individual water users

Other urban areas in the hydrographic unit receive water from many small service agencies. Some of these provide only partial service for recreational urban use, and were not included in this investigation. Major water service agencies other than Pacific Gas and Electric Company are listed below:

¹ Includes urban areas in the vicinity of Auburn and between Auburn and Colfax along U. S. Highway 40.

² Succeeded by Applegate Clipper Gap County Water District in 1962.

<u>Location</u>	<u>Supplier</u>	<u>Source</u>
Blue Canyon Coloma	Southern Pacific Company Coloma Community Water Company	Blue Canyon Creek South Fork American River
Emigrant Gap Foresthill	Southern Pacific Company Foresthill Public Utility District	Blue Canyon Creek Mill Creek
42 Mile Camp	Strawberry Creek Lot Owner's Association	Cody Creek
Fresh Pond	Pollock Pines Public Utility District	El Dorado Irrigatio District
Georgetown	Georgetown Divide Public Utility District	Pilot Creek
Iowa Hill	McGeachin Placer Gold Mining Company	Shirttail Canyon
Kyburz	Kyburz Water Company	South Fork American River
Pacific	Silver Fork Water Association	Silver Fork of South Fork American Rive
Placerville	El Dorado Irrigation District Placerville Municipal Water Department	South Fork American River North Fork Weber Creek
Pollock Pines	Pollock Pines Public Utility District	El Dorado Irrigatio District
Sciots Camp Strawberry	Cabin Owner's Association Strawberry Heights Water Company	Cody Creek Tributary to South Fork American Rive
The Cedars	North Fork Association	Cedar Creek
Twin Bridges	Twin Bridges Resort	Pyramid Creek
Vade	Lyon and Sickel	Alice Creek
Whitehall	Whitehall Community Water Company	South Fork American River

Water Rights

Water rights are an important consideration in the determination of availability of waters which are surplus to the present and future needs of an area wherein the waters originate. Data were obtained with respect to apparent water rights of the surface water diversions described in Table 6. These rights may be based on appropriative or riparian status and may have been defined by adjudication. Some water use in the American River Hydrographic Unit is based on appropriative

rights established prior to 1914. A brief explanation of Water Rights is included in Appendix C of this report.

As of October 1963 a total of 601 currently valid applications had been made in the unit under the provisions of the Water Commission Act of 1914. Permits or licenses had been granted for 556 of these applications, 12 were pending with the State Water Rights Board, and 33 were incomplete as of that date. These applications are tabulated in Appendix C, Table C-1.

Surface Water Diversions

During the survey all diversions of surface water in excess of 10 acre-feet per year, which could be field located, were plotted on aerial photographs having a scale of about 1:20,000. All diversions in use in 1960, as well as those which had been used within the preceding five years, were included. The date of last use, if known, was recorded for discontinued diversions. Direct diversions, as well as diversions to storage were located. All reservoirs which had surface areas of about three acres or more were mapped. Considering an average annual evaporation rate of 40 inches in the unit, reservoirs of 3 acres surface area would have an annual evaporation of about 10 acre-feet. Reservoirs located along and operated in conjunction with canals and ditches were shown on the land and water use maps, but were not considered as separate systems and were not assigned location numbers. Similarly, minor water supplies from small intermittent streams intercepted by canal systems are not classed as separate diversions.

In some cases water users have made efficient use of water supply by rediverting field runoff or spill collected from their own upstream diversion systems. In this investigation such points of rediversion were neither located on the maps nor assigned numbers. However, if return flow from another water user's operation was rediverted or if there was doubt as to the origin of the water, the diversion was delineated and assigned a number. Diversion systems of water companies or groups of water users were considered as single units, and individual customer distribution points were not shown on the maps.

There were 249 surface water diversions located in the unit in 1960. These diversions were classified by primary use as follows:

<u>Primary use</u>	<u>Number of diversions</u>
Irrigation	143
Municipal	7
Industrial (lumber mills)	6
Mining	9
Power	16
Domestic	19
Stockwatering	6
Recreational	10
Other	<u>33</u>
Total diversions located	249

Points of diversion and main canals or pipelines are delineated on the 28 sheets of Plate 2 entitled, "Land and Water Use." The diversions are listed in Table 6 entitled, "Descriptions of Surface Water Diversions in American River Hydrographic Unit."



Spill from
South Canal



Towle Canal
Diversion
Structure

Numbering System for Surface Water Diversions

Surface water diversions are numbered to indicate their location by township, range, and section. For this report each section was subdivided into 40-acre plots, and the diversions are numbered within each of these 40-acre plots according to the order in which they were located. For example, D11N/9E-14Q1, which is shown on Sheet 18 of Plate 2 as "14Q1," was the first diversion located in the SW $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 14 in Township 11 North, Range 9 East, Mount Diablo Base and Meridian.

Descriptions of Surface Water Diversions

Descriptions, histories, and other information relating to surface water diversions were obtained by field inspection, by interview with water users or their representatives, and by reference to prior reports and official records. This information is contained in Table 6. Data in the table are arranged by diversion number within each subunit. Location of subunit boundaries is shown on Plate 1.

The purpose of each diversion, the quantity of water diverted during 1960, the extent of use such as number of acres irrigated, and method of application of water are included in Table 6. If the purpose listed is not the usual use for that diversion, notation is made in the remarks. The extent of domestic use is specified only when five or more connections are served. Stockwatering of less than 10 head of livestock is considered to be a domestic use. The extent of irrigation is based on the land use survey described in Chapter III.

The type of water right under which the respective diversions are considered to be made is indicated in Table 6 as the "apparent water right." The determination of this item is based upon the best information available from the owner, files of the State Water Rights Board, official records, and other sources. The amount of the right, if established and known, and a reference to the source of data are also included. Although this information is believed to be accurate, it is emphasized that it is not based on sworn claims or testimony and should in no way be construed to represent a conclusive determination of water rights. In this report, references to the "miner's inch" are quotes from the appropriative filings and no attempt was made to evaluate these in cubic feet per second.

Diversions for which water rights have been adjudicated are listed in Table 6 as "adjudicated." Those based on appropriative rights are listed as "appropriative." Those which have been neither adjudicated nor based on appropriations but for which the area of use is apparently riparian to the streams or which the owner claims to be riparian are listed as "riparian." The areas of use of some diversions listed as adjudicated or appropriative may be riparian to water sources, but no attempt was made in this investigation to make such determinations.

In the case of an adjudicated right, the amount of the decreed right is tabulated. For an appropriative right the amount tabulated is that found in the filing, application, or latest permit or license which may have been issued in

connection with the application. The reference given for an appropriation initiated after the effective date of the Water Commission Act of 1914 is the number of the application on file with the State Water Rights Board. For appropriations prior to 1914, the reference, if known, is the book and page number of the official county record in which the filing is recorded. Such filings were made in accordance with Sections 1410 and 1422 of the Civil Code as enacted in 1872, which preserved the priority of a diligent appropriator from the time of filing and enabled him to prevail over a concurrent non-statutory appropriator.

Records of Surface Water Diversions

Records of surface water diversions in the unit were obtained from the operating agency when possible. When necessary, continuous or periodic measurements of surface water diversions were made by the Department of Water Resources wherever it was feasible to measure the flows. Most of the diversions for nonagricultural uses and some of those used for agriculture were operated throughout the year. Substantially all diversion measurements were started by April 1960, prior to the commencement of intensive irrigation, and continued through the irrigation season. Some of the diversions were not located until late in the survey, and no measurements or estimates of these were attempted. When feasible, the measurement of a diversion was made at a location above the area of first use and as close to the diversion intake as possible but below any regulatory spill.



Recorder on
Diamond Ditch

Diversion Dam



Diverted quantities were determined by measurement of open channel flow and rating of pumps. Periodic current meter measurement of open channel flows were made during the diversion season to obtain channel ratings. The water surface stage was recorded either by weekly observations of a staff gage or with a continuous water stage recorder, from which quantities of flow were calculated. Existing weirs were used wherever available. Pumps were rated and quantities of flow calculated from operation or power records. These observations were supplemented by interview of water users to obtain additional staff gage readings and to obtain data on possible abrupt changes in operation between readings.

Results of the diversion measurements are summarized in Table 7. When the recorded data were considered sufficiently reliable, monthly diversion quantities are shown in acre-feet. When the diversion for a given period is known to have been zero, it is so indicated. However, when the recorded data were incomplete or missing, the following notations are used: "---**---" to indicate that the data were sufficient to estimate the total quantity only; "---NR---" to indicate the period during which no recorded data were available.

Index to Surface Water Diversions

For convenience of the reader, an alphabetical index of diversion owners and diversion names, along with the sub-unit location of each diversion, references to the sheet number of Plate 2, and page numbers of the text or appendixes on which data concerning each appear, is shown in Table 9.

Imports and Exports

Imports

Surface water is imported to the unit at five points from adjacent watersheds, for use in the American River Basin. They are: Boardman and Bear River Canals from the Yuba-Bear Rivers Watershed; Echo Lake Conduit from the Truckee River Watershed; and Sly Park-Camino Conduit and Diamond Ditch from the Cosumnes River Watershed.

The Boardman and Bear River Canal systems of the Pacific Gas and Electric Company deliver a portion of their supply through laterals to the American River Watershed for irrigation, domestic, and municipal uses, with the excess released to Folsom Reservoir on the American River. The areas served by these imports extend along the northern boundary of the hydrographic unit from the Dutch Flat area to Roseville. The primary area irrigated is south and southwest of Auburn. The principal municipal service area is that portion of the City of Auburn within the hydrographic unit.

The Echo Lake Conduit, part of the Pacific Gas and Electric Company system, imports water during the summer and fall months of low flow to the upper reaches of the South Fork American River for delivery to the El Dorado Irrigation District.

The Sly Park-Camino Conduit delivers water from the Sly Park Unit of the Central Valley Project located in the Cosumnes River Watershed to the El Dorado Ditch near Camino. The El Dorado Irrigation District delivers the water for irrigation within the district.

The Diamond Ditch imports a minor quantity of water from the Cosumnes River Watershed. This water is delivered to local water users southwest of Placerville, mainly for irrigation, by El Dorado Irrigation District.

Exports

Five diversions in the American River Hydrographic Unit export water from the unit for use in the Yuba-Bear Rivers Watershed and the Sacramento Valley Floor.

Along the northern boundary of the unit, Lake Valley Canal, Pulp Mill Canal, and Towle Canal, all owned by Pacific Gas and Electric Company, divert from the North Fork American River area. Lake Valley Canal diverts from the North Fork of North Fork American River to supplement the Drum Canal, the Pulp Mill and Towle Canals divert from Canyon Creek to supplement the Boardman Canal.

The other two export diversions, the North Fork Ditch and the Natomas Ditch, formerly diverted from the North Fork and South Fork of the American River, respectively. With the completion of Folsom Dam, and the filling of the reservoir, these ditches were inundated. Present water deliveries to the entities formerly served by these ditches are now made from a pumping station near the face of the dam in the Sacramento Valley Floor Hydrographic Unit.

For records of measured quantities of water exported to other hydrographic units and imported to the unit, see Table 8. Location of points of import and export are designated on Plate 2.

Consumptive Use

In the American River Hydrographic Unit, the largest quantity of water diverted from surface streams is used to produce hydroelectric power, but the largest consumptive use of water is by irrigated agriculture. Consumptive use of water is defined as the quantity of water consumed by vegetative growth in transpiration and building of plant tissue, and by water evaporated from foliage, adjacent soil, and water surface; and also it includes water similarly consumed and evaporated by urban and nonvegetative types of land use. Although evaporation from storage reservoirs and canal systems may be significant, sufficient data were not available to estimate these losses.

Based on the unit consumptive use values in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," consumptive use of applied water during 1960 is estimated to have been 16,700 acre-feet for irrigated agriculture. In addition, approximately 2,200 acre-feet were used for domestic and municipal purposes, and 200 acre-feet for industrial purposes. The consumptive use of water for mining purposes, mainly evaporation from canal surfaces, is considered negligible. These unit values of consumptive use of applied water from Bulletin No. 2 for the American River Unit are: pasture 2.1, orchard 1.3, hay and grain 0.6, and miscellaneous field crops 0.9 acre-feet per acre.

The total water diversion measured during 1960 was 139,440 acre-feet, as detailed in Table 7. Of this 49,818 acre-feet were diverted for irrigation, 86,118 acre-feet for power

generation and 1,659 acre-feet for mining. Seasonal diversion rates of individual diversion systems for irrigation varied from less than 0.9 to over 24.5 acre-feet per acre.

TABLE 6
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted acre-feet	Type	Amount				Reference
BLUE CANYON SUBUNIT											
M. D. B. & M. D16N/11E-1C1 (Sheet 3)	John R. Hodgson	Blue Canyon Creek	Irrig. Stock.	26 acres by flooding 40 head	Not meas.	Approp.	0.125 cfs 110 af	A-18541 ^a	1947	Storage and gravity; earth dam 15 feet high, 650 feet long, with 0.2 mile of earth ditch. Storage capacity: 110 af	Serves United States Weather Bureau Blue Canyon Station.
D16N/11E-2Q1 (Sheet 3)	United States Tahoe National Forest	Springs tributary to Blue Canyon	Domestic	(b) *	Not meas.	Approp.	0.0186 cfs	A-9114 ^a	1937	Pump; 2 hp motor with 1,200 feet of 1.5-inch pipe.	Serves community of Blue Canyon. Received supplemental supply from D16N/11E-1A1.
D16N/11E-11A1 (Sheet 3)	Southern Pacific Company	Blue Canyon	Domestic	15 connections*	Not meas.	Riparian	--	--	1909	Gravity; 6,600 feet of 4-, and 6-inch pipe.	Amount diverted supplemented D16N/11E-11A1.
D16N/11E-1A1B1 (Sheet 3)	ChicoSpring Southern Pacific Company	Spring tributary to Blue Canyon	Domestic	(*)	Not meas.*	(c)	--	--	--	Gravity; concrete encased spring with 1,000 feet of 4-inch pipe.	Serves community of Redgrant Gap. Received supplemental supply from D17N/12E-33B2.
D17N/12E-36F1 (Sheet 3)	Patt Lake Central Pacific Railroad Company	Blue Canyon	Domestic Indust.	35-40 connections* road construction uses	Not meas.	(c)	--	--	1916	Storage and gravity; earth dam 19 feet high, 1,025 feet long and rock wing dam 10 feet high, 900 feet long. Storage capacity: 249 af	Reported amount diverted via D17N/12E-33B1 (Lake Valley Canal) for power in Yuba-Bear River Hydrographic Unit.**
D17N/12E-25F1 (Sheet 1)	Kelly Lake Pacific Gas and Electric Company	Simille Valley	(*)	(*)	308*	Approp.	300 af	A-4851 ^a	1925	Storage and gravity; earth dam 21 feet high, 500 feet long. Storage capacity: 360 a.af	Reported amount diverted includede amounts reported under D17N/12E-25F1 (Kelly Lake) and D17N/12E-35C1 (Lake Valley Reservoir) and exported for power in Yuba-Bear River Hydrographic Unit.**
D17N/12E-35B1 (Sheet 1)	Lake Valley Canal Pacific Gas and Electric Company	North Fork of North Fork American River	Export	(*)	7,430*	(c)	--	--	About 1911	Gravity; concrete dam 6 feet high, 60 feet long, with 2.3 miles of canal, pipeline and flume.	Amount diverted supplemented D17N/11E-36F1.
D17N/12E-33B2 (Sheet 1)	Southern Pacific Company	North Fork of North Fork American River	Domestic Indust.	(*) (*)	Not meas.*	(c)	--	--	1924	Gravity; concrete dam 6 feet high, 50 feet long, with 3.6 miles of 6- and 8-inch pipe.	Former owner: Towle Brothers. Reported amount diverted is exported via D17N/12E-33B1 (Lake Valley Canal) for power in Yuba-Bear River Hydrographic Unit.**
D17N/12E-35C1 (Sheet 1)	Lake Valley Reservoir Pacific Gas and Electric Company	North Fork of North Fork American River	(*)	(*)	6,537*	Approp.	--	--	1887	Storage and gravity; two-section earth and rock dam (West Section) 74 feet high, 940 feet long; (South Section) 25 feet high, 300 feet long, with 24-inch discharge pipe to natural channel from east end of South Section.	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and profile 2 sheet number	Diversion name and/or owner	Source	Water use in 1960		Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type			
COLOMA SUBUNIT									
M D B & M D10M/11E-211 (Sheet 2A)	W. R. A. Mygerson	Tributary to South Fork American River	Irrig.	4 acres by eprinkler	Not meas.	Approp.	--	Storage and pump; earth dam 15 feet high, 350 feet long, with 3 hp electric motor.	Former owner: O. Fitch.
D10M/11E-301 (Sheet 2A)	W. C. Cumming	White Rock Creek	Irrig. Recr.	10 acres by flooding Swimming and fishing	Not meas.	Approp.	A-12210 ^a	Storage and pump; earth dam 20 feet high, 400 feet long, with 10 hp electric motor and 0.1 mile of 4-inch pipe. Storage capacity: 25 af	Former owners: P. W. McCuan, W. J. Cumming.
D10M/12E-411 (Sheet 25)	Katherine C. Larsen and Sons	Brush Canyon	Irrig. Domestic	153 acres by eprinklers* (b)	141	Approp.	A-6410 ^a	Gravity; 3,000 feet of earth ditch and 5,500 feet of 4- and 6-inch pipe.	Area irrigated received supplemental water purchased from El Dorado Irrigation District.
D11M/9E-3H1 (Sheet 18)	Byron and Francis Bacchi	Greenwood Creek	Irrig.	17 acres by eprinkler	32	Riparian	--	Pump; 15 hp electric motor with 0.5 mile of 3-inch pipe.	
D11M/9E-6A1 (Sheet 18)	C. A. Steeve	Tributary to Hastings Creek	Irrig.	13 acres by flooding	Not meas.	(c)	--	Storage and pump; earth dam 17 feet high, 150 feet long, with 10 hp electric motor and 80 feet of 4-inch pipe.	
D11M/9E-7B1 (Sheet 18)	B. Blinshl	Tributary to Blue Tent Creek	Irrig.	4 acres by eprinkler	Not meas.	(c)	--	Storage and pump; 3 small reservoirs with earth dams approximately 10 feet high, 200 feet long, with a 7.5 hp electric motor and 0.2 mile of 2- and 3-inch pipe.	
D11M/9E-7H1 (Sheet 18)	K. W. and Melba Trowbridge	Norton Ravine	Stock Water. Prot. Stock.	60 head Fishing	Not meas.	Approp.	A-13766 ^a	Storage; earth dam 25 feet high, 200 feet long. Storage capacity: 15 af	
D11M/9E-8F1 (Sheet 18)	Richard M. Miller	Norton Ravine	Stock.	--	Not meas.	Approp.	A-1212A ^a	Storage; earth dam 28 feet high, 266 feet long. Storage capacity: 22 af	
D11M/9E-12C1 (Sheet 18)	Byron and Francis Bacchi	Brush Creek	Irrig. Stock.	11 acres by eprinkler* 1,000 head	Not meas.	(c)	--	Storage and gravity; earth dam 29 feet high, 300 feet long, with 0.5 mile 4-inch pipe. Storage capacity: 29 af	Normally irrigated additional 2 acres. Area idle in 1960.
D11M/9E-12F1 (Sheet 18)	Byron and Francis Bacchi	Brush Creek	Irrig.	9 acres by eprinkler	Not meas.	Riparian	--	Pump; 10 hp electric motor with 600 feet of 3-inch pipe.	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of approval or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
COLOMA SUBUNIT (Continued)											
M. D. B. & M. DLM/9E-16Q1 (Sheet 18)	Joe and Lillian Vicini	Tributary to South Fork American River	Irrig. Stock.	5 acres by sprinkler* 60 head	Not meas.	Approp.	0.27 cfs 63 af	A-1580L ^a	About 1954	Storage and gravity; earth dam 23 feet high, 300 feet long, with 20 feet of 4-inch pipe to pipeline from DLM/9E-21H1. Storage capacity: (*)	Acres reported was irrigated jointly with DLM/9E-16Q2, DLM/9E-21A1 and DLM/9E-21H1. Water right amounts apply to DLM/9E-21H1 for direct diversion and to DLM/9E-16Q1, DLM/9E-16Q2 and DLM/9E-21A1 for storage. Aggregate storage capacity: 63 af.
DLM/9E-16Q2 (Sheet 18)	Joe and Lillian Vicini	Tributary to South Fork American River	(*)	(*)	Not meas [#]	(*)	(*)	(*)	About 1954	Storage and gravity; earth dam 23 feet high, 200 feet long, with 0.2 mile of 4- inch pipe. Storage capacity: (*)	Water use and water right data reported under DLM/9E-16Q1.
DLM/9E-21A1 (Sheet 18)	Joe and Lillian Vicini	Tributary to South Fork American River	(*)	(*)	Not meas [#]	(*)	(*)	(*)	About 1954	Storage and gravity; earth dam 23 feet high, 300 feet long. Storage capacity: (*)	Water use and water right data reported under DLM/9E-16Q1.
DLM/9E-21H1 (Sheet 18)	Joe and Lillian Vicini	Burnt Shanty Creek	(*)	(*)	Not meas [#]	(*)	(*)	(*)	About 1870	Gravity; earth dam 5 feet high, 50 feet long, with 0.8 mile of earth ditch to storage in DLM/9E-16Q1.	Former owner: G. Basely. Water use reported under DLM/9E-16Q1.
DLM/9E-27E1 (Sheet 18)	Jacobs Creek Reservoir L. D. Stodick	Jacobs Creek	Irrig. Stock. decr.	400 head Fishing and hunting	Not meas.	Approp.	636 af	A-1213L ^a	1947	Storage and gravity; earth dam 48 feet high, 350 feet long, with 2,680 feet of 4-, 6- and 8-inch pipe.* Storage capacity: 587 af	Previously irrigated 90 acres. Area was idle in 1960. Storage is released to natural channel below reservoir for conveyance to pipeline at DLM/9E-14Q1.
DLM/9E-27M1 (Sheet 18)	C. L. and R. E. Singleton	Tributary to South Fork American River	Stock.	34 head	Not meas.	(c)	—	—	1958	Storage; earth dam 35 feet high, 300 feet long.	
DLM/10E-611 (Sheet 19)	Mrs. Henry, Byron and Francie Bacchi	Indian Creek	Domestic Stock.	200 head	Not meas.	Approp.	0.05 cfs	A-4866 ^a	1925	Gravity; 1.9 miles of 2-, 2.5-, 3- and 4-inch pipe.	
DLM/10E-14Q1 (Sheet 19)	Earl D. and Alice M. Taylor	Keelsey Canyon	Irrig. Domestic	9 acres by sprinkler (b)	Not meas.	Riparian	—	—	Prior 1952	Pump; 5 hp electric motor with a 3-inch pipeline.	Former owner: George Neilson.
DLM/10E-16M1 (Sheet 19)	Manefield Ditch Melvin and Frank Gallagher	Dutch Creek	Irrig. Stock.	10 acres by flooding* 40 head	Not meas.	Approp.	—	—	About 1860	Gravity; earth dam with 1.0 mile of earth ditch.	Former owner: Manefield. Acreage reported was irrigated jointly with DLM/10E-17Q1. Normally irrigated an additional 2 acres.
DLM/10E-17Q1 (Sheet 19)	Melvin and Frank Gallagher	South Fork American River	Irrig.	(*)	108*	Riparian	—	—	About 1919	Pump; 10 hp electric motor with 0.2 mile of earth ditch.	Amount diverted irrigated jointly with DLM/10E-16M1.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks	
		Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount				Reference
COLOMA SUBUNIT (Continued)										
M D B & M DLN/10E-18N1 (Sheet 19)	South Fork American River	Irrig. Domestic	(*) (b)	Not meas.	Approp.*	0.014 cfs	A-15662 ^a	About 1955	Pump; 5 hp electric motor with 0.2 mile of 2.5-inch pipe.	Former owners: Harry and Violet Heaside. Previously irrigated 6 acres. Area was idle in 1960. Water right filed in name of Harry and Violet Heaside.
DLN/10E-26L1 (Sheet 19)	South Fork American River	Irrig. Stock.	181 acres by flooding and sprinkler* 750 head	3,490	Approp.	--	--	About 1898	Gravity; concrete dam 4 feet high, 300 feet long, with 12.0 miles of earth ditch.	Former owners: El Dorado Tunnel Mining and Ditch Company; Will Stearns; Mrs. W. Mahler; Mrs. J. L. Norris; Adamussen Estate; Bassey; M. White; G. W. Ramsey; E. K. Keller; E. Wehler; F. J. G. Wagner; Joe Blumie; M. W. Valentine and H. Mahler. Previously irrigated additional 44 acres. Area idle in 1960.
DLN/10E-28K1 (Sheet 19)	Tributary to Indian Creek	Irrig. Stock.	5 acres by sprinkler*	Not meas.	Approp.	0.016 cfs	A-16037 ^a	1954	Pump; 3 hp electric motor with aluminum pipeline.	Previously irrigated a 20 acre orchard.
DLN/10E-29Q1 (Sheet 19)	Chuck Ravine	Irrig. Recr.	7 acres by furrow Fishing	Not meas.	Approp.*	4 af	A-12462 ^b	1948	Storage and pump; earth dam 14 feet high, 258 feet long with 5 hp electric motor and 250 feet of 4-inch pipe. Storage capacity: 12 af.	Water right filed in name of Sam Winje.
DLN/10E-29Q1 (Sheet 19)	Granite Creek	Irrig. Stock. Recr.	40 acres by flooding 60 head Fishing	73	(c)	--	--	About 1931	Storage and gravity; earth dam 20 feet high, 300 feet long, with 0.2 mile of earth ditch.	Former owner: L. W. Veerkamp.
DLN/10E-33A1 (Sheet 19)	Tributary to Indian Creek	Irrig. Stock. Recr.	7 acres by sprinkler 15 head Fishing	Not meas.	Approp.	11 af	A-12463 ^a	About 1948	Storage and gravity; earth dam 15 feet high, 325 feet long, with 10 hp electric motor and 0.2 mile of 4-inch pipe. Storage capacity: 23 af.	Former owner: A. H. Hamilton.
DLN/10E-33A2 (Sheet 19)	Indian Creek	Irrig. Stock. Recr.	39 acres by furrow 12 head Fishing	Not meas.	Approp.	.0062 cfs	A-12464 ^a	About 1933	Storage and gravity; earth dam 20 feet high, 200 feet long, with 0.1 mile of earth ditch and 3,000 feet pipeline. Storage capacity: 24 af.	Former owner: A. H. Hamilton.
DLN/10E-34E1 (Sheet 19)	Tributary to Indian Creek	Irrig. Domestic Stock. Recr.	24 acres by sprinkler 15 head Fishing	Not meas.	Approp.	24 af	A-12463 ^a	About 1940	Storage and pump; earth dam 15 feet high, 100 feet long with 7.5 hp electric motor and short pipeline. Storage capacity: 24 af.	Former owner: A. H. Hamilton.

* See remarks.
 ** For additional information see Appendix D. *Detailed Descriptions of Certain Surface Water Diversions.*
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960		Apparent water right			Indicated date of appropriation first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
COLOMA SUBUNIT (Continued)										
M D B & M DLM/11E-1601 (Sheet 19)	Finnon Reservoir State of California Department of Fish and Game	Jaybird Creek*	Irrig. Reer.	Swimming and fishing	Not meas.	Approp.	--	1905	Storage; earth dam 50 feet high, 870 feet long. Storage capacity: 400 af	Former owners: American River Electric Company, Western States Gas & Electric Company, Pacific Gas & Electric Company and Moequito District Mutual Water Company. Main source of supply is from Slab Creek via DLM/12E-2871 (Summer-field ditch).
DLM/11E-320L (Sheet 19)	Lawrence T. and Vera Moore	Spring tributary to White Rock Creek	Irrig. Domestic	6 acres by sprinkler* (b)	Not meas.	Approp.	.011 cfs A-11303 ^a	Prior 1946	Pump; electric motor with 500 feet of 1-inch pipe.	Former owner: Roy Madon. Acreage irrigated received supplemental supply from El Dorado Irrigation District.
DLM/11E-338L (Sheet 19)	George H. and Isabelle D. Volz	Tributary to South Fork American river	Irrig. Stock Reer.	46 acres by sprinkler* 15 head Fishing	Not meas.	Approp.	44 af A-13971 ^a	About 1946	Storage and pump; earth dam 29 feet high, 300 feet long, with 5 hp electric motor. Storage capacity: 45 af	Acreage reported was irrigated jointly with DLM/11E-3382, DLM/11E-330L and supplemental water purchased from El Dorado Irrigation District.
DLM/11E-338L (Sheet 19)	George H. and Isabelle D. Volz	Tributary to South Fork American River	Irrig. Stock Reer.	10 head (*) Fishing	Not meas.	Approp.	55 af A-13971 ^a	About 1954	Storage and pump; earth dam 25 feet high, 300 feet long, with 10 hp electric motor. Storage capacity: 30 af	Amount diverted irrigated jointly with DLM/11E-3381, DLM/11E-330L and supplemental water purchased from El Dorado Irrigation District.
DLM/11E-330L (Sheet 19)	George H. and Isabelle D. Volz	Spring tributary to Indian Creek	Irrig. Stock.	8 acres by sprinkler** 15 head	Not meas.	Riparian	--	About 1957	Gravity; drain system picks up flow from springs and purchased irrigation water.	Amount diverted also irrigated jointly with DLM/11E-3381, DLM/11E-3382 and supplemental water purchased from El Dorado Irrigation District.
DLM/11E-340L (Sheet 19)	J. E. Haseler Estate	South Canyon	Irrig.	21 acres by furrow	Not meas.	Approp.	--	Prior 1914	Gravity; earth and gravel dam with 150 feet of wood flume and 0.3 mile of earth ditch.	Former owner: W. I. Hartwick.
DLM/11E-340L (Sheet 19)	J. E. Haseler Estate	South Canyon	Irrig.	2 acres by furrow	Not meas.	Approp.	--	Prior 1914	Gravity; 70 feet of 6-inch pipe and 0.3 mile of earth ditch.	Former owner: John Gleese.
DLM/11E-340L (Sheet 19)	Lucy M. Brunius	Spring tributary to South Canyon	Irrig.	26 acres by sprinkler	Not meas.	Riparian	--	Prior 1900	Pump; 5 hp electric motor with a short pipeline.	
DLM/11E-350L (Sheet 19)	A. C. and Juanita Winkelman	North Canyon Creek	Irrig.	29 acres by sprinkler	Not meas.	Riparian	--	Prior 1920	Pump; 10 hp electric motor with 1,700 feet 3- and 6-inch pipe.	
DLM/11E-357L (Sheet 19)	J. E. Haseler Estate	South Canyon	Irrig.	14 acres by furrow	Not meas.	Approp.	--	About 1890	Gravity; rock and gravel dam with 1.1 miles of earth ditch.	Former owner: J. E. Haseler.
DLM/11E-350L (Sheet 19)	A. C. and Juanita Winkelman	South Canyon Creek	Inoust.	Lumber mill and log pond	Not meas.	(c)	--	About 1946	Storage; earth dam 15 feet high, 200 feet long.	
DLM/11E-350L (Sheet 19)	J. A. Haseler A. C. and Juanita Winkelman	Coon Gulch	Irrig. Domestic	17 acres by flooding and sprinkler* (b)	417	Approp.	0.75 cfs A-9463 ^a	Prior 1900	Gravity; earth and rock fill dam with 0.6 mile of earth ditch.	Former owner: Adam Haseler.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.

DESCRIPTORS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
COLOMA SUBUNIT (Continued)											
M. D. B. & V. D11N/11E-35Q1 (Sheet 19)	A. C. and Juanita Winkelman	South Canyon Creek	Indust. Fire Stock. Recr.	Lumber mill 100 head Swimming and fishing	Not meas.	(c)	--	---	About 1950	Storage; earth dam 8 feet high, 120 feet long.	
D11N/11E-36K1 (Sheet 19)	A. C. and Juanita Winkelman	North Canyon Creek	Irrig. Domestic	54 acres by sprinkler* 30 persons	Not meas.	Approp.	--	Book of Meter Rights Page 262d	About 1860	Storage and gravity; earth dam 26 feet high, 300 feet long, with 1.3 miles of 4-, 6-, 8-, and 10-inch pipe.	Former owners: Johnson; John Cleese; Halarax. Previously irrigated an additional 19 acres. Area was idle in 1960.
D11N/12E-19N1 (Sheet 20)	American River Flume Pacific Gas and Electric Company	South Fork American river	Power	5,600 kw	Not meas.	Approp.	--	---	1903	Gravity; timber crib dam 51 feet high, 170 feet long, with 7.3 miles of canal and flume.	Former owners: American River Electric Company; Western States Electric Company.
D11N/12E-25L1 (Sheet 20)	Harvey E. West	Deadman Spring	(*)	(*)	Not meas.	Approp.*	0.2 cfs	A-17377 ^a	1950	Pump; 15 hp electric motor with 100 feet of 6-inch and 1,200 feet of 4-inch pipe.	Meter right also listed in name of Placerville Lumber Company and is leased by Hollock Pipe and Utility District. Amount diverted is pumped into El Dorado Main Canal as partial repayment for water purchased from El Dorado Irrigation District.
D11N/12E-31H1 (Sheet 20)	John, Lawrence and Ruth Larsen	Brush Canyon	Irrig. Domestic	63 acres by sprinkler (b)	476	Approp.	1.25 cfs	A-3405 ^a	1923	Gravity; 2.0 miles of earth ditch and 0.6 mile of 6-inch pipe.	Area irrigated received supplemental water purchased from El Dorado Irrigation District.
D11N/12E-35H1 (Sheet 20)	B., A., and M. Harrie	Tributary to Lowe Canyon	Irrig. Domestic	8 acres by furrow* (b)	Not meas.	Riparian	--	---	Prior 1900	Gravity; 0.3 mile of earth ditch.	
D12N/9E-13D1 (Sheet 14)	E. A. Long	Tributary to Penobscot Creek	Recr.	Fishing	Not meas.	(c)	--	---	1953	Storage; earth dam 10 feet high, 100 feet long.	
D12N/9E-14A1 (Sheet 14)	E. A. Long	Penobscot Creek	Irrig. Stock. Recr.	15 acres by sprinkler 475 head Fishing	17	(c)	--	---	1952	Storage and pump; earth dam 30 feet high, 250 feet long, with 5 hp electric motor and 0.3 mile of 5-inch pipe.	
D12N/9E-16J1 (Sheet 14)	Lawrence Niegel	Black Rock Creek	Irrig.	30 acres by furrow	91	Approp.* Approp.	14.5 af .090 cfs .15 cfs	A-13520 ^a A-12999 ^a	1946 1949	Storage and gravity; earth dam 10 feet high, 250 feet long, with 0.6 mile of earth ditch.	Water Right Application No. 13521 assigned to Bernice and Ralph Bowen 4/16/62 and Application No. 12999 partially assigned to Bernice Bowen 11/9/60.
D12N/9E-16K1 (Sheet 14)	Lawrence Niegel	Tributary to Black Rock Creek	Irrig. Stock.	26 acres by flooding 50 head	63	Approp.	4.0 af	A-13520 ^a	1947	Storage and gravity; earth dam 25 feet high, 300 feet long, with 0.25 mile of earth ditch. Storage capacity: 50 af	

* See remarks.
** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Divisions".
-- Information not available.
For lettered footnotes, see next page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount				Reference
COLOMA SUBUNIT (Continued)											
<u>M. D. B. & M.</u> D12N/9E-21F1 (Sheet 14)	Lawrence Nisgel and Bernice Bowen	Tributary to Black Rock Creek	Irrig. Stock.	18 acres 50 head	64	Approp.*	145 af	A-1352L	1949	Storage and gravity; earth dam 55 feet high, 450 feet long, with 360 feet of 12-inch pipe to earth ditches. Storage capacity: 160 af	Application No. 1352L assigned to Bernice and Ralph Bowen 4/16/62.
D12N/9E-21H1 (Sheet 14)	Lawrence Nisgel	Black Rock Creek	Irrig. Stock.	9 acres by flooding 50 head	Not meas.	Approp.*	.090 cfs .15 cfs	A-12999 ^a	1947	Gravity; small spreader ditches.	Application No. 12999 partially assigned to Bernice Bowen 11/9/60.
D12N/9E-33H1 (Sheet 14)	Richard M. Miller	Black Rock Creek	Irrig. Stock. Beer.	50 acres by sprinkler 100 head Fishing	111	Approp.	49 af 0.92 cfs 52 af	A-10731 ^a A-13129 ^a	1943 1949	Storage and pumps; earth dam 40 feet high, 340 feet long, with 15- and 30 hp electric motors and 0.5 mile of 10-inch pipe. Storage capacity: 120 af	Former owner: H. B. Abrams.
D12N/9E-34L1 (Sheet 14)	Byron and Francis Bacchi	Greenwood Creek	Irrig.	36 acres by flooding	43	Approp.	--	--	1851	Gravity; concrete dam 8 feet high, 40 feet long, with 0.5 mile of concrete and earth ditch.	
D12N/10E-17D1 (Sheet 14)	W. L. and Virginia Fisk	Poverty Creek	Irrig. Domestic	7 acres by sprinkler (b)	Not meas.	Approp.*	0.46 cfs	A-10700 ^a	1943	Pump; 1.5 hp electric motor with 350 feet of 1.5-inch pipe.	Water right also in name of Gordon Maddox; W. and A. Santos; R. C. and S. V. Dalby.
D12N/10E-17D2 (Sheet 14)	W. L. Fisk	Poverty Creek	Mining	Concentrator Tables and Mill	Not meas.	Riparian	--	--	1953	Pump; two 1-inch pumps with 100 feet of 2-inch pipe to small storage tank.	
D12N/10E-22N1 (Sheet 14)	Fred C. Ostenrielder	Manhattan Creek	Irrig. Stock. Beer.	25 acres by sprinkler 22 head Fishing	102	Approp.	110 af	A-13644 ^a	1950	Storage and gravity; earth dam 32 feet high, 350 feet long, with a 0.8 mile of 3-, 6-, and 12-inch pipe. Storage capacity: 110 af	
D12N/10E-24K1 (Sheet 14)	H. D. Price	Springs tributary to Treveres Creek	Irrig. Stock.	16 acres by sprinkler 20 head	Not meas.	Riparian	--	--	1957	Gravity; 0.3 mile of earth ditch with small relief pump.	
D12N/10E-28E1 (Sheet 14)	LeRoy and Jewell Kahl	Tributary to Coloma Canyon	Irrig.	5 acres by sprinkler	Not meas.	Approp.	36 af	A-18189 ^a	1958	Storage and gravity; earth dam 10 feet high, 125 feet long, with 1.5-inch sprinkler pipe. Storage capacity: 36 af	
D12N/11E-18F1 (Sheet 15)	Alton W. and Myrie J. Rempel	Tributary to Pegleg Creek	Fish Culture	Trout hatchery	Not meas.	Approp.	0.075 cfs 25 af	A-18512 ^a	1958	Storage; three earth dams (1) 35 feet high, 175 feet long; (2) 15 feet high, 150 feet long; (3) 25 feet high, 210 feet long. Storage capacity: 25 af	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Division name and/or owner	Source	Water use in 1960		Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type			
M. D. B. & W. DL2W/11E-20B1 (Sheet 15)	H. D. Price	Spring tributary to Bear Creek	Irrig. Stock.	23 acres by sprinkler 4D head	Not meas.	(c)	1955	Storage and pump; earth dam 22 feet high, 100 feet long, with 5 hp electric motor and 0.3 mile of 3-inch pipe.	Former owners: English Mining Company; James W. Summerfield; Western States Gas and Electric Company and Pacific Gas and Electric Company. Portion of amount diverted supplemented DL1W/11E-16Q (Finnon Reservoir) for recreational use.
			Irrig. Stock.	4D head	Not meas.	(c)	1955	Gravity; timber dam 1.5 feet high, 10 feet long, with 20.4 miles of earth ditch.	
DL2W/12E-28F1 (Sheet 15)	Summerfield Ditch Mosquito District Mutual Water Company	Slab Creek	Irrig. Stock.	11.5 acres by flooding and sprinkler	Not meas.	Approp.	1858	Storage; earth dam 35 feet high, 270 feet long. Storage capacity: 34 ac	Former owner: Chilquita Land Development Company.
			Domestic Stock.	Lumber mill (b)	Not meas.	Approp.	1858	Storage and gravity; concrete and earth dam 280 feet high, 1,400 feet long, with 8,200 feet of earth filled wing wells. Storage capacity: 1,000,000 ac	
DL3W/11E-34A1 (Sheet 15)	Chilquita Lake Neal D. and Inez L. Smith	Rock Creek	Irrig. Stock.	Swimming and fishing	Not meas.	(c)	1932	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Former owner: Dormant Estate.
			Domestic Stock.	Swimming and fishing	Not meas.	(c)	1932	Gravity; direct diversion from developed springs to a small earth ditch.	
DL1W/7E-24G1 (Sheet 23)	Folsom Reservoir United States Bureau of Reclamation	American River	Export Recr.	(*) Swimming, boating and fishing	1,618,665*	Approp.*	1850 1854	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Area irrigated received supplemental water purchased from Georgetown Divide Public Utility District.
			Export Recr.	(*) Swimming, boating and fishing	1,618,665*	Approp.*	1850 1854	Gravity; direct diversion from developed springs to a small earth ditch.	
DL1W/9E-20B1 (Sheet 23)	Edwin W. Greenhalgh	Springs tributary to Green Spring Creek	Irrig. Stock.	11 acres by flooding	Not meas.	Riparian	About 1860	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Import from Yuba-Bear Rivers Hydrographic Unit. Lateral of Boardman Canal System. Meter use and water right data reported under DL7W/11E-36D1 (Boardman Canal). **
			Irrig. Stock.	11 acres by flooding	Not meas.	Riparian	About 1860	Gravity; direct diversion from developed springs to a small earth ditch.	
DL1W/8E-1G1 (Sheet 18)	Gordon H. Garland	Pilot Creek	Irrig. Stock.	42 acres by sprinkler	12	Approp.	1949	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Area irrigated received supplemental water purchased from Georgetown Divide Public Utility District.
			Irrig. Stock.	42 acres by sprinkler	12	Approp.	1949	Gravity; direct diversion from developed springs to a small earth ditch.	
DL1W/8E-4H1 (Sheet 18)	Joe P. Kelley	Tributary to Folsom Reservoir	Irrig. Stock.	8 acres by sprinkler 25 head	69	(c)	—	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Import from Yuba-Bear Rivers Hydrographic Unit. Lateral of Boardman Canal System. Meter use and water right data reported under DL7W/11E-36D1 (Boardman Canal). **
			Irrig. Stock.	8 acres by sprinkler 25 head	69	(c)	—	Gravity; 1.0 mile of pipeline with 1.7 cfs capacity.	
DL1W/8E-5E1 (Sheet 18) (Import)	Monte Rio Pipe Pacific Gas and Electric Company	Tributary to Folsom Reservoir	Irrig. Stock.	8 acres by sprinkler 25 head	69	(*)	(*)	Storage and pump; earth dam 20 feet high, 110 feet long, with 15 hp electric motor and 0.2 mile of 8-inch pipe. Storage capacity: 12 ac	Import from Yuba-Bear Rivers Hydrographic Unit. Lateral of Boardman Canal System. Meter use and water right data reported under DL7W/11E-36D1 (Boardman Canal). **
			Irrig. Stock.	8 acres by sprinkler 25 head	69	(*)	(*)	(*)	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
		Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
FOLSOM SUBUNIT (Continued)										
N. D. B. & M. DL2W/85-13RI (Sheet 14)	Salt Creek	Irrig. Stock	6 acres by flooding 80 head	Not meas.	Approp.	25 af	A-15028 ^a	1952	Storage and pump; earth dam 25 feet high, 250 feet long, with 7.5 hp electric motor and 163 feet of 4-inch pipe. Storage capacity: 25 af	
DL2W/85-15FI (Sheet 14) (Import)	(*)	(*)	(*)	3,427	(*)	(*)	(*)	(*)	Gravity; 5.4 miles of concrete canal with 6.5 cfs capacity.	Import from Yuba-Bear Rivers Hydrographic Unit. Lateral of Boardman Canal System. Water use and water right data reported under DL7W/11E-36DI (Boardman Canal).**
DL2W/85-20QI (Sheet 14) (Import)	(*)	(*)	(*)	526	(*)	(*)	(*)	(*)	Gravity; 0.5 mile of concrete canal with 1.0 cfs capacity.	Import from Yuba-Bear Rivers Hydrographic Unit. Lateral of Boardman Canal System. Water use and water right data reported under DL7W/11E-36DI (Boardman Canal).**
DL2W/85-24JI (Sheet 14)	Knickerbocker Creek	Irrig. Stock	34 acres by flooding ^a 100 head	204	Approp. Approp.	4 af 22 af	A-13107 ^a A-14165 ^a	1949 1951	Storage and pump; earth dam 18 feet high, 200 feet long, with 15 hp electric motor and 250 feet of 6-inch pipe. Storage capacity: 26 af	Area irrigated received supplemental water purchased from Georgetown Divide Public Utility District.
DL2W/85-25AI (Sheet 14)	Knickerbocker Creek	Irrig.	(*)	(*)	Approp.	30 af	A-13629 ^b	1950	Storage and gravity; concrete dam 20 feet high, 200 feet long. Storage capacity: 30 af	Amount diverted supplemented DL2W/85-25BI.
DL2W/85-25BI (Sheet 14)	Knickerbocker Creek	Irrig.	18 acres by flooding ^a	44	Approp.	14 af	A-14515 ^a	1951	Storage and pump; earth dam 24 feet high, 300 feet long, with 10 hp electric motor and 400 feet of 4-inch pipe. Storage capacity: 30 af	Area irrigated received supplemental water purchased from Georgetown Divide Public Utility District and a supplemental supply from DL2W/85-25AI.
DL2W/85-32AI (Sheet 14)	Tributary to American River	Irrig.	19 acres by flooding ^a	Not meas.	Approp.	—	—	1853	Gravity; concrete dam 10 feet high, 10 feet long, with 0.1 mile of earth ditch.	Area irrigated received supplemental supply from DL2W/85-32AI.
DL2W/85-32AI (Sheet 14)	Tributary to American River	Irrig.	(*)	Not meas. ^a	Approp.	—	—	1853	Pump; gasoline engine with short earth ditch.	Amount diverted supplemented DL2W/85-32AI.
DL2W/85-23HI (Sheet 14)	Tributary to American River	Irrig.	4 acres by flooding	Not meas.	Riparian	—	—	1850	Pump; 5 hp electric motor with 400 feet of 4-inch pipe and 400 feet of earth ditch.	
DL2W/85-24HI (Sheet 14)	Tributary to American River	Irrig.	4 acres by flooding	Not meas.	Riparian	—	—	About 1850	Gravity; concrete dam 4 feet high, 12 feet long, with 400 feet of 4-inch pipe to earth ditch.	
DL2W/85-22JI (Sheet 14)	Tributary to American River	Irrig.	10 acres by flooding ^a	Not meas.	Riparian	—	—	About 1900	Pump; gasoline engine with 0.4 mile of earth ditch.	Area irrigated received supplemental water purchased from Pacific Gas and Electric Company.

* See remarks.
 ** For additional information see Appendix D. Detailed Descriptions of Certain Surface Water Diversions.

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
FOLSOM SUBUNIT (Continued)											
M. D. B. & M. DL2W/9E-32FL (Sheet 1A) (Import)	South Canal Pacific Gas and Electric Company	(*)	(*)	(*)	136,725*	(*)	(*)	1919	Gravity; 0.9 mile of concrete lined canal.	Import from Yuba-Bear River Hydrographic Unit, Lateral of Bear River Canal System. Amount diverted for use in Sacramento Valley Floor Hydrographic Unit. Water right data reported under DL5W/9E-22QL (Bear River Canal, Yuba-Bear River Hydrographic Unit). **	
DL2W/9E-33NI (Sheet 1A)	Wisma Borron Malcolm McKay	Tributary to Mormon Ravine	Irrig.	12 acres by sprinkler	Not meas.	Riparian	--	Prior 1950	Pump; 5 hp electric motor with a 4-inch pipeline.		
DL2W/9E-34DI (Sheet 1A)	Charles H. and Gail Muskvitch	East Branch Mormon Ravine	Irrig.	21 acres by sprinkler	Not meas.	Approp.	25 cfs	Prior 1945	Pump; rock and timber dam 6 feet high, 85 feet long, with 10 hp electric motor and 0.2 mile of 4-inch pipe.		
DL2W/9E-35NI (Sheet 1A)	Lon Denison	Tributary to Pilot Creek	Irrig.	85 acres by sprinkler*	Not meas.	Approp.*	57 af	1950	Storage and pump; earth dam 35 feet high, 905 feet long, with 7.5 hp electric motor and 0.2 mile of 6-inch pipe. Storage capacity: 90 af.	Former owner: Ralph E. Enslar. Area irrigated received supplemental water purchased from Georgetown Divide Public Utility District. Water right in name of Charles H. Singer.	
FORESTHILL SUBUNIT											
DL3W/9E-41L (Sheet 1L)	C. Brunkhorst	Tributary to Clipper Creek	Irrig. Stock	12 acres by sprinkler 10 head	Not meas.	(c)	--	1924	Pump; 3 hp motor with a 2-inch portable pipeline.		
DL3W/9E-9QL (Sheet 1L)	California Province of the Society of Jesus	Tributary to Clipper Creek	Domestic Recr.	(b) Swimming and fishing	Not meas.	Approp.*	100 af	1951	Storage; earth dam 28 feet high, 180 feet long and earth wing dam 30 feet high, 150 feet long. Storage capacity: 81 af.	Former owner: Raymond Boole. Water right in name of Our Lady of the Oaks, a California Corporation.	
DL3W/9E-31EL (Sheet 1L)	Lake Clementine California Debris Commission	North Fork American River	Debris Control Recr.	Storage of mine tailings Boating, swimming and fishing	Not meas.	(c)	--	1937	Storage and gravity; concrete arch dam 147 feet high, 620 feet long. Storage capacity: 14,600 af.		
DL4W/9E-10FL (Sheet 8)	Virginia Deleindico	Bunch Canyon	Irrig.	11 acres by flooding	Not meas.	Approp.	--	1870	Gravity; wooden flash board dam 2 feet high, 12 feet long, with 900 feet of 8-inch pipe.	Former owner: Watts.	
DL4W/9E-22FL (Sheet 8)	John H. Lienuu	Live Oak Creek	Fish Culture	--	Not meas.	Approp.	11.6 af	1949	Storage; two earth dams (1) 15 feet high, 350 feet long and (2) 12 feet high, 150 feet long.		

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plots 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of approval or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted acre-feet	Type	Amount	Reference			
FORESTHILL SUBUNIT (Continued)											
M. D. B. & K. DLAM/9E-27H1 (Sheet 8)	E. B. and Theresa C. Markovich	Brushy Creek	Recr.	Fishing	Not meas.	Approp.	20 af	A-17411 ^a	1956	Storage; earth dam 25 feet high, 300 feet long. Storage capacity: 17 af.	Area irrigated received supplemental supply purchased from Pacific Gas and Electric Company.
DLAM/9E-27H1 (Sheet 8)	Drummond Hulbert	Springs tributary to Brushy Creek	Irrig., Indust., Stock	5 acres by sprinkler* Garbage processing 50 head	Not meas.	(c)	--	--	1954	Storage and gravity; earth dam 12 feet high, 300 feet long, with 300 feet of 3-inch pipe.	Former owners: Mayflower, Flaming. Supply community of Foresthill jointly with DLAM/11E-8Q1, DLAM/11E-17C1 and DLAM/11E-17F1.
DLAM/10E-24L1 (Sheet 8)	Foresthill Public Utility District	Nick Welsh Springs	Munic.	220 connections*	Not meas.	Approp.	--	--	Prior 1914	Gravity; 1.3 miles of 3-inch pipe to booster pump and 0.2 mile of 2.5-inch pipe to storage tank.	
DLAM/10E-31Q1 (Sheet 8)	Brian B. and Emma M. Hughes	Owl Creek	Stock	50 head	Not meas.	Approp.	0.63 cfs	A-15522 ^b	1953	Pump; 7.5 hp electric motor with 0.5 mile of 3.5-inch pipe to small pond.	
DLAM/10E-34A1 (Sheet 8)	Stockton Box Company	Devile Canyon Creek	Indust. Fire prot.	Mill pond and boilers* --	Not meas.	Approp.	0.89 cfs 18.1 af	A-18590 ^a	1952	Storage and pump; earth dam 30 feet high, 180 feet long, with 7.5 hp motor and 700 feet of 4-inch pipe.	Use reported is served jointly with DLAM/10E-35D1.
DLAM/10E-35D1 (Sheet 8)	Stockton Box Company	Devile Canyon Creek	Indust. Fire prot.	(*) --	Not meas.	Approp.	0.89 cfs 18.1 af	A-18590 ^a	1949	Storage and pump; earth dam 25 feet high, 200 feet long, with small electric motor and 0.2 mile of 6-inch pipe to mill pond.	Amount diverted served jointly with DLAM/10E-34A1.
DLAM/11E-6M1 (Sheet 8)	Hughes Brothers	Tributary to Cottage Home Creek	Indust. Fire prot.	Mill boilers --	Not meas.	(c)	--	--	1945	Gravity; earth dam 2 feet high, 15 feet long, with 0.6 mile of 4-inch pipe.	
DLAM/11E-8Q1 (Sheet 8)	Foresthill Public Utility District	Mill Creek	Munic.	(*)	Not meas.*	Riparian	--	--	1953	Gravity; concrete dam 5 feet high, 20 feet long, with 3.7 miles of 6-inch pipe.	Supply community of Foresthill jointly with DLAM/10E-24L1, DLAM/11E-17C1 and DLAM/11E-17F1.
DLAM/11E-17C1 (Sheet 8)	Foresthill Public Utility District	Mill Creek	Munic.	(*)	Not meas.*	Approp.	--	--	1954	Pump; small earth dam with 7.5 hp electric motor and 200 feet of 4-inch pipe to 6-inch main pipeline.	Supply community of Foresthill jointly with DLAM/10E-24L1, DLAM/11E-8Q1 and DLAM/11E-17F1.
DLAM/11E-17F1 (Sheet 8)	Foresthill Public Utility District	Temperance Creek	Munic.	(*)	Not meas.*	Approp.*	0.0077 cfs	A-8928 ^a	1957	Gravity; three concrete boxed aprons with 650 feet of 4-inch pipe to booster pump with 80 feet of 4-inch pipe to 6-inch main pipeline.	Supply community of Foresthill jointly with DLAM/10E-24L1, DLAM/11E-8Q1 and DLAM/11E-17C1. Water right in name of United States Tabco National Forest.
DLAM/9E-27H1 (Sheet 5) (Import)	Gulfax Pipeline Electric Company	(*)	(*)	(*)	252	(*)	(*)	(*)	(*)	Gravity; 1.0 mile of pipe with a capacity of 1.0 cfs.	Import from Yuba-Bear Divers Hydrograph Unit. Lateral of Boardman Canal System. Meterage and water right data reported DLAM/11E-36D1 (Boardman Canal),**

* See remarks.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plore 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
FORESTHILL SUBUNIT (Continued)										
M. D. B. & M. D15N/10E-201 (Sheet 5)	Frank Murray	Springs Tributary to Canyon Creek	Irrig.	7 acres by flooding	Not meas.	Riparian	--	Prior 1914	Gravity; a short 3-inch pipe-line.	
D15N/10E-27K1 (Sheet 5)	Macy's Ditch W. S. Macy Estate	Indian Creek	Domestic	11 connections*	Not meas.	Approp.	--	About 1850	Gravity; small earth and rock dam with 2.0 miles of earth ditch.	Former owners: Jameson; Mrs. Dick Eddy; T. L. Schwab. Supplies community of Iowa Hill. Amount diverted received supplemental supply from D15N/11E-17J1 (Big Reservoir) via McGeechin Ditch.
D15N/11E-8C1 (Sheet 5)	Annie Aepman Harold Dueve F. N. R. Sturmfeder	Tributary to North Fork American River	Domestic Mining	(b) Placer	None	(c)	--	1938	Gravity; small earth ditch with 1.0 mile of earth ditch.	
D15N/11E-9L1 (Sheet 5)	United States Tahoe National Forest	North Shrittail Canyon	Irrig.	9 acres by flooding	Not meas.	Approp.	0.03 cfs	Prior 1951	Gravity; small earth ditch.	
D15N/11E-17J1 (Sheet 5)	Big Reservoir McGeechin Placer Gold Mining Company	Tributary to Forbes Creek	Mining Domestic	(*) Placer	977*	Approp.	--	About 1860	Storage and gravity; earth dam 44 feet high, 895 feet long, with 10.4 miles of earth ditch. Storage capacity: 2,200 af	Amount diverted supplements community of Iowa Hill during summer.
D16N/10E-36Q1 (Sheet 3)	Palp Mill Canal Pacific Gas and Electric Company	Canyon Creek	Export	(*)	84.7*	(c)	--	About 1902	Gravity; concrete dam 20 feet high, 50 feet long, with 1.2 miles of earth ditch.	Former owner: Central California Electric Company. Extent of use reported under D17N/11E-36Q1 (Boardman Canal). Amount diverted is flow by-passing D16N/11E-21E1 (Towle Canal) and exported for use in Yuba-Bear River Hydrographic Unit.**
D16N/10E-36R1 (Sheet 3)	Eari and Grace F. Morton	Canyon Creek	Irrig. Recr.	10 acres by flooding and sprinkler Swimming	Not meas.	Approp.*	0.32 cfs	1926	Gravity; 0.6 mile of earth ditch.	Former owner: Dr. Taylor. Water right also is in name of Mrs. Ralph Lyon and Hood Brothers.
D16N/11E-21E1 (Sheet 3)	Towle Canal Pacific Gas and Electric Company	Canyon Creek	Export	(*)	16,550*	Approp.	--	1904	Gravity; concrete dam 4 feet high, 8 feet long, with wood flashboards and 4.2 miles of earth ditch.	Former owner: Central California Electric Company. Extent of use reported under D17N/11E-36Q1 (Boardman Canal). Amount diverted includes amounts imported by Boardman Canal and from Drum Forebay, and are then exported for use in Yuba-Bear River Hydrographic Unit.**

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
M D B & M DLW/11E-36D1 (Sheet 1) (Import)	Boardman Canal Pacific Gas and Electric Company	Bear River*	Irrig. Domestic Munic. Power	1,661 acres* Undetermined number Auburn and Colfax 2,000 kw installed generating capacity at Alta Powerhouse	14,370*	Approp.	--	1893	Gravity; concrete dam 12 feet high, 60 feet long, with a main conduit system, 73.7 miles long, consisting of canal, flume, tunnel, pipeline and natural channel section. Former owners: South Yuba Water Company, Central California Electric Company. Boardman Canal Imports at DL6N/11E-16M1 from Yuba-Bear Divers Hydrographic Unit. Stream flow of Bear River augmented by South Yuba Canal. In addition to reported amount diverted supplemental supply is received from DL6N/11E-21E1 (Towle Canal), DL6N/10E-36Q1 (Pulp Mill Canal), Pitman Ravine and Bear River Canal, reported area irrigated is that area irrigated within the hydrographic unit by the Boardman Canal System. Municipal service totals about 2,750 connections.	
FRENCH MEADOWS SUBUNIT										
DL6N/11E-36L (Sheet 8)	L. L. Anderson	Tributary to West Branch El Dorado Canyon	Fish Culture Mining	Placer*	Not meas.	Riparian	--	About 1872	Gravity; small earth dam, with 1.2 miles of earth ditch and 300 feet of tunnel.	Former owner: Walter Willey. Received supplemental supply from DL6N/11E-10G1.
DL6N/11E-10G1 (Sheet 8)	L. L. Anderson	Spring tributary to West Branch El Dorado Canyon	Fish Culture Mining	Placer	Not meas.*	Riparian	--	About 1872	Gravity; 1,500 feet of mine shaft.	Former owners: Willey, Sr., Walter Willey. Amount diverted supplemented DL6N/11E-36L.
DL6N/12E-14N1 (Sheet 9)	Anna M. Edwards Clare O. Holstrom Edna C. Marshall Frances H. Rechemacher Marvin Tillotson	Passvine Creek	Mining Power Domestic	(b)	Not meas.	Approp. Approp.	3.0 cfs 1.5 cfs	Prior 1932	Gravity; log dam 4 feet high, 16 feet long, with 3.2 miles of earth ditch.	Former owners: A. A. Gorman, O. B. Tillotson.
DL6N/13E-8Q1 (Sheet 9)	Stockton Box Company	Spruce Creek	Indust. Fire Prot.	Wood construction and maintenance	Not meas.	Approp.	0.10 cfs	1950	Pump; portable gas engine and tank truck.	
DL6N/13E-18H1 (Sheet 9)	Pine Nut Ditch Davidson Brothers	Spruce Creek	Mining	Placer	4	Approp.	--	1897	Gravity; rock and concrete dam 10 feet high, 50 feet long, with 2.2 miles of earth ditch.	Former owners: August Davidson, F. C. Davidson.
DL6N/12E-35G1 (Sheet 6)	Pacific Slab Mine Dave Hughes W. E. Wilson	Grouse Creek	Mining	Hydraulic	563	Approp.	40 cfs	About 1860	Gravity; rock and concrete dam 12 feet high, 60 feet long, with 2.9 miles of earth ditch and 0.3 mile of 24-inch penstock.	Former owners: Community of Last Chance, John P. Thompson Estate.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

TABLE 6 (Continued)

**DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT**

Diversion location and/or owner Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960		Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount				Reference
FRENCH MEADOWS SUBUNIT (Continued)											
M D B & M DL5W/13E-50L (Sheet 6)	Ralph and J. J. Sturgill	Secret Canyon	Mining	Flacer*	115	Approp.*	8.0 cfs	A-6039 ^a	1926	Gravity; log and board dam 5 feet high, 16 feet long, with 5.0 miles of earth ditch.	Former owners: Fendleton Brothers. Received supplemental supply from DL5W/13E-78L. Water right assigned to Canada Hill Gold Mining Company.
DL5W/13E-78L (Sheet 6)	Ralph and J. J. Sturgill	Antoine Canyon	Mining	(*)	None*	--	--	--	About 1926	Gravity; small rock and gravel dam with 2 miles of earth ditch to ditch from DL5W/13E-50L.	Former owners: Fendleton Brothers. Amount diverted normally supplemental DL5W/13E-50L.
GREENWOOD SUBUNIT											
DL2W/9E-60L (Sheet 14)	Diamond Springs Lime Company	Middle Fork American River	Mining Indust.	Operates drills, compressors, etc. Lime manufacturing and processing	Not meas.	Approp.	0.13 cfs	A-17370 ^a	1956	Pump; 15 hp electric motor with 640 feet of pipeline to 10,000 gallon storage tank.	
DL2W/10E-11DL (Sheet 14)	Georgetown Divide Public Utility District	Tributary to Illinois Canyon Creek	Irrig.	(*)	10*	(c)	--	--	1953	Pump; 10 hp electric motor with 80 feet of 8-inch pipe.	Amount diverted supplements DL2W/12E-12FL (Georgetown Divide Ditch).
DL3W/9E-130FL (Sheet 11)	John D. Francisco	Gas Canyon	Mining	Hydraulic	Not meas.	Approp.	--	--	About 1870	Gravity; 0.3 mile of earth ditch and 0.4 mile of 6-inch pipe.	
DL3W/9E-144L (Sheet 11)	Kathryn and Marion C. Roan	Springs tributary to Gas Canyon	Irrig. Domestic Stock Reer.	4 acres by sprinkler (b) 20 head Swimming	Not meas.	Riparian	--	--	Prior 1927	Pump; concrete dam 6 feet high, 20 feet long, with 2 hp electric motor and 700 feet of 1.5-inch steel pipe.	Former owner: R. A. Walker
DL3W/9E-35UL (Sheet 11)	R. L. Gordon Dorotea Swanson	American Canyon	Irrig.	9 acres by flooding	Not meas.	Approp.	0.13 cfs	A-17203 ^a	1956	Gravity; rock and earth dam 2.5 feet high, 20 feet long, with 100 feet of 10-inch pipe and 0.3 mile of earth ditch.	Former owner: Albert Miegel.
DL3W/10E-44L (Sheet 11)	Herman Luccini	Spring tributary to Todd Creek	Irrig. Domestic	3 acres by furrow (b)	Not meas.	Riparian	--	--	1870	Gravity; earth dam 8 feet high 25 feet long, with 300 feet of earth ditch.	Former owner: Otis Miller
DL3W/10E-5FL (Sheet 11)	Willard L. Harvey Stanley D. Murphy	Spring Garden Ravine	Irrig.	(*)	Not meas.	(c)	--	--	1960	Storage and pump; earth dam 23 feet high, 34.2 feet long, with electric motor and 0.3 mile of 4-inch pipe.	Former owner: Southern Pacific Company. Formerly irrigated 69 acres. Area was dry farmed in 1960.
DL4W/11E-17VL (Sheet 8)	L. L. Anderson	Tributary to Volcano Canyon	Irrig. Domestic Fish Culture	4 acres by flooding* 13 connections --	Not meas.	Riparian	--	--	1922	Gravity and pump; earth dam 3 feet high, 100 feet long, with 3 hp electric motor and 300 feet of 2-inch pipe to water tanks.	Area irrigated received supplemental supply from a well.

* See remarks.
** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
-- Information not available.
For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted acre-feet	Type	Amount			
PLACERVILLE SUBUNIT										
M. D. B. & M. DLOW/9E-1J1 (Sheet 23)	Hector Williamson	Tributary to Weber Creek	Fish Culture	—	Not meas.	(c)	—	1959	Storage; earth dam 10 feet high, 350 feet long.	
DLOW/9E-1K1 (Sheet 23)	Nector Williamson	Tributary to Weber Creek	Irrig. Recr.	7 acres by Flooding Fishing	Not meas.	Riparian	—	1926	Storage and gravity; concrete and earth dam 18 feet high, 150 feet long with two earth ditches. Storage capacity: 50 af	
DLOW/9E-9A1 (Sheet 23)	Vinton R. Veerkamp	Horman Ravine	Irrig.	11 acres by flooding*	Not meas.*	Riparian	—	1949	Gravity; small earth dam, with 700 feet of 6-inch pipe.	Area irrigated received supplemental supply from a well. Amount diverted supplements DLOW/9E-10D1.
DLOW/9E-10C1 (Sheet 23)	W. R. Lewis W. H. Beach	Spring tributary to Pincham Creek	Irrig. Domestic	9 acres by sprinkler* (b)	Not meas.	Riparian	—	Prior 1900	Pump; 5 hp electric motor with 50 feet of 2-inch and 480 feet of 4-inch pipe.	Former owners: Elzei, Holden. Area irrigated received supplemental supply from a well.
DLOW/9E-10D1 (Sheet 23)	Vinton R. Veerkamp	Horman Ravine	Irrig.	9 acres by sprinkler* (*)	Not meas.	Riparian	—	1946	Pump; 3 hp electric motor with 300 feet of 1.5-inch pipe.	Area irrigated received supplemental supply from DLOW/9E-9A1 and a well.
DLOW/9E-25D1 (Sheet 23)	Euell I. Gray	Kelley Creek	Stock	22 head	Not meas.	Approp.	15 af	1953	Storage; earth dam 20 feet high, 400 feet long.	
DLOW/9E-36A1 (Sheet 23)	Fred Nessels	Spring tributary to Kelley Creek	Irrig. Stock	7 acres by sprinkler* 100 head	Not meas.*	Riparian	—	1925	Pump; 2 hp electric motor with 400 feet of 6-inch pipe.	Acresage reported was irrigated jointly with DLOW/9E-36M1.
DLOW/9E-36M1 (Sheet 23)	Fred Nessels	Tributary to Kelley Creek	Irrig. Stock	(*) (*)	Not meas.*	Riparian	—	1925	Storage and pump; earth dam 10 feet high, 200 feet long with 600 feet of 2.5-inch pipe.	Amount diverted irrigated jointly with DLOW/9E-36M1.
DLOW/10E-1M1 (Sheet 2A)	John M. Caswell	Cold Springs Creek	Irrig. Stock Recr.	6 acres by sprinkler* 200 head Fishing	Not meas.	Riparian	—	About 1928	Storage and pump; earth dam 7 feet high, 125 feet long, with 7.5 hp electric motor and short pipeline.	Former owner: J. W. Caswell. Previously irrigated an additional 10 acres, which were idle in 1960.
DLOW/10E-2F1 (Sheet 2A)	Robert Lowell Lung	Cold Springs Creek	Irrig. Stock Recr.	25 acres by sprinkler* 10 head Fishing	Not meas.	Approp.	25 af	1948	Storage and pump; earth dam 30 feet high, 125 feet long, with 7.5 hp electric motor and 0.2 mile of 4- and 6-inch pipe. Storage capacity: 25 af	Area irrigated received supplemental water purchased from El Dorado Irrigation District. Previously irrigated an additional 2 acres, which were idle in 1960.
DLOW/10E-3B1 (Sheet 2A)	Florence B. Karr	Tributary to Weber Creek	Irrig. Stock	17 acres by sprinkler* 230 head	Not meas.	Approp.	10 af	1947	Storage and pump; earth dam 35 feet high, 125 feet long, with 4.5 hp gasoline engine and 1.0 mile of 2-inch pipe. Storage capacity: 10 af	Former owner: Clyde Wallace
DLOW/10E-3M1 (Sheet 2A)	S. F. Deming	Tributary to Cold Springs Creek	Irrig. Recr. Domestic	Fishing —	Not meas.	Approp.*	0.18 cfs	1925	Storage and gravity; earth dam 16 feet high, 300 feet long, with 500 feet of 1.5-inch pipe.	Former owners: David Barr, Hal R. Berglund. Previously irrigated 3 acres. Area was idle in 1960. Water right assigned to C. R. and G. M. Cuddy.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Divisions".

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
PLACERVILLE SUBUNIT (Continued)										
M D B & M D10M/10E-30L (Sheet 2A)	Kemney Wilkinson	Springs tributary to Cold Springs Creek	Irrig.	5 acres by sprinkler	Not meas.	(c)	--	Storage and pump; earth dam 20 feet high, 200 feet long, with 5 hp electric motor, and 100 feet of 3-inch pipe.	Former owners: Linton G. Beals, L. C. Alder.	
D10M/10E-11C1 (Sheet 2A)	Robert Lowell Lung	Tributary to Cold Springs Creek	Irrig. Recr.	10 acres by sprinkler Fishing	Not meas.	Approp.	15 af	Storage and pump; earth dam 12 feet high, 175 feet long, with 8 hp gasoline engine and 0.2 mile of 2- and 3-inch pipe. Storage capacity: 20 af		
D10M/10E-18C1 (Sheet 2A)	Allied Capital Corporation	Indian Creek	Irrig. Stock	110 acres by sprinkler 250 head	Not meas.	Approp. Approp.	195 af 300 af	Storage and pump; earth dam 36 feet high, 685 feet long, with 0.9 mile of 3-inch pipe and pump at end of pipeline. Storage capacity: 437 af	Former owners: Parker, Bob Handch. Water right assigned to Jack W. and Marcella Greene.	
D10M/10E-21A1 (Sheet 2A)	Hugh H. Smith Estate	Indian Creek	Mining	(*)	Not meas.	Approp.	148 af	Storage and pump; earth dam 35 feet high, 335 feet long, with 3-inch pump and 0.7 mile of 6-inch pipe.	Former owner: Volo Mining Company. Supplied general mill use until 1957.	
D10M/10E-23E1 (Sheet 2A)	Stewart A. Marshal	Mound Springs Creek	Irrig.	15 acres by sprinkler	Not meas.	Approp.	13 af 20 af	Storage and pump; earth dam 20 feet high, 500 feet long, with 3 hp electric motor and 0.2 mile of 4-inch pipe.	Former owner: Martin Schomberg. Area irrigated received supplemental water purchased from El Dorado Irrigation District.	
D10M/10E-25E1 (Sheet 2A)	Tony Paiva	Tributary to Slate Creek	Irrig. Stock	4 acres by flooding and sprinkler 80 head	Not meas.	(c)	--	Storage and pump; 2 earth dams, (1) 8 feet high, 900 feet long, and (2) 10 feet high, 200 feet long, with 7.5 hp electric motor and 200 feet of 4-inch pipe.	Former owner: C. E. Curtis.	
D10M/10E-28L1 (Sheet 2A)	Terrasell Incorporated	Tributary to Dry Creek	Fish Culture Recr. Stock	Swimming 10 head	Not meas.	(c)	--	Storage; earth dam 16 feet high, 300 feet long.		
D10M/10E-32A1 (Sheet 2A)	E. B. Livingstone	Tributary to Slate Creek	Fish Culture Stock	40 head	Not meas.	Approp.	45 af	Storage; earth dam 25 feet high, 500 feet long. Storage capacity: 45 af		
D10M/10E-33A1 (Sheet 2A)	William C. Fredericke	Tributary to Slate Creek	Irrig. Fish Culture Stock Recr.	18 acres by sprinkler 130 head Swimming	Not meas.	Approp.	15 af	Storage and gravity; earth dam 15 feet high, 300 feet long, with 400 feet of 10-inch pipe. Storage capacity: 15 af	Area irrigated received supplemental water purchased from El Dorado Irrigation District.	

* See remarks.

** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

--- Information not available.

For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
		Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
PLACERVILLE SUBUNIT (Continued)									
M. D. B. & M. D10W/10E-33C1 (Sheet 2A)	Tributary to Slate Creek	Irrig. Fish Culture Stock Recr.	18 acres by sprinkler* 100 head Swamping	Not meas.	Riparian	—	1954	Pump; small sump and 1.5-inch pump with 500 feet of 2-inch pipe.	Area irrigated received supplemental water purchased from El Dorado Irrigation District and tailwater from D10W/10E-33A1.
D10W/11E-37F1 (Sheet 2A)	Tributary to Hangtown Creek	Irrig. Recr.	19 acres by sprinkler Fishing	Not meas.	(c)	—	About 1924	Storage and pumps; earth dam 12 feet high, 200 feet long, with 5 hp electric motor.	
D10W/11E-4N1 (Sheet 2A)	Dutch Mary Ravine	Irrig.	9 acres by sprinkler	Not meas.	Approp.	0.033 cfs	About 1934	Pump; 1 hp electric motor with short pipeline.	
D10W/11E-77F1 (Sheet 2A)	Hangtown Creek*	(*)	(*)	3,580	Approp.	—	1853	Gravity; concrete dam 3 feet high, 15 feet long, with 0.5 mile of 24-inch pipe and approximately 8.5 miles of concrete-lined canal.	Former owners: Gold Hill Canal Company, El Dorado Meter Corporation, El Dorado Water Company. Flow of Hangtown Creek is augmented by upstream releases from El Dorado Ditch. Meter use reported under D10W/12E-18Q1 (New Weber Ditch), **
D10W/11E-8A1 (Sheet 2A)	Dutch Mary Ravine	Irrig. Recr.	46 acres by sprinkler Fishing	Not meas.	(c)	—	About 1949	Storage and pump; earth dam 25 feet high, 150 feet long, with 1,000 feet of natural channel and two 7.5 hp electric pumps.	
D10W/11E-8E1 (Sheet 2A)	Tributary to Hangtown Creek	Irrig. Recr.	Fishing	Not meas.	(c)	—	—	Storage and pump; earth dam 14 feet high, 100 feet long, with 5 hp electric motor.	Former owner: Sid Price. Previously irrigated 5 acres. Area was idle in 1960.
D10W/11E-9N1 (Sheet 2A)	Tributary to Hangtown Creek	Fish Culture	—	Not meas.	Approp.	10 af	1947	Storage; earth dam 15 feet high, 150 feet long.	
D10W/11E-11C1 (Sheet 2A)	Tributary to Weber Creek	Irrig.	35 acres by sprinkler*	89	Approp.*	0.22 cfs 105 af	1924	Storage and gravity; earth dam 10 feet high, 150 feet long with 50 feet of 6-inch pipe.	Area irrigated received supplemental supply from D10W/11E-11C2. Water right in name of Fay M. Rupleby Gunby.
D10W/11E-11C2 (Sheet 2A)	Spring tributary to Weber Creek	Irrig. Stock	20 head	Not meas.*	Approp.*	0.18 cfs	1958	Gravity; 1,000 feet of earth ditch and 4,600 feet of 2-, 4- and 6-inch pipe.	Amount diverted supplemented D10W/11E-11C1. Water right in name of Fay M. Rupleby Gunby.
D10W/11E-11C1 (Sheet 2A)	Tributary to Weber Creek	Irrig.	11 acres by sprinkler Domestic	Not meas.	Approp.*	25 af	1958	Storage and gravity; earth dam 24 feet high, 350 feet long with 1,300 feet of 6-inch pipe. Storage capacity: 25 af	Water right in name of Fay M. Rupleby Gunby.
D10W/11E-13C1 (Sheet 2A)	Weber Creek	Irrig. Domestic	7 acres by sprinkler (c)	Not meas.	Approp.	—	About 1900	Pump; 5 hp electric motor with 0.4 mile of 2-inch pipe.	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks	
			Purpose	Extent and method of use	Amount diverted in acres-feet	Type	Amount				Reference
PLACERVILLE SUBUNIT (Continued)											
M D B & H DLOW/11E-14Q1 (Sheet 24)	Ballio F. and Edith M. Canepa	Tributary to Weber Creek	Irrig.	15 acres by sprinklers*	Not meas.	Approp.	0.022 cfs	A-12409 ^a	1948	Pump; 1 hp electric motor with 600 feet of 2-inch pipe.	Area irrigated received supplemental water purchased from El Dorado Irrigation District.
DLOW/11E-19F1 (Sheet 24)	Farmers Ditch* Roy M. and Myrtle Hanks Terrace Mortara D. L. Prusky James W. Sweeney	Weber Creek	Irrig.	262 acres*	1,377*	Approp.	40 MI	Book of Water Rights, Page 69d	1862	Gravity; concrete dam 5 feet high, 50 feet long, with 6.2 miles of earth ditch.	Former owners: El Dorado Water and Deep Gravel Mining Company, Weber Creek Ditch Company, Bureka Canal Company, and O. O. Mills and Company. Farmers Ditch is part of El Dorado Irrigation Ditch distribution system. Reported area irrigated is in addition to acreage served by El Dorado Irrigation District and reported under DLOW/12E-18Q1 (New Weber Ditch). Amount diverted includes water received from El Dorado Irrigation District.**
DLOW/11E-19F1* (Sheet 24) (Import)	Diamond Ditch El Dorado Irrigation District	Squaw Hollow Creek	(*)	(*)	4,354	Approp.	--	--	About 1852	Gravity; 4.5 miles of earth ditch.	Former owner: Diamond Ridge Water Company. Import from Cosumnes-Mokelumne-Calaveras Hydrographic Unit. Water use reported under DLOW/12E-18Q1 (New Weber Ditch).**
DLOW/11E-22D1 (Sheet 24)	F. Darlington Mrs. James Marphall	Weber Creek	Irrig.	14 acres by flooding	Not meas.	Riparian	--	--	About 1850	Gravity; concrete dam 6 feet high, 80 feet long, with 150 feet of 10-inch pipe and 0.4 mile of earth ditch.	Former owner: Abraham Darlington.
DLOW/12E-10J1 (Sheet 25)	Ralph E. and Rosetta Lapham	North Fork Weber Creek	Recr.	Fishing	Not meas.	Approp.*	10 af	A-14465 ^a	1951	Storage; earth dam 12 feet high, 250 feet long. Storage capacity: 15 af	Water right in name of Max H. Hoeselt.
DLOW/12E-9Q1 (Sheet 25)	Herbert H. and Betty E. Bernd	Spring tributary to North Fork Weber Creek	Irrig. Domestic	21 acres by sprinklers* (b)	Not meas.	Approp.	0.50 cfs	A-15489 ^a	1953	Pump; 1.5 hp electric motor with a short 3-inch pipe-line.	Former owners: John Howell, George Grey. Area irrigated received supplemental water purchased from El Dorado Irrigation District.
DLOW/12E-9B1 (Sheet 25)	Don Matthews	Tributary to North Fork Weber Creek	Irrig. Stock	3 acres by flooding and sprinkler 12 head	Not meas.	(b)	--	--	1940	Gravity; small earth dam with 100 feet of earth ditch and a short 2- and 3-inch pipeline.	Former owner: A. L. Matthews.
DLOW/12E-14J1* (Sheet 25) (Import)	Sly Park-Camino Conduit United States Bureau of Reclamation	Sly Park Creek (Jenkinson Lake)	(*)	(*)	19,519*	Approp.	--	A-13707 ^a A-13708 ^a	1955	Storage and gravity; earth and rock dam 172 feet high, 760 feet long, with 5.6 miles of 3- and 4-foot steel pipe and 0.5 mile of 7-foot tunnel. Storage capacity: 41,033 af	Import from Cosumnes-Mokelumne-Calaveras Hydrographic Unit. Water use reported under DLOW/12E-18Q1 (New Weber Ditch). Amount diverted delivered to El Dorado Irrigation District.**

* See remarks.

** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

-- Information not available.

For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
PLACERVILLE SUBUNIT (Continued)										
M D B & H D10W/12E-18Q1 (Sheet 25)	New Weber Ditch El Dorado Irrigation District	North Fork Weber Creek	Irrig. Munic. Domestic Indust.	4,713 acres* 2,031 connections* 1,500 connections*	2,124* —	Approp.	1,125 af A-1692 ^a	1924	Storage and gravity; triple arch, concrete dam, 89 feet high, 375 feet long, with 9.0 miles of earth ditch. Storage capacity: 1,275 af	Former owners: El Dorado Water Company, El Dorado Water Corporation, and El Dorado Water Users Association. Reported area irrigated is all lands served by El Dorado Irrigation District System, but excludes lands served by individual diversions which are supplemented by purchased water from the district. Previously irrigated an additional 55 acres. Areas idle in 1960. Serves community of Placerville and municipal areas within Pollock Place Public Utility District. Amount diverted serves El Dorado Irrigation District jointly with D10W/11E-7F1 (Gold Hill Ditch), D10W/11E-19F1 (Diamond Ditch), D10W/12E-14E1 (Sky Park-Camino Conduit), and D11W/15E-29R1 (El Dorado Ditch).**
D10W/13E-5M1 (Sheet 25)	George Browning	North Fork Weber Creek	Irrig. Domestic	9 acres by flooding (b)	Not meas.	Riparian	—	1891	Gravity; 700 feet of 2-inch pipe.	
D11W/9E-35B1 (Sheet 18)	Walter N. and Marjorie Kurtz	Tributary to Weber Creek	Stock Recr.	50 head Swimming and boating	Not meas.	Approp.	19 af A-1798 ^a	1956	Storage and gravity; earth dam 26 feet high, 626 feet long. Storage capacity: 19 af	
D11W/9E-35L1 (Sheet 18)	Hector Williamson	Tributary to Weber Creek	Irrig. Recr.	Fishing (*)	Not meas.	Approp.	49.3 af A-1799 ^a	1956	Storage and gravity; earth dam 18 feet high, 400 feet long, with 130 feet of 6-inch pipe and 0.1 mile of 2-inch pipe to Lake Fountain. Storage capacity: 50 af	A contour ditch collects runoff (foreign to reservoir watershed) for storage and diversion. Amount diverted irrigated jointly with D11W/9E-35R1.
D11W/9E-36R1 (Sheet 18)	Lake Fountain Hector Williamson	Tributary to Weber Creek	Irrig. Fish Stock Recr.	17 acres by flooding* —	Not meas.	(c)	—	About 1926	Storage and gravity; earth dam 42 feet high, 240 feet long, with 0.1 mile of earth ditch and 0.2 mile of 3-inch pipe. Storage capacity: 220 af	Acres reported irrigated jointly with D11W/9E-35L1.
D11W/9E-36F1 (Sheet 18)	Mick J. Schublin	Tributary to Weber Creek	Irrig. Fish Domestic Stock	32 acres by sprinkler* — (b)	Not meas.	Approp.	0.03 cfe 75 af 150 af 90 af A-1365 ^a A-1477 ^a	1947 1950 1952	Storage and gravity; earth dam 55 feet high, 425 feet long, with 0.8 mile of 2- and 6-inch pipe. Storage capacity: 225 af	Previously irrigated an additional 7 acres. Area idle in 1960.
D11W/10E-31Q1 (Sheet 19)	Leo A. Aldin	Tributary to Weber Creek	Irrig. Stock Recr.	11 acres by furrow 12 head Fishing	42	Approp.	40 af A-1247 ^a	About 1946	Storage and ramp; earth dam 24 feet high, 300 feet long, with 2 hp electric motor and 0.3 mile of 3- and 6-inch pipe. Storage capacity: 42 af	

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
PLACERVILLE SUBUNIT (Continued)										
M D B & M										
D1N/10E-32J1 (Sheet 19)	L. W. Veerkamp	Tributary to Weber Creek	Irrig. Stock.	9 acres by sprinkler 200 head	13	Approp.	49 af	A-12180A	1947	Storage and pump; earth dam 22 feet high, 260 feet long, with 5 hp electric motor and short pipeline. Storage capacity: 49 af
D1N/10E-32L1 (Sheet 19)	L. W. Veerkamp	Tributary to Weber Creek	Irrig. Stock.	26 acres by furrow and sprinkler 200 head	Not meas.	Approp.	36 af	A-12885A	1948	Storage and pump; earth dam 23 feet high, 400 feet long, with 10 hp electric motor and 0.2 mile of 6-inch pipe. Storage capacity: 80 af
D1N/10E-33L1 (Sheet 19)	Richard J. Wilkinson	Tributary to Cold Springs Creek	Irrig. Recr.	10 acres by sprinkler Fishing	Not meas.	(c)	--	--	About 1946	Storage and pump; earth dam 8 feet high, 400 feet long, 7.5 hp electric motor and short pipeline. Former owner: Pete Bisagno.
D1N/10 E-33M1 (Sheet 19)	Leon M. and G. Castaldi	Tributary to Weber Creek	Irrig. Fish Culture	24 acres by furrow	Not meas.	Approp.	83 af	A-13519A	About 1948	Storage and pump; earth dam 36 feet high, 525 feet long, with 15 hp electric motor and 0.4 mile of 8-inch pipe. Storage capacity: 83 af
ROYAL GORGE SUBUNIT										
D16N/12E-26C1 (Sheet 3)	Donly Gray	Tributary to North Fork American River	Irrig. Domestic Fire Prot.	9 acres by flooding* (b) --	Not meas.	Approp.	1.30 cfs	A-16517A	Prior 1870	Gravity; concrete dam 2 feet high, 3 feet long, with 0.7 mile of flume and ditch. Area reported irrigated is planted to Christmas trees.
D16N/14E-13L1 (Sheet 4)	North Fork Association	North Fork American river	Recr.	Swimming	Not meas.	Approp.	--	--	About 1910	Storage; concrete dam 20 feet high, 130 feet long. Serves "The Cedars" summer resort area.
D16N/15E-5F1 (Sheet 4)	North Fork Association	Cedar Creek	Domestic	90 connections*	Not meas.	Approp.	--	--	About 1910	Gravity; concrete dam with 0.6 mile of 1-inch pipe to another small dam and 0.4 mile of 1.5-inch pipe to storage tanks.
D16N/15E-8J1 (Sheet 4)	Guy G. and George W. Foulke	Soda Springs	Recr.	Swimming, fishing, and boating	Not meas.	(c)	--	--	1951	Gravity and storage; concrete dam with 600 feet of earth ditch.
D17N/14E-34J1 (Sheet 2)	Ice Lakee Sierra Lakee Club	Serena Creek	Recr.	Swimming, fishing, and boating	Not meas.	(c)	--	--	1941	Storage; concrete dam 10 feet high, 20 feet long. Storage capacity: Estimated 800 af. Former owner: Fred Thronson.

* See Remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
RUBICON RIVER SUBUNIT											
M. D. B. & M. D12N/12E-11J1 (Sheet 15)	Byron and Francis Bacchi	Pilot Creek	Irrig.	14 acres by flooding	Not meas.	Approp.	0.2 cfs	A-11473 ^a	1941	Gravity; rock and earth dam with 0.2 mile of earthen ditch.	
D12N/12E-12F1 (Sheet 15)	Georgetown Divide Ditch Georgetown Divide Public Utility District	Pilot Creek	Irrig. Munic. Domestic Indust.	1,813 acres* 281 connections Lumber mill	8,513	Approp.	—	—	1852	Gravity; concrete dam 2 feet high, 50 feet long, with 26 miles of earthen ditch to Georgetown area.	Former owners: Pilot and Hook Creek Company, New York and Ohio Water Company, Pilot Creek Ditch Company, and Georgetown Water Company. Reported area irrigated is all lands served by Georgetown Divide Public Utility District System but excludes lands served by individual diversions which are supplemented by purchased water from the district. Amount diverted includes supplemental supply from D13N/14E-15G1 (Gerie Creek Ditch), D13N/14E-27B1 (South Fork Ditch), and D13N/15E-5H1 (Loon Lake).**
D12N/16E-3G1 (Sheet 17)	Lois Lake United States El Dorado National Forest	Tributary to Rubicon River	Stream- flow Maint. Recr.	—	80*	Approp.	85.4 af	A-15496 ^a	1950	Storage; masonry dam 4 feet high, 14 feet long. Storage capacity: 85 af	Reported amount diverted is an estimate based on 1.0 cfs storage release by State of California, Department of Fish and Game for the period mid-September through October.
D12N/16E-24D1 (Sheet 17)	Clyde Lake United States El Dorado National Forest	Rubicon River	Stream- flow Maint. Recr.	—	54*	Approp.	54 af	A-15492 ^a	1937	Storage; concrete dam 5.5 feet high, 58 feet long. Storage capacity: 110 af	Reported amount diverted is an estimate based on 0.5 cfs storage release by State of California Department of Fish and Game for the period August through October.
D12N/14E-15G1 (Sheet 13)	Gerie Creek Ditch Georgetown Divide Public Utility District	Gerie Creek	(*)	(*)	5,171	Approp.	—	—	1870	Gravity; concrete dam 2 feet high, 75 feet long, with 9.5 miles of earthen ditch and flume.	Former owners: California Water and Mining Company, Loon Lake Power and Water Company, Truckee General Electric Company, Pacific Power Company, and Georgetown Water Company. Water use and amount diverted reported under D12N/12E-12F1 (Georgetown Divide Ditch).**
D12N/14E-27B1 (Sheet 13)	South Fork Ditch Georgetown Divide Public Utility District	South Fork Rubicon River	(*)	(*)	(*)	Approp.	—	—	1870	Gravity; concrete dam 2 feet high, 35 feet long, with 0.3 miles of earthen ditch and flume.	Former owners: California Water and Mining Company, Loon Lake Power and Water Company, Truckee General Electric Company, Pacific Power Company, and Georgetown Water Company. Water use and amount diverted reported under D12N/12E-12F1 (Georgetown Divide Ditch).**

* See remarks.
 ** For additional information see Appendix D, Detailed Descriptions of Certain Surface Water Diversions.

TABLE 6 (Continued)

 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
RUBICON RIVER SUBUNIT (Continued)										
D13M/15E-5H1 (Sheet 13)	Loon Lake Georgetown District Public Utility	Carle Creek	(*)	(*)	(*)	Approp.	—	1870	Storage; masonry dam 28 feet high; 650 feet long. Storage capacity: 10,000 af	Former owners: California Water and Mining Company, Loon Lake Power and Water Company, Truckee General Electric Company, Pacific Power Company and Georgetown Water Company. Water use diverted reported under D12M/12E-12F1 (Georgetown Diversion Ditch), #*
D13M/16E-6H1 (Sheet 13)	Buck Island Lake United States National Forest	Tributary to Rubicon River	Stream-flow Maint. Recr.	—	90*	Approp.	11.0 af	1953	Storage; concrete dam 4.5 feet high; 4.2 feet long. Storage capacity: 11.0 af	Reported amount diverted is an estimate based on 0.7 cfs storage release by State of California, Department of Fish and Game for the period August through October.
D13M/16E-6H1 (Sheet 13)	Rockbound Lake United States National Forest	Tributary to Rubicon River	Stream-flow Maint. Recr.	—	430*	Approp.	44.0 af	1955	Storage; concrete dam 4.5 feet high; 54 feet long. Storage capacity: 43.0 af	Reported amount diverted is an estimate based on 2.5 cfs storage release by State of California, Department of Fish and Game for the period July through October.
D13M/16E-20M1 (Sheet 13)	Highland Lake United States National Forest	Tributary to Rubicon River	Stream-flow Maint. Recr.	—	90*	(c)	—	1956	Storage; rock dam 6 feet high; 215 feet long. Storage capacity: 93 af	Reported amount diverted is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for the period August through October.
D13M/16E-33M1 (Sheet 13)	Schmidell Lake United States National Forest	Tributary to Rubicon River	Stream-flow Maint. Recr.	—	204*	Approp.	203.6 af	1950	Storage; rock dam 6 feet high; 29 feet long. Storage capacity: 204 af	Reported amount diverted is an estimate based on 1.5 cfs storage release by State of California, Department of Fish and Game for the period September through October.
D13M/16E-36A1 (Sheet 13)	Middle Velma Lake United States National Forest	Tributary to Rubicon River	Stream-flow Maint. Recr.	—	120*	Approp.	148.4 af	1950	Storage; rock dam 5 feet high; 24 feet long. Storage capacity: 148 af	Reported amount diverted is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for the period July through October.
SILVER CREEK SUBUNIT										
D11M/14E-1M1 (Sheet 21)	Ice House Reservoir Sacramento Municipal Utility District	South Fork Silver Creek	(*)	(*)	(*)	Approp.*	310 cfs 50,000 af	1948	Storage; earth and rock dam 150 feet high; 1,440 feet long. Storage capacity: 45,960 af	Storage began December 15, 1959. Water use in 1960 consisted of filling reservoir only. Storage contents on September 30, 1960 - 30,800 af. Water right Application No. 12321 assigned to City of Sacramento on July 1, 1957.
D11M/16E-7A1 (Sheet 22)	G., Jr. and Bartha L. Wilson	South Fork Silver Creek	Irrig. Stock	8 acres by flooding 500 head	Not meas.	Riparian	—	About 1900	Gravity; small rock dam with 0.3 mile of earth ditch.	

* See remarks.

** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".

-- Information not available.

For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Over diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
SILVER CREEK SUBUNIT (Continued)										
M D B & M DL2N/14E-13Q1 (Sheet 16)	J. D. Granlee	Big Silver Creek	Irrig.	7 acres by flooding*	Not meas.	Riparian	--	--	Prior 1900	Area irrigated lies within the high-water line of Union Valley Reservoir, presently under construction.
DL2N/14E-16F1 (Sheet 16)	R. S. Swift	Tributary to Big Silver Creek	Irrig.	29 acres by flooding*	Not meas.	Riparian	--	--	Prior 1919	Former owners: D. Bullard, A. F. Farney. Area irrigated lies partially within high-water line of Union Valley Reservoir, presently under construction.
DL2N/14E-16M1 (Sheet 16)	R. S. Swift	Tributary to Big Silver Creek	Irrig.	16 acres by flooding*	Not meas.	Riparian	--	--	Prior 1919	Former owners: D. Bullard, A. F. Farney. Area irrigated lies partially within high-water line of Union Valley Reservoir, presently under construction.
DL2N/14E-16Q1 (Sheet 16)	R. S. Swift	Tributary to Big Silver Creek	Irrig. Domestic Stock	22 acres by flooding* (b) 200 head	Not meas.	Riparian	--	--	Prior 1919	Former owners: D. Bullard, A. F. Farney. Area irrigated lies partially within high-water line of Union Valley Reservoir, presently under construction.
DL2N/16E-8H1 (Sheet 17)	Barrett Lake United States El Dorado National Forest	Tributary to Bassal Fork Silver Creek	Stream-flow Maint. Recr.	--	30*	Approp.	30 af	A-15503 ^a	1941	Reported amount diverted is an estimate based on 0.25 cfs storage release by State of California, Department of Fish and Game for period August through October.
DL2N/16E-9D1 (Sheet 17)	Lawrence Lake United States El Dorado National Forest	Tributary to Bassal Fork Silver Creek	Stream-flow Maint. Recr.	--	38*	Approp.	38 af	A-15500 ^a	1941	Reported amount diverted is an estimate based on 0.25 cfs storage release by State of California, Department of Fish and Game for period mid-July through October.
DL2N/16E-22Q1 (Sheet 17)	Lower Twin Lake United States El Dorado National Forest	South Fork Silver Creek	Stream-flow Maint. Recr.	--	23*	Approp.	26 af	A-15514 ^a	1934	Reported amount diverted is an estimate based on 0.13 cfs storage release by State of California, Department of Fish and Game for period August through October.
DL2N/16E-22R1 (Sheet 17)	Upper Twin Lake United States El Dorado National Forest	South Fork Silver Creek	Stream-flow Maint. Recr.	--	21*	Approp.	21 af	A-15513 ^a	1934	Reported amount diverted is an estimate based on less than 0.25 cfs storage release by State of California, Department of Fish and Game for period August through October.
DL2N/16E-23M1 (Sheet 17)	Island Lake United States El Dorado National Forest	Tributary to South Fork Silver Creek	Stream-flow Maint. Recr.	--	60*	Approp.	60 af	A-15512 ^a	1937	Reported amount diverted is an estimate based on 0.25 to 0.50 cfs storage release by State of California, Department of Fish and Game for period August through October.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
 -- Information not available.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
SILVER CREEK SUBUNIT (Continued)										
M. D. B. & M. D12N/16E-26E1 (Sheet 17)	Smith Lake United States El Dorado National Forest	Tributary to South Fork Silver Creek	Stream- flow Maint. Recr.	—	52*	Approp.	55 af	A-15490 ^a	1952	Storage; rubble dam 7 feet high, 172 feet long. Storage capacity: 61 af through October.
O12N/16E-32E1 (Sheet 17)	Wright Lake United States El Dorado National Forest	South Fork Silver Creek	Stream- flow Maint. Recr.	—	104*	Approp.	160 af	A-15494 ^a	1936	Storage; rock dam 3 feet high, 30 feet long. Storage capacity: 160 af through October.
D12N/16E-35E1 (Sheet 17)	Lyons Lake United States El Dorado National Forest	Lyons Creek	Stream- flow Maint. Recr.	—	37*	Approp.	40 af	A-15498 ^a	1952	Storage; rubble dam 6 feet high, 71 feet long. Storage capacity: 40 af through October.
SILVER LAKE SUBUNIT										
D10N/17E-21E1 (Sheet 27)	John M. Wakefield	Tributary to Silver Fork American River	Irrig. Domestic	12 acres by flooding (b)	Not meas.	(c)	—	—	Prior 1900	Gravity; earth dam with 0.3 mile of earth ditch. Former owner: Martin.
D10N/17E-32Q1 (Sheet 27)	Silver Lake Pacific Gas and Electric Company	Silver Fork American River	Power Recr.	(*) Boating, fishing, and swimming	Not meas.	Approp.	5,000 af 10,000 af	A-1441a A-5618 ^b	1872 1927	Storage; rock and concrete dam 20 feet high, 200 feet long. Storage capacity: 11,800 af Former owners: John Kirk and Bishop, El Dorado Water and Deep Quayel Mining Company, Placerville Gold Mining Company, and Western States Gas and Electric Company. Amount diverted is for power use downstream and for delivery to El Dorado Irrigation District. Water right Application No. 5618 assigned to United States Bureau of Reclamation, April 16, 1959.**
D10N/18E-18N1 (Sheet 27)	Twin Lakes Pacific Gas and Electric Company	Tributary to Caples Creek	Power Recr.	(*) Boating, fishing, and swimming	Not meas.	Approp.	8,000 af 17,000 af 25,000 af	A-654 ^a A-1441a A-5618 ^b	1872 1919 1927	Storage; 2 section dam: (North Section) earth dam 71 feet high, 1,200 feet long; (West Section) concrete dam 43 feet high, 150 feet long. Storage capacity: 21,581 af Former owners: John Kirk and Bishop, El Dorado Water and Deep Quayel Mining Company, Placerville Gold Mining Company, and Western States Gas and Electric Company. Amount diverted is for power use downstream in the Pacific Gas and Electric Company's South Fork System. Water right Application No. 5618 assigned to United States Bureau of Reclamation, April 16, 1959.**
D10N/18E-34E1 (Sheet 27)	Minneucca Lake United States El Dorado National Forest	Tributary to Caples Creek	Stream- flow Maint. Recr.	—	160*	Approp.	160 af	A-15509 ^a	1953	Storage; rock and concrete dam 4.5 feet high, 67 feet long. Storage capacity: 225 af Reported amount diverted is an estimate based on 1.0 cfs storage release by State of California, Department of Fish and Game for period mid-July through October.

* See remarks.
 ** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions."
 -- Information not available.
 For lettered footnotes, see last page of table.

TABLE 6 (Continued)
 DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
 AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right		Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount			
SILVER LAKE SUBUNIT (Continued)										
M. D. S. & N. DLM/13E-35N (Sheet 20)	Floyd Poole	Tributary to South Fork American River	Irrig. Domestic	4 acres by flooding 8 connections	Not meas.	Irriparian	--	1949	Gravity; 0.4 mile of earth ditch.	
DLM/14E-36N (Sheet 21)	Alder Creek Pipeline Pacific Gas and Electric Company	Alder Creek	Power	(*)	(*)	Approp.	15.0 cfs	1929	Gravity; masonry dam 10 feet high, 100 feet long, with 0.7 mile of 18-inch pipe to EL Dorado Ditch.	Amount diverted supplements DLM/15E-29R1 (EL Dorado Ditch).
DLM/15E-21R1 (Sheet 21)	Kyburz Incorporated	Tributary to South Fork American River	Domestic	(*)	Not meas.	Approp.	6.0 cfs	1920	Gravity; concrete dam 3 feet high, 15 feet long with 0.3 mile of 4-inch pipe.	Amount diverted served jointly with DLM/15E-22M1 and DLM/15E-22N2.
DLM/15E-22M1 (Sheet 21)	Kyburz Incorporated	Tributary to South Fork American River	Domestic	100 connections*	Not meas.	Approp.	6.0 cfs	1920	Gravity; concrete dam 10 feet high, 40 feet long, with 0.2 mile of 6-inch pipe.	Use reported is served jointly with DLM/15E-21R1 and DLM/15E-22N2. Serves community of Kyburz and vicinity.
DLM/15E-22N2 (Sheet 21)	Kyburz Incorporated	Tributary to South Fork American River	Domestic	(*)	Not meas.	Approp.	6.0 cfs	1920	Gravity; concrete dam 3 feet high, 20 feet long, with 500 feet of 4-inch pipe and a 10 hp pump for rollift.	Amount diverted served jointly with DLM/15E-22M1 and DLM/15E-21R1.
DLM/15E-23N1 (Sheet 21)	State of California Department of Fish and Game	South Fork American River	Fish Culture	(*)	Not meas.	Approp.	5.0 cfs	1954	Gravity; concrete dam 3 feet high, 25 feet long, with 600 feet of 12-inch pipe to tanks.	Maintains fresh running water in tanks for holding fish prior to stream planting.
DLM/15E-28F1 (Sheet 21)	Silver Fork Improvement Club	Silver Fork American River	Domestic	40 connections	Not meas.	Approp.	0.1 cfs	1951	Gravity; 0.4 mile of 18-inch pipe and earth ditch.	
DLM/15E-29R1 (Sheet 21)	El Dorado Ditch Pacific Gas and Electric Company	South Fork American River	Power Irrig. Munic. Domestic	21,000 kw (*) (*) (*)	74,690*	Approp.	86.0 cfs	1876	Storage and gravity; concrete dam 62 feet high, and 385 feet long, with 25 miles of earth ditch, flume, tunnel and pipe to EL Dorado Forebay, and 2.9 miles of pipe and penstock to powerhouse.	Former owners: John Kirk and Bishop, EL Dorado Meter and Deep Gravel Mining Company, Western States Gas and Electric Company, Irrigation, municipal, and domestic use reported under DLM/12E-18R1 (New Weber Ditch). Amount diverted includes all water diverted by DLM/12E-25L1 and DLM/14E-36M1 (Alder Creek Pipeline). **
DLM/17E-8R1 (Sheet 22)	W. H. Welch	Pyramid Creek	Power	8 kw	Not meas.	Approp.	4.0 cfs	1931	Gravity; rock and concrete dam 4 feet high, 70 feet long, with 200 feet of ditch and flume to penstock.	Water right assigned to William Weiden 12/22/60.
DLM/17E-9K1 (Sheet 22)	Ernest K. Richardson	Tamarack Creek	Domestic	51 connections*	Not meas.	Approp.	0.05 cfs 1.0 af 0.04 cfs	1919 1953	Gravity; small rock and concrete dam 3 feet high, 10 feet long, with 0.2 mile of 4- and 6-inch pipe.	Former owner: William Dreher. Serves Pinecrest Camp and vicinity.

* See remarks.
 ** For additional information see Appendix B. *Detailed Descriptions of Certain Surface Water Diversions*.

DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and/or owner Plate 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	Reference			
SILVER LAKE SUBUNIT (Continued)											
U. D. B. & M. DLM/17E-90L (Sheet 22)	John D. and Barbara A. King	Pyramid Creek	Power	35 kw	Not meas.	Approp.	2.2 cfs	A-9117 ^a	1937	Gravity; small concrete dam 4 feet high, 10 feet long, with 600 feet of 12-inch penstock.	Former owner: N. L. Speager.
DLM/17E-111L (Sheet 22)	Allice E. Lyon H. J. Sicksels	Alice Creek	Domestic Fire Prot.	45 connections*	Not meas.	Approp.	0.049 cfs	A-8658 ^a	1936	Gravity; concrete dam 6 feet high, 30 feet long, with 0.2 mile of 4- and 6-inch pipe.	Supplies community of Phillippe and vicinity.
DLM/17E-170L (Sheet 22)	Otto Schaefer	South Fork American River	Power	—	Not meas.	Approp.	4.5 cfs 1.0 cfs	A-9689 ^a A-10848 ^a	1939 1944	Gravity; concrete dam 4 feet high, 30 feet long, with 0.5 mile of 14-inch penstock.	Former owner: A. F. Baumhoff
DLM/17E-181L (Sheet 22)	Otto Schaefer	South Fork American River	Fish Culture	—	Not meas.	(c)	—	—	—	Gravity; small rock dam with 0.5 mile of ditch and pipe to pond.	
DLM/17E-182L (Sheet 22)	Otto Schaefer	South Fork American River	Recr.	(*)	Not meas.	(c)	—	—	About 1944	Gravity; temporary rock and earth dam with 0.7 mile of earthen ditch and a booster pump with 100 feet of 3-inch pipe.	Used to irrigate 11 acre golf course.
DLM/17E-180L (Sheet 22)	Otto Schaefer	Springs tributary to South Fork American River	Domestic	30-40 connections	Not meas.	Approp.	0.046 cfs 0.022 cfs	A-11575 ^a A-12930 ^a	1924 1949	Gravity; 0.4 mile of pipeline to storage tanks.	
DLM/17E-180L (Sheet 22)	Cabin Owners Association	Cody Creek	Domestic	6 connections	Not meas.	Approp.	0.039 cfs	A-3321 ^a	1923	Gravity; rock and concrete dam with 0.4 mile of 4-, 6- and 8-inch pipe.	
DLM/17E-200L (Sheet 22)	Strawberry Creek Lot Owners Association	Cody Creek	Domestic	60 connections	Not meas.	Approp.	0.016 cfs	A-10821 ^a	1937	Gravity; small rock and concrete dam with 0.9 mile of 1.5-inch pipe to storage tanks.	Water right Application No. 10821 in name of United States El Dorado National Forest.
DLM/18E-54L (Sheet 22) (Import)	Echo Lake Conduit Pacific Gas and Electric Company	Echo Lake	Power Recr.	(*) —	1,405*	Approp.	2,000 af	— A-5618 ^a	1872 1927	Gravity; releases from Echo Lake and conveyed by an earthen ditch and tunnel about 0.6 miles long and spill to South Fork	Former owners: John Kirk and Bishop, El Dorado Water and Deep Dravel Mining Company, and Western States Gas and Electric Company. Import from Prickett River Hydrographic Unit. Amount diverted is for power use downstream and delivery to El Dorado Irrigation District. Water right Application No. 5618 assigned to United States Bureau of Reclamation, April 16, 1939.**
DLM/17E-200L (Sheet 17)	Madley Lakes (Lake Aloha Electric Gas and Electric Company)	Pyramid Creek	Power Recr.	(*) —	9,863*	Approp.	5,000 af 500 af 5,900 af	A-651 ^a A-1113 ^a A-5618 ^a	1872 1915 1927	Storage and gravity; concrete dam 20 feet high, 92 feet long.	Former owners: John Kirk and Bishop, El Dorado Water and Deep Dravel Mining Company, and Western States Gas and Electric Company. Amount diverted is for power use downstream. Water right Application No. 5618 assigned to United States Bureau of Reclamation, April 16, 1939.**

* See remarks.
** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions".
-- Information not available.
For lettered footnotes, see last page of table.

TABLE 6 (Continued)
DESCRIPTIONS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion location and Piers 2 sheet number	Diversion name and/or owner	Source	Water use in 1960			Apparent water right			Indicated date of appropriation or first use	Description of diversion system	Remarks
			Purpose	Extent and method of use	Amount diverted in acre-feet	Type	Amount	References			
SILVER LAKE SUBUNIT (Continued)											
D12N/17E-32H1 (Sheet 17) M D B & H	Lake of the Woods United States El Dorado National Forest	Tributary to Pyramid Creek	Power Stream- flow Maint. Reer.	(*) (*)	75*	(c)	—	—	1930	Storage and gravity; rubble dam 2.5 feet high, 35 feet long. Storage capacity: 75 af	Pacific Gas and Electric Company releases storage for power purposes in their South Fork System. A like amount, minus evaporation is released below El Dorado Intake for streamflow maintenance.
D12N/17E-32H1 (Sheet 17)	Tom Lake United States El Dorado National Forest	Tributary to Pyramid Creek	Power Stream- flow Maint. Reer.	(*) (*)	30*	Approp.	30 af	A-15495 ^a	1942	Storage and gravity; rubble dam 4.5 feet high, 20 feet long. Storage capacity: 30 af	Pacific Gas and Electric Company releases storage for power purposes in their South Fork System. A like amount, minus evaporation is released below El Dorado Intake for streamflow maintenance.
D12N/17E-32P1 (Sheet 17)	Hopi Lake United States El Dorado National Forest	Pyramid Creek	Power Stream- flow Maint. Reer.	(*) (*)	65*	Approp.	80 af	A-15495 ^a	1938	Storage and gravity; rubble dam 5 feet high, 20 feet long. Storage capacity: 80 af	Pacific Gas and Electric Company releases storage for power purposes in their South Fork System. A like amount, minus evaporation is released below El Dorado Intake for streamflow maintenance.

* See Remarks.

** For additional information see Appendix D, "Detailed Descriptions of Certain Surface Water Diversions."

— Information not available.

a Refers to applications to appropriate water filed with the State Water Rights Board. For additional information see Table C-1.

b Domestic use of less than five connections.

c Insufficient information to determine type of apparent water right.

d El Dorado County Records.

e Sacramento County Records.

TABLE 7

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and correlation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
M B & M DL1W/12E-25F1	Kelly Lake	(*)	2.0 miles below reservoir outlet.	Water stage recorder and depth-flow relationship	0	0	0	0	0	146	162	0	0	0	0	0	308*	Reported total is exported via DL1W/12E-33B1 (Lake Valley Canal) for power in Yuba-Bear Rivers Hydrographic Unit.
DL1W/12E-33B1	Lake Valley Canal	Export																
DL1W/12E-35C1	Lake Valley reservoir	(*)	At reservoir outlet.	Water stage recorder and depth-flow relationship						161	1,446	1,730	1,640	1,560			6,537*	Reported total is exported via DL1W/12E-33B1 (Lake Valley Canal) for power in Yuba-Bear Rivers Hydrographic Unit.
DL0W/12E-41L	Katherine C. Larsen and Sons	Irrigation Domestic	150 feet below intake.	Water stage recorder and depth-flow relationship					23		25	24	20				111*	Reported total is for 4/29/60-11/30/60 only.
DL1N/9E-3N1	Byron and Francis Bacchi	Irrigation	At pump.	Pump test and power record	0	0	2	5	7	6	4	4	4	0	0	0	32	
DL1N/10E-17Q1	Malvin and Frank Gallagher	Irrigation	At pump.	Pump test and power record	0	0	6	9	19	24	22	26	2	0	0	0	108	
DL1N/10E-26L1	Coloma-Lotus Ranch Ditch	Irrigation Stockwatering	0.2 mile below intake.	Water stage recorder and depth-flow relationship	0	0	0	118	507	574	546	503	528	188	0	0	3,490	
DL1N/10E-29Q1	Malcolm Veerkamp	Irrigation Stockwatering Recreational	0.1 mile below intake.	Water stage recorder and depth-flow relationship	0	0	0	0	10	10	16	13	8	0	0	0	73	
DL1N/11E-39U1	J. R. Neesler A. C. and Juanita Winkelman	Irrigation Domestic	100 feet below intake.	Water stage recorder and depth-flow relationship	-NR-	22	19	16	38	49	73	70	50	37	42	1	417*	Reported total is for 2/8/60-12/31/60 only.
DL1N/12E-31H1	John, Lawrence and Ruth Larsen	Irrigation Domestic	0.1 mile below intake.	Water stage recorder and depth-flow relationship	-NR-	18	37	43	8	67	66	62	56	27	60	32	476*	Reported total is for 2/9/60-12/31/60 only.
DL2W/9E-14A1	E. A. Long	Irrigation Stockwatering Recreational	At pump.	Pump test and power records	0	0	0	0	1	5	8	3	0	0	0	0	17	
DL2W/9E-16A1	Lawrence Miegel	Irrigation	150 feet below intake.	Water stage recorder and depth-flow relationship	0	0	0	9	30	9	4	8	13	13	5	0	91	
DL2W/9E-16K1	Lawrence Miegel	Irrigation Stockwatering	100 feet below intake.	Water stage recorder and depth-flow relationship	0	0	0	2	13	14	13	12	9	0	0	0	63	
DL2W/9E-21F1	Lawrence Miegel and Bernice Bowen	Irrigation Stockwatering	100 feet below intake.	Water stage recorder and depth-flow relationship	0	0	0	0	8	15	13	14	8	6	0	0	64	

* See remarks
 --S-- Diversion estimated for period indicated
 --NR-- No record for period indicated

TABLE 7 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1958

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total	
COLOMA SUBUNIT (Continued)																			
DL2N/9E-331I	Richard M. Miller	Irrigation Stockwatering Recreational	At pumps.	Pump tests, power record and operation record	0	0	0	0	46	46	19	0	0	0	0	0	0	111	
DL2N/9E-341I	Egon and Francis Buchli	Irrigation	0.5 mile below.	Water stage recorder and depth-flow relationship	0	0	0	0	NR	34	9	0	0	0	0	0	0	43*	Reported total is for 4/28/60-8/12/60 only.
DL2N/10E-22VI	Feed G. Ostensieder	Irrigation Stockwatering Recreational	At reservoir	Water stage and capacity curve	0	0	0	0	-----*	-----*	-----*	-----*	-----*	-----*	0	0	0	102	
FOLSOM SUBUNIT																			
(See Table of Imports and Exports)																			
DL0N/7E-24GI	Folsom Reservoir	Export	---	---	0	0	0	0	2	5	2	0	1	1	1	0	0	12	
DL1V/8E-1CI	Gordon H. Garland	Irrigation	At pump.	Sprinkler test and power record	7	0	0	2	7	11	12	13	10	6	1	0	0	69	
DL1V/8E-4VI	Joe P. Kelley	Irrigation Stockwatering	---	Power record	0	0	0	15	36	48	32	38	20	15	0	0	0	204	
DL2N/8E-24VI	L. J. and E. Belle Espar	Irrigation Stockwatering	At pump.	Pump test and power record	0	0	0	0	0	5	14	11	10	4	0	0	0	44	
DL2N/8E-25VI	Rudolph and Ora Meigel	Irrigation	At pump.	Pump test and power record	FORESTHILL SUBUNIT												Reported total is for 3/3/60-12/31/60 only.		
DL5N/11E-17VI	Big Reservoir (McGeachin Ditch)	Mining Domestic	Near mine, 9 miles below intake.	Water stage recorder and depth-flow relationship	---	NR	---	147	124	111	109	99	78	71	69	85	84	977*	
DL6N/10E-36QI	Pulp Mill Canal	Export	0.8 mile below intake.	Water stage recorder and depth-flow relationship	(See Table of Imports and Exports)														
DL6N/11E-21EI	Towle Canal	Export	0.4 mile below intake.	Water stage recorder and depth-flow relationship	(See Table of Imports and Exports)														
FRENCH MEADOWS SUBUNIT																			
DL4N/13E-18HI	Pine Nut Ditch	Mining	---	Estimated	0	0	0	0	0	1	1	1	0	1	0	0	0	4	
DL3N/12E-35GI	Pacific Slab Mine	Mining	0.7 mile below intake.	Water stage recorder and depth-flow relationship	---	NR	---	214*	273	75	1	0	0	0	0	0	0	562*	Reported total is for 4/14/60-12/31/60 only. Amount for April is a partial record only.
DL5N/13E-5VI	Ralph and J. J. Sturgill	Mining	3.0 miles below intake.	Water stage recorder and depth-flow relationship	0	0	0	0	112	3	0	0	0	0	0	0	0	115	

See remarks

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN AMERICAN RIVER HYDROGRAPHIC UNIT, 1960

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
GREENWOOD SUBUNIT																		
<u>M D P & M</u> DL2N/10E-1L01	Georgetown Divide Public Utility District	Irrigation	At pump.	Pump test and power record	0	0	0	0	0	5	1	2	2	0	0	0	10	
<u>DLOW/11E-7FL</u>	Cold Mill Ditch	Irrigation Domestic	0.7 mile below intake.	Water stage recorder and depth-flow relationship	0	0	0	179	784	823	832	832	691	235	36	0	3,580	
<u>DLOW/11E-11C1</u>	Fay M. Ruple	Irrigation	200 feet below intake.	Water stage recorder and depth-flow relationship	0	0	0	12	11	16	18	16	16	16	0	0	89	
<u>DLOW/11E-19FL</u>	Farmers Ditch	Irrigation	0.1 mile below intake.	Water stage and depth-flow relationship	115	43	0	0	180	249	211	244	156	101	98	0	1,377	
<u>DLOW/12E-18Q1</u>	New Weber Ditch	Irrigation Municipal Domestic Industrial	1.1 miles below intake.	Water stage recorder and depth-flow relationship	0	0	0	93	512	516	518	361	37	40	27	2,124		
<u>D11W/10E-31Q1</u>	Leo A. Akin	Irrigation Stockwatering Recreational	At pump.	Pump test and power record	0	0	0	0	11	14	9	8	0	0	0	0	42	
<u>D11W/10E-32I1</u>	L. M. Veerkamp	Irrigation Stockwatering	--	Power record	0	0	0	0	2	5	2	2	2	2	0	0	13	
RUBICON RIVER SUBUNIT																		
<u>DL2N/12E-12FL</u>	Georgetown Divide Ditch	Irrigation Municipal Domestic Industrial	12.0 miles below intake.	Water stage recorder and depth-flow relationship	---	NR	207	886	1,310	1,380	1,360	1,240	1,100	641	166	223	8,513*	Reported total is for 3/9/60 - 12/31/60 only. Include reported amount diverted by Gerie Creek Ditch (DL3N/14E-15Q1).
--	Georgetown Divide Ditch	Irrigation Municipal Domestic Industrial	--	(*)	569	302	701	784	1,200	1,450	1,430	1,320	1,150	708	--	--	9,614*	Record obtained from United States Geological Survey, Water Supply Paper No. 1715, published as "Georgetown Divide Ditch near Georgetown, California." Station discontinued 10/31/60.
<u>DL2N/15E-3EL</u>	Lois Lake	Streamflow Maintenance Recreational	--	(*)	---	---	---	---	---	---	---	---	---	---	---	---	80*	Reported total is an estimate based on 1.0 cfs storage release by State of California, Department of Fish and Game for period mid September - October.
<u>DL2N/16E-24D1</u>	Clyde Lake	Streamflow Maintenance Recreational	--	(*)	---	---	---	---	---	---	---	---	---	---	---	---	54*	Reported total is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for period August - October.

* See remarks
 --NR-- Diversion estimated for period indicated
 --NR-- No record for period indicated

TABLE 7 (Continued)
MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
M. D. B. & M. DL3W/14E-15Q1	Gerle Creek Ditch*	Irrigation Municipal Domestic Industrial	--	(*)	0	0	0	0	184	998	1,150	1,130	1,140	569	0	0	5,171	Record obtained from United States Geological Survey Water Supply Paper No. 1715 and Surface Water Records of California, Vol. 2, published as "Georgetown Divide Ditch above Pilot Creek."
DL3W/16E-6E1	Buck Island Lake	Streamflow Maintenance Recreational	--	(*)	90*												90*	Reported total is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for period August-October.
DL3W/16E-6R1	Rockbound Lake	Streamflow Maintenance Recreational	--	(*)	430*												430*	Reported total is an estimate based on 2.5 cfs storage release by State of California, Department of Fish and Game for period July-October.
DL3W/16E-20N1	Highland Lake	Streamflow Maintenance Recreational	--	(*)	90*												90*	Reported total is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for period August-October.
DL3W/16E-33J1	Schmidell Lake	Streamflow Maintenance Recreational	--	(*)	204*												204*	Reported total is an estimate based on 1.5 cfs storage release by State of California, Department of Fish and Game for period September-October.
DL3W/16E-36A1	Middle Velma Lake	Streamflow Maintenance Recreational	--	(*)	120*												120*	Reported total is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for period July-October.
DL2W/16E-8H1	Barrett Lake	Streamflow Maintenance Recreational	--	(*)	30*												30*	Reported total is an estimate based on 0.25 cfs storage release by State of California, Department of Fish and Game for period August-October.
DL2W/16E-9D1	Lawrence Lake	Streamflow Maintenance Recreational	--	(*)	38*												38*	Reported total is an estimate based on 0.25 cfs storage release by State of California, Department of Fish and Game for period July-October.
DL2W/16E-22Q1	Lower Twin Lake	Streamflow Maintenance Recreational	--	(*)	23*												23*	Reported total is an estimate based on 0.13 cfs storage release by State of California, Department of Fish and Game for period August-October.

SILVER CREEK SUBUNIT

MONTHLY RECORDS OF SURFACE WATER DIVERSIONS IN AMERICAN RIVER HYDROGRAPHIC UNIT, 1960

Location number	Diversion name or owner	Use	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks	
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		Total
<u>SILVER CREEK SUBUNIT (Continued)</u>																		
<u>M.D.B. & M.</u> D1.2N/16E-22R1	Upper Twin Lake	Streamflow Maintenance Recreational	--	(*)												21*	Reported total is an estimate based on less than 0.25 cfs storage release by State of California, Department of Fish and Game for period August-October.	
D1.2N/16E-23R1	Ieland Lake	Streamflow Maintenance Recreational	--	(*)													60*	Reported total is an estimate based on 0.25 to 0.50 cfs storage release by State of California, Department of Fish and Game for period August-October.
D1.2N/16E-26R1	Smith Lake	Streamflow Maintenance Recreational	--	(*)													52*	Reported total is an estimate based on 0.25 cfs storage release by State of California, Department of Fish and Game for period mid-July-October.
D1.2N/16E-32C1	Wrights Lake	Streamflow Maintenance Recreational	--	(*)													104*	Reported total is an estimate based on 0.5 cfs storage release by State of California, Department of Fish and Game for period mid-July-October.
D1.2N/16E-35B1	Lynns Lake	Streamflow Maintenance Recreational	--	(*)													37*	Reported total is an estimate based on 0.25 to 0.50 cfs storage release by State of California, Department of Fish and Game for period mid-September-October.
<u>SILVER LAKE SUBUNIT</u>																		
D1.0N/18E-34E1	Winnemucca Lake	Streamflow Maintenance Recreational	--	(*)													160*	Reported total is an estimate based on 1.0 cfs storage release by State of California, Department of Fish and Game for period mid-July-October.
D1.1N/15E-29R1	El Dorado Ditch	Power Generation Municipal Domestic	--	(*)	3,840	4,800	7,790	8,720	9,240	9,130	6,820	7,160	6,020	4,090	3,310	3,760	74,680	Record obtained from United States Geological Survey, Water Resources Division.
D1.2N/17E-30C1	Medley Lakes* (Lake Aloha)	Power Recreational	--	(*)	14.9	320	458	405	452	2,020	3,250	2,360	134	10	103	202	9,863	Record obtained from United States Geological Survey Water Supply Paper No. 17715, published as "Pyramic Creek near Phillips, California."
D1.2N/17E-32H1	Lake of the Woods	Power Streamflow Maintenance Recreational	--	Estimated													75*	Reported total based on water right application. Allowable storage accretion December-June. Storage release for power. Like amount less evaporation released through El Dorado Intake.

* See reports
 --B-- Diversion estimated for period indicated
 --N P-- No record for period indicated

TABLE 8
MONTHLY RECORDS OF IMPORTS AND EXPORTS
AMERICAN RIVER HYDROGRAPHIC UNIT

1960

Diversion name or owner	Location number	Source	Hydrographic unit imported from or exported to	Location number of point of import or export	Point of measurement or estimate	Method of observation and calculation	Amount diverted, in acre-feet												Remarks		
							Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		Total	
Boardman Canal Pacific Gas and Electric Company	017W/11E-360L	Bear River	Yuba-Bear Rivers	016W/11E-160L	0.3 mile above Canyon Creek	Meter stage recorder and depth-flow relationship	530*	440*	1,130	1,770	1,740	1,340	1,400	1,520	1,510	890	880	1,280	14,370	Amount for January and February are partially estimated.	
	(*)	Bear River	Yuba-Bear Rivers	015W/9E-278L	(*)	(*)	11	9	10	11	16	35	49	45	28	18	10	10	252	Lateral of Boardman Canal. Record obtained from Pacific Gas and Electric Company.	
	(*)	Bear River	Yuba-Bear Rivers	012W/8E-197L	Hear Intake	Meter stage recorder and depth-flow relationship	114*	113	123	102	226	467	517	535	490	313	216	211	3,447	Lateral of Boardman Canal. Amount for January is partially estimated.	
	(*)	Bear River	Yuba-Bear Rivers	012W/8E-200L	At Intake	Meter stage recorder and depth-flow relationship	49	39	20	25	34	53	69	69	66	48	31	23	526	Lateral of Boardman Canal.	
	(*)	Bear River	Yuba-Bear Rivers	012W/8E-327L	0.4 mile below Boardman Canal	Meter stage recorder and depth-flow relationship	10,374	17,370	14,470	20,210	15,260	4,146	632	689	1,784	10,510	18,930	22,360	136,735	Extension of Bear River Canal.	
	(*)	Bear River	Yuba-Bear Rivers	011W/8E-58L	At Intake	Staff gage and depth-flow relationship	47	20	20	17	44	106	109	113	104	73	18	16	16	687	Lateral of Boardman Canal.
	(*)	Squaw Hollow Creek	Conama- Mokelumne- Chalusa Rivers	Conama- Mokelumne- Chalusa Rivers	010W/11E-197L	Above Highway 49 crossing	Meter stage recorder and depth-flow relationship	137	123	153	153	208	661	795	859	609	254	248	154	4,354	
	(*)	Sly Park-Cadino	Sly Park Creek	Conama- Mokelumne- Chalusa Rivers	010W/12E-141L	(*)	(*)	122	90	16	59	334	3,387	5,651	6,104	2,772	489	245	250	19,519	Record obtained from United States Bureau of Reclamation "Report of Operation," December 1960.
	(*)	Echo Lake	Echo Lake	Truckee River	011W/18E-60L	(*)	(*)	0	0	0	0	0	0	0	0	958	447	0	0	1,405	Record obtained from United States Geological Survey.
	(*)	North Fork of American River	North Fork of American River	Yuba-Bear Rivers	017W/12E-308L	0.8 mile below Intake	Meter stage recorder and depth-flow relationship	-	-	-	-	-	453	1,770	1,720	1,640	1,560	-	-	7,430*	Reported total includes 308 acre-feet from 017W/12E-257L (Kelly Lake) and 6,537 acre-feet from 017W/12E-257L (Kelly Lake) during period 6/21/60 - 10/31/60 only.
Toole Canal Pacific Gas and Electric Company	016W/11E-21E	Canyon Creek	Yuba-Bear Rivers	016W/11E-310L	0.4 mile below Intake	Meter stage recorder and depth-flow relationship	570*	1,070	1,410	1,630	1,900	1,380	1,390	1,480	1,520	1,390	1,210	1,300	16,550	Amount for January is a partial record.	
	016W/10E-360L	Canyon Creek	Yuba-Bear Rivers	016W/10E-351L	0.8 mile below Intake	Meter stage recorder and depth-flow relationship	140*	251	284	172	0	0	0	0	0	0	0	0	847	Amount for January is partially estimated.	
	Folsom Reservoir United States Bureau of Reclamation	010W/7E-240L	American River	Sacramento Valley Floor	010W/7E-240L	(*)	(*)	31,750	151,580	239,380	187,060	116,680	175,950	212,050	148,810	75,780	31,550	62,520	126,050	1,561,960	Records obtained from United States Bureau of Reclamation. Reported total is Sacramento Valley Floor Hydrographic Unit.
		San Juan Suburban Water District	San Juan Suburban Water District	San Juan Suburban Water District	San Juan Suburban Water District	San Juan Suburban Water District	San Juan Suburban Water District	435	1,282	1,260	2,230	3,292	4,382	4,695	4,280	3,944	1,349	1,098	30,917		
		Macoma Water Company	Macoma Water Company	Macoma Water Company	Macoma Water Company	Macoma Water Company	Macoma Water Company	1,729	1,635	1,758	1,961	2,298	2,719	2,690	2,565	2,081	1,299	1,188	24,533		
Total Release							24,024	156,591	242,706	193,369	122,411	183,275	219,655	155,921	82,118	36,828	65,295	128,462	1,618,665*		

* See Remarks.
* Monthly value unknown.

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendices Page No.
Akin, Leo A.	D11N/10E-33A2	Coloma	19	47, 99, 102, C-30
	D11N/10E-31Q1	Placerville	19	62, 73, 102, C-31
Alder Creek Pipeline Pacific Gas and Electric Company	D11N/14E-36M1	Silver Lake	21	68, C-22, D-22
Allied Capital Corporation	D10N/10E-18C1	Placerville	24	59, 101, C-29, C-36
American River Flume Pacific Gas and Electric Company	D11N/12E-19N1	Coloma	20	14, 49, D-22, D-23
Anderson, L. L.	D14N/11E-3G1	French Meadows	8	56
	D14N/11E-10G1	French Meadows	8	56
	D14N/11E-17G1	Greenwood	8	57, 101
Aperman, Amile Dueve, Harold Sturmfeder, F. H. R.	D15N/11E-8C1	Foresthill	5	55
Bacchi, Byron and Francis	D11N/9E-3H1	Coloma	18	45, 71, 99
	D11N/9E-12C1	Coloma	18	45, 99
	D11N/9E-12F1	Coloma	18	45, 99
	D12N/9E-34L1	Coloma	14	50, 72, 100
	D12N/12E-11J1	Rubicon River	15	64, 102, C-29
Bacchi, Mrs. Henry, Byron and Francis	D11N/10E-6L1	Coloma	19	46, C-21
Barber, G.	(See: Coloma-Lotus Ranch Ditch)			
Barrett Lake United States El Dorado National Forest	D12N/16E-8H1	Silver Creek	17	66, 74, C-34
Bernd, Herbert H. and Betty E.	D10N/12E-8Q1	Placerville	25	61, 102, C-34
Big Reservoir McGeachin Placer Gold Mining Company	D15N/11E-17J1	Foresthill	5	12, 31, 55, 72
Binshi, B.	D11N/9E-7B1	Coloma	18	45, 99
Bisagno, John	D10N/11E-8A1	Placerville	24	60, 102
Boardman Canal Pacific Gas and Electric Company	D17N/11E-36D1	Foresthill	1	30, 40, 56, 77, D-14, D-17, D-18, D-19
Borrson, Nioma McAulay, Malcolm	D12N/8E-33N1	Folsom	14	53, 100
Bowen, Bernice	(See: Niegel, Lawrence)			
Browning, George	D10N/13E-5M1	Placerville	25	62, 102
Brunkhorst, C.	D13N/9E-4L1	Foresthill	11	53, 101
Brunius, Lucy M.	D11N/11E-34K1	Coloma	19	48, 99

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Buck Island Lake United States El Dorado National Forest	D13N/16E-16E1	Rubicon River	13	65, 74, C-34
Cabin Owner's Association	D11N/17E-19N1	Silver Lake	22	31, 69, C-20
California Debris Commission	(See: Lake Clementine)			
California Province of the Society of Jesus	D13N/9E-9G1	Foresthill	11	53, C-33
Canepa, Emilio P. and Edith M.	D10N/11E-14C1	Placerville	24	61, 102, C-31
Caswell, John M.	D10N/10E-1M1	Placerville	24	58, 101
Central Pacific Railroad Company	(See: Putt Lake)			
Chiquita Lake Smith, Neal D. and Inez I.	D13N/11E-34A1	Coloma	15	51
China Spring Southern Pacific Company	D16N/11E-14B1	Blue Canyon	3	44
Clyde Lake United States El Dorado National Forest	D12N/16E-24D1	Rubicon River	17	64, 73, C-34
Colfax Pipeline Pacific Gas and Electric Company	D15N/9E-27R1	Foresthill	5	54, 77, D-20
Coloma-Lotus Ranch Ditch Barber, G. Herzig, A. State of California Division of Beaches and Parks Stodick, L. D.	D11N/10E-26L1	Coloma	19	24, 47, 71, 99
Crosthwaite, H. E.	D12N/8E-32J1	Folsom	14	52, 100
Cumming, W. C.	D10N/11E-3J1	Coloma	24	45, 99, C-30
Darlington, F. Marshall, Mrs. James	D10N/11E-22D1	Placerville	24	61, 102
Davidson Brothers	(See: Pine Nut Ditch)			
Delsindico, Virginia	D14N/9E-10P1	Foresthill	8	53, 101
Deming, S. F.	D10N/10E-3N1	Placerville	24	58, 101, C-21
Denison, Lon	D12N/9E-31N1	Folsom	14	53, 100, C-32

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Diamond Ditch El Dorado Irrigation District	D10N/11N-19P1	Placerville	24	14, 40, 41, 61, 77, D-7, D-8
Diamond Springs Lime Company	D12N/9E-6Q1	Greenwood	14	57, C-37
Dueve, Harold	(See: Aperman, Amile)			
Echo Lake Conduit Pacific Gas and Electric Company	D11N/18E-6M1	Silver Lake	22	28, 40, 69, 77, C-22, D-22, D-23
Edwards, Anna M. Holstrom, Clare O. Hughes, Emma M. Marshall, Edna C. Rechenmacher, Frances H. Tillotson, Marvin	D14N/12E-14N1	French Meadows	9	56, C-18, C-26
El Dorado Ditch Pacific Gas and Electric Company	D11N/15E-29R1	Silver Lake	21	12, 40, 68, 75, C-20, D-6, D-14, D-22
El Dorado Irrigation District	(See: Diamond Ditch Gold Hill Ditch New Weber Ditch)			
Ench, Leo	D10N/11E-3P1	Placerville	24	60, 102
Esper, L. J. and E. Belle	D12N/8E-24J1	Folsom	14	52, 72, 100, C-31, C-33
Farmers Ditch Long, Claude C. Marks, Roy M. and Myrtle Mortara, Teresa Prouty, D. L. Sweeny, James W.	D10N/11E-19F1	Placerville	24	61, 73, 102, D-7, D-9
Finnon Reservoir State of California Department of Fish and Game	D11N/11E-16Q1	Coloma	19	48
Fisk, W. L.	D12N/10E-17D2	Coloma	14	50, C-28
Fisk, W. L. and Virginia	D12N/10E-17D1	Coloma	14	50, 100
Folsom Reservoir United States Bureau of Reclamation	D10N/7E-24G1	Folsom	23	14, 16, 23, 40, 51, 72, 77, 110, C-22, C-32, C-33
Foresthill Public Utility District	D14N/10E-24L1 D14N/11E-8Q1 D14N/11E-17C1 D14N/11E-17F1	Foresthill Foresthill Foresthill Foresthill	8 8 8 8	31, 54 54 54 54
Fossati, Elonar	D10N/11E-4N1	Placerville	24	60, 102, C-32
Foulks, Guy G. and George W.	D16N/15E-8J1	Royal Gorge	4	63

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Francisco, John D.	D13N/9E-13N1	Greenwood	11	57
Fredericks, William C.	D10N/10E-33A1	Placerville	24	59, 101, C-36
	D10N/10E-33C1	Placerville	24	60, 102
Gallagher, Melvin and Frank	D11N/10E-17Q1 (See: Mansfield Ditch)	Coloma	19	46, 71, 99
Garland, Gordon H.	D11N/8E-1C1	Folsom	18	51, 72, 100, C-31
Gastaldi, Leon M. and G.	D11N/10E-33M1	Placerville	19	63, 99, 102, C-32
Gaylord Canal Pacific Gas and Electric Company	D12N/8E-20Q1	Folsom	14	52, 77, D-17, D-21
Georgetown Divide Ditch Georgetown Divide Public Utility District	D12N/12E-12P1	Rubicon River	15	12, 64, 73, D-10, D-12, E-6
Georgetown Divide Public Utility District	D12N/10E-11D1 (See: Georgetown Divide Ditch Gerle Creek Ditch Loon Lake South Fork Ditch)	Greenwood	14	31, 57, 73, 100, 101, D-9
Gerle Creek Ditch Georgetown Divide Public Utility District	D13N/14E-15G1	Rubicon River	13	64, 74, D-11, E-9, E-10
Gold Hill Ditch El Dorado Irrigation District	D10N/11E-7P1	Placerville	24	60, 73, D-5, D-8
Gordon, R. L. Swanson, Dorotea	D13N/9E-35J1	Greenwood	11	57, 101, C-36
Granlee, J. D.	D12N/14E-13Q1	Silver Creek	16	66, 102
Gray, Donly	D16N/12E-26C1	Royal Gorge	3	63, 102, C-36
Gray, Euell Y.	D10N/9E-25D1	Placerville	23	58, C-34
Greenhalgh, Edwin W.	D10N/9E-30B1	Folsom	23	51, 100
Harris, B., A., and M.	D11N/12E-35H1	Coloma	20	49, 100
Harvey, Willard L. Murphy, Stanley D.	D13N/10E-5P1	Greenwood	11	57
Hassler, J. E., Estate of	D11N/11E-34G1	Coloma	19	48, 99
	D11N/11E-34H1	Coloma	19	48, 99
	D11N/11E-35F1	Coloma	19	48, 99
Hassler, J. R. Winkelman, A. C. and Juanita	D11N/11E-35M1	Coloma	19	48, 71, 100, C-26
Herzig, A.	(See: Coloma-Lotus Ranch Ditch)			
Highland Lake United States El Dorado National Forest	D13N/16E-20N1	Rubicon River	13	65, 74

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Hocking, John S.	D10N/11E-8G1	Placerville	24	60, 102
Hodgson, John R.	D16N/11E-1C1	Blue Canyon	3	44, 99, C-39
Holstrom, Clare O.	(See: Edwards, Anna M.)			
Hughes, Brian B. and Emma M.	D14N/10E-31Q1	Foresthill	8	54, C-30, C-35
Hughes Brothers	D14N/11E-6M1	Foresthill	8	11, 54
Hughes, Dave	(See: Pacific Slab Mine)			
Hughes, Emma M.	(See: Edwards, Anna M. Hughes, Brian B.)			
Hulbert, Drummond	D14N/9E-27N1	Foresthill	8	54, 101
Ice Lakes Sierra Lakes Club	D17N/14E-34J1	Royal Gorge	2	63
Icehouse Reservoir Sacramento Municipal Utility District	D11N/14E-1N1	Silver Creek	21	65, C-30, E-9, E-10
Island Lake United States El Dorado National Forest	D12N/16E-23M1	Silver Creek	17	66, 75, C-34
Jacobs Creek Reservoir Stodick, L. D.	D11N/9E-23B1	Coloma	18	46, 99, C-30
Kahl, LeRoy and Jewell	D12N/10E-28B1	Coloma	14	50, 100, C-38
Karr, Florence B.	D10N/10E-3B1	Placerville	24	58, 101, C-30
Kelley, Joe P.	D11N/8E-4N1	Folsom	18	51, 72, 100
Kelly Lake Pacific Gas and Electric Company	D17N/12E-25F1	Blue Canyon	1	44, 71, C-21, D-16
King, John D. and Barbara A.	D11N/17E-9M1	Silver Lake	22	69, C-25
Kurtz, Walter N. and Marjorie	D11N/9E-35B1	Placerville	18	62, C-37
Kyburz, Incorporated	D11N/15E-21R1	Silver Lake	21	68
	D11N/15E-22N1	Silver Lake	21	68
	D11N/15E-22N2	Silver Lake	21	68
Lake Aloha	(See: Medley Lakes)			
Lake Clementine California Debris Commission	D13N/9E-31E1	Foresthill	11	12, 53
Lake Fountain Hector Williamson	D11N/9E-35R1	Placerville	18	62, 102
Lake of the Woods United States El Dorado National Forest	D12N/17E-32H1	Silver Lake	17	70, 75, D-23

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Lake Valley Canal Pacific Gas and Electric Company	D17N/12E-33B1	Blue Canyon	1	41, 44, 71, 77, D-16
Lake Valley Reservoir Pacific Gas and Electric Company	D17N/12E-35C1	Blue Canyon	1	12, 44, 71
Lapham, Ralph E. and Rosetta	D10N/12E-1Q1	Placerville	25	61, C-33
Larsen, John, Lawrence and Ruth	D11N/12E-31H1	Coloma	20	49, 71, 100, C-20
Larsen, Katherine C. and Sons	D10N/12E-4L1	Coloma	25	45, 71, 99, C-22
Lawrence Lake United States El Dorado National Forest	D12N/16E-9D1	Silver Creek	17	66, 74, C-34
Lewis, W. R. Roach, W. H.	D10N/9E-10C1	Placerville	23	58, 101
Lienau, John H.	D14N/9E-22F1	Foresthill	8	53, C-31
Livingston, E. B.	D10N/10E-32J1	Placerville	24	59, C-29
Lois Lake United States El Dorado National Forest	D12N/16E-3G1	Rubicon River	17	64, 73, C-34
Loon Lake Georgetown Divide Public Utility District	D13N/15E-5H1	Rubicon River	13	12, 65, D-10, D-11, E-5, E-9, E-10
Long, Claude C.	(See: Farmers Ditch)			
Long, E. A.	D12N/9E-13D1	Coloma	14	49
	D12N/9E-14A1	Coloma	14	49, 71, 100
Lower Twin Lake United States El Dorado National Forest	D12N/16E-22Q1	Silver Creek	17	66, 74, C-35
Luccini, Herman	D13N/10E-4K1	Greenwood	11	57, 101
Lumsden, Florence	D10N/11E-9N1	Placerville	24	60, C-30
Lung, Robert Lowell	D10N/10E-2P1	Placerville	24	58, 101, C-31
	D10N/10E-11C1	Placerville	24	59, 101, C-33
Lyon, Alice E. Sickels, M. J.	D11N/17E-11L1	Silver Lake	22	31, 69, C-25
Lyons Lake United States El Dorado National Forest	D12N/16E-35B1	Silver Creek	17	67, 75, C-34
Macy's Ditch Macy, W. S., Estate of	D15N/10E-27K1	Foresthill	5	55

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Mansfield Ditch Gallagher, Melvin and Frank	D11N/10E-16M1	Coloma	19	46, 99
Markovich, E. B. and Theresa C.	D14N/9E-27H1	Foresthill	8	54, C-37
Marks, Roy M. and Myrtle	(See: Farmers Ditch)			
Marshal, Stewart A.	D10N/10E-23G1	Placerville	24	59, 101, C-29, C-32
Marshall, Edna C.	(See: Edwards, Anna M.)			
Marshall, Mrs. James	(See: Darlington, F.)			
Matthews, Don	D10N/12E-9B1	Placerville	25	61, 102
McAulay, Malcolm	(See: Borrson, Nioma)			
McGeachin Placer Gold Mining Company	(See: Big Reservoir)			
Medley Lakes (Lake Aloha) Pacific Gas and Electric Company	D12N/17E-30G1	Silver Lake	17	12, 69, 75, C-20, C-22, D-22, D-23
Merrill, Charles W. and Lorraine	D11N/10E-28K1	Coloma	19	47, 99, C-35
Middle Velma Lake United States El Dorado National Forest	D13N/16E-36A1	Rubicon River	13	65, 74, C-34
Miller, Richard M.	D11N/9E-8P1 D12N/9E-33L1	Coloma Coloma	18 14	45, C-30 50, 72, 100, C-28, C-31
Monte Rio Pipe Pacific Gas and Electric Company	D11N/8E-5B1	Folsom	18	51, 77, D-17, D-21
Moore, Lawrence T. and Vera	D11N/11E-32M1	Coloma	19	48, 99, C-29
Mortara, Teresa	(See Farmers Ditch)			
Morton, Earl and Grace F.	D16N/10E-36R1	Foresthill	3	55, 101, C-21
Mosquito District Mutual Water Company	(See: Summerfield Ditch)			
Murphy, Stanley D.	(See: Harvey, Willard L.)			
Murray, Frank	D15N/10E-2C1	Foresthill	5	55, 101
Muskavitch, Charles M. and Gail	D12N/8E-34D1	Folsom	14	53, 100, C-35
New Weber Ditch El Dorado Irrigation District	D10N/12E-18Q1	Placerville	25	14, 62, 73, C-20, D-7

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Niegel, Lawrence	D12N/9E-16J1	Coloma	14	C-32
	D12N/9E-16K1	Coloma	14	49, 71, 100, C-31,
	D12N/9E-21H1	Coloma	14	49, 71, 100, C-32 50, 100
Niegel, Lawrence Bowen, Bernice	D12N/9E-21F1	Coloma	14	50, 71, 100, C-32
Niegel, Rudolph and Ora	D12N/8E-25A1	Folsom	14	52, 100, C-32
	D12N/8E-25B1	Folsom	14	52, 72, 100, C-33
North Fork Association	D16N/14E-13L1	Royal Gorge	4	31, 63
	D16N/15E-5P1	Royal Gorge	4	63
North Fork Dam	(See: Lake Clementine)			
Ostenrieder, Fred G.	D12N/10E-22N1	Coloma	14	50, 72, 100, C-32
Pacific Gas and Electric Company	(See: Alder Creek Pipeline American River Flume Boardman Canal Colfax Pipeline Echo Lake Conduit El Dorado Ditch Gaylord Canal Kelly Lake Lake Valley Canal Lake Valley Reservoir Medley Lakes (Lake Aloha) Monte Rio Pipe Pulp Mill Canal Shirland Canal Silver Lake South Canal Towle Canal Twin Lakes Wise Canal)			
Pacific Slab Mine Hughes, Dave Wilson, W. E.	D15N/12E-35G1	French Meadows	6	56, 72, C-36
Paiva, Tony	D10N/10E-25E1	Placerville	24	59, 101
Peterson, Kai	D10N/11E-13Q1	Placerville	24	60, 102
Pine Nut Ditch Davidson Brothers	D14N/13E-18H1	French Meadows	9	56, 72
Poole, Floyd	D11N/13E-35M1	Silver Lake	20	68, 103
Price, H. D.	D12N/10E-24K1	Coloma	14	50, 100
	D12N/11E-30B1	Coloma	15	51, 100
Prouty, D. L.	(See: Farmers Ditch)			
Pulp Mill Canal Pacific Gas and Electric Company	D16N/10E-36Q1	Foresthill	3	41, 55, 72, 77, D-19, D-20
Putt Lake Central Pacific Railroad Company	D17N/11E-36P1	Blue Canyon	3	44

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendices Page No.
Rechenmacher, Frances H.	(See: Edwards, Anna M.)			
Richardson, Ernest K.	D11N/17E-9K1	Silver Lake	22	68, C-29, C-35
Roach, W. H.	(See: Lewis, W. R.)			
Roan, Kathryn and Marian C.	D13N/9E-14A1	Greenwood	11	57, 101
Rockbound Lake United States El Dorado National Forest	D13N/16E-6R1	Rubicon River	13	65, 74, C-35
Ropi Lake United States El Dorado National Forest	D12N/17E-32P1	Silver Lake	17	70, 76, C-34 D-23
Rumpel, Alton W. and Myrle J.	D12N/11E-18P1	Coloma	15	50, C-39
Rupley, Fay M.	D10N/11E-11C1 D10N/11E-11C2 D10N/11E-11G1	Placerville Placerville Placerville	24 24 24	60, 73, 102, C-38 60, 102, C-38 60, 102, C-38
Sacramento Municipal Utility District	(See: Icehouse Reservoir)			
Schaefer, Otto	D11N/17E-17G1 D11N/17E-18H1 D11N/17E-18H2 D11N/17E-18M1	Silver Lake Silver Lake Silver Lake Silver Lake	22 22 22 22	69, C-26, C-28 69 69 69, C-29, C-31
Schmidell Lake United States El Dorado National Forest	D13N/16E-33J1	Rubicon River	13	65, 74, C-34
Schubin, Nick J.	D11N/9E-36F1	Placerville	18	62, 102, C-30 C-32, C-33
Shirland Canal Pacific Gas and Electric Company	D12N/8E-15P1	Folsom	14	52, 77, D-17, D-21
Sierra Lakes Club	(See: Ice Lakes)			
Sickels, M. J.	(See: Lyon, Alice E.)			
Silver Fork Improvement Club	D11N/15E-28P1	Silver Lake	21	68, C-33
Silver Lake Pacific Gas and Electric Company	D10N/17E-32Q1	Silver Lake	27	12, 67, C-20, C-22, D-21, D-23
Singleton, C. L. and R. E.	D11N/9E-27M1	Coloma	18	46
Sly Park-Camino Conduit United States Bureau of Reclamation	D10N/12E-14L1	Placerville	25	14, 40, 61, 77, D-7, D-8
Smith, Hugh H., Estate of	D10N/10E-21A1	Placerville	24	59, C-32

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendices Page No.
Smith Lake United States El Dorado National Forest	D12N/16E-26M1	Silver Creek	17	67, 75, C-34
Smith, Neal D. and Inez I.	(See: Chiquita Lake)			
South Canal Pacific Gas and Electric Company	D12N/8E-32P1	Folsom	14	53, 77, D-16, D-17, D-18
South Fork Ditch Georgetown Divide Public Utility District	D13N/14E-27B1	Rubicon River	13	64, D-11
Southern Pacific Company	D16N/11E-11A1 D17N/12E-33B2 (See: China Spring)	Blue Canyon Blue Canyon	3 1	31, 44 44
Spence, Robert C. and Faye E.	D11N/10E-18N1	Coloma	19	47, 99, C-35
State of California Department of Fish and Game	D11N/15E-23N1 (See: Fannon Reservoir)	Silver Lake	21	69, C-35
State of California Division of Beaches and Parks	(See: Coloma-Lotus Ranch Ditch)			
Steves, C. A.	D11N/9E-6A1	Coloma	18	45, 99
Stockton Box Company	D14N/10E-34A1 D14N/10E-35D1 D14N/13E-8M1	Foresthill Foresthill French Meadows	8 8 9	11, 54, C-39 54, C-39 56, C-32
Stodick, L. D.	(See: Coloma-Lotus Ranch Ditch Jacobs Creek Reservoir)			
Strawberry Creek Lot Owner's Association	D11N/17E-30C1	Silver Lake	22	31, 69, C-28
Sturgill, Ralph and J. J.	D15N/13E-5M1 D15N/13E-7B1	French Meadows French Meadows	6 6	57, 72, C-22 57
Sturmfeder, F. H. R.	(See: Aperman, Amile)			
Summerfield Ditch Mosquito Ditch Mutual Water Company	D12N/12E-28F1	Coloma	15	51, 100
Swanson, Dorotea	(See: Gordon, R. L.)			
Sweeny, James W.	(See: Farmers Ditch)			
Swift, R. S.	D12N/14E-16F1 D12N/14E-16M1 D12N/14E-16Q1	Silver Creek Silver Creek Silver Creek	16 16 16	66, 103 66, 103 66, 103
Taylor, Earl D. and Alice M.	D11N/10E-14J1	Coloma	19	46, 99
Terrasell, Incorporated	D10N/10E-28L1	Placerville	24	59

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Threlkel, N. E.	D12N/8E-32A1	Folsom	14	52, 100
	D12N/8E-32A2	Folsom	14	52, 100
Tillotson, Marvin	(See: Edwards, Anna M.)			
Toem Lake United States El Dorado National Forest	D12N/17E-32N1	Silver Lake	17	70, 76, C-34, D-23
Towle Canal Pacific Gas and Electric Company	D16N/11E-21E1	Foresthill	3	41, 55, 72, 77, D-19, D-20
Trowbridge, K. W. and Melba	D11N/9E-7R1	Coloma	18	46, C-32
Twin Lakes Pacific Gas and Electric Company	D10N/18E-18N1	Silver Lake	27	12, 28, 67, C-20, C-22, D-21, D-23
United States Bureau of Reclamation	(See: Folsom Reservoir Sly Park-Camino Conduit)			
United States El Dorado National Forest	(See: Barrett Lake Buck Island Lake Clyde Lake Highland Lake Island Lake Lake of the Woods Lawrence Lake Lois Lake Lower Twin Lake Lyons Lake Middle Velma Lake Rockbound Lake Ropi Lake Schmidell Lake Smith Lake Toem Lake Upper Twin Lake Winnemucca Lake Wrights Lake)			
United States Tahoe National Forest	D16N/11E-2Q1	Blue Canyon	3	44, C-25
	D15N/11E-9L1	Foresthill	5	55, 101, C-33
Upper Twin Lake United States El Dorado National Forest	D12N/16E-22R1	Silver Creek	17	66, 75, C-34
Van Riper, J. E.	D12N/8E-32H1	Folsom	14	52, 100
	D12N/8E-32H2	Folsom	14	52, 100
Veerkamp, L. W.	D11N/10E-32J1	Placerville	19	63, 73, 102, C-30
	D11N/10E-32L1	Placerville	19	63, 102, C-31, C-32
Veerkamp, Malcolm	D11N/10E-29Q1	Coloma	19	47, 71, 99
Veerkamp, Vinton R.	D10N/9E-9A1	Placerville	23	58, 101
	D10N/9E-10D1	Placerville	23	58, 101

TABLE 9
INDEX TO SURFACE WATER DIVERSIONS
AMERICAN RIVER HYDROGRAPHIC UNIT

Diversion name or owner	Location number	Subunit	References	
			Plate 2 Sheet No.	Text and appendixes Page No.
Vicini, Joe and Lillian	D11N/9E-16Q1	Coloma	18	46, 99, C-35
	D11N/9E-16Q2	Coloma	18	46, 99, C-35
	D11N/9E-21A1	Coloma	18	46, 99
	D11N/9E-21H1	Coloma	18	46, 99
Volz, George H. and Isabelle D.	D11N/10E-33A1	Coloma	19	47, 99, 102, C-32
	D11N/10E-34E1	Coloma	19	47, 99, 102, C-31
	D11N/11E-33B1	Coloma	19	48, 99, C-32
	D11N/11E-33B2	Coloma	19	48, 99, C-32
	D11N/11E-33J1	Coloma	19	48, 99
Wakefield, John M.	D10N/17E-21E1	Silver Lake	27	67, 103
Welch, W. H.	D11N/17E-8R1	Silver Lake	22	68, C-23
Wessels, Fred	D10N/9E-36M1	Placerville	23	58, 101
	D10N/9E-36N1	Placerville	23	58, 101
West, Harvey E.	D11N/12E-25L1	Coloma	20	49, C-37
White, William J. and Ruth E.	D12N/8E-13R1	Folsom	14	52, 100, C-33
Wilkinson, Kenny	D10N/10E-3Q1	Placerville	24	59, 101
Wilkinson, Richard J.	D11N/10E-33L1	Placerville	19	63, 102
Williamson, Hector	D10N/9E-1J1	Placerville	23	58
	D10N/9E-1K1	Placerville	23	58, 101
	D11N/9E-35L1	Placerville	18	62, 102, C-37
	(See: Lake Fountain)			
Wilson, G. Jr. and Bertha L.	D11N/16E-7A1	Silver Creek	22	65, 102
Wilson, W. E.	(See: Pacific Slab Mine)			
Winje, Norman	D11N/10E-29C1	Coloma	19	47, 99, C-31
Winkelman, A. C. and Juanita	D11N/11E-35A1	Coloma	19	48, 99
	D11N/11E-35K1	Coloma	19	48
	D11N/11E-35Q1	Coloma	19	49
	D11N/11E-36K1	Coloma	19	49, 100
	(See: Hassler, J. R.)			
Winnemucca Lake United States El Dorado National Forest	D10N/18E-34E1	Silver Lake	27	67, 75, C-34 D-23
	D12N/16E-32G1	Silver Creek	17	67, 75, C-34
Wrights Lake United States El Dorado National Forest	D12N/16E-32G1	Silver Creek	17	67, 75, C-34
Wygersma, W. R. A.	D10N/11E-2L1	Coloma	24	45, 99

11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100

CHAPTER III. LAND USE

Reported herein are the results of a survey of present land use as related to water use and a brief summary of historical land use. A thorough knowledge of the nature and extent of land and water uses under past and existing conditions is one of the primary requisites in evaluating future water requirements within the hydrographic unit.

Historical Land Use

After the first flush of the gold rush, the attendant need of the mining population for agricultural products resulted in the first planting of vegetable crops near Union Bar and Coloma. The first planting of grain and initial orchard development followed closely. Agriculture gradually expanded until about 1880 and then declined until after World War I, when increased economic demand caused expanded agricultural production with orchards predominating. The depression years of the 1930's forced a decline in agriculture but since 1940 both irrigated agriculture and livestock raising have increased.

Present Land Use

A detailed land use survey in the American River Hydrographic Unit was conducted in 1960 in which the land uses were mapped as they related to water use such as irrigated, dry-farmed, urban, recreational, naturally high water table lands, and native vegetation. Sheets 1 through 28 of Plate 2 detail this land use. Gross land use areas

within each subunit are presented in Table 10. These values include nonwater service areas such as roads, ditches, building and storage areas, and miscellaneous rights-of-way, which occur within the mapped areas.

Methods and Procedures

Field observations of land use were plotted on aerial photographs which had previously been used to locate surface water diversions. An example of land use delineated on an aerial photograph is shown on Page No. 93. After completion of the field mapping, the data was transferred to United States Geological Survey quadrangle maps reproduced at a scale of 1:24,000 to bring the delineated areas to a common scale for accurate determination of acreages. These maps showing the location of all diversions and the irrigated fields, including idle and fallow lands associated with each irrigation diversion, was colored according to the land use categories. These work maps were then used in the preparation of Plate 2.

Another series of these maps was used to compute the land use acreages. Each delineated area on these maps was manually cut out and carefully weighed on an analytical balance. These weights were converted to acreages using ratios determined for each of the individual maps. This method has proven to be an accurate and expedient means of area determination where a large number of small parcels is involved.



Example of Land Use Delineated on Aerial Photograph

Symbols used in this photograph:

- | | | | |
|------|--|--------------|--|
| iP3 | - irrigated mixed pasture | nG6 | - dry-farmed miscellaneous hay and grain |
| iD6 | - irrigated pears | n <u>D13</u> | - dry-farmed walnuts |
| nV | - dry-farmed vineyards | <u>D3</u> | intercropped with cherries |
| nD10 | - dry-farmed miscellaneous deciduous orchard | NV | - native vegetation |

Irrigated Lands

Irrigated lands, as designated in this report, include all agricultural lands which receive artificially applied water. Acreages are reported in Table 11 by surface water diversion or by ground water, and by subunits showing the crop grown. Irrigated lands were segregated into pasture, orchard, and idle and fallow lands. Pasture was further subdivided into mixed, and native pasture; the latter comprising native pasture lands having a high water table induced by the application of irrigation water. Idle lands are those which were not irrigated in the year of survey but which had been irrigated within the preceding three years. Fallow lands are those cultivated lands which may have been irrigated during the year of survey, but which at the time of survey were only tilled and not planted to a crop.

The lands irrigated by surface water were identified by diversion and by crop irrigated. Lands irrigated by ground water were identified by crop only. On Plate 2 irrigated lands are grouped into three categories: (1) lands which received a full irrigation during the year of survey; (2) lands which received only a partial irrigation because of insufficient water supply; and (3) lands usually irrigated but which were idle or fallow in 1960.

Naturally High Water Table Lands

In addition to the lands which receive applied water as described above, there are lands supporting vegetation utilizing water from a naturally high water table, such as

mountain meadows or lands adjacent to lakes and streams. These are shown in Table 10 as "Meadowlands" and on Plate 2 as "Naturally irrigated meadowlands." If standing water was observed in an area on which tules, cattails, bullrushes, and similar vegetation were growing, the area is shown in Table 10 and on Plate 2 as "Marshlands."

Dry-farmed Lands

Dry-farmed lands are those lands normally planted to a crop but which do not receive artificially applied water. This includes all lands so farmed whether or not a crop is produced in the year of survey. Although lands were mapped as "dry-farmed idle" if uncultivated in the year of survey and "dry-farmed fallow" if tilled but without a crop, they are shown in Table 10 and on Plate 2 as "dry-farmed lands." Lands which had been uncultivated for more than three years and appeared to have reverted to "native vegetation" were so mapped.

It should be noted that the term "dry-farmed" as used herein refers to the farming practice on these lands and not to a lack of soil moisture.

Since noncultivated rangelands are usually indistinguishable from similar lands not used for grazing purposes, both were designated as native vegetation. Water use in both cases is essentially the same and is dependent upon precipitation.

Urban Lands

Urban lands include the total areas of cities, towns, small communities, industrial plots, and military reservations

which are large enough to be delineated. Also included are parks, golf courses, race tracks and cemeteries within or near urban boundaries. The areas shown on Plate 2 and in Table 10 are gross delineations, including streets and vacant lots, and may not have been fully developed at the time of survey. The boundaries of urban communities were delineated to include all lands with a density of one house or more per two acres.

Recreational Lands

Recreational lands were mapped on aerial photographs in the field by four categories: (1) residential, (2) commercial, (3) camp and trailer sites, and (4) parks. Recreational residential lands include permanent and summer home tracts within a primarily recreational area. The estimated density of homes per acre was also indicated. Recreational commercial lands include those containing motels, resorts, hotels, stores, restaurants and similar commercial establishments in primarily recreational areas. Lands mapped in the camp and trailer sites category included areas so used within primarily recreational areas but outside park boundaries. All area within park boundaries was included without regard to specific uses within them. Nearly all of the mountainous and water surface areas are suitable for some use such as hunting, fishing, hiking, picnicking or similar activities. For the purpose of this land use survey, however, consideration was given only to those lands where some fairly intensive development occurs which requires water service.

The recreational lands are combined into one group in Table 10 and on Plate 2. As for urban lands, the recreational areas delineated were not necessarily fully developed.

Native Vegetation

Lands essentially in a native state and not included in any of the above categories were mapped as native vegetation. These lands are generally used for mining, commercial timber production, livestock range, and recreational activities. They totaled 1,164,235 acres or 98 percent of the land within the American River Hydrographic Unit. Included in these areas were some farm buildings and storage areas, water surfaces, scattered residences and other isolated uses covering a few acres or less which were too small to be mapped separately.

TABLE 10
LAND USE IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Subunit and County	Irrigated lands	Naturally high water table lands		Dry-farmed lands	Urban lands	Recreational lands	Native vegetation	Total
		Meadowlands	Marsh lands					
Blue Canyon								
Nevada County	0	0	0	0	0	0	298	298
Placer County	<u>26</u>	<u>158</u>	<u>0</u>	<u>0</u>	<u>33</u>	<u>15</u>	<u>34,467</u>	<u>34,699</u>
Total	26	158	0	0	33	15	34,765	34,997
Coloma								
El Dorado County	4,165	171	0	290	933	208	156,532	162,299
Folsom								
El Dorado County	930	16	0	320	236	3,627	41,824	46,953
Placer County	1,505	0	0	70	482	1,426	8,867	12,350
Sacramento County	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>124</u>	<u>1,200</u>	<u>1,324</u>
Total	2,435	16	0	390	718	5,177	51,891	60,627
Foreethill								
Placer County	306	10	0	89	627	76	97,535	98,643
French Meadows								
El Dorado County	0	0	0	0	0	0	658	658
Placer County	<u>0</u>	<u>21</u>	<u>0</u>	<u>0</u>	<u>26</u>	<u>11</u>	<u>130,269</u>	<u>130,327</u>
Total	0	21	0	0	26	11	130,927	130,985
Greenwood								
El Dorado County	98	21	4	39	61	14	36,418	36,655
Placer County	<u>11</u>	<u>7</u>	<u>0</u>	<u>65</u>	<u>204</u>	<u>3</u>	<u>24,399</u>	<u>24,689</u>
Total	109	28	4	104	265	17	60,817	61,344
Placerville								
El Dorado County	3,853	169	3	101	3,267	70	57,009	64,472
Royal Gorge								
Nevada County	0	0	0	0	0	0	80	80
Placer County	<u>9</u>	<u>333</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>51</u>	<u>89,778</u>	<u>90,171</u>
Total	9	333	0	0	0	51	89,858	90,251
Rubicon River								
El Dorado County	14	231	0	0	3	73	94,462	94,783
Placer County	<u>0</u>	<u>224</u>	<u>18</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>107,029</u>	<u>107,271</u>
Total	14	455	18	0	3	73	201,491	202,054
Silver Creek								
El Dorado County	82	763	0	0	4	104	112,404	113,357
Silver Lake								
Alpine County	0	103	0	0	0	28	12,450	12,581
Amador County	12	113	0	0	0	197	10,215	10,537
El Dorado County	<u>24</u>	<u>546</u>	<u>0</u>	<u>0</u>	<u>86</u>	<u>1,225</u>	<u>148,341</u>	<u>150,222</u>
Total	36	762	0	0	86	1,450	171,006	173,340
ALPINE COUNTY	0	103	0	0	0	28	12,450	12,581
AMADOR COUNTY	12	113	0	0	0	197	10,215	10,537
EL DORADO COUNTY	9,166	1,917	7	750	4,590	5,321	647,648	669,399
NEVADA COUNTY	0	0	0	0	0	0	378	378
PLACER COUNTY	1,857	753	18	224	1,372	1,582	492,344	498,150
SACRAMENTO COUNTY	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>124</u>	<u>1,200</u>	<u>1,324</u>
TOTAL	11,035	2,886	25	974	5,962	7,252	1,164,235	1,192,369

TABLE II
IRRIGATED LANDS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Diversion location	Diversion name or owner	Pasture		Orchards						Misc. ^a	Total lands irrigated	Idle or fallow	Total	
		Mixed	Native	Apples	Cherries	Pears	Plums	Walnuts	Misc.					
BLUE CANYON SUBUNIT														
D16N/11E-1C1	John R. Hodgson	—	26	—	—	—	—	—	—	—	—	26	—	26
Total	Blue Canyon Subunit	0	26	0	0	0	0	0	0	0	0	26	0	26
COLOMA SUBUNIT														
D10N/11E-2L1	W. R. A. Wygersma					4						4		4
D10N/11E-3J1	W. C. Cumming					10						10		10
D10N/12E-4L1	Katherine C. Larsen and Sons			83		70						153 ^m		153
D11N/9E-3H1	Byron and Francis Bacchi	17										17		17
D11N/9E-6A1	C. A. Steves	13										13		13
D11N/9E-7B1	B. Binshi		3								1	4		4
D11N/9E-12C1	Byron and Francis Bacchi	11										11	2	13
D11N/9E-12F1	Byron and Francis Bacchi	9										9		9
D11N/9E-16Q1 D11N/9E-16Q2 D11N/9E-21A1 D11N/9E-21A2	Joe and Lillian Vicini	5										5		5
D11N/9E-23J1	Jacobs Creek Reservoir											0	90	90
D11N/10E-14J1	Earl D. and Alice M. Taylor	7						2				9		9
D11N/10E-16Q1 D11N/10E-17Q1	Mansfield Ditch Melvin and Frank Gallagher	10										10	2	12
D11N/10E-18N1	Robert C. and Faye E. Spence											0	6	6
D11N/10E-26L1	Coloma-Lotus Ranch Ditch	91	49 ^c			39					2	181	44	225
D11N/10E-28K1	Charles W. and Lorraine Merrill					5						5		5
D11N/10E-29C1	Norman Winje					7						7		7
D11N/10E-29Q1	Malcolm Veerkamp	35									5	40		40
D11N/10E-33A1	George H. and Isabelle D. Vols					5						5		5
D11N/10E-33A2	Leo A. Akin					26						26		26
D11N/10E-33M1 (Placerville Subunit)	Leon M. and G. Gastaldi					1						1		1
D11N/10E-34E1	George H. and Isabelle D. Vols					11						11		11
D11N/11E-32M1	Lawrence T. and Vera Moore	6										6 ^m		6
D11N/11E-33B1 D11N/11E-33B2 D11N/11E-33J1	George H. and Isabelle D. Vols					38						38 ^m		38
D11N/11E-33J1	George H. and Isabelle D. Vols					8						8 ^m		8
D11N/11E-34G1	J. E. Hassler Estate					21						21		21
D11N/11E-34H1	J. E. Hassler Estate					2						2		2
D11N/11E-34K1	Lucy M. Brunius					26						26		26
D11N/11E-35A1	A. C. and Juanita Winkelman					29						29		29
D11N/11E-35F1	J. E. Hassler Estate					14						14		14

For lettered footnotes, see last page of table.

TABLE II (Continued)
IRRIGATED LANDS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Diversion location	Diversion name or owner	Pasture		Orchards						Misc. ^o	Total lands irrigated	Idle or fallow	Total	
		Mixed	Native	Apples	Cherries	Pears	Plums	Walnuts	Misc.					
COLOMA SUBUNIT (Continued)														
D11H/11E-35M1	J. H. Hassler A. C. and Juanita Winkelman			11		6						17		17
D11N/11E-36K1	A. C. and Juanita Winkelman					54						54	19	73
D11N/12E-31H1	John, Lawrence and Ruth Larsen			7		56						63		63
D11N/12E-35H1	B., A., and M. Harris			3		5						8 ^a		8
D12N/9E-14A1	E. A. Long	15										15		15
D12N/9E-16J1	Lawrence Nisgel	30										30		30
D12N/9E-16K1	Lawrence Nisgel	26										26		26
D12N/9E-21F1	Lawrence Nisgel and Bernice Bowen	18										18		18
D12N/9E-21H1	Lawrence Nisgel		9									9		9
D12N/9E-33L1	Richard M. Miller	50										50		50
O12N/9E-34L1	Byron and Francis Bacchi		36									36		36
D12N/10E-17D1	W. L. and Virginis Fisk	7										7		7
D12N/10E-22N1	Fred G. Ostenrieder		22									22		22
D12N/10E-24K1	H. D. Price		16									16		16
D12N/10E-28B1	LeRoy and Jewell Kahl		5									5		5
D12N/11E-30B1	H. D. Price		23									23		23
D12N/12E-28F1	Summerfield Ditch		105 ^d							10 ^b		115		115
El Dorado Irrigation District		108		283 ^f		1,364 ^g	8				19	1,782	43	1,825
Georgetown Divide Public Utility District		723 ^o	123		35	70		29		10		990		990
Lands irrigated by ground water		4	4									8		8
Total Coloma Subunit		1,185	395	387	35	1,871	8	31		25	22	3,959	206	4,165
FOLSOM SUBUNIT														
D10N/9E-30B1	Edwin W. Greenhalgh		11									11		11
D11N/8E-1C1	Gordon N. Garland	42 ^b										42 ⁿ		42
D11N/8E-4M1	Joe P. Kelley	8										8		8
D12N/8E-13R1	William J. and Ruth E. White	6										6		6
D12N/8E-24J1	L. J. and E. Belle Eeper	34										34 ⁿ		34
D12N/8E-25B1 D12N/8E-25A1	Rudolph and Ora Nisgel	18										18 ⁿ		18
D12N/8E-32A1 D12N/8E-32A2	N. E. Threlkel					19						19		19
D12N/8E-32H1	J. E. Van Riper					4						4		4
D12N/8E-32H2	J. E. Van Riper					4						4		4
D12N/8E-32J1	H. E. Crosthwaite					10						10 ^p		10
D12N/8E-33N1	Nioma Borsson Malcolm McAulay	4					8					12		12
D12N/8E-34D1	Charles M. and Gail Muskavitch	21										21		21
D12N/9E-31M1	Lon Denison	24				61						85 ⁿ		85
Georgetown Divide Public Utility District		458	35		37	190		8			6	734		734

For lettered footnotes, see last page of table.

TABLE II (Continued)
IRRIGATED LANDS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Diversion location	Diversion name or owner	Pasture		Orchards						Misc. ^a	Total lands irrigated	Idle or fallow	Total
		Mixed	Native	Apples	Cherries	Pears	Plums	Walnuts	Misc.				
FOLSOM SUBUNIT (Continued)													
Pacific Gas and Electric Company		59	9	—	—	653 ^k	557	2	110	37	1,427	—	1,427
Total Folsom Subunit		674	55	0	37	941	565	10	110	43	2,435	—	2,435
FORESTHILL SUBUNIT													
D13N/9E-4L1	C. Brunkhorst	4	8								12		12
D14N/9E-10P1	Virginia Delauidico		11								11		11
D14N/9E-27N1	Drummond Hulbert	5									5 ^p		5
015N/10E-2C1	Frank Murray		7								7		7
D15N/11E-9L1	United States Tahoe National Forest		9								9		9
D16N/10E-36R1	Earl and Grace F. Morton								10		10		10
Pacific Gas and Electric Company		19	8			200	3			4	234		234
Lands irrigated by ground water		15 ^h	3								18		18
Total Foresthill Subunit		43	46	0	0	200	3	0	14	0	306	0	306
FRENCH MEADOWS SUBUNIT													
(No diversions located in this subunit)													
GREENWOOD SUBUNIT													
D13N/9E-14A1	Kathryn and Marion C. Roan	4									4		4
013N/9E-35J1	R. L. Gordon Dorotea Swanson	9									9		9
013N/10E-4K1	Nerman Luccini		3								3		3
014N/11E-17J1	L. L. Anderson			4							4 ^q		4
Georgetown Divide District	Public Utility	41	24	3		16				5	89		89
Total Greenwood Subunit		54	27	7	0	16	0	0	5	0	109	0	109
PLACERVILLE SUBUNIT													
010N/9E-1K1	Hector Willmanson		7								7		7
D10N/9E-9A1	Vinton R. Vserkamp	11									11 ^q		11
010N/9E-10C1	W. R. Lewis W. H. Roach	9									9 ^q		9
010N/9E-1001 010N/9E-9A1	Vinton R. Vserkamp	9 ^b									9 ^q		9
D10N/9E-36M1 D10N/9E-36N1	Fred Wassels		7 ^b								7		7
010N/10E-1M1	John M. Caswell					6					6	10	16
D10N/10E-2P1	Robert Lowell Lung	4				11		3	1	6	25 ^m	2	27
D10N/10E-3B1	Florence B. Karr					17					17		17
D10N/10E-3N1	S. F. Deming										0	3	3
010N/10E-3Q1	Kenny Wilkinson									5	5		5
010N/10E-11C1	Robert Lowell Lung					3		7			10		10
010N/10E-18C1	Allied Capital Corporation	110									110		110
010N/10E-23G1	Stewart A. Marshal					14			1		15 ^m		15
D10N/10E-25E1	Tony Paiva		4								4		4
D10N/10E-33A1	William C. Fredericks					18					18 ^m		18

For lettered footnotes, see last page of table.

TABLE II (Continued)
IRRIGATED LANDS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Diversion location	Diversion name of owner	Pasture		Orchards						Misc.	Total lands irrigated	Idle or fallow	Total	
		Mixed	Native	Apples	Cherries	Pears	Plums	Walnuts	Misc.					
PLACERVILLE SUBUNIT (Continued)														
D10N/10E-33C1	William C. Fredericke	1				17						18 ^m		18
D10N/11E-3F1	Leo Ench					19						19		19
D10N/11E-4N1	Elonar Foseati					9						9		9
D10N/11E-8A1	John Bisagno					46						46		46
D10N/11E-8G1	John S. Hocking										0	5	5	5
D10N/11E-11C1 D10N/11E-11C2	Fay M. Rupley	14				21						35		35
D10N/11E-11G1	Fay M. Rupley	11										11		11
D10N/11E-13Q1	Kai Peterecn	7										7		7
D10N/11E-14C1	Emilio F. and Edith M. Canepa	4				11						15 ^m		15
D10N/11E-19F1	Farmers Ditch	127	26 ¹	6		103						262 ^m		262
D10N/11E-22D1	F. Darlington Mrs. James Marshall	14										14		14
D10N/12E-8Q1	Herbert N. and Betty E. Bernd			2		19						21 ^m		21
D10N/12E-9B1	Don Matthews		3									3		3
D10N/13E-5M1	George Browning			4 ^b		5 ^b						9		9
D11N/9E-35R1 D11N/9E-35L1	Lake Fountain Nector Williamson	5	12									17		17
F11N/9E-36F1	Nick J. Schubn	32										32	7	39
D11N/10E-31Q1	Leo A. Aclin					11						11		11
D11N/10E-32J1	L. W. Veerkamp	2				7						9		9
D11N/10E-32L1	L. W. Veerkamp					26						26		26
D11N/10E-33A1	George N. and Isabelle D. Vols					2						2		2
D11N/10E-33A2 (Coloma Subunit)	Leo A. Aclin					13						13		13
D11N/10E-33L1 (Coloma Subunit)	Richard J. Wilkinson					10						10		10
D11N/10E-33M1	Leon M. and G. Gastaldi					23						23		23
D11N/10E-34E1 (Coloma Subunit)	George N. and Isabelle D. Vols					13						13		13
El Dorado Irrigation District		242	10 ^d	69		2,567		3	31	7		2,929	12	2,941
Lands irrigated by ground water		4							3			7	0	7
Total Placerville Subunit		606	69	81	0	2,991	0	13	36	18		3,814	39	3,853
ROYAL GORGE SUBUNIT														
D16N/12E-26C1	Donly Gray								9			9		9
Total Royal Gorge Subunit		0	0	0	0	0	0	0	9	0		9	0	9
RUBICON RIVER SUBUNIT														
D12N/12E-11J1	Byron and Francis Bacchi		14									14		14
Total Rubicon River Subunit		0	14	0	0	0	0	0	0	0		14	0	14
SILVER CREEK SUBUNIT														
D11N/16E-7A1	G., Jr. and Bertha L. Wilson		8									8		8
D12N/14E-13Q1	J. D. Granlee		7									7		7

For lettered footnotes, see last page of table.

TABLE II (Continued)
IRRIGATED LANDS IN
AMERICAN RIVER HYDROGRAPHIC UNIT, 1960
(In acres)

Diversion location	Diversion name or owner	Pasture		Orchards						Misc. ^a	Total lands irrigated	Idle or fallow	Total
		Mixed	Native	Apples	Cherries	Pears	Plums	Walnuts	Misc.				
SILVER CREEK SUBUNIT (Continued)													
D12N/14E-16F1	R. S. Swift		29								29		29
D12N/14E-16M1	R. S. Swift		16								16		16
D12N/14E-16Q1	R. S. Swift	—	22	—	—	—	—	—	—	—	22	—	22
Total Silver Creek Subunit		0	82	0	0	0	0	0	0	0	82	0	82
SILVER LAKE SUBUNIT													
D10N/17E-21E1	John M. Wakefield		12								12		12
D11N/13E-35M1	Floyd Poole					4					4		4
El Dorado Irrigation District			2								2		2
Lands irrigated by ground water		—	—	11	—	7	—	—	—	—	18	—	18
Total Silver Lake Subunit		0	14	11	0	11	0	0	0	0	36	0	36
Summary:													
Lands irrigated by ground water		23	7	11	0	7	0	0	3	0	51	0	51
Lands irrigated by surface water		2,539	721	472	72	6,023	276	54	196	83	10,739	245	10,984
TOTAL AMERICAN RIVER HYDROGRAPHIC UNIT		2,562	728	486	72	6,030	276	54	199	83	10,790	245	11,035
<p>a - Includes irrigated truck crops, vineyards and oats. b - Received partial irrigation. c - 26 acres received partial irrigation. d - 89 acres received partial irrigation. e - 21 acres received partial irrigation. f - 1 acre received partial irrigation. g - 50 acres received partial irrigation. 7 acres were intercropped with walnuts. h - 11 acres received partial irrigation. i - 8 acres received partial irrigation. j - 4 acres received partial irrigation. k - 6 acres were intercropped with plums. m - Received supplemental water purchased from El Dorado Irrigation District. n - Received supplemental water purchased from Georgetown Divide Public Utility District. p - Received supplemental water purchased from Pacific Gas and Electric Company. q - Received supplemental supply from a well.</p>													

CHAPTER IV. LAND CLASSIFICATION

Evaluation of future water requirements must be based in large part on classification of lands with regard to their potential for irrigated agricultural and recreational development. The results of such a land classification survey conducted during 1961-62 in the American River Hydrographic Unit are presented in this chapter.

The former Division of Water Resources made a reconnaissance classification of lands of the State including the American River Hydrographic Unit which was reported in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," dated June 1955. In 1950 the Division of Water Resources completed a land classification survey of that portion of the hydrographic unit west of the El Dorado and Tahoe National Forests. The results of this survey were published in Bulletin No. 56, "Survey of Mountainous Areas." Another land classification survey was performed by the Division of Water Resources and reported in State Water Resources Board Bulletin No. 10, "Placer County Investigation." Only that portion of the American River Hydrographic Unit that is in Placer County was included in Bulletin No. 10.

The land classification survey for this report utilizes these previous surveys as base material, however, irrigable agricultural lands and recreational lands were classified in greater detail and urban lands were completely remapped.

Results of the land classification survey for this report are shown on Plate 3, "Classification of Lands," Sheets 1 through 28. The total area in each classification is listed in Table 12.

Methods and Procedures

The general methods and procedures used in field mapping and tabulation of information were essentially the same as those described for the land use survey in Chapter III. An example of land classification delineations on an aerial photograph is shown on Page No. 107.

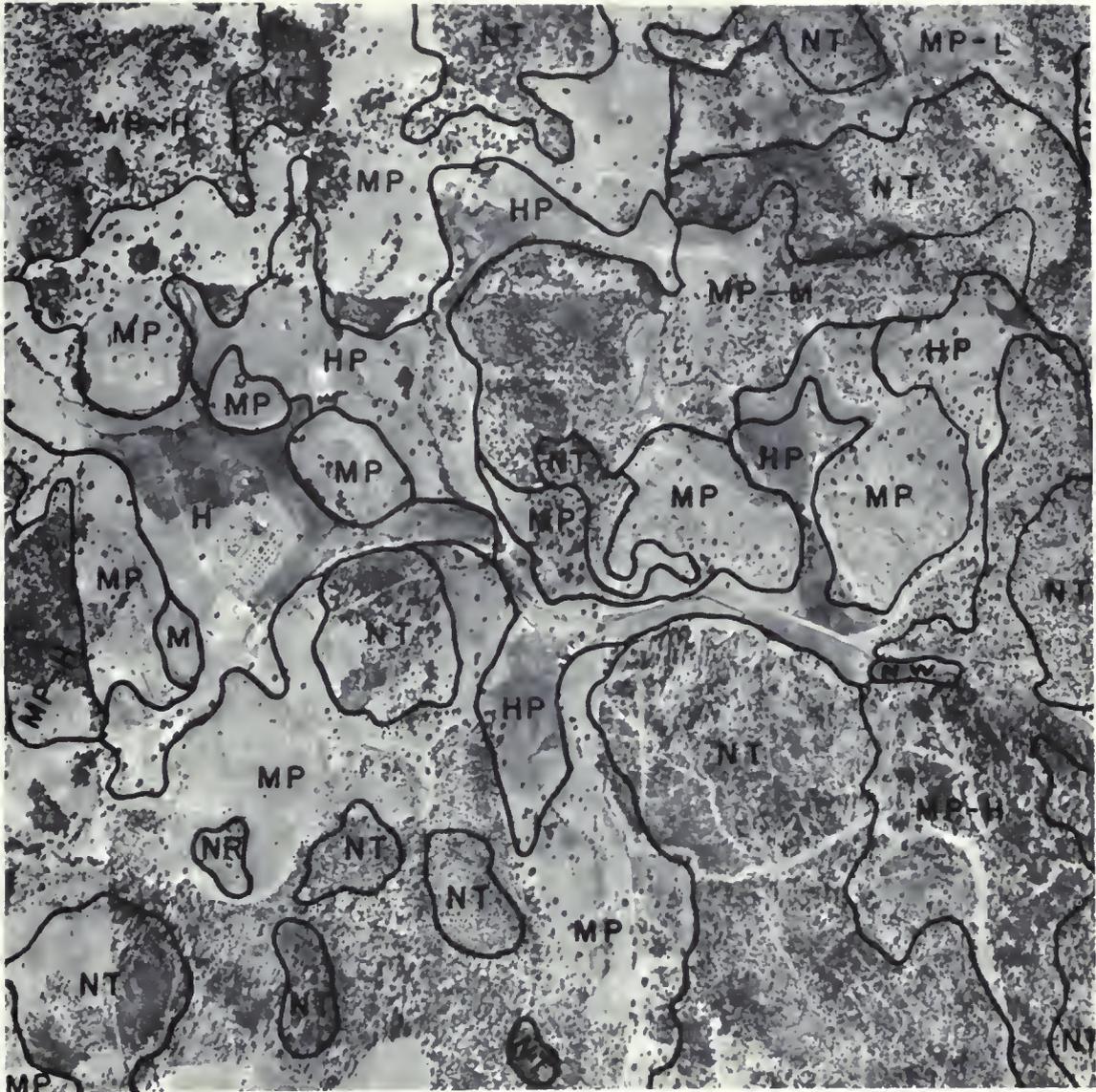
The standards used in the classification of lands are given in detail in Table 13.

Major Categories of Land Classes

The lands mapped were grouped into four major categories: (1) irrigable lands, (2) urban lands, (3) recreational lands, and (4) miscellaneous lands, which are those lands which failed to meet the requirements of the first three land class categories.

Irrigable Lands

Irrigable lands were grouped in appropriate classifications according to their suitability for development under irrigated agriculture and their crop adaptability. Presently irrigated lands were included within these classifications, but urban lands and recreational lands were not classed as to irrigability. The time element with respect to when the lands might be developed was not considered, although



Example of Land Classification Delineated on Aerial Photograph
(See Table 13 for explanation of symbols)

suitability for irrigated agriculture was considered in light of present agricultural technology.

There are many factors which influence the suitability of land for irrigation development. Since soil characteristics and the physiography of the landscape are the most stable of these factors, they were the only ones considered in classifying lands as to their irrigability. Soil characteristics were established by examination of road cuts, ditch banks, and material from test holes, together with observations of type and density of native vegetation and crops. Representative land slopes were measured with a clinometer. Other aspects, such as economic factors related to the production and marketing of climatically adapted crops, and the location of lands with respect to a water supply, were not considered in the basic classification. These latter factors are very important in estimating the nature of future cropping patterns and practices. They will be given due consideration when estimates are made of future water requirements.

Urban Lands

It is recognized that future urban expansion will encroach upon some irrigable lands but the location and extent of urban encroachment is a function of many variables. This land classification survey was an inventory of relatively unchanging physical conditions, and location of possible areas of urban encroachment was not considered. Only those lands devoted to urban uses in 1960 were designated as "urban lands."

Recreational Lands

Present trends indicate an expanding demand for recreational facilities throughout the State. In view of these trends it is recognized that there will be an increasing demand for substantial land areas for recreational purposes. This is particularly true of the mountainous regions where recreational development is expanding rapidly at the present time.

Most mountainous lands are suitable for some recreational use such as hunting, fishing, and similar outdoor activities. However, for purposes of this survey, lands classified as suitable for recreational use were limited to those which are now, or may in the future be used intensively for permanent and summer home tracts, camp and trailer sites, and parks outside urban areas. These are lands which may require intensive water service.

Primary considerations for classification of home tracts and camp and trailer sites were such physical factors as soil depth, slope, and rockiness; such aesthetic values as view, nearness to lakes or streams, or density and type of forest canopy suitable for the respective uses; and the plans of federal and state forest officials. An important factor in location of camp and trailer sites is availability of water supply, but isolation from existing roads did not influence site selection.

Miscellaneous Lands

Forest management lands, marshlands, and other lands are included as miscellaneous lands.

Forest management lands are those forested lands, rangelands, or lands subject to forest management which are physically susceptible to irrigation development but which, because of climatic conditions or physiographic position, are better suited for and are expected to remain under their present uses. These lands were designated in the land use survey as "F" lands.

Marshlands, which were designated as "Vm" lands, are those lands which generally have water standing on them and usually support a heavy growth of tules or other phreato-phytes.

Lands which failed to meet the requirements previously described in this chapter were classified as "Other Lands" or "N" lands and amount to 862,784 acres, or 72 percent of the area of the hydrographic unit.

Lands included within (1) reservoirs completed since the year of survey or (2) reservoirs which have been placed under construction since the year of survey are tabulated under "N" lands. The water surface of reservoirs existing at the time of survey were classed as "N" lands including Folsom Reservoir with an area of 11,450 acres.

TABLE 13

LAND CLASSIFICATION STANDARDS

Symbol :	Characteristics
<u>Irrigable Lands</u>	
V	These lands are level or slightly sloping and vary from smooth to hummocky or gently undulating relief. The maximum allowable slope is 6 percent for smooth, reasonably large-sized bodies lying in the same plane. As the relief increases and becomes more complex, lesser slopes are limiting. The soils have medium to deep effective root zones, are permeable throughout, and free of salinity, alkalinity, rock, or other conditions limiting crop adaptability of the land. These lands are suitable for all climatically adapted crops.
H	These are lands with greater slope and/or relief than those of the V class. They vary from smooth to moderately rolling or undulating relief. The maximum allowable slope is 20 percent for smooth, reasonably large-sized bodies lying in the same plane. As the relief increases and becomes more complex, lesser slopes are limiting. The soils are permeable, with medium to deep effective root zones, and are suitable for the production of all climatically adapted crops. The only limitation is that imposed by topographic conditions.
M	These are lands with greater slope and/or relief than those of the H class. They vary from smooth to steeply rolling or undulating relief. The maximum allowable slope is 30 percent for smooth, reasonably large-sized bodies lying in the same plane. As the relief increases and becomes more complex, lesser slopes are limiting. The soils are permeable, with medium to deep effective root zones, and are suitable for the production of all climatically adapted crops. The only limitation is that imposed by topographic conditions.
The foregoing may be modified, as conditions warrant, by use of one or more of the following symbols.	
w	Indicates the presence of a high-water table, which in effect limits the present crop adaptability of these lands to pasture crops. Drainage and a change in irrigation practice would be required to affect the crop adaptability.

TABLE 13 (continued)
 LAND CLASSIFICATION STANDARDS

Symbol :	Characteristics
s	Indicates the presence of an excess of soluble salts or exchangeable sodium in slight amounts, which limits the present adaptability of these lands to crops tolerant to such conditions. The presence of salts within the soil generally indicates poor drainage and a medium to high-water table. Reclamation of these lands will involve drainage and the application of small amounts of amendments and some additional water over and above crop requirements in order to leach out the harmful salts.
ss	Indicates the presence of an excess of soluble salts or exchangeable sodium in sufficient quantity to require the application of moderate amounts of amendments and some additional water over and above crop requirements in order to effect reclamation.
sa	Indicates the presence of an excess of soluble salts or exchangeable sodium in sufficient quantity to require the application of large amounts of amendments and some additional water over and above crop requirements in order to effect reclamation.
h	Indicates very fine textures, which in general make these lands best suited for the production of shallow-rooted crops.
l	Indicates fairly coarse textures and low moisture-holding capacities, which in general make these lands unsuited for the production of shallow-rooted crops because of the frequency of irrigations required to supply the water needs of such crops.
p	Indicates shallow depth of the effective root zone, which in general limits use of these lands to shallow-rooted crops.
r	Indicates the presence of rock on the surface or within the plow zone in sufficient quantity to prevent use of the land for cultivated crops.

TABLE 13 (continued)
LAND CLASSIFICATION STANDARDS

Symbol :	Characteristics
- (L)	Indicates ground cover varying from a light to moderately dense growth of low brush through a low density growth of medium height trees.
- (M)	Indicates ground cover varying from a high density growth of low brush through a moderately dense growth of medium height to tall trees.
- (H)	Indicates ground cover varying from a high density growth of medium height trees through a very dense growth of large trees
-2, -4, -6, -8	Number indicates in feet the average difference between highs and lows due to microrelief.
-B	Indicates low-lying basin and seep areas.
<u>Urban and Recreational Lands</u>	
UD	The total area of cities, towns, and small communities presently used for residential, commercial, recreational, and industrial purposes.
RR	Existing and potential permanent and summer home tracts within a primarily recreational area. The estimated number of houses, under conditions of full development is indicated by a number in the symbol, i.e., RR-3 is suitable for three houses per acre.
RC	Existing and potential commercial areas which occur within a primarily recreational area and which include motels, resorts, hotels, stores, etc.
RT	Existing and potential camp and trailer sites within a primarily recreational area.
PP	Existing racetracks, fairgrounds, and private, city, county, state, and federal parks.

TABLE 13 (continued)
 LAND CLASSIFICATION STANDARDS

Symbol :	Characteristics
<u>Miscellaneous Lands</u>	
F	Presently forested lands, or lands subject to forest management, which meet the requirements for irrigable land but which, because of climatic conditions and physiographic position, are better suited for timber production or some type of forest management program rather than for irrigated agriculture.
Va	Smooth lying valley lands which are affected by such heavy concentrations of salts that further detailed studies would be required to determine the feasibility of reclaiming these lands for irrigated agriculture.
Vm	Swamp and marsh lands which usually support a heavy growth of phreatophytes and are covered by water most of the time.
N	Includes all lands which fail to meet the requirements of the above classes.

CHAPTER V. SUMMARY

The American River Hydrographic Unit comprises the 1,863 square mile drainage area of the American River above Folsom Dam. Most of the terrain in the unit is mountainous. Valley and foothill lands constitute 29 percent of the total area. Lumbering and associated wood products manufacturing are the most important industry with four of the largest firms accounting for about one-third of the wages and salaries within the unit. Although agriculture is the second most important industry in the unit, its growth rate has been relatively slow. Approximately 8 percent of the presently cultivated lands are dry-farmed, and 92 percent are irrigated. The major irrigated lands are devoted to deciduous orchard and pasture. Mining and hydroelectric power development are also important local activities. The largest town in the unit is Placerville, with a 1960 population of 4,439. Other large communities are Auburn, Colfax, and Foresthill.

Water Use

Apparent water rights in the American River area were determined for each diversion when possible. Most of the diversions are based on appropriative rights, many of which were established prior to the enactment of the Water Commission Act of 1914, and are not on record, since such rights could be established simply by actual diversion and use of the water.

As of October 1, 1963, a total of 601 currently valid applications to appropriate water in the unit were on file with the State Water Rights Board. Permits or licenses have been granted for 556 of these applications, 12 were pending, and 33 were incomplete.

Of the 249 surface water diversions located, 57 diversions were measured during 1960. The primary uses and amounts diverted are summarized below:

<u>Primary use</u>	<u>Diversions located</u>	<u>Diversions measured</u>	<u>Amount measured (acre-feet)</u>
Irrigation	143	30	49,818
Municipal	7	1	252
Industrial	6	0	0
Mining	9	4	1,659
Power	16	6	86,118
Domestic	19	0	0
Stockwatering	6	0	0
Recreation	10	0	0
Other	<u>33</u>	<u>16</u>	<u>1,593</u>
TOTAL	249	57	139,440

The total consumptive use of applied water in the American River Hydrographic Unit is estimated to have been about 19,100 acre-feet in 1960. Of this total about 16,700 acre-feet were consumed by irrigation, 2,200 by municipal and domestic uses, and the remainder by industrial operations. Consumptive use of applied water for other purposes is negligible.

Land Use

Results of the 1960 detailed land use survey conducted in the American River Hydrographic Unit are summarized below and presented pictorially in Figure 1.

<u>Use</u>	<u>Area, in acres</u>
Agricultural lands	
Lands irrigated in 1960	10,790
Lands normally irrigated but idle or fallow in 1960	245
Meadowlands	2,886
Dry-farmed lands	974
Total agriculture	14,895
Recreational lands	7,252
Urban lands	5,962
Native vegetation	
Water surface of Folsom Lake	11,450
Other lands (including Marshlands)	<u>1,152,810</u>
Total native vegetation	<u>1,164,260</u>
TOTAL AREA OF UNIT	1,192,369

Land Classification

An agricultural land classification survey was conducted in the western part of the unit in 1950. In 1961 and 1962 a detailed survey was conducted for the entire American River Hydrographic Unit with reference to previous base material. Results of this survey are summarized below and presented pictorially in Figure 2.

<u>Classification</u>	<u>Area, in acres</u>
Irrigable agricultural lands	122,472
Present urban lands	5,958
Recreational lands	22,746
Miscellaneous lands	
Irrigable forest management lands	178,384
Water surface of Folsom Lake	11,450
Other lands (including Marshlands)	<u>851,359</u>
TOTAL AREA OF UNIT	1,192,369

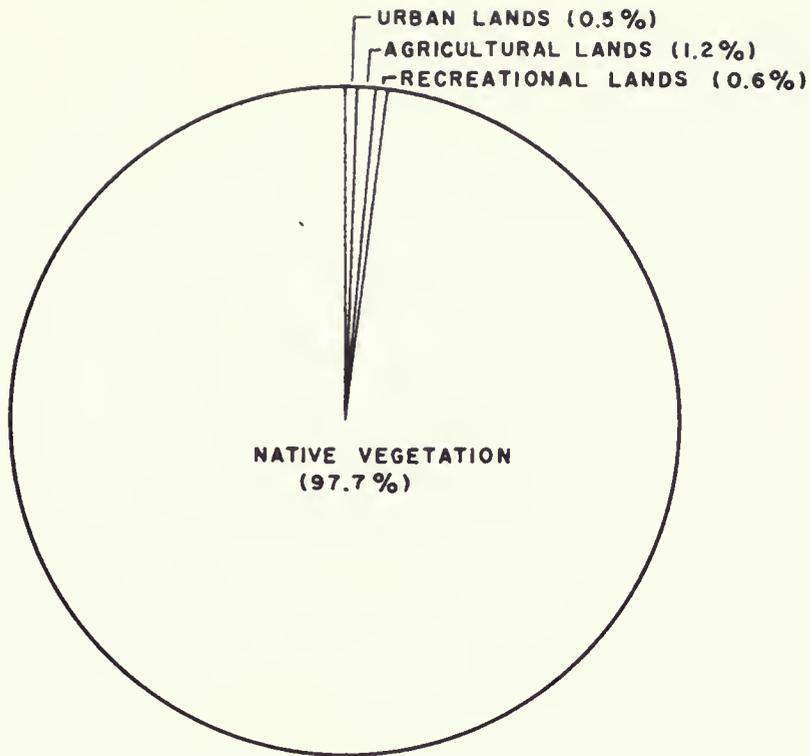


Figure 1
1960 LAND USE

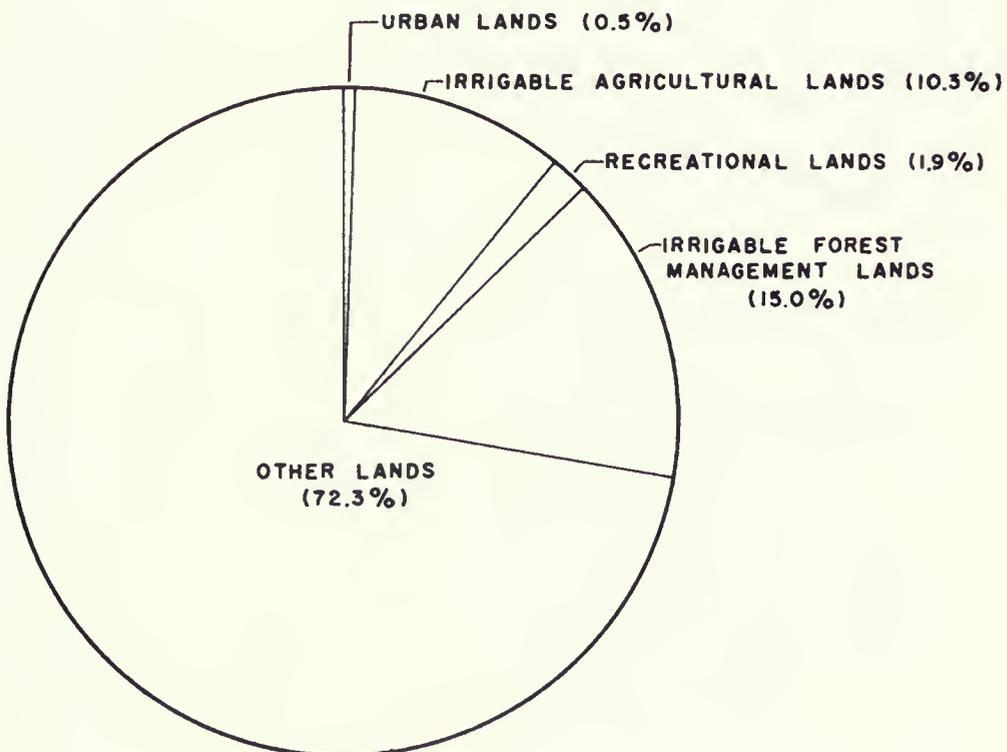


Figure 2
CLASSIFICATION OF LANDS

APPENDIX A

STATEWIDE WATER RESOURCES AND WATER
REQUIREMENTS PROGRAM

APPENDIX A

STATEWIDE WATER RESOURCES AND WATER REQUIREMENTS PROGRAM

California's major water problem today is that of development and delivery of supplemental water supplies to meet increasing water requirements throughout the State. The problem involves (1) the regulation of seasonal and cyclic fluctuation of streamflow to meet demand schedules in the areas of origin and (2) the transmission of regulated surplus flows over long distances to areas of deficiency. The development and long distance transfer of water is currently accomplished by such major facilities as the federal Central Valley Project and the Colorado River Aqueduct of The Metropolitan Water District of Southern California. However, such development and transfer will be considerably broadened in scope by the State Water Facilities.

Consumptive water requirements of the State on a basinwide basis were estimated in State Water Resources Board Bulletin No. 2, "Water Utilization and Requirements of California," June 1955. However, to provide for local water needs while considering specific export projects, more detailed information must be made available on present and projected future water requirements of the areas in which the projects are to be built. This will necessitate the considerably more detailed collection and analysis of data on hydrology, land use and land capability, and economics.

Recognizing that additional information is needed if the water needs of areas of origin are to be adequately protected in large-scale water development projects, the 1956 Legislature authorized an investigation to determine the water resources and water requirements of the respective watersheds in the State. The authorization is contained in Chapter 61, Statutes of 1956 as amended by Chapter 2025, Statutes of 1959. This legislation is codified in Section 232 of the Water Code as follows:

"232. The legislature finds and declares that in providing for the full development and utilization of the water resources of this State it is necessary to obtain for consideration by the Legislature and the people, information as to the water which can be made available for exportation from the watersheds in which it originates without depriving those watersheds of water necessary for beneficial uses therein. To this end, the department is authorized and directed to conduct investigations and hearings and to prepare findings therefrom and to report thereon to the Legislature at the earliest possible date with respect to the following matters:

(a) The boundaries of the respective watersheds of the State and the quantities of water originating therein;

(b) The quantities of water reasonably required for ultimate beneficial use in the respective watersheds;

(c) The quantities of water, if any, available for export from the respective watersheds;

(d) The areas which can be served by the water available for export from each watershed; and

(e) The present use of water within each watershed together with the apparent claim of water right attached thereto, excluding individual uses of water involving diversions of small quantities which, in the judgment of the Director of Water Resources, are insufficient in the aggregate to materially affect the quantitative determinations included in the report.

"Before adopting any findings which are reported to the Legislature, the department shall hold public hearings after reasonable notice, at which all interested persons may be heard."

For purposes of this investigation, the State has been divided into 12 major hydrographic areas. These areas, in turn, have been subdivided into hydrographic units generally comprising watersheds of individual rivers. These watersheds will be field surveyed in some detail, and where previous detailed studies have been made, the information will be brought up-to-date. Water resources and water requirements will be determined and reported in a bulletin for each of the hydrographic areas. Since it requires many years to gather sufficient data to make adequate analyses of water resources and water requirements, and in order to make the data on present land and water use available when they are most useful, surveys of land and water use will be made and published separately for each of the hydrographic units. Bulletin No. 94-14, "Land and Water Use in American River Hydrographic Unit," is the fourteenth of a series reporting the results of these surveys.

At a future date, estimates largely based on the land and water use surveys, will be made of quantities of water reasonably required for future beneficial uses in each watershed. The quantity of water potentially available for export from each watershed will be determined after allowances are made for the satisfaction of the local requirements and prior rights to divert water to other areas. For those watersheds in which no exportable water is available, the water

supply deficiency will be determined. These estimates will be published as they become available in such form as to make possible a county-by-county determination.

The calculations of future water requirements will be based on predicated future land uses derived from land classification surveys, economic studies, population forecasts, industrial and agricultural development, and recreational needs. Agricultural water requirements will be based on unit water use by the various predicated crop types; urban and recreational requirements on per capita water use values; fish and wildlife requirements on minimum streamflow needed or water demands for wildlife area; and industrial water requirements on measured water deliveries to various types and sizes of industries now existing. In forecasting future industrial development, water quality problems will be given full consideration.

Water resources will be determined from records of all stream gaging stations, including new stations which were established for this and other investigations of the department. The new stations were generally constructed on streams which originate in the smaller watersheds for which runoff data are necessary but for which no data have been available.

APPENDIX B
REPORTS ON RELATED INVESTIGATIONS
AND OTHER REFERENCES

APPENDIX B

REPORTS ON RELATED INVESTIGATIONS
AND OTHER REFERENCES

- California State Chamber of Commerce. "Economic Survey of California and its Counties." 1958.
- California State Department of Natural Resources, Division of Mines. "Mineral Information Service." 1950-60.
- . "57th Report of State Minerologist, Directory of Mineral Products." Bulletin Nos. 114 and 119.
- California State Department of Public Works, Division of Engineering and Irrigation. "Report on American River." 1927.
- California State Department of Public Works, Division of Water Resources. "Compilation of Data on Folsom Situation." April 10, 1930.
- California State Department of Water Resources. "State Water Right Applications for Unappropriated Water, Assignment Thereof, Reservations for Counties of Origin, and Other Related Matters." January 1959.
- . "Land and Water Use in Yuba-Bear Rivers Hydrographic Unit." Bulletin No. 94-3. September 1963.
- California State Division of Forestry, Forest Survey Release No. 20, California Forest and Range Experiment Station. "A Century of Lumber Production in California and Nevada. 1849-1951." June 1953.
- California State Water Resources Board. "Water Resources of California." Bulletin No. 1. 1951.
- . "Water Utilization and Requirements of California." Bulletin No. 2. 1955.
- . "Placer County Investigation." Bulletin No. 10. June 1955.
- . "American River Basin Investigation." Bulletin No. 21. June 1955.
- Brock, M. J. and Lardner, W. B. "History of Placer and Nevada Counties, California with Biographical Sketches." Historic Record Company, Los Angeles, California. 1924.

- Gilbert, G. K. "Hydraulic Mining Debris in the Sierra Nevada." United States Geological Survey Professional Paper #105, Washington, D. C. Government Printing Office. 1917.
- Hill, Clair A. and Associates. "Feasibility Report on Stumpy Meadows Reservoir." Georgetown Divide Public Utility District. October 1960.
- History of El Dorado County, California compiled by Paolo Sioli. Oakland, California. 1883.
- History of Placer County, California with illustrations and biographical sketches edited by Thompson and West. Oakland, California. 1882 qc 979, 438 H. 6.
- Hoffman, Donald M. "Report of Preliminary Investigation of Water Resources of the Georgetown Divide Public Utility District in El Dorado County, California." July 1949.
- Jenkinson, W. E. "The Story of Water, From Miner's Ditch To Sly Park Dam." 1951-52.
- McCreary-Koretsky-Engineers. Placer County Water Agency. "Feasibility Report Middle Fork American River Project." June 1961.
- . "Proposal and Contract Documents." Volume 1. Middle Fork American River Project. January 1963.
- . "Plans." Volume 3, Part 1. Middle Fork American River Project. January 1963.
- Sacramento Municipal Utility District. "Official Statement, Upper American River Project Revenue Bonds." May 1961.
- United States Census of Agriculture. 1959.
- United States Census of Population. 1880-1960.
- United States Department of Agriculture. "California Fruit and Nut Acreage." California Crop and Livestock Reporting Service.
- United States Department of the Interior, Bureau of Reclamation. "Factual Report, El Dorado Irrigation District." September 1952.
- . "Report of Operations." December 1961.
- United States Department of the Interior, Geological Survey. "Hydroelectric Power Systems of California." Water Supply Paper 493. 1923.

APPENDIX C
LEGAL CONSIDERATIONS

TABLE OF CONTENTS
LEGAL CONSIDERATIONS

	<u>Page</u>
California Water Rights	C-5
Riparian Rights	C-6
Overlying Rights	C-7
Appropriative Rights	C-8
Prescriptive Rights	C-11
Determination of Water Rights	C-13
Litigation Concerning Local Water Rights	C-13
Sacramento Electric, Gas and Railway Company vs. C. W. Clarke, H. G. Smith, and A. N. Buchanan.	C-15
Application to Appropriate Water	C-14

TABLES

Table No.

C-1	Applications to Appropriate Water in American River Hydrographic Unit . . .	C-20
-----	--	------

APPENDIX C

LEGAL CONSIDERATIONS

There are set forth in the following paragraphs brief general statements with respect to the California law of water rights to supplement and to provide a background for information on water rights contained in Chapter II. Also included is a tabulation of currently active applications to appropriate water within American River Hydrographic Unit filed with the State Water Rights Board.

California Water Rights

In California, water rights convey only the right to use water. Until absolute possession of water is acquired by some artificial means, no one owns water. However, the owner of water rights is entitled to enjoy them without interference by other users who have rights which are inferior to his.

Five kinds of water rights are recognized in California. These are riparian, overlying, appropriative, prescriptive, and pueblo. Riparian rights attach to surface water and water flowing in known and definite subterranean channels, while overlying rights attach only to underground water. Appropriative and prescriptive rights may be acquired in either surface or underground waters. Pueblo rights are now exercised in California only by the Cities of Los Angeles and San Diego, each of which has a paramount right to satisfy its full needs from the stream system of waters flowing by the former Mexican pueblo from which each sprang.

All water rights, both to surface and to underground water, are subject to the doctrine of reasonable beneficial use expressed in Section 3 of Article 14 of the California Constitution, and Water Code Sections 100 and 101. This doctrine limits water rights to the quantity of water reasonably required for beneficial use and prohibits waste, unreasonable use, and unreasonable methods of use or diversion.

Riparian Rights

A riparian right entitles the land owner to take water directly from a natural watercourse for use on lands which border or have frontage on the watercourse. However, the rights of the owner of riparian land are limited to the reasonable beneficial use of the natural flow of water which passes his land. Riparian rights pass with the title to the land, unless expressly reserved or excepted from the interests transferred, and are not gained by use or lost by mere nonuse. Although the land must be contiguous to the watercourse, the length of the frontage is not determinative of the rights; a large tract with a small frontage on a stream, may be riparian to the stream. But the original grant determines the character of the land, and only the smallest contiguous tract held under a single title retains riparian rights.

A riparian owner has no right to any specified amount of the water of a stream as against other riparian owners. He has rights only to a reasonable share from the stream -- a correlative right which he shares mutually with other riparian owners. In the event of insufficient water

for all, the available supply must be apportioned, except that an upper riparian owner may take the whole supply if necessary for domestic use. As against appropriators, the riparian owner has the paramount right to all the water of the stream which he can put to reasonable beneficial use, but that is the extent of his rights, and the appropriator can take the surplus.

Riparian rights do not authorize use of water on non-riparian land, nor do they permit the seasonal storage of water. Neither do they prevent temporary appropriation by others of water not presently needed for use on riparian land.

A parcel of land becomes nonriparian when severed from land bordering the stream, unless the riparian rights are reserved for the severed parcel by the grantor. Riparian rights may be destroyed when purportedly transferred apart from the land by grant, contract, or condemnation, and may be impaired or lost through prescription.

Overlying Rights

Owners of lands overlying a common underground water supply have the right to withdraw water for reasonable beneficial use on their overlying lands. Such overlying rights are analogous to riparian rights, in that both are based on ownership of land, and the rights of each overlying owner are mutual and correlative to the rights of all other owners. In the case of insufficient water to fully supply the requirements of all, the available supply must be equitably apportioned.

Overlying rights do not include use of water on non-overlying land. However, surplus water not presently required for beneficial use on overlying land, and which may be withdrawn without creating an overdraft on the ground water supply, may be appropriated for use on nonoverlying land. But the overlying rights are paramount and all appropriative rights are subject to the future requirements of overlying land.

Appropriative Rights

An appropriation of water is any taking of water for other than riparian or overlying uses, whether such taking is from the underground by wells or from surface streams by direct diversion or storage. An appropriator, in the legal sense, is one who initially takes water without possessing rights which are based on the ownership of land. As between appropriators, the one first in time is first in right. A prior appropriator may take all the water he needs up to the full amount to which he is entitled before a later appropriator may take any.

Normally, appropriative rights are inferior to riparian rights. An exception to this is the case of an appropriation of water diverted from streams flowing through vacant public lands before the riparian lands were withdrawn from the domain of the United States. The appropriative diversions or the lands they serve may be either upstream or downstream from the riparian lands. Any water not needed for the reasonable beneficial uses of those having prior rights may properly be appropriated.

No formal or statutory procedure is or ever has been prescribed or required in this state for those who take water by means of wells from underground percolating waters or underground basins. An appropriative right to take surplus water from such sources is acquired by extracting such water from the underground and applying it to beneficial uses.

Provided the development and application to use are completed with reasonable diligence, the priority of the right as against another appropriator related back to the first substantial act toward putting the water to use or to the date of application. Until 1872, water flowing in natural streams was appropriated by taking the water.

Sections 1410 through 1422 of the Civil Code, enacted in 1872, established a permissive procedure for perfecting an appropriation of surface water. Provision was made for posting a notice of appropriation at the proposed point of diversion and recording a copy with the county recorder. If the statutory procedure were followed and the appropriation completed with due diligence, priority related back to the date of posting; otherwise, priority was established only when the water was put to beneficial use.

Since the effective date of the Water Commission Act of 1913, December 19, 1914, appropriation of surface water and water in subterranean streams flowing in known and definite channels has been by compliance with required statutory procedure. An appropriation of such water now can be made in accordance with the provisions of Part 2, Division 2 of the Water Code (Water Code Sections 1200 to 1801). An application

to appropriate unappropriated water must be filed with the State Water Rights Board. If the application is approved, a permit is issued authorizing the appropriation. When the appropriation has been completed, an inspection is made and a license is issued, to the extent of beneficial use, provided the terms and conditions of the permit have been fulfilled. The priority of a permit or license relates back to the date of the appropriation.

A right to appropriate water may be lost either by abandonment or by continuous nonuse. To constitute abandonment, there must be concurrence of act and intent, wherein possession is relinquished with no intent to resume it for a beneficial use. Abandonment is, therefore, always voluntary and factual. In the case of an appropriation initiated prior to 1914, continuous nonuse for a period of five years results in the loss of appropriative water rights. In the case of appropriative rights acquired pursuant to the Water Commission Act or the Water Code, continuous nonuse for a period of only three years may result in loss of such rights.

Where ground water and surface water are interconnected, one acting as a tributary to the other, both are treated as part of a common supply and users of water from either source are entitled to protection from substantial injury as a result of use by others of water from the other source. Thus, an owner of land riparian to a stream may have his right to the use of water protected against impairment by an appropriator of percolating ground water tributary to the stream and required for the maintenance and support of its

flow. Likewise, where water from a stream percolates to a ground water basin or stratum, the owner of land overlying the ground water supply may be protected from an appropriation of water from the stream if this causes a substantial impairment of the ground water supply. As between riparian use of surface water and overlying use of ground water tributary to the stream, a sharing of the available water supply on the basis of reasonable beneficial use should be made.

Prescriptive Rights

It is possible to appropriate surface or ground water which is presently needed by others to satisfy riparian, overlying, or prior appropriative rights. Such appropriations may ripen into prescriptive rights where the use is actual, open and notorious, hostile and adverse to the original owners, continuous and uninterrupted for the statutory period of five years, made under claim of right, and with payment of taxes whenever such have been levied on the water rights. Absence of any of these essentials precludes the acquisition of prescriptive water rights.

Prescription thus requires that where the rightful owner for a period of five years, either knows or should know of the adverse taking and fails to take any physical or legal steps to interrupt such taking. An absolute right is acquired to a fixed amount of water by prescription, the quantity being determined by beneficial use, irrespective of the needs or demands, of the injured riparian, overlying, or prior appropriative user. However, present use is the measure

of the prescriptive right, and future needs cannot be included.

Riparian rights, overlying rights, appropriative rights, and prescriptive rights may be lost or diminished by prescription. While there is sufficient water flowing in a stream to supply the wants of all parties, the use of the water by anyone does not deprive the others of their water supply and, hence, is not an invasion of their rights. The same principle applies to a downstream diversion of water as against the rights of an upstream riparian landowner or prior appropriator. At times when the safe yield of a ground water basin exceeds the needs of overlying landowners and appropriators, their prior rights are not invaded by a later appropriative taking of water from the underground supply. The later appropriation becomes adverse only when the ground water basin is overdrawn; that is, when the annual draft exceeds the safe annual yield. Although neither an overlying owner nor a prior appropriator may prevent a taking of surplus water, either the owner or the appropriator may institute legal proceedings to safeguard the supply once a surplus ceases to exist, and may enjoin any additional use beyond the point of safe yield. Since prescriptive rights can only be acquired to nonsurplus water, these rights cannot ordinarily be acquired against the future needs of riparian or overlying owners.

The prior appropriator, lower riparian, or overlying owner may protect his rights for his present needs against an adverse appropriator by actually taking the needed water before the five-year period has run, or by the aid of the courts

in the form of a declaratory judgment or injunction within the five-year period.

Determination of Water Rights

Under provisions of the Water Code, actions involving determination of rights to the use of water brought before either state or federal courts may, at the court's discretion, be referred to the State Water Rights Board. Under provisions of Water Code Section 2000, the court may appoint the board to referee "any or all issues involved in the suit," or under Section 2001, it may limit the reference to "investigations of and report upon any or all physical facts involved." This reference procedure may be followed in suits involving either surface or ground waters, or both.

An alternative procedure is available for adjudication of rights to the use of water of streams, lakes, and other bodies of water, but the method excludes the determination of rights to take water from an underground supply other than from a subterranean stream flowing through known and definite channels. Water Code Sections 2500 to 2900, inclusive, authorize the initiation of such proceedings.

Litigation Concerning Local Water Rights

There has been no major adjudication of water rights in the American River Hydrographic Unit. Consequently, neither the State Water Rights Board nor any of its predecessor agencies have been involved in a court reference, and state watermaster service has not been established.

However, the first legal proceedings in the history of conflict in the matter of use of water from the American River and its tributaries were entered on July 18, 1898, in the case of Sacramento Electric, Gas and Railway Company vs. C. W. Clarke, H. G. Smith, and A. N. Buchanan, Superior Court, Sacramento County, No. 7815, in which the rights between plaintiff and defendants were then determined. Included in the following pages is a copy of the above decree.

Applications to Appropriate Water

Applications to appropriate water within the American River Hydrographic Unit, filed with the State Water Rights Board since 1914 and active on October 1, 1963, are summarized in Table C-1. Those diversions, for which an application to appropriate water is filed with the State Water Rights Board which were found in this survey to be of a predetermined amount have been assigned diversion numbers which are included in the table. The status of each application as to the granting of a permit or license is also shown in the table.

In the Superior Court of the County of Sacramento,
State of California

-----oooooooooooooooo-----

Sacramento Electric, Gas and Railway
Company, (a corporation,)

Plaintiff,

vs.

C. W. Clarke, H. G. Smith, and A. N.
Buchanan

Defendants.

-----oooooooooooooooo-----

This cause came on regularly for trial on the 18th day of July, 1898, before Hon. Joseph W. Hughes, Judge of said Court, sitting in Department Number One thereof, without a jury, a jury having been expressly waived.

L. T. Hatfield, Esq., appeared as Attorney for Plaintiff, and Catlin, Shinn & Catlin, as Attorneys for Defendants, and from the evidence introduced, the Court finds the facts as follows, to wit:

1.

That the plaintiff is the owner of, and in possession of a canal and dam across the American River; that plaintiff's right thereto commenced May 8th, 1872, by giving due notice thereof, and said dam and canal were completed so as to make use of the water therein in January 1893, and were fully completed July 10th, 1895. Said dam is situated at the point described

in the complaint, which is about one mile below the junction of the North Fork and the South Fork of the said American River, and said canal is about 9,000 feet long, extending from said dam to the town of Folsom.

2.

Plaintiff has diverted from said American River, and into said canal only 50,000 cubic feet of water per minute, and has used the same for beneficial purposes; and plaintiff's appliances require 65,000 cubic feet of water per minute through said canal at this time.

3.

The dam of defendants is across the North Fork of the American River at a point as alleged in said complaint, and at a distance of about twenty-two miles above the dam of plaintiff.

4.

Defendants' grantors, a long time prior to any appropriation by Plaintiff or its grantors, to-wit: In the year 1854, entered upon the said North Fork of the American River and constructed said dam and canal and diverted 3,000 inches of the waters of said River, measured under a four-inch pressure, equal to 3,600 cubic feet per minute, measured immediately below the first waste gate in said canal below said dam, for sale, rental and distribution for mining, mechanical and agricultural purposes, and even since have used, distributed and sold the same for such purposes.

5.

That defendants have not at any time, since the appropriation by plaintiff, diverted from said stream a quantity of water greater than three thousand inches measured under a four-inch pressure.

6.

That plaintiff has not been damaged by any diversion of said water by defendants.

7.

The low water season mentioned in the complaint during which plaintiff is alleged to take all of the natural flow of the American River does not extend through the months of June or November, but does extend through the months of August, September and October of the average years.

*** Conclusions of Law. ***

1.

The defendants are entitled to, and have, a prior appropriation of three thousand inches of the waters of the North Fork of the American River, measured under a four-inch pressure, taken immediately below the first waste gate below their dam, for sale, rental and distribution for agricultural, mining and mechanical purposes at all seasons of each year.

2.

That plaintiff is not entitled to recover any damages from the defendants.

3.

Plaintiff is not entitled to the injunction prayed
for in its complaint.

Let judgment be entered accordingly.

Aug 5th 1898.

(Signed) Joseph W. Hughes

Judge of the Superior Court,

STATE OF CALIFORNIA,)
County of Sacramento.) ss. OFFICE OF THE COUNTY CLERK

I, Harry W. Hall County Clerk of the County of Sacramento, State of California, and ex-officio Clerk of the Superior Court held in and for said County and State aforesaid, hereby certify that I have compared the foregoing copy with the original _____

Findings of Fact

in the above entitled matter on file and of record in my office, and that the same is a full, true and correct copy of such original, with the endorsements thereon, and the whole thereof.

ATTEST my hand and seal of said Court this
15th day of January, A. D. 1927

HARRY W. HALL

County Clerk

By (signed) Fred R. Johns
Deputy Clerk

TABLE C-1
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Sources	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
654	4/26/17	Pacific Gas and Electric Company	D124/17E-302L D104/18E-180L	Medley Lakes Twin Lakes	SW E 1/2	NE SW	30 18	12N 10N	17E 18E	MD MD	5,000 afa 8,000 afa	All year All year	Power	L-438
1140	12/14/18	Dr. Jesse B. Scheffert	--	Scheffert Mountain Stream	NE	SE	28	11N	14E	MD	0.025 cfs	May 1-Nov 1	Domestic	L-120
1440	9/8/28	Pacific Gas and Electric Company	D111/15E-298L	South Fork American River	SE	SE	29	11N	15E	MD	86 cfs	All year	Power	L-2540
1441	9/8/28	Pacific Gas and Electric Company	D124/17E-302L D104/18E-180L D104/17E-320L	Medley Lakes Twin Lakes Silver Lake	SW SW NW	NE SE	30 18 32	12N 10N 10N	17E 18E 17E	MD MD MD	500 afa 17,000 afa 5,000 afa	All year All year All year	Power	L-2541
1692	2/27/20	El Dorado Irrigation District	D104/12E-180L	North Fork Weber Creek	NW	SE	18	10N	12E	MD	1,125 afa	Oct 15-May 15	Irrigation	L-2184
1853	5/29/20	City of Sacramento	--	Sayles Creek	NE	SW	16	11N	17E	MD	7,200 gpd	June 15-Sept 15	Domestic	L-1070
1963	8/11/20	Henry W. Becker, Edward J. and Edvina Holzer, E. and F. Kiefliger, P. W. Schoeninger and C. A. Williamson	--	Killean Springs	SE	NE	10	11N	17E	MD	0.004 cfs	All year	Domestic	L-428
2011	9/18/20	S. G. and Jeanette Walshall	--	Spring tributary to South Fork American River	SE	SE	22	11N	15E	MD	0.001 cfs	June 1-Sept 15	Domestic	L-152
2141	12/17/20	N. H. Lish, Francis B. Palenke, J. B. Price, Fransiska Soracco and Jeek White	--	Cold Stream	SW	SW	10	11N	17E	MD	0.004 cfs	June 1-Oct 30	Domestic	L-245
2262	3/15/21	Charles H. and Rose N. Palmer, Ruth C. Rodgers and W. H. and Wilfred M. Toat	--	Cold Stream	SW	SW	10	11N	17E	MD	0.004 cfs	May 25-Oct 15	Domestic	L-491
2458	7/27/21	George Farie and Agnes McFalon	--	Springs tributary to South Fork American River	NW	NE	11	11N	17E	MD	0.001 cfs	Apr 1-Nov 1	Domestic	L-486
2944	7/26/22	Cecil V. and Pearl Viola Butler, Anne Hesse and Leola Housken	--	Cold Stream	SW	SW	10	11N	17E	MD	0.001 cfs	June 1-Oct 30	Domestic	L-296
2947	7/27/22	George J. Eastwood	--	Weber Creek	NE	NE	24	10N	10E	MD	0.014 cfs	May 1-Nov 1	Irrigation and domestic	L-1517
3321	3/23/23	Cabin Owners Association	D111/17E-191L	Cody Creek	SW	SW	19	11N	17E	MD	0.039 cfs	Apr 15-Nov 1	Domestic	L-5488
3405	5/8/23	Dail T., John A., and Lawrence H. Larsen and Egnolen Vahan	D111/12E-311L	Brush Canyon	SE	NE	31	11N	12E	MD	1.25 cfs	May 1-July 15	Irrigation and domestic	L-2053
3496	7/2/23	Victor C. Henken	--	Spring tributary to South Fork American River	SE	SE	22	11N	15E	MD	0.001 cfs	May 1-Sept 30	Domestic	L-488
3557	7/30/23	Bryson Creek Water Association	--	Spring tributary to South Fork American River Bryson Creek	NE	NE	10	11N	17E	MD	0.012 cfs	Apr 1-Nov 30	Domestic	L-487
3793	1/10/24	Louis and Charles Bose and J. M. Ray	--	Cold Stream	SW	SW	10	11N	17E	MD	0.001 cfs	June 1-Oct 30	Domestic	L-590
3879	2/28/24	A. W., Burton J. and Lee V. Atwood	--	Atwood Spring	NE	SW	6	11N	18E	MD	300 gpd	June 1-Sept 1	Domestic	L-534
3887	3/5/24	M. J., Pierre and Alice Plasse	--	Springs tributary to Silver Lake	NW NE	SW NE	17 18	9N 9N	17E 17E	MD MD	8,000 gpd	June 1-Oct 1	Domestic	L-1093
3910	3/18/24	Harrison S. and Frances Slamon	--	Spring tributary to South Fork American River	NW	SE	10	11N	17E	MD	350 gpd	June 1-Oct 1	Domestic	L-586
3934	3/31/24	William J. Nehercott	--	Spring tributary to South Fork American River	SE	SE	30	11N	15E	MD	0.001 cfs	Apr 1-Oct 1	Domestic	L-2369
3982	5/8/24	Murphy A. and Rita M. Williams	--	Tributary to South Fork American River	SE	NW	27	11N	14E	MD	0.005 cfs	Mar 1-Nov 30	Domestic	L-1111
4027	6/11/24	Lois M. Beckett, Marion G. Freeborn and Jacqueline J.	--	Spring tributary to South Fork American River	SW	SW	23	11N	15E	MD	0.003 cfs	June 1-Sept 30	Domestic	L-893

APPLICATIONS TO APPROPRIATE WATER IN

AMERICAN RIVER HYDROGRAPHIC UNIT

(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
4062	7/1/24	City of Stockton	--	Tributary to Silver Fork American River	NW	NW	17	9N	17E	MD	11,000 gpd	June 1-Oct 1	Domestic and fire protection	L-1434
4219	9/17/24	George R. Tomarelli	--	Cold Stream	SW	SW	10	11N	17E	MD	385 gpd	June 1-Oct 1	Domestic	L-941
4244	9/30/24	Robert F. and Winifred B. Coines, Malcolm E. and Elaine C. McCloughan and Rex E. and Georgia L. Thomas	--	Mill Creek	SW	NE	27	11N	14E	MD	0.10 cfe	Mar 1-July 1 All year	Irrigation Domestic	L-703
4344	11/28/24	George A. and Josephine Johnson	--	Mill Creek	NW	SE	27	11N	14E	MD	0.025 cfe	All year	Domestic and fire protection	L-1423
4357	12/9/24	A. J. Affleck, Dorothy M. Bridges, F. M. Fisher, Jr., E. R. Pickett and E. Clark Smith	--	Tributary to South Fork American River	NE	SW	27	11N	14E	MD	2,380 gpd	Apr 1-Dec 1	Domestic	L-1348
4365	12/15/24	George Gordon, William Laughland, Thomas C. and Madelyn A. Smith, Frank and Mary Ellen Thompson, H. H. Wilber and Mr. and Mrs. Murphy Williams	--	Evans Creek	SE	NW	27	11N	14E	MD	3,275 gpd	Mar 1-Dec 1	Domestic	L-1112
4395	12/22/24	E. Ellis and Edith M. Davies, Dorothy Harvey, Helen Hechtman, Mrs. H. Serrille and William F. Wilson	--	Spring tributary to South Fork American River	SE	NE	27	11N	14E	MD	750 gpd	May 1-Oct 31	Domestic	L-1237
4510	3/19/25	Keith Sanford	--	Spring tributary to Sweetwater Creek	SE	SW	16	10N	9E	MD	5,760 gpd	All year	Irrigation and domestic	L-776
4514	3/20/25	Charles R. and Gertrude M. Cuddy	D10N/10E-3N1	Cold Springs Creek	SW	SE	3	10N	10E	MD	0.18 cfe	May 1-Oct 1 All year	Irrigation Domestic	L-2594
4656	6/25/25	Clyde and Elisabeth Pollard	--	Zentgraf Spring	NE	SE	19	10N	9E	MD	6,500 gpd	All year	Irrigation and domestic	L-1355
4722	8/6/25	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SE	SE	22	11N	15E	MD	600 gpd	May 1-Oct 31	Domestic	L-1420
4740	8/19/25	United States El Dorado National Forest	--	Tributary to South Fork American River	NW	NW	31	11N	15E	MD	4,000 gpd	May 1-Oct 31	Domestic	L-2102
4781	9/24/25	Mrs. M. B. Armstrong, W. J. Sheline, Jr., H. J. Bush and Chester Fairchild	--	Spring tributary to South Fork American River	SE	SW	10	11N	17E	MD	930 gpd	June 1-Nov 1	Domestic	L-943
4851	11/30/25	Pacific Gas and Electric Company	D17N/12E-25F1	Six Mile Valley	SE	NW	25	17N	12E	MD	300 cfe	Dec 1-June 30	Irrigation and domestic	L-1464
4868	12/19/25	Byron M. Bacchi and H. Francis Bacchi	D11N/10E-6L1	Indian Creek	SE	SW	6	11N	10E	MD	0.05 cfe	Apr 1-Oct 1 All year	Irrigation Domestic and stockwatering	L-945
4967	3/22/26	Edward Fong and John L. On	--	Forni Creek	NW	NW	24	11N	16E	MD	200 gpd	May 1-Oct 15	Domestic	L-786
5024	5/18/26	Helen Mering	--	Spring tributary to South Fork American River	SE	SE	23	11N	15E	MD	480 gpd	Apr 1-Oct 1	Domestic	L-857
5142	8/4/26	United States El Dorado National Forest	--	Tributary to South Fork American River	NW	SE	25	11N	14E	MD	855 gpd	May 15-Oct 31	Domestic	L-1001
5152	8/12/26	Stephen J. Heck and M. D. and W. J. Quinn	--	Spring tributary to South Fork American River	NE	NW	15	11N	17E	MD	800 gpd	June 1-Sept 15	Domestic	L-1161
5214	9/17/26	Hood Bros., Mrs. Ralph Lyon and Earl and Grace F. Horton	D16N/10E-36R1	Canyon Creek	SE	SE	36	16N	10E	MD	0.32 cfe	May 15-July 15 All year	Irrigation Domestic	L-1075
5535	6/17/27	Andrew N., Frank L. and Charles L. Arata	--	Spring tributary to South Fork American River	NE	NW	11	11N	17E	MD	200 gpd	June 1-Nov 1	Domestic	L-1098

F - Indicates permit number of application approved. I - Indicates license number of right confirmed. Inc. - Indicates application not yet completed. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion							Amount	Period of Diversion	Purpose	Stote*
					1/4	1/4	Sec.	Tp.	R.	B. & M.					
5596	7/6/27	Albert B. and Evelyn B. Christensen	--	Spring tributary to South Fork American River	NE	SE	25	11N	14E	MD	350 gpd	May 1-Nov 1	Domestic	L-1129	
5601	7/11/27	Julius L. and Ethel M. Pilotti and Edward Ogden Strong	--	Spring tributary to South Fork American River	NW	NE	26	11N	15E	MD	400 gpd	Apr 1-Nov 1	Domestic	L-1003	
5618	7/23/27	United States Bureau of Reclamation	D11N/218E-50L D12N/217E-300L D10N/218E-180L D10N/217E-320L	Echo Lake (import) Medley Lake Pain Lake Silver Lake	NE SW SW NW	NE NE SW SE	1 30 38 32	11N 12N 10N 17E	17E 17E 16E 17E	MD MD MD MD	2,000 afa 2,000 afa 25,000 afa 10,000 afa	All year All year All year All year	Power	L-2542	
5644	7/30/27	State of California Department of Water Resources	--	Bibleon River Berle Creek Tributary to Rabicon River	-	NW	35	12N	13E	MD	400 cfs	All year	Irrigation and domestic	L-12827	
5644-A	7/30/27	California Water Commission	--	Pilot Creek	SE SE	NW NW	4 11	12N 12N	12E 12E	MD MD	100 cfs 20,000 afa	All year All year	Irrigation, domestic, and stockwatering	Inc.	
5645	7/30/27	State of California Department of Water Resources	--	South Fork of American River South Fork of American River South Fork of American River	-	-	15 15 28	11N 11N 11N	9E 9E 15E	MD MD MD	700 cfs 70,000 afa 60 cfs	All year All year All year	Irrigation and domestic	Inc.	
5683	9/7/27	Ronald S. and Jessamine Adams and Bob and Barbara Carlsen Touros	--	Spring tributary to South Fork American River	NE	NE	26	11N	15E	MD	200 gpd	May 1-Oct 1	Domestic	L-1201	
5704	9/30/27	Dwight F. and Duane W. Bartholomew, Harry A. Bogeman and Frank E. Forbese	--	Springs tributary to Willow Creek	NW	SE	16	11N	17E	MD	800 gpd	June 1-Oct 15	Domestic	L-1884	
5830	2/11/28	San Juan Suburban Water District	D10N/7E-20L	North Fork American River	SE	NW	23	12N	8E	MD	15 cfs	June 1-Nov 1	Irrigation and domestic	L-6324	
5863	3/20/28	Art R. Cahalan, Van O. and Florence Davidson and Harry E. and Jessie M. Robertson	--	Nigger Ravine	SW	SE	30	11N	15E	MD	0.003 cfs	Apr 1-Nov 1	Domestic	L-1569	
5981	7/16/28	United States El Dorado National Forest	--	Hawley Spring	NW	NE	18	11N	18E	MD	7,000 gpd	May 1-Nov 15	Domestic	L-5560	
5989	7/19/28	Glen and Lolita Minard and E. C. Savtelle	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	400 gpd	May 1-Oct 1	Domestic	L-1436	
6006	8/7/28	J. F. Merrill	--	Spring tributary to South Fork American River	NW	NW	15	11N	17E	MD	200 gpd	May 15-Sept 15	Domestic	L-1350	
6039	8/30/28	Canada Hill Gold Mining Company	D15N/23E-50L	Secret Canyon	W 1/2	-	5	15N	13E	MD	8.0 cfs	Mar 1-Aug 1	Mining	L-1909	
6080	10/3/28	Elmer E. Lee	--	Spring tributary to South Fork American River	NW	NW	24	11N	16E	MD	200 gpd	May 1-Oct 30	Domestic	L-2038	
6105	10/26/28	R. G. and Hazel A. Cole	--	Tributary to South Fork American River	SW	NW	21	11N	16E	MD	300 gpd	May 1-Oct 1	Domestic	L-1399	
6161	1/16/29	Fay M. Hapley	--	Camp M Spring Alder Spring No. 2	NE NW	SE SW	33 33	11N 11N	13E 13E	MD MD	7,500 gpd	All year	Domestic	L-2748	
6263	4/20/29	William J. and Helen D. McCann	--	Spring tributary to South Fork American River	NW	SW	6	11N	18E	MD	200 gpd	June 1-Sept 15	Domestic	L-1122	
6383	7/23/29	Pacific Gas and Electric Company	D11N/14E-36L	Alder Creek	NW	SW	36	11N	14E	MD	15 cfs	Dec 1-June 15	Power	L-2543	
6410	8/16/29	Katherine C. Larsen and Sons	D10N/12E-41L	South Fork Brush Canyon	Lot	4	4	10N	12E	MD	0.5 cfs	Apr 1-Oct 30 All year	Irrigation Domestic	L-1904	
6414	8/19/29	Raymond A. Young	--	Spring tributary to Bryant Creek	SE	NW	15	11N	17E	MD	200 gpd	May 15-Sept 15	Domestic	L-1803	
6431	9/10/29	Gerald L. Store	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	140 gpd	May 15-Oct 1	Domestic	L-1287	
6440	9/18/29	Irvin D. and Cora Elliott	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	200 gpd	May 15-Oct 1	Domestic	L-1549	

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	S. B. M.				
6549	2/4/30	C. A. and Hazel V. Jacobs	--	Emigrant Ravine Creek	SE	SE	5	10N	11E	MD	0.06 cfs	May 15-Nov 1	Irrigation and domestic	L-1868
6685	5/21/30	Armando Magri	--	Tributary to South Fork American River	SW	SE	19	11N	16E	MD	400 gpd	Apr 1-Oct 31	Domestic	L-1290
6727	7/10/30	Robert E. and Wilhelmina E. Watkins	--	Spring tributary to Bryant Creek	SE	NW	15	11N	17E	MD	200 gpd	May 1-Nov 1	Domestic	L-1532
6730	7/14/30	Calvin and L. E. Covell, Edward L. De La Mater, Robert E. De La Mater, Paul Knight, F. and G. N. Lawson, Frank P. and E. M. Liggott, Lurlene and Eugene Rogers	--	Spring tributary to South Fork American River	SW	NW	30	11N	16E	MD	750 gpd	Apr 1-Nov 1	Domestic	L-2405
6761	8/8/30	Robert and Alice Adler	--	Spring tributary to South Fork American River	SW	SW	23	11N	15E	MD	195 gpd	May 1-Sept 30	Domestic	L-1668
6797	9/17/30	George Kern	--	Porn Creek	SW	NW	24	11N	16E	MD	200 gpd	Mar 1-Dec 1	Domestic	L-1400
6801	9/20/30	James F. and Maxine Hall and Verlin and Madeline Johnson	--	Spring tributary to South Fork American River	NW	NW	29	11N	16E	MD	400 gpd	May 1-Dec 1	Domestic	L-1802
6817	10/8/30	Mary Etta Heinrich and George and Mary McPherson	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	400 gpd	May 15-Oct 1	Domestic	L-1906
6842	12/6/30	Donald Bass and Robert K. and Lucille E. Zellera	--	Porn Creek	NW	NW	24	11N	16E	MD	1,800 gpd	May 15-Oct 31	Domestic	L-1467
6891	2/9/31	M. L. Appollonio	--	Tributary to Brush Creek	NW	SW	4	10N	12E	MD	16,000 gpd	Nov 1-May 15	Domestic	L-2415
6988	6/29/31	Harold J. Smith	--	Rock Creek	SE	SE	7	11N	17E	MD	200 gpd	Apr 1-Nov 15	Domestic	L-1343
6997	7/6/31	William Welden	DLN/17E-8R	Pyramid Creek	SE	SE	8	11N	17E	MD	4 cfs	Apr 1-Dec 1	Domestic and power	L-1460
6999	7/7/31	A. P. Bray and A. F. Bray, Jr., M. A. Christensen and Jeane B. Shewers	--	Tributary to South Fork American River	NW	SE	24	11N	16E	MD	800 gpd	May 15-Oct 1	Domestic	L-1419
7013	7/20/31	Frank J. Murray and Edwin J. Schoenbackler	--	Bull Creek	SW	SE	29	11N	14E	MD	400 gpd	Mar 1-Nov 30	Domestic	L-1699
7018	7/25/31	Oscar and Dorothy Durham and Joseph and Pauline Rodrigues	--	Spring tributary to South Fork American River	SE	SE	23	11N	15E	MD	400 gpd	Apr 1-Dec 31	Domestic	L-1837
7019	7/27/31	Mal Gipe, W. H. Liles and Al Newman	--	Tributary to South Fork American River	SW	SE	19	11N	16E	MD	600 gpd	May 1-Nov 30	Domestic	L-1418
7036	8/10/31	Harlon G. Phillips and Horace H. Shreve	--	Spring tributary to South Fork American River	NW	SE	24	11N	16E	MD	400 gpd	May 15-Oct 1	Domestic	L-1416
7070	9/1/31	Roy and Eva Shorow	--	Tributary to South Fork American River	NW	SE	24	11N	16E	MD	200 gpd	June 1-Sept 30	Domestic	L-1555
7074	9/8/31	E. J. Blaney	--	Cody Creek	SW	SW	19	11N	17E	MD	200 gpd	May 1-Oct 1	Domestic	L-1512
7196	2/27/32	United States El Dorado National Forest	--	Tributary to Silver Fork of South Fork American River	SW	SW	28	10N	17E	MU	4,500 gpd	May 1-Dec 1	Domestic	L-1679
7259	5/18/32	State of California Division of Highways	--	Spring tributary to Kirtwood Creek	SW	NE	22	10N	17E	MD	2,000 gpd	May 1-Oct 31	Recreational	L-2544
7260	5/21/32	Anna H. Edwards, Clare Olive Holeclow, Emma Mae Hughes, Edna C. Marshall and Frances H. Rechenmacher	DLN/12E-14N1	Peavine Creek	SW	SW	14	14N	12E	MD	3.0 cfs	Nov 1-Sept 1	Mining and Domestic	L-1907
7287	6/9/32	John D. and Barbara A. King	--	Spring tributary to Pyramid Creek	SW	SE	8	11N	17E	MD	2,500 gpd	All year	Recreational and domestic	L-2567
7284	6/16/32	James E. and Cynthia D. Haron and Claude and Della Stage	--	Spring tributary to Twin Lakes	NE	SE	18	10N	18E	MD	400 gpd	May 1-Nov 1	Domestic	L-1684
7304	6/27/32	John G., Gene W., and Francis W. Gallion	--	Spring tributary to Bryant Creek	SW	NW	15	11N	17E	MD	200 gpd	May 1-Nov 1	Domestic	L-2441

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)

APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT

(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion							Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.					
7305	6/27/32	Mr. and Mrs. Perry T. Pooge	--	Spring tributary to South Fork American River	NW	NW	15	11N	17E	MD	MD	200 gpd	Mar 1-Dec 15	Domestic	L-1701
7307	6/28/32	E. E. Curtis and R. W. Spencer	--	Spring tributary to South Fork American River	SW	SE	8	11N	17E	MD	MD	400 gpd	Mar 1-Dec 1	Domestic	L-1932
7316	7/8/32	Elizabeth and Elwood H. Brown	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	MD	200 gpd	June 1-Oct 1	Domestic	L-1942
7321	7/16/32	Gladys Goeller	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	MD	200 gpd	May 1-Nov 1	Domestic	L-1798
7340	8/6/32	L. W. and Maude R. Mahaffey	--	Tributary to South Fork American River	NW	SE	24	11N	16E	MD	MD	200 gpd	Apr 1-Oct 31	Domestic	L-2295
7341	8/6/32	L. W. and Maude R. Mahaffey	--	Spring tributary to South Fork American River	NW	SE	24	11N	16E	MD	MD	200 gpd	Apr 1-Nov 1	Domestic	L-1584
7387	9/23/32	H. O. Meckfessel, Wayne and Hilda Florence Miner and United States El Dorado National Forest	--	Spring tributary to South Fork American River	NE	NW	26	11N	15E	MD	MD	500 gpd	May 1-Oct 1	Domestic	L-1820
7498	2/7/33	United States El Dorado National Forest	--	Tributary to South Fork American River	SE	NE	22	11N	16E	MD	MD	1,600 gpd	May 1-Oct 1	Domestic	L-4543
7522	3/24/33	United States El Dorado National Forest	--	Tributary to Woods Lake	NW	SW	28	10N	18E	MD	MD	1,200 gpd	June 1-Nov 1	Domestic	L-4099
7564	5/25/33	Jack and Mrs. Jane Amundsen	--	Tributary to North Fork American River	SE	NW	11	12N	8E	MD	MD	16,000 gpd	All year	Irrigation and domestic	L-1934
7586	6/14/33	Oakland Area Council Boy Scouts of America	--	Long Canyon	SW	SW	25	11N	12E	MD	MD	5 afe	Oct 1-June 1	Recreational	L-3154
7629	7/26/33	W. D. Knight	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	MD	200 gpd	May 1-Oct 31	Domestic	L-1702
7647	8/14/33	Don Atterbury, James H. and James W. Steady, M. O. Conger, C. A. Phillips, Clyde W. and Mae M. Just, Thomas E. and George I. Wilds and E. S. and Warner W. Wilson	--	Rocky Canyon or Rock Creek	SE	SE	7	11N	17E	MD	MD	1,600 gpd	Apr 1-Oct 31	Domestic	L-1652
7662	9/6/33	John and Madeline Hsinzer	--	Spring tributary to South Fork American River	SW	SE	19	11N	16E	MD	MD	200 gpd	Apr 1-Dec 1	Domestic	L-1980
7776	12/5/33	John A. Berg, Frank Dalporto, Ralph and Margaret Jensen, Howard K. and Edith G. King and William E. McDermott	--	Tributary to South Fork American River	NE	NW	29	11N	16E	MD	MD	800 gpd	May 1-Oct 15	Domestic	L-2233
7788	12/26/33	Arthur W. and Marion L. Collins, Jack H. Harp and Jack M. Hays	--	Spring tributary to South Fork American River	NE	SE	10	11N	17E	MD	MD	400 gpd	June 1-Oct 1	Domestic	L-1674
7848	2/14/34	United States Tahoe National Forest	--	Greek Store Springs	NW	SW	8	14N	13E	MD	MD	1,000 gpd	June 15-Nov 1	Domestic and fire protection	L-2138
7905	4/12/34	John M. and Bernice R. Vihel	--	Bull Creek	SW	SE	29	11N	14E	MD	MD	200 gpd	Mar 1-Nov 30	Domestic	L-1801
7936	5/21/34	State of California Department of Water Resources	--	North Fork American River	--	--	11	12N	8E	MD	MD	2,500 cfs 831,000 afa	All year Oct 1-July 15	Power	Inc.
7937	5/21/34	State of California Department of Water Resources	--	North Fork American River	--	--	11	12N	8E	MD	MD	831,000 afa	Oct 1-July 15	Irrigation, domestic, salinity control, flood control and navigation	Inc.
7938	5/21/34	State of California Department of Water Resources	--	South Fork of South Fork American River	--	--	28	11N	9E	MD	MD	2,500 cfs 1,090,000 afa	All year Oct 1-July 15	Power	Inc.
7939	5/21/34	State of California Department of Water Resources	--	South Fork American River	--	--	28	11N	9E	MD	MD	1,050,000 afa	Oct 1-July 15	Irrigation, domestic, salinity control, flood control and navigation	Inc.
7952	5/25/34	City of Stockton	--	Tributary to Silver Fork American River	NW	NW	17	9N	17E	MD	MD	1,000 gpd	June 1-Oct 1	Recreational	L-2248
8011	7/5/34	Sacramento Mountaineers	--	Spring tributary to South Fork American River	SW	NE	32	11N	13E	MD	MD	1,500 gpd	Apr 1-Nov 1	Domestic	L-2509

**APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of October 1, 1963)**

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
8070	8/16/34	Hendell T. Noble	--	Fulda Creek	NW	NE	12	16N	11E	MD	40 cfs	Nov 15-Apr 30	Mining	L-4416
8163	11/20/34	Sam and Verda Bassett, Carlton and Vera Hughes, John and Ruth Smith, George Elmer Wadley, Paul G. and Ruth H. Wible and Jack and Dollie E. Wright	--	Springs tributary to South Fork American River	NW	SE	29	11N	14E	MD	3,000 gpd	All year	Domestic and fire protection	L-3553
8271	3/4/35	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	NE	18	11N	17E	MD	600 gpd	Apr 15-Nov 1	Domestic	L-1856
8356	6/11/35	William R. Weldon	--	Spring tributary to South Fork American River	NE	NE	17	11N	17E	MD	200 gpd	May 1-Dec 1	Domestic	L-1933
8569	3/3/36	Albert N. and Grace S. DeCapite	--	Tributary to South Fork American River	NW	NW	30	11N	16E	MD	1,750 gpd	All year	Domestic and recreational	L-2449
8582	3/11/36	United States El Dorado National Forest	--	Aapen Creek	SE	SE	10	11N	17E	MD	1,000 gpd	May 15-Nov 1	Domestic and fire protection	L-3767
8623	3/30/36	Eyburs Water Company	--	South Fork of South Fork American River	SW	NW	27	11N	15E	MD	3,000 gpd	June 1-Oct 1	Domestic	L-3541
8658	5/6/36	Lyon and Sckele	D11N/17E-1111	Alice Creek	NE	SW	11	11N	17E	MD	31,200 gpd	May 15-Nov 1	Domestic and fire protection	P-4805
8698	6/8/36	Robert J. McCoy	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	200 gpd	May 1-Nov 1	Domestic	L-2471
8720	6/29/36	Gerald E. and Gerda H. Nordstrom	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	200 gpd	May 15-Sept 15	Domestic	L-2213
8726	7/6/36	Iris Colvin and W. D. Ledoux	--	West Branch Moquito Creek	NW	NW	24	14N	12E	MD	0.3 cfs	June 1-Sept 30	Mining and domestic	L-2444
8756	8/8/36	Halun Householder	--	South Fork of South Fork American River	NW	SE	29	11N	14E	MD	200 gpd	All year	Domestic	L-2431
8791	9/14/36	Maude L. Rudech	--	Spring tributary to South Fork American River	SW	SE	19	11N	16E	MD	200 gpd	Apr 1-Oct 31	Domestic	L-3191
8928	3/28/37	United States Tahoe National Forest	--	Temperance Creek	SE	NW	17	14N	11E	MD	5,000 gpd	All year	Domestic and fire protection	L-2140
8929	3/30/37	United States El Dorado National Forest	--	Cox Creek	NW	SW	21	11N	14E	MD	5,000 gpd	May 1-Nov 30	Fire protection and stockwatering	L-2159
8936	4/3/37	United States El Dorado National Forest	--	Spring tributary to Silver Fork	SW	NW	21	10N	17E	MD	2,500 gpd	Apr 1-Nov 1	Domestic and fire protection	L-3972
8951	4/22/37	Lawrence T. Weldon	--	Spring tributary to Pyramid Creek	NE	NE	17	11N	17E	MD	200 gpd	May 15-Dec 1	Domestic	L-2152
8982	5/27/37	Harvey West	--	Middle Creek	Lot	15	1	10N	15E	MD	900 gpd	Mar 1-Dec 31	Domestic	L-2144
9026	6/28/37	Harry R. and Phyllis R. Luck	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	200 gpd	All year	Domestic	L-2557
9058	7/29/37	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SE	SE	19	11N	16E	MD	600 gpd	May 1-Dec 1	Domestic	L-2161
9084	8/21/37	United States El Dorado National Forest	--	White Hall Canyon	NW	SW	22	11N	14E	MD	2,000 gpd	May 1-Nov 30	Fire protection	L-2162
9085	8/21/37	United States El Dorado National Forest	--	White Hall Canyon	NE	NE	21	11N	14E	MD	2,000 gpd	May 1-Nov 30	Fire protection	L-2163
9086	8/21/37	United States El Dorado National Forest	--	Frye Creek	NW	SW	24	11N	14E	MD	4,000 gpd	May 1-Nov 30	Fire protection	L-2164
9087	8/21/37	United States El Dorado National Forest	--	Tributary to South Fork American River	NE	SE	30	11N	15E	MD	2,000 gpd	May 1-Nov 30	Fire protection	L-2165
9114	9/14/37	United States Tahoe National Forest	D16N/11E-201	Blue Canyon Ranger Station Spring	SW	SE	2	16N	11E	MD	12,000 gpd	All year	Domestic	L-2611
9117	9/17/37	John O. and Barbara A. King	D11N/17E-941	Pyramid Creek	NW	SW	9	11N	17E	MD	2.2 cfs	All year	Power	L-2568
9120	9/18/37	United States El Dorado National Forest	--	Rocky Canyon	SE	SE	7	11N	17E	MD	1,200 gpd	Apr 1-Dec 31	Domestic	L-3554

* F - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. B. M.				
9122	9/21/37	United States El Dorado National Forest	--	Rocky Canyon	SE	SE	7	11N	17E	MD	800 gpd	Apr 1-Dec 1	Domestic	L-2336
9128	9/27/37	United States El Dorado National Forest	--	Pyramid Creek	NE	SE	8	11N	17E	MD	200 gpd	Apr 1-Dec 1	Domestic	L-2166
9129	9/27/37	United States El Dorado National Forest	--	Pyramid Creek	NE	SE	8	11N	17E	MD	200 gpd	Apr 1-Dec 1	Domestic	L-2167
9133	10/2/37	Anna M. Edwards, Clare Olive Holeclaw, Emma Mae Hughes, Edna C. Marshall and Frances H. Hechenmacher	D11N/12E-14M	Pesvine Creek	SW	SW	14	14N	12E	MD	1.5 cfs	Dec 1-Aug 1	Power	L-4677
9134	10/2/37	Oliver J. Carroll and Oliver J. Carroll, Jr.	--	Cold Stream	SW	SW	10	11N	17E	MD	200 gpd	May 1-Nov 15	Domestic	L-3790
9189	11/27/37	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SW	NW	30	11N	16E	MD	800 gpd	Apr 1-Dec 31	Domestic	L-2168
9199	12/3/37	Lloyd E. and Gertrude Greenhalgh	--	Cold Stream	SW	SW	10	11N	17E	MD	200 gpd	May 1-Nov 1	Domestic	L-2571
9251	3/4/38	United States El Dorado National Forest	--	Black Rock Spring	NE	SE	18	9N	17E	MD	10,000 gpd	June 1-Nov 1	Domestic and fire protection	L-3922
9269	4/13/38	Sword and Sendaal Organization	--	Tributary to South Fork American River	SE	SW	19	11N	16E	MD	700 gpd	Mar 1-Dec 1	Domestic	L-2694
9289	5/6/38	United States El Dorado National Forest	--	Catas Spring	SW	SW	16	11N	17E	MD	750 gpd	May 1-Nov 1	Domestic	L-4059
9298	5/19/38	United States El Dorado National Forest	--	Olanis Spring	SW	NW	15	11N	17E	MD	1,100 gpd	May 1-Nov 15	Domestic and fire protection	L-3129
9310	6/6/38	United States El Dorado National Forest	--	Snow Slide Creek	NW	SE	10	11N	17E	MD	750 gpd	May 1-Nov 30	Domestic	L-3256
9328	6/24/38	A. J. and C. Fiesels and R. F. Danael	--	Tributary to South Fork American River	NW	NW	28	11N	15E	MD	650 gpd	Mar 1-Nov 15	Domestic	L-2836
9329	6/24/38	A. J. and Constance M. Fiesels and Ralph F. and Daisy A. Danael	--	Tributary to South Fork American River	NW	NW	28	11N	15E	MD	650 gpd	All year	Domestic	L-2535
9358	7/29/38	Henry C. Piceator	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	200 gpd	May 15-Sept 15	Domestic	L-2246
9399	8/26/38	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	NE	18	11N	17E	MD	1,200 gpd	May 1-Dec 31	Domestic	L-3388
9408	9/10/38	United States El Dorado National Forest	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	600 gpd	May 1-Nov 1	Domestic	L-4016
9425	9/24/38	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SW	NE	24	11N	16E	MD	400 gpd	Apr 1-Dec 1	Domestic	L-2337
9463	11/29/38	J. R. Haesler and A. C. and Juanita Winkelman Schofield	D11N/12E-17M	Coon Gulch	NW	SW	35	11N	11E	MD	0.75 cfs	Apr 1-Nov 1	Irrigation Domestic and stockwatering	L-2485
9484	1/14/39	Rosalie Williams and Ethel V. Schofield	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	200 gpd	All year	Domestic	L-2214
9576	5/4/39	Alhambra Shumway Mines, Inc.	--	Traversas Creek	SW	NE	6	11N	11E	MD	0.089 cfs	All year	Mining, industrial and domestic	L-3046
9643	6/26/39	Leighton S. and Marcile L. Grosdley	--	Tributary to South Fork American River	NW	SE	24	11N	16E	MD	200 gpd	June 1-Sept 30	Domestic	L-2489
9655	7/5/39	United States El Dorado National Forest	--	Buckeye Spring	SW	SE	12	13N	11E	MD	1,600 gpd	All year	Domestic, recreation and stockwatering	L-2864
9687	7/31/39	Otto Schaefer	--	South Fork American River	SW	NE	17	11N	17E	MD	4.5 cfs	All year	Power	L-2551
9697	8/15/39	George S. Wheeler	--	Little Grizzly Creek	SW	NE	36	15N	12E	MD	60 gpd	All year	Domestic	L-4266

APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board on October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
9722	9/7/39	John D. Roy	--	Tributary to South Fork American River	NE	SE	34	11N	13E	MD	500 gpd	All year	Domestic	L-2503
9728	9/18/39	George R. Kinneer	--	Station Creek	NW	SE	23	11N	16E	MD	200 gpd	Apr 15-Nov 1	Domestic	L-2573
9816	1/29/40	United States Tahoe National Forest	--	Spring tributary to North Fork American River	Lot	1	6	15N	11E	MD	6,500 gpd	May 1-Dec 1	Recreational and fire protection	L-2599
9842	2/29/40	United States El Dorado National Forest	--	Frye Creek	NE	SE	26	11N	14E	MD	2,000 gpd	Apr 1-Nov 15	Domestic and fire protection	L-3028
9843	2/29/40	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	SE	22	11N	16E	MD	1,200 gpd	Apr 1-Dec 1	Domestic	L-3273
9859	3/25/40	Amanda F. Dart	--	Cold Stream	SW	SW	10	11N	17E	MD	200 gpd	Apr 1-Dec 1	Domestic	L-3428
9869	4/9/40	United States El Dorado National Forest	--	Tributary to South Fork American River	SW	NW	29	11N	16E	MD	600 gpd	Apr-Dec 31	Domestic	L-2865
9872	4/13/40	Emily J. Gerard	--	Spring tributary to Canyon Creek	NE	NW	33	13N	11E	MD	600 gpd	All year	Domestic	L-3764
9884	4/26/40	United States El Dorado National Forest	--	Tributary to Silver Fork	Lot	12	35	11N	15E	MD	400 gpd	Mar 1-Jun 1	Domestic and fire protection	L-2866
9890	5/8/40	United States El Dorado National Forest	--	Aspen Creek	SE	SE	10	11N	17E	MD	2,400 gpd	May 15-Oct 15	Domestic and fire protection	L-2867
9952	7/12/40	Jack G. and June M. Nash	--	Pyramid Creek	SW	SE	8	11N	17E	MD	200 gpd	All year	Domestic	L-2563
9955	7/20/40	United States El Dorado National Forest	--	Bryant Fork Creek	SE	NW	15	11N	17E	MD	5,800 gpd	June 1-Sept 15	Domestic and fire protection	L-3502
9986	8/19/40	David N. Torrey	--	Cold Stream	SW	SW	10	11N	17E	MD	200 gpd	July 1-Sept 30	Domestic	L-2575
10016	9/25/40	United States El Dorado National Forest	--	Gerle Creek	SE	NW	11	13N	14E	MD	250 gpd	June 1-Nov 1	Domestic	L-3375
10110	2/5/41	United States El Dorado National Forest	--	Sheep Corral Creek	NW	NW	3	9N	17E	MD	10,300 gpd	Apr 1-Dec 31	Domestic and fire protection	L-8870
10121	2/20/41	G. A. and Helen Cort	--	Tributary to South Fork American River	SE	SE	19	11N	16E	MD	600 gpd	All year	Domestic	L-3045
10126	2/20/41	United States Tahoe National Forest	--	Texas Hill Spring	SE	NE	20	16N	12E	MD	2,350 gpd	June 1-Dec 31	Domestic, stockwatering and fire protection	L-2886
10129	2/20/41	United States Tahoe National Forest	--	Dawson Spring	SE	NE	26	16N	12E	MD	750 gpd	May 1-Dec 1	Domestic, stockwatering and fire protection	L-2655
10192	4/29/41	United States El Dorado National Forest	--	Ross Spring	NW	SE	18	10N	18E	MD	600 gpd	June 15-Oct 1	Domestic and fire protection	L-3161
10205	5/12/41	Marie Martin	--	Sailor Canyon New York Canyon Little Sailor Canyon	SW Lot Lot	SE	2 3 2	15N 15N 15N	13E 13E 13E	MD MD MD	150 cfs	All year	Mining and domestic	F-5934
10212	5/28/41	Elva B. Taylor	--	Spring tributary to Kirkwood Creek	SW	NE	22	10N	17E	MD	500 gpd	June 1-Nov 1	Domestic	L-3524
10289	9/24/41	United States El Dorado National Forest	--	Tributary to South Fork American River	NW	NE	19	11N	17E	MD	250 gpd	May 1-Dec 1	Domestic	L-2921
10290	9/24/41	United States El Dorado National Forest	--	Benwood Creek	SW	SE	7	11N	18E	MD	1,400 gpd	June 1-Nov 1	Domestic	L-6099
10325	11/21/41	Georgia F. Peters	--	Spring tributary to South Fork American River	SE	SE	22	11N	15E	MD	200 gpd	May 1-Nov 30	Domestic	L-3291
10344	12/12/41	Lawrence E. Abel and Evelyn Jury	--	Spring tributary to South Fork American River	SE	SE	22	11N	15E	MD	200 gpd	June 1-Sept 30	Domestic	L-3071
10360	1/13/42	United States El Dorado National Forest	--	Tributary to South Fork American River	NE	SE	24	11N	16E	MD	325 gpd	May 1-Nov 1	Domestic	L-4095
10395	2/6/42	United States El Dorado National Forest	--	Station Creek	NW	SE	23	11N	16E	MD	500 gpd	Apr 1-Nov 1	Domestic	L-2948

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
10397	3/11/42	Narry E. and Audrey A. Sollenberger	--	South Fork American River	NE	NW	Z7	11N	15E	MD	200 gpd	Apr 1-Nov 1	Domestic	L-3042
10405	3/16/42	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SW	SW	Z9	11N	15E	MD	800 gpd	May 1-Dec 1	Domestic and fire protection	L-3288
10441	5/6/42	United States Tahoe National Forest	--	Lost Camp Ridge Spring	NW	NE	Z6	16N	11E	MD	650 gpd	June 1-Oct 31	Stockwatering and domestic	L-3031
10442	5/6/42	United States Tahoe National Forest	--	North Fork Spring	NW	NW	Z8	16N	12E	MD	150 gpd	May 1-Nov 1	Domestic	L-4181
10443	5/6/42	United States Tahoe National Forest	--	Onion Valley Spring	NW	SW	Z8	16N	12E	MD	0.015 cfs	May 1-Oct 31	Irrigation, domestic, stockwatering and fire protection	F-6015
10445	5/6/42	United States Tahoe National Forest	--	Long Valley Spring	NE	NW	Z8	16N	14E	MD	2,000 gpd	June 1-Sept 1	Stockwatering	L-2890
10463	5/16/42	United States El Dorado National Forest	--	Tributary to South Fork American River	SE	NW	Z7	11N	15E	MD	3,600 gpd	May 1-Oct 31	Domestic	L-2933
10477	6/12/42	Leighton S. and Marcille L. Bradley	--	Tributary to South Fork American River	NW	SE	Z4	11N	16E	MD	650 gpd	May 1-Oct 15	Domestic	L-2967
10484	6/26/42	Conley and Nelan Sanders	--	South Fork American River	SE	SW	Z8	11N	17E	MD	200 gpd	May 1-Oct 31	Domestic	L-3289
10534	9/8/42	Ed and Hilda McCann	--	Prye Creek	NE	SE	Z6	11N	14E	MD	200 gpd	Jan 1-Dec 31	Domestic	L-2796
10593	1/25/43	United States El Dorado National Forest	--	Tributary to South Fork American River Champagne Canyon	NE	NW	Z9	11N	16E	MD	2,200 gpd	May 1-Oct 1	Domestic	L-4548
10604	2/24/43	United States El Dorado National Forest	--	Aspen Creek	SE	SE	Z10	11N	17E	MD	1,600 gpd	May 1-Oct 1	Domestic	L-3643
10608	3/4/43	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SE	NE	Z17	11N	17E	MD	1,000 gpd	June 1-Sept 15	Domestic and fire protection	L-4044
10614	3/16/43	United States El Dorado National Forest	--	Alder Creek	NE	NE	Z17	11N	17E	MD	5,000 gpd	Apr 1-Nov 30	Domestic and fire protection	L-3297
10700	8/20/43	Richard C. and Sunne V. Dalby, G. L. and Virginia Fleck, Gordon Hedges and William and Annetto Sunico	D12N/10E-17D1	Poverty Creek (4 points)	NW	NW	Z17	12N	10E	MD	0.46 cfs	All year	Domestic and irrigation	L-6072
10731	11/17/43	Richard H. Miller	D12N/9E-33L1	Hastings Creek	NE	SW	Z33	12N	9E	MD	0.92 cfs	May 1-Oct 1	Irrigation	L-5449
10773	2/23/44	United States El Dorado National Forest	--	Tributary to South Fork American River	NE	NW	Z11	11N	17E	MD	49 afa	Nov 1-June 1	Stockwatering and domestic	L-2940
10821	5/19/44	United States El Dorado National Forest	D11N/17E-30C1	Cody Creek	SW	SW	Z19	11N	17E	MD	200 gpd	May 1-Oct 31	Domestic and fire protection	L-4870
10823	5/26/44	United States El Dorado National Forest	--	Tributary to South Fork American River	SW	NW	Z28	11N	14E	MD	500 gpd	All year	Domestic	L-3084
10827	6/5/44	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	NE	Z22	11N	16E	MD	400 gpd	All year	Domestic	L-3546
10848	7/24/44	Otto Schaefer	D11N/17E-17C1	South Fork American River	SW	NE	Z17	11N	17E	MD	2,200 gpd	May 1-Oct 15	Domestic and fire protection	L-5654
10936	12/29/44	H. B. Hickerson	--	Spring tributary to North Fork Weber Creek	SE	SE	Z4	10N	12E	MD	1.0 cfs	All year	Power	L-3034
10945	1/4/45	United States El Dorado National Forest	--	Spring tributary to Silver Lake	SW	SE	Z7	9N	17E	MD	0.02 cfs	May 1-Nov 1	Irrigation and stockwatering	L-3567
10962	1/25/45	Charles M. Muskavitch	--	East Branch of Mormon Ravine	NW	NW	Z34	12N	8E	MD	600 gpd	June 15-Oct 15	Domestic	L-3656
11055	5/22/45	Claire C. Adams	--	South Fork American River	NW	NE	Z27	11N	15E	MD	100 gpd	All year	Domestic and fire protection	L-3324

APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT

(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
11097	7/5/45	Carl S. Balch	--	Spring tributary to Twin Lakes	NW	NE	19	10N	18E	MD	60 gpd	June 1-Nov 1	Domestic	L-3024
11142	9/14/45	Henry F. Goodrich	--	South Fork American River	NW	NE	27	11N	15E	MD	200 gpd	May 1-Oct 1	Domestic and fire protection	L-3354
11157	9/19/45	United States Tahoe National Forest	--	Tadpole Spring	Lot	7	4	15N	13E	MD	1,800 gpd	May 1-Oct 31	Stockwatering and recreational	L-3207
11162	9/27/45	Cesalia M. Minard	--	South Fork American River	NW	NE	27	11N	15E	MD	200 gpd	All year	Domestic and fire protection	L-3032
11184	10/16/45	L. G. Brownell	--	South Fork American River	NW	NE	27	11N	15E	MD	200 gpd	June 1-Nov 1	Domestic and fire protection	L-3390
11256	1/10/46	United States El Dorado National Forest	--	Tamarack Flat Creek	NW	SE	9	11N	17E	MD	40,000 gpd	All year	Domestic, fire protection and recreational	P-6733
11264	1/21/46	Ernest K. Richardson	D11N/17E-9K1	Tamarack Flat Creek	SW	SE	9	11N	17E	MD	0.05 cfs	All year	Domestic, fire protection and recreational	P-6934
11296	2/26/46	United States El Dorado National Forest	--	Spring tributary to Gerls Creek	NW	NE	3	13N	14E	MD	3,000 gpd	May 15-Nov 15	Domestic and stockwatering	L-3211
11303	3/7/46	Lawrence T. and Vera Moore	D11N/11E-320L	Tributary to White Rock Creek	NW	SW	32	11N	11E	MD	7,200 gpd	May 1-Oct 31	Irrigation	L-3376
11370	4/12/46	United States El Dorado National Forest	--	Tributary to South Fork American River	SW	SE	2	11N	17E	MD	200 gpd	All year	Domestic and fire protection	L-3497
11464	7/10/46	Robert H. and Blanche Gardiner	--	Forn Creek	SW	NW	24	11N	16E	MD	200 gpd	June 15-Sept 1	Domestic	L-3373
11473	7/18/46	Byron and H. Francis Bacchi	D12N/12E-11J1	Pilot Creek	NE	SE	11	12N	12E	MD	0.2 cfs	June 1-Sept 30	Irrigation	L-3238
11498	8/5/46	Dorcas Papini	--	Church Ravine	SE	SW	17	11N	10E	MD	2,700 gpd	Mar 1-Nov 30	Irrigation	L-3249
11523	8/21/46	Frances E. Holsclaw and Donald McFarlan	--	Spring tributary to Fosvina Creek	NE	SW	16	14N	12E	MD	11,000 gpd	All year	Domestic and fire protection	L-5447
11588	10/14/46	Jack W. and Marcelle Greens	D10N/10E-18C1	Indian Creek	NE	NW	18	10N	10E	MD	195 afa	Nov 1-June 15	Irrigation	L-3374
11608	11/8/46	Edward J. and Hilda V. McCann	--	Frys Creek	NE	SE	26	11N	14E	MD	200 gpd	All year	Domestic and fire protection	L-3330
11628	11/18/46	Raymond and Helen Buzarfield	--	Spring tributary to South Fork American River	NW	SE	35	11N	13E	MD	700 gpd	All year	Domestic	L-3206
11675	12/30/46	Otto Schaeffer	D11N/17E-18H1	Tributary to South Fork American River	SE	NW	18	11N	17E	MD	30,000 gpd	All year	Domestic	P-6999
11676	12/31/46	O. M. Barnes	--	Tunnel tributary to Prospect Creek	NE	NE	16	10N	11E	MD	1,400 gpd	All year	Domestic	L-4014
11689	1/9/47	E. B. Livingstone	D10N/10E-32J1	Tributary to Weber Creek	NE	SE	32	10N	10E	MD	45 afa	Oct 1-Mar 1	Irrigation and stockwatering	L-5205
11698	1/20/47	Pollock Pines-Fresh Pond Public Utility District	--	Plum Creek	NE	SE	32	11N	14E	MD	0.5 cfs	All year	Domestic and industrial	P-6938
11738	2/19/47	Pollock Pines-Fresh Pond Public Utility District	--	Plum Creek	NE	SE	32	11N	14E	MD	110.0 afa	Oct 1-June 1	Domestic and industrial	P-6999
11742	2/25/47	United States El Dorado National Forest	--	Rocky Canyon	SE	SE	7	11N	17E	MD	350 gpd	May 1-Dec 1	Domestic	L-3419
11787	3/19/47	United States Tahoe National Forest	--	Spring tributary to North Fork of Middle Fork American River	SW	SW	26	14N	11E	MD	300 gpd	All year	Domestic	L-4862
11812	4/4/47	Walter and Jeannette Powell	--	Chunk (China) Creek	NW	SE	13	10N	11E	MD	750 gpd	All year	Domestic and fire protection	L-4180
11813	4/4/47	O. J. and Lillian Larsen	--	Chunk Creek	NW	SE	13	10N	11E	MD	960 gpd	All year	Domestic	L-4317
11817	4/8/47	Carry B. and Elisabeth L. Baker	--	Hangtown Creek	SE	NE	10	10N	10E	MD	0.025 cfs	All year	Irrigation and stockwatering	P-6920
11822	4/14/47	M. E. West	--	Spring tributary to South Fork American River	NE	SW	25	11N	12E	MD	0.1 cfs	All year	Domestic and industrial	L-4859
11836	4/22/47	Stewart Marshall	D10N/10E-23G1	Tributary to Indian Creek	SW	NE	23	10N	10E	MD	13.0 afa	Oct 1-May 31	Domestic, irrigation and stockwatering	L-4243
11850	5/1/47	Carry B. and Elisabeth Baker	--	Hangtown Creek	SW	NW	11	10N	10E	MD	3,000 gpd	All year	Domestic and stockwatering	L-3357

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 [Filed with State Water Rights Board as of October 1, 1963]

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
11867	5/9/47	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	SE	29	11N	15E	MD	350 gpd	June 1-Oct 1	Domestic	L-3395
11893	5/26/47	United States El Dorado National Forest	--	Aspen Creek	SE	SE	10	11N	17E	MD	1,000 gpd	Apr 15-Nov 30	Fire protection	L-4861
11917	6/5/47	Mick J. Schublin	D11M/9E-36F1	Tributary to Weber Creek	SW	NE	36	11N	9E	MD	45 afa	Oct 1-June 1	Domestic and irrigation	P-7176
					SE	NW	36	11N	9E	MD	10 afa	Oct 1-June 1		
					NE	NW	36	11N	9E	MD	20 afa	Oct 1-June 1		
											0.3 cfa	Oct 1-June 1		
11944	6/17/47	United States El Dorado National Forest	--	Spring tributary to South Fork American River	NW	SW	34	11N	13E	MD	2,000 gpd	All year	Domestic	L-3351
11971	7/3/47	United States El Dorado National Forest	--	Sayles Creek	NW	NE	21	11N	17E	MD	1,200 gpd	June 1-Oct 1	Domestic	L-4744
12000	7/21/47	United States El Dorado National Forest	--	Tributary to South Fork American River	NE	NW	26	11N	15E	MD	600 gpd	All year	Domestic	L-3346
12007	7/24/47	United States El Dorado National Forest	--	Jerrett Spring	SW	SE	8	14N	14E	MD	6,450 gpd	June 1-Nov 1	Domestic and fire protection	L-3386
12018	8/1/47	Joseph and Maria Koch	--	Tunnel tributary to White Rock Creek	NE	SE	32	11N	11E	MD	300 gpd	All year	Domestic	L-4884
12036	8/12/47	United States El Dorado National Forest	--	Page Creek	SE	SE	20	15N	11E	MD	1,400 gpd	May 1-Nov 1	Domestic and fire protection	L-3250
12037	8/12/47	United States Tahoe National Forest	--	Spring tributary to Middle Fork American River	NW	NW	31	15N	14E	MD	300 gpd	May 1-Nov 1	Domestic and fire protection	L-3440
12046	8/14/47	Roman V. and Olga H. Gankin, William J. Green and L. L. Schindell	--	Sawmill Creek	SE	NW	34	11N	13E	MD	28,000 gpd	All year	Domestic and irrigation	P-7203
					NE	SW	34	11N	13E	MD				
12057	8/26/47	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SW	NW	15	11N	17E	MD	600 gpd	June 1-Sept 15	Domestic	L-3399
12124	10/8/47	Richard Miller	D11M/9E-8F1	Tributary to Nortons Ravine	SE	SW	8	11N	9E	MD	22 afa	Nov 1-Apr 30	Irrigation	L-6648
12131	10/16/47	L. D. Stodick	D11M/9E-23B1	Jacobs Creek	NW	NE	23	11N	9E	MD	636 afa	Nov 1-Apr 30	Irrigation	L-5976
12139	10/29/47	John Capek	--	New World Tunnel	NE	SE	32	11N	11E	MD	2,225 gpd	All year	Domestic and stockwatering	L-4846
12140	10/29/47	City of Sacramento	--	American River	NW	SE	10	8N	5E	MD	500 cfa	Nov 1-Aug 1	Municipal, domestic, recreational and industrial	P-11358
					NW	NW	28	11N	9E	MD	250,000 afa	Oct 1-June 1		
12149	11/4/47	Florence Lumsden	D10W/11E-9N1	Tributary to Ningtown Creek	SW	SW	9	10N	11E	MD	10 afa	Oct 30-May 1	recreational	L-4847
12156	11/17/47	Florence S. Karr	D10W/10E-3B1	Tributary to Weber Creek	SW	NE	3	10N	10E	MD	10 afa	Oct 30-May 1	Irrigation and stockwatering	L-3777
12180	12/1/47	L. W. Veerkamp	D11M/10E-32I1	Tributary to Weber Creek	NW	SE	32	11N	10E	MD	49 afa	Oct 30-May 1	Irrigation and stockwatering	L-4477
12181	12/1/47	L. W. Veerkamp	--	Tributary to Weber Creek	SW	SW	33	11N	10E	MD	7 afa	Nov 1-Apr 30	Irrigation and stockwatering	L-4478
12184	12/5/47	Leo A. Akin	D11M/10E-33A2	Indian Creek	NE	NE	33	11N	10E	MD	4,000 gpd	Nov 1-May 1	Irrigation, domestic and stockwatering	L-3602
											27 afa	Nov 1-May 1		
12218	12/29/47	Joseph and Maria Koch	--	Tunnel tributary to White Rock Creek	NE	SE	32	11N	11E	MD	400 gpd	All year	Domestic	L-4885
12240	1/13/48	W. C. Cumming	D10W/11E-34I	White Rock Canyon	NE	SE	3	10N	11E	MD	.5 cfa	May 1-Oct 15	Irrigation	L-6374
12253	1/23/48	D. R. Barnett	--	Tributary to Shingla Creek	SW	SW	12	9N	9E	MD	70 afa	Oct 1-May 30	Irrigation and stockwatering	L-3761
12318	2/11/48	Herman F. and Bertha R. Sharp	--	South Fork Tennessee Creek	SE	SE	25	10K	9E	MD	2 afa	Nov 1-Apr 1	Irrigation and domestic	L-4341
12321	2/15/48	City of Sacramento	D11M/14E-1N1	South Fork Silver Creek	SW	SW	1	11N	14E	MD	50,000 afa	Oct 1-July 31	Municipal	P-11359
					SE	SW	20	12N	14E	MD	225,000 afa	Oct 1-July 31		
12323	2/15/48	Sacramento Municipal Utility District	D11M/14E-1N1	South Fork Silver Creek	SW	SW	1	11N	14E	MD	50,000 afa	Oct 1-July 31	Power	P-10703
					SE	SW	20	12N	14E	MD	400 cfa	Oct 1-July 31		
											225,000 afa	Oct 1-July 31		

TABLE G-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion				Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.				
12335	2/16/48	Lawrence K. and Maryetta E. Snyder	--	Spring tributary to Live Oak Creek	SW	NW	22	14N	9E	MD	1,000 gpd	L-5622
12364	2/27/48	Armin I. and Virginia May Minje	--	Tributary to Granite Canyon	SW	NW	22	14N	9E	MD	9,600 gpd	L-4118
12397	3/12/48	United States El Dorado National Forest	--	Pyramid Creek	SE	SE	8	11N	17E	MD	0.015 cfs	L-3721
12409	3/16/48	Emilio P. and Edith Marie Carepa	D10N/11E-14G1	Spring tributary to Heber Creek	NE	NW	14	10N	11E	MD	300 gpd	L-5221
12421	3/19/48	Georgetown Divide Public Utility District	--	Pilot Creek	SE	NW	11	12N	12E	MD	14,500 gpd	P-11305
12462	4/6/48	Sam Winje	D11N/10E-29C1	Chunk Ravine	NE	NW	29	11N	10E	MD	50 cfs	L-3529
12463	4/7/48	George H. and Isabelle D. Vols	D11N/10E-34E1	Indian Creek	SW	NW	34	11N	10E	MD	4 cfs	L-3771
12475	4/14/48	Leo A. Akin	D10N/11E-31Q1	Tributary to Heber Creek	NE	NE	33	11N	10E	MD	10 cfs	L-3889
12488	4/28/48	Barbara M. and Paul A. Kneebone	--	Spring tributary to Clipper Ravine	SW	SE	31	11N	10E	MD	14 cfs	L-4848
12552	6/22/48	United States El Dorado National Forest	--	Bull Creek	NW	NE	8	13N	9E	MD	40 cfs	L-5535
12598	7/9/48	Demetri P. Keuseuff	--	Tributary to South Fork American River	SE	SE	29	11N	14E	MD	800 gpd	L-4049
12622	7/29/48	City of Sacramento	--	Rubicon River	SW	NE	35	11N	13E	MD	2,200 gpd	P-11360
12624	7/29/48	Sacramento Municipal Utility District	--	Rock Bound Creek	NW	SW	9	13N	16E	MD	500 cfs	P-10704
12875	12/23/48	Robert Lowell Lung	D10N/10E-2P1	Rock Bound Creek	Lot	23	6	13N	16E	MD	75,000 cfs	L-4021
12885	12/29/48	L. W. Veerkamp	D10N/11E-32L1	Gerle Creek	SE	NE	5	13N	15E	MD	200 cfs	L-4479
12930	2/10/49	Otto Schaefer	D11N/17E-18R1	South Fork Rubicon River	SE	NW	9	13N	16E	MD	7,200 gpd	P-7739
12999	3/24/49	Bernice Bowen	D12N/9E-36J1	South Fork Rubicon River	SE	SW	2	10N	10E	MD	7,200 gpd	L-4363
13103	5/19/49	L. J. and E. Belle Esper	D12N/8E-24J1	Cold Springs Creek	SE	SW	2	10N	10E	MD	0.09 cfs	L-4220
13123	5/31/49	Richard M. Miller	D12N/9E-33I1	Tributary to Heber Creek	NE	SE	32	11N	10E	MD	4 cfs	L-5450
13131	6/2/49	George E. and Dorothy C. Terrell	--	Knickerbocker Creek	NE	NE	18	11N	17E	MD	52 cfs	L-3813
13146	6/9/49	Edward and Hilda McCann	--	Hastings Creek	SE	NW	27	11N	14E	MD	200 gpd	L-3824
13160	6/17/49	John H. Lieneu	D14N/9E-22F1	South Fork American River	SE	SE	22	14N	9E	MD	11.6 cfs	L-4332
13168	6/23/49	D. A. Sernett	--	Evans Creek	SE	SW	12	9N	9E	MD	45 cfs	L-3762
13233	7/13/49	Gordon H. and Chinita M. Garland	D11N/8E-1C1	Tributary to Shingle Creek	NE	NW	1	11N	8E	MD	12 cfs	P-7831

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Status*	
					1/4	1/4	Sec.	Tp.	R.					B. & M.
13257	7/25/49	L. H. Veerkamp	DLN/10E-32L	Tributary to Weber Creek	SW	SW	32	11N	10E	MD	7.7 afa	Nov 1-Apr 30	Irrigation and stockwatering	L-4480
13292	8/11/49	Allen and Anna Eugens Lowery	--	Spring tributary to South Fork American River	NW	SE	29	11N	15E	MD	300 gpd	ALL year	Domestic	L-3787
13296	8/15/49	H. H. Smith, Estate of	D10W/10E-21AL	Indian Creek	NE	NE	21	10N	10E	MD	148 afa	Sept 15-May 31	Mining and domestic	L-6304
13318	8/29/49	Wayne L. and Wesley M. Davy	--	Spring tributary to South Fork American River	NW	SE	29	11N	15E	MD	300 gpd	ALL year	Domestic	L-3788
13369	9/28/49	Chester A. Carver	--	Tributary Hangtown Creek	SE	NW	10	10N	11E	MD	0.031 cfs	May 1-Oct 1	Irrigation	L-5210
13370	10/1/49	United States Bureau of Reclamation	D10W/7E-24G1	American River	SW	NE	24	10N	7E	MD	8,000 cfs 1,000,000 afa	ALL year Oct 1-July 1	Irrigation	P-11315
13371	10/1/49	United States Bureau of Reclamation	D10W/7E-24G1	American River	SW	NE	24	10N	7E	MD	700 cfs 300,000 afa	ALL year Oct 1-July 1	Municipal, industrial, domestic and recreational	P-11316
13372	10/1/49	United States Bureau of Reclamation	D10W/7E-24G1	American River	SW	NE	24	10N	7E	MD	8,000 cfs	ALL year	Power	P-11317
13383	10/5/49	United States El Dorado National Forest	--	Spring tributary to South Fork American River	SE	SW	20	11N	16E	MD	600 gpd	Apr 1-Dec 31	Domestic	L-3834
13410	10/24/49	United States El Dorado National Forest	--	Jones Spring	NW	SE	18	10N	18E	MD	200 gpd	May 1-Nov 1	Domestic and fire protection	L-3797
13502	12/7/49	Harry Balderston	--	Tunnel tributary to South Fork American River	SE	NE	33	13N	11E	MD	750 gpd	ALL year	Domestic	L-4853
13519	12/27/49	Leon M. and Giuseppina Castaldi	DLN/10E-33M1	Tributary to Weber Creek	NW	SW	33	11N	10E	MD	83 afa	Nov 1-May 15	Irrigation	L-5414
13520	12/27/49	Lawrence Miegel	D12W/9E-16K1	Tributary to Black Rock Creek	NW	SE	16	12N	9E	MD	40 afa	Nov 1-May 1	Irrigation	L-3833
13521	12/27/49	Barnes and Ralph Bowen	D12W/9E-16L1 D12W/9E-2F1	Tributary to Fish Creek	SE	NW	21	12N	9E	MD	145 afa	Oct 10-May 1	Irrigation	L-4467
13576	2/9/50	Charles H. Singer	D12W/9E-31M1	Tributary to Pilot Creek	SW	SW	31	12N	9E	MD	37 afa	Oct 1-Apr 30	Irrigation	L-4797
13592	2/20/50	Stewart Marahal	D10W/10E-23G1	Tributary to Indian Creek	SW	NE	23	10N	10E	MD	20 afa	Oct 1-May 31	Domestic, irrigation and stockwatering	L-4244
13612	3/1/50	Elomar Fossetti	D10W/11E-4M1	Dutch Mary Ravine	SW	SW	4	10N	11E	MD	0.033 cfs	May 1-Sept 30	Irrigation	L-3842
13613	3/1/50	Stockton Box Company	DLN/13E-8M1	Spruce Creek	NW	SW	8	14N	13E	MD	0.1 cfs	June 1-Nov 1	Fire protection and industrial	L-4852
13616	2/6/50	Donald E. Little	--	Tributary to South Fork American River	NE	NW	29	11N	16E	MD	250 gpd	Apr 1-Nov 1	Domestic	L-3839
13622	3/9/50	United States El Dorado National Forest	--	Aspen Creek	SE	SE	10	11N	17E	MD	400 gpd 5,000 gpd	May 1-Nov 30 Dec 1-Apr 30	Domestic, recreational and fire protection	L-6623
13629	3/10/50	Rudolph and Ora Miegel	D12W/8E-25A1	Tributary to Knickerbocker Creek	NE	NE	25	12N	8E	MD	30 afa	Nov 1-May 1	Irrigation	L-6654
13632	3/14/50	Amsder, El Dorado, Sacramento Cattlemen's Association	--	Tributary to South Fork American River	NE	NE	34	11N	13E	MD	4,500 gpd	June 1-Oct 31	Stockwatering	L-3843
13644	3/24/50	Fred G. Osterrieder	D12W/10E-22M1	Mammoth Creek	SW	SW	22	12N	10E	MD	110 afa	Oct 1-Apr 30	Irrigation and domestic	P-8219
13653	3/27/50	United States El Dorado National Forest	--	Bryant Creek	NE	SW	15	11N	17E	MD	4,400 gpd	June 1-Oct 1	Domestic and fire protection	L-6630
13663	3/30/50	Wick J. Sehubin	DLN/9E-36F1	Tributary to Weber Creek	SW	NE	36	11N	9E	MD	150 afa	Oct 1-June 1	Domestic and irrigation	P-8222
13752	5/23/50	Raymond W. and Ada M. Berg	--	Weber Creek	SE	NW	14	10N	10E	MD	7,200 gpd	Apr 1-Oct 1	Irrigation	L-4756
13766	5/31/50	Walbe and Kenneth W. Trewhidge	D11W/9E-7H1	Tributary to South Fork American River	SE	SE	7	11N	9E	MD	15 afa	Nov 1-Apr 30	Stockwatering and irrigation	L-5825
13829	7/5/50	John C. Leguareano, et al	--	Spring tributary to South Fork American River	SE	SW	20	11N	16E	MD	200 gpd	Apr 1-Nov 15	Domestic	L-4092
13971	9/29/50	George H. and Isabelle D. Vols	DLN/11E-33B2 DLN/11E-33E1 DLN/10E-33A1	Tributary to South Fork American River Tributary to South Fork American River Tributary to South Fork American River	NW NE SE	NE NE NE	33 33 33	11N 11N 11N	11E 11E 11E	MD MD MD	55 afa 44 afa 11 afa	Oct 10-May 1 Oct 10-May 1 Oct 10-May 1	Irrigation, domestic and recreational	P-8991

APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	S. B. M.				
14394	10/13/50	M. I. Akin, et al.	--	Spring tributary to South Fork American River	NW	SW	33	11N	13E	MD	2,250 gpd	Jan 1-Dec 31	Domestic	L-5323
14086	12/1/50	Arthur D. Goodwin	--	Spring tributary to Big Canyon	NE	SE	6	10N	11E	MD	360 gpd	Jan 1-Dec 31	Domestic	L-4369
14138	1/22/51	Harold H. and Lora C. Hixson	--	Bull Creek	SW	SE	29	11N	14E	MD	200 gpd	Mar 1-Nov 1	Domestic and fire protection	L-4878
14165	2/19/51	L. J. and E. Belle Esper	DL2N/8E-24J1	Knickerbocker Creek	NE	SE	24	12N	8E	MD	22 afa	Nov 1-Apr 1	Irrigation	L-4221
14193	3/14/51	United States Tahoe National Forest	DL2N/11E-9J1	Elliott Meadow Spring	SW	NE	9	15N	11E	MD	0.03 cfs	May 1-Nov 1	Irrigation and stockwatering	L-4112
14194	3/14/51	United States Tahoe National Forest	--	Elliott Ranch Spring	SE	NE	9	15N	11E	MD	0.08 cfs	May 1-Nov 1	Irrigation, domestic and stockwatering	L-4113
14195	3/14/51	United States Tahoe National Forest	--	Bear Spring	NE	NW	18	14N	13E	MD	2,925 gpd	June 1-Nov 1	Domestic and stockwatering	L-4964
14196	3/14/51	United States Tahoe National Forest	--	Chicken Hawk Spring	NW	SE	34	15N	11E	MD	600 gpd	May 1-Nov 15	Domestic and stockwatering	L-4126
14197	3/14/51	United States Tahoe National Forest	--	Orchard Spring	NE	SE	8	15N	11E	MD	3,750 gpd	May 1-Nov 15	Stockwatering	L-4127
14198	3/14/51	United States Tahoe National Forest	--	Secret House Spring	Lot	LO	1	15N	12E	MD	350 gpd	May 15-Nov 1	Domestic and stockwatering	L-4876
14207	3/21/51	Charles R. and Gertrude M. Cuddy	--	Cold Springs Creek	SE	SW	3	10N	10E	MD	0.125 cfs 1 afa	May 1-Oct 1	Irrigation, recreational and stockwatering	P-8641
14229	4/15/51	Our Lady of the Oaks, A California Corporation	DL2N/9E-9J1	Tributary to Clipper Creek	NW	NE	9	13N	9E	MD	100 afa	Oct 1-Apr 30	Domestic, recreational and fire protection	L-6653
14263	4/20/51	Stanley H. Bishop	--	Spring tributary to Tamarack Creek	SE	SE	9	11N	17E	MD	250 gpd	Jan 1-Dec 31	Domestic	L-4696
14370	6/27/51	Carol L. Marsh	--	Dirty Face Ravine	NE	SE	29	12N	8E	MD	0.07 cfs	May 1-Oct 31	Irrigation and stockwatering	L-5229
14377	6/28/51	Charles E. and Sasha Kromar	--	Rocky Canyon	SE	SE	7	11N	17E	MD	200 gpd	Apr 1-Nov 1	Domestic	L-4865
14409	7/27/51	United States El Dorado National Forest	--	Spring tributary to Strawberry Creek	SE	SW	20	11N	16E	MD	200 gpd	Apr 1-Oct 31	Domestic	L-4382
14452	8/29/51	United States El Dorado National Forest	--	Spring tributary to Bryan Creek	SE	NW	15	11N	17E	MD	600 gpd	May 1-Nov 30	Domestic and fire protection	L-4713
14463	9/4/51	Max H. Hoesel	DL0N/12E-1J1	Weber Creek	NW	SE	1	10N	12E	MD	10 afa	Oct 1-Mar 31	Recreational	L-5562
14515	10/8/51	Rudolph and Ora Niegel	DL2N/8E-25B1	Knickerbocker Canyon	NW	NE	25	12N	8E	MD	14.3 afa	Nov 1-May 1	Irrigation	L-4798
14518	10/11/51	Silver Fork Improvement Club, Inc.	DL1N/15E-28F1	Silver Fork American River	SW	SE	28	11N	15E	MD	0.1 cfs	Jan 1-Dec 31	Domestic, recreational and fire protection	P-9744
14603	12/14/51	Robert L. Jung	DL0N/10E-11C1	Tributary to Hangtown Creek	NE	NW	11	10N	10E	MD	15 afa	Oct 15-May 1	Irrigation and recreational	L-5587
14651	1/21/52	Valerie Goodman	--	Weber Creek	SE	NW	14	10N	10E	MD	1,800 gpd	May 1-Oct 31	Domestic and stockwatering	L-5139
14662	1/28/52	United States Bureau of Reclamation	DL0N/7E-24G1	American River	SW	NE	24	10N	7E	MD	300,000 afa	Oct 1-July 1	Power	P-11318
14708	3/11/52	William G. Meagher	--	Big Canyon Creek	SE	SE	6	10N	11E	MD	10,000 gpd	Apr 1-Nov 1	Domestic, recreational and fish culture	L-6282
14778	4/25/52	Nick J. Schubin	DL1N/9E-36F1	Tributary to Weber Creek	SW	NE	36	11N	9E	MD	90 afa	Oct 1-June 1	Irrigation, domestic and stockwatering	P-9141
14794	5/5/52	Ouy G. and George W. Foulke	--	Freeman Creek	NE	NW	9	16N	15E	MD	3.0 cfs	May 1-Nov 15	Irrigation and domestic	P-9291
14902	7/10/52	United States El Dorado National Forest	--	Aspen Creek	SE	SE	10	11N	17E	MD	550 gpd	May 1-Nov 15	Domestic and fire protection	L-4533
14963	8/12/52	Sacramento Municipal Utility District	--	Silver Creek	SE	SW	20	12N	14E	MD	400 cfs	Jan 1-Dec 31	Power	P-10705
15028	9/23/52	William J. and Ruth E. White	DL2N/8E-13H1	Salt Creek	NE	SE	13	12N	8E	MD	15 afa	Oct 1-June 1	Irrigation and recreational	L-5878

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*	
					1/4	1/4	Sec.	Tp.	R.	B. & M.					
15035	9/26/52	State of California Division of Highways	—	Spring tributary to South Fork American River	NE	NW	18	11N	18E	MD	MD	5,000 gpd	Jan 1-Dec 31	Domestic and fire protection	L-5643
15066	10/28/52	Morton S. and Marie Martin	—	Spring tributary to New York Canyon	NE	SE	3	15N	13E	MD	MD	800 gpd	June 1-Nov 1	Domestic	P-10539
15067	10/28/52	Morton S. and Marie Martin	—	Spring tributary to New York Canyon	SW	NE	3	15N	13E	MD	MD	600 gpd	Jan 1-Dec 31	Domestic	P-10540
15140	12/24/52	Otto Schaefer	—	Spring tributary to South Fork American River	NW	NE	18	11N	17E	MD	MD	7,200 gpd	Jan 1-Dec 31	Domestic	P-9467
15210	2/25/53	Jewel E. French and Mary E. Westerfield	—	Audrain Spring	SW	SW	1	11N	17E	MD	MD	12,500 gpd	Jan 1-Dec 31	Domestic	P-9252
15234	3/12/53	H. E. West, DBA Placerville Lumber Company	—	Spring tributary to Long Canyon	NE	SW	25	11N	12E	MD	MD	0.1 cfs	Jan 1-Dec 31	Domestic and industrial	L-4860
15252	3/24/53	Euall Y. Gray	D10N/9E-25D1	Kalley Creek	NW	NW	25	10N	9E	MD	MD	15 afa	Nov 1-May 1	Irrigation	P-9238
15346	5/18/53	Stanley W. Bishop	—	Spring tributary to Tamarack Creek	SE	SE	9	11N	17E	MD	MD	1,000 gpd	Jan 1-Dec 31	Irrigation and stockwatering	P-9640
15351	5/19/53	John J. Couperue	—	Tamarack Creek	SW	SE	9	11N	17E	MD	MD	400 gpd	June 1-Nov 1	Domestic	L-5669
15438	7/29/53	Marilyn Martin Hoffman	—	Tributary to Cliff Canyon	NE	NE	10	15N	13E	MD	MD	30 cfs	Jan 1-Dec 31	Mining	P-10337
15489	8/27/53	Herbert N. and Betty E. Bernd	D10N/12E-8Q1	Spring tributary to China Creek	SE	SW	8	10N	12E	MD	MD	0.5 cfs	Jan 1-Dec 31	Irrigation, domestic and stockwatering	P-9698
15490	8/31/53	United States El Dorado National Forest	D12N/16E-26Q1	Smith Lake	NW	SW	26	12N	16E	MD	MD	55 afa	Dec 1-July 1	Recreational	L-4996
15492	8/31/53	United States El Dorado National Forest	D12N/16E-24D1	Clyde Lake	NW	NW	24	12N	16E	MD	MD	54 afa	Dec 1-July 1	Recreational	L-4997
15493	8/31/53	United States El Dorado National Forest	D12N/17E-32N1	Tom Lake	SW	SW	32	12N	17E	MD	MD	30 afa	Dec 1-July 1	Recreational	L-4998
15494	8/31/53	United States El Dorado National Forest	D12N/16E-32Q1	Wrights Lake	SW	NE	32	12N	16E	MD	MD	160 afa	Dec 1-July 1	Recreational	L-4999
15495	8/31/53	United States El Dorado National Forest	D12N/17E-32P1	Hopi Lake	SE	SW	32	12N	17E	MD	MD	80 afa	Dec 1-July 1	Recreational	L-5000
15496	8/31/53	United States El Dorado National Forest	D12N/16E-33E1	Lois Lake	SW	NE	3	12N	16E	MD	MD	85.4 afa	Dec 1-July 1	Recreational	L-5001
15497	8/31/53	United States El Dorado National Forest	D13N/16E-33N1	Lake Schmidell	SE	SE	33	13N	16E	MD	MD	203.6 afa	Dec 1-July 1	Recreational	L-5002
15498	8/31/53	United States El Dorado National Forest	D12N/16E-35E1	Lynx Lake	NW	NE	35	12N	16E	MD	MD	40 afa	Dec 1-July 1	Recreational	L-5003
15499	8/31/53	United States El Dorado National Forest	D13N/16E-6E1	Buck Island Lake	NE	SW	6	13N	16E	MD	MD	110 afa	Dec 1-July 1	Recreational	L-6199
15500	8/31/53	United States El Dorado National Forest	D12N/16E-9D1	Lawrence Lake	NW	NW	9	12N	16E	MD	MD	38 afa	Dec 1-July 1	Recreational	L-5004
15501	8/31/53	United States El Dorado National Forest	—	Spider Lake	SE	NE	34	14N	15E	MD	MD	190 afa	Dec 1-July 1	Recreational	L-6098
15503	8/31/53	United States El Dorado National Forest	D12N/16E-8H1	Barrett Lake	SW	NW	9	12N	16E	MD	MD	30 afa	Dec 1-July 1	Recreational	L-5005
15506	8/31/53	United States El Dorado National Forest	D13N/16E-36A1	Middle Volma Lake	NE	NE	36	13N	16E	MD	MD	148.4 afa	Dec 1-July 1	Recreational	L-5006
15509	8/31/53	United States El Dorado National Forest	D10N/18E-34E1	Winnemucca Lake	SW	NW	34	10N	18E	MD	MD	160 afa	Nov 1-July 1	Recreational	L-6025
15512	8/31/53	United States El Dorado National Forest	D12N/16E-23Q1	Island Lake	SW	NW	23	12N	16E	MD	MD	60 afa	Dec 1-July 1	Recreational	L-5011
15513	8/31/53	United States El Dorado National Forest	D12N/16E-22H1	Upper Twin Lake	SE	SE	22	12N	16E	MD	MD	21 afa	Dec 1-July 1	Recreational	L-4985

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
15514	8/31/53	United States El Dorado National Forest	DL2N/16E-22Q	Lower Twin Lake	SE	SE	22	12N	16E	MD	26 afa	Dec 1-July 1	Recreational	L-5164
15522	9/2/53	Brian G. and Emma Mae Hughes	DL4N/10E-31Q	Owl Creek Tributary to Owl Creek	Lot	3	31	14N	10E	MD	0.63 cfe	Apr 1-Nov 1	Irrigation and stockwatering	P-10016
15562	10/2/53	Laverne I. Shamberger	---	Bull Creek	SW	SE	29	11N	14E	MD	200 gpd	June 1-Oct 1	Domestic	L-5155
15616	11/23/53	United States El Dorado National Forest	DL3N/16E-6R1	Rockboard Lake	SW	SE	6	13N	16E	MD	440 afa	Dec 1-July 1	Recreational	L-6200
15623	11/27/53	Ernest K. and Juanita Richardson	DL1N/17E-9K1	Tamarack Flat Creek	SW	SE	9	11N	17E	MD	0.04 cfe	Jan 1-Dec 31	Domestic and fire protection	P-10214
15634	12/4/53	William Edmunds and William C. Keating, Jr.	---	Spring tributary to Weber Creek	SW	NW	14	10N	9E	MD	300 gpd	Jan 1-Dec 31	Mining and domestic	L-5156
15662	12/28/53	Robert C. and Fay Spence	DL1N/10E-18M1	South Fork American River	SW	SW	18	11N	10E	MD	.014 cfs	Apr 1-Oct 1	Irrigation	L-6523
15705	1/28/54	State of California Department of Fish and Game	DL1N/15E-23M1	South Fork American River	SW	SW	23	11N	15E	MD	0.72 cfe	May 1-Oct 15	Fish culture	L-5998
15785	3/18/54	Charles M. and Gail Muskevitch	DL2N/8E-34D1	East Branch Norman Ravine	NW	NW	34	12N	8E	MD	0.25 cfe	Apr 1-Nov 1	Irrigation	P-9915
15804	3/30/54	Joe and Lillian Vicini	DL1N/9E-16Q1 DL1N/9E-16Q2	Tributary to South Fork American River	NE	NE	21	11N	9E	MD	15 afa	Nov 1-Apr 1	Irrigation and stockwatering	P-9984
			DL1N/9E-16Q2	Tributary to South Fork American River	SE	SE	16	11N	9E	MD	0.37 cfe	May 1-July 15		
			DL1N/9E-21A1	Burnt Shanty Creek	NE	SE	21	11N	9E	MD	20 afa	Nov 1-Apr 1		
15918	6/18/54	Ora H. Goodwin	---	Spring tributary to Big Canyon	NE	SE	6	10N	11E	MD	600 gpd	Jan 1-Dec 31	Domestic	L-5630
15928	6/25/54	E. W. Little	---	Whaler Creek	SW	NW	19	12N	12E	MD	0.01 cfe	Jan 1-Dec 31	Mining and milling	P-10229
15929	6/25/54	E. W. Little	---	Whaler Creek	SW	NW	19	12N	12E	MD	6.25 cfe	Jan 1-Dec 31	Power	P-11037
15936	6/29/54	Blanche A. and George A. Ambrose	---	Chuck Ravine	NE	SE	20	11N	10E	MD	200 gpd	Jan 1-Dec 31	Domestic	L-4984
15953	7/26/54	Emma Davis Pepini	---	South Fork American River	NE	NE	18	11N	10E	MD	7,200 gpd	Apr 1-Oct 1	Irrigation	L-5786
16004	8/19/54	Albert and Hazel Talkin	---	Bryson Creek	SE	NE	10	11N	17E	MD	500 gpd	Mar 1-Nov 1	Domestic	L-5263
16037	9/8/54	Charles M. and Lorraine R. Merrill	DL1N/10E-28A1	Tributary to South Fork American River	NW	SE	28	11N	10E	MD	.016 cfe	Apr 1-Oct 1	Irrigation	L-5822
16055	9/20/54	Francis G. and Grace Noel	---	Tamarack Creek	SW	SE	9	11N	17E	MD	3,000 gpd	Jan 1-Dec 31	Domestic and fire protection	P-10217
16123	11/4/54	Stanley W. Bishop	---	Spring tributary to Tamarack Creek	SE	SE	9	11N	17E	MD	2,000 gpd	Jan 1-Dec 31	Irrigation, domestic and stockwatering	P-10244
16212	1/17/55	Georgetown Divide Public Utility District	---	Pilot Creek	SE	NW	4	12N	12E	MD	50 cfe	Nov 1-Aug 1	Irrigation, domestic and stockwatering	P-11304
			---	Beacon Canyon	NW	SE	4	12N	12E	MD	5 cfe			
			---	Deep Canyon	SE	SE	31	13N	12E	MD	3 cfe			
			---	Tributary to Pilot Creek	NE	NW	6	12N	12E	MD	2 cfe			
			---	Tributary to Pilot Creek	NW	SW	31	13N	12E	MD	1 cfe			
			---	Tributary to Pilot Creek	SE	NE	36	13N	11E	MD	1 cfs			
			---	Tributary to Pilot Creek	NE	NE	26	13N	11E	MD	1 cfs			
			---	Third Otter Creek	SE	NE	23	13N	11E	MD	3 cfe			
			---	Second Otter Creek	SW	SE	23	13N	11E	MD	3 cfe			
			---	Second Otter Creek	SE	SW	23	13N	11E	MD	1 cfe			
			---	First Otter Creek	SE	NW	26	13N	11E	MD	2 cfe			
			---	First Otter Creek	NE	SW	26	13N	11E	MD	1 cfa			
16233	2/10/55	Robert J. and Evelyn L. Ottow	---	Tributary to Penobscot Creek	SW	SW	12	12N	9E	MD	1,000 gpd 15 afa	Nov 1-Mar 31	Domestic and recreational	P-10187
16302	4/6/55	Donald P. and Dorothy K. Sevrens	---	Tributary to Traverse Creek	SE	NW	26	12N	10E	MD	0.34 cfe	May 1-Nov 1 Jan 1-Dec 31	Irrigation Stockwatering	P-10250

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 [Filed with State Water Rights Board as of October 1, 1963]

Application Number	Date Filed	Present Owner	DWR Diversion Number	Sources	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status*
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
16368	5/20/55	Jack W. and Marcelle Greene	010N/10E-18C1	Indian Creek	NE	NW	18	10W	10E	MD	300 afe	Nov 1-June 15	Irrigation, recreational and stockwatering	P-10290
16377	5/16/55	Pearley A. Monroe, Estate of	--	Burnt Shanty Creek	SE	NE	22	11N	9E	MD	0.25 cfs 3 afa	Mar 1-Nov 1 Jan 1-Dec 31	Irrigation and stockwatering	P-10257
16378	5/16/55	Pearley A. Monroe, Estate of	--	Tributary to Burnt Shanty Creek	SW	NE	27	11N	9E	MD	0.75 cfe 4 afa	Mar 1-Nov 1 Jan 1-Dec 31	Irrigation and domestic	P-10258
16402	6/2/55	Golden Empire Council BSA Troop No. 1	--	Tributary to Cody Lake	Lot 4	10W	16E	10W	16E	MD	350 gpd	July 1-Sept 1	Domestic	L-6008
16490	7/28/55	Harry and Wilhelmina Hoesel	--	Tunnel tributary to Devils Canyon	Lot 4	10W	16E	10W	16E	MD	2,150 gpd	July 1-Sept 1	Domestic	L-6008
16508	8/9/55	Jack A. and Mary A. Baker	--	Spring tributary to South Fork American River	SW	SE	28	14W	10E	MD	0.063 cfs	Jan 1-Dec 31	Irrigation and domestic	P-11079
16517	8/11/55	Donly Gray	D16N/12E-26C1	Tributary to North Fork American River	NW	SE	16	11N	17E	MD	225 gpd	June 1-Oct 15	Domestic	L-5937
16532	8/18/55	Edward C. Zorn	--	Tributary to North Fork American River	NE	NW	26	16W	12E	MD	1.3 cfe	Apr 1-Nov 30	Irrigation, domestic and other miscellaneous uses	P-10278
16544	8/23/55	Albert V. and Mary Campbell	--	Tributary to North Fork American River	SW	SE	29	12W	8E	MD	0.50 cfe	Mar 1-Nov 30	Irrigation and fish culture	P-10508
16564	8/31/55	United States El Dorado National Forest	--	Tributary to South Fork American River	SE	SE	21	14W	9E	MD	2,900 gpd	May 1-Oct 31	Irrigation	L-6167
16594	9/12/55	Garland D. and Shirley Prey	--	Tributary to South Fork American River	NW	SE	25	11W	14E	MD	250 gpd	Mar 1-Dec 1	Domestic and fire protection	L-5531
16600	9/14/55	Joe and Lillian Vicini	--	Tributary to Weber Creek	NE	SW	11	10W	11E	MD	250 gpd	Mar 1-Dec 1	Domestic and fire protection	L-5531
16618	9/22/55	W. E. Wilson	015N/12E-35G1	South Fork American River	SW	SW	16	11N	9E	MD	6,500 gpd 0.64 afa	Apr 1-July 1 Nov 1-June 30	Irrigation	L-5980
16661	10/10/55	Irlie Colvin	--	Grouse Creek	SE	NE	35	15W	12E	MD	40 cfs	Jan 1-Dec 31	Mining and domestic	P-11362
16688	10/24/55	Georgetown Divide Public Utility District	--	Big Mosquito Creek	SE	NW	24	14W	12E	MD	1 cfe	Jan 1-Dec 31	Mining and domestic	P-10981
16691	10/26/55	United States Tahoe National Forest	--	Orion Creek	SE	NE	16	12N	13E	MD	30 cfs 4,000 afa	Nov 1-Aug 1	Mining and domestic stockwatering	P-11306
16837	1/20/56	Archib and Raymond E. Lawyer	--	Fulda Spring	SE	NE	1	16W	11E	MD	0.025 cfs	May 1-Nov 30	Irrigation and domestic	P-10621
16885	2/8/56	William C. Fredericks	D10W/10E-33A1	South Fork American River	NE	NW	11	11W	9E	MD	1 cfe	Apr 1-Oct 30	Irrigation, domestic and stockwatering	P-10907
16891	2/14/56	Julie Louise Stafford	--	Tributary to Slate Creek	NE	NE	33	10W	10E	MD	15 afa	Nov 1-Apr 1	Irrigation, recreational and stockwatering	P-10910
16945	3/15/56	A. E. Sr., A. E., Jr., and N. R. Trevis	--	Tributary to Weber Creek	SE	NW	24	10W	11E	MD	1 afa	Oct 1-May 31	Irrigation and stockwatering	P-10691
16997	4/9/56	William J. and Beulah M. Swift	--	Spring tributary to South Fork American River	SE	NE	27	11W	14E	MD	250 gpd	May 1-Oct 31	Domestic	P-10764
17085	5/10/56	George and Alleen G. Horetayer	--	Tributary to Clippert Creek	NE	SE	8	13W	9E	MD	1,000 gpd	Jan 1-Dec 31	Domestic and fire protection	L-6116
17108	5/28/56	R. M. and Eleie W. Enderlin	--	Spring tributary to South Fork American River	SW	SE	13	11N	10E	MD	550 gpd	Jan 1-Dec 31	Domestic	L-6551
17109	6/1/56	Karl R. and Minnie O. Tobener	--	Bunch Canyon	SW	NW	14	14W	9E	MD	100 afa	Nov 15-Mar 31	Irrigation and stockwatering	P-11013
17203	7/31/56	R. L. Gordon and Dorotee Swanson	D13N/9E-35U1	Spring tributary to Iowa Canyon	SW	NW	35	11N	12E	MD	3,000 gpd 0.18 afa	May 1-Nov 1 Sept 1-May 1	Recreational	L-6211
17207	8/3/56	Pearley A. Monroe	--	American Canyon	NE	SE	35	13N	9E	MD	0.13 cfe	May 1-Oct 31	Irrigation	P-10868
17304	10/3/55	United States Tahoe National Forest	--	Tributary to Burnt Shanty Creek	SW	NE	27	11N	9E	MD	35 afa	Sept 1-May 15	Irrigation, recreational and stockwatering	P-10885
				Powderhorn Creek	SE	NW	34	15W	15E	MD	0.2 cfe	May 1-Nov 30	Irrigation and domestic	P-11837

TABLE C-1 (CONTINUED)
**APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT**
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion				Amount	Period of Diversion	Purpose	Status		
					1/4	1/4	Sec.	Tp.					R.	S. & M.
17357	11/16/56	N. E. West, DBA Fluorville Lumber Company	DLN/12E-25LL	Spring tributary to Long Canyon	NE	SW	25	11N	12E	MD	0.2 cfs	Jan 1-Dec 31	Domestic and industrial	P-10953
17370	11/23/56	Diamond Springs Limestone Company	DLN/9E-6CL	Middle Fork American River	NE	SW	6	12N	9E	MD	0.027 cfs	Jan 1-Dec 31	Industrial	P-10922
17371	11/23/56	Diamond Springs Limestone Company	DLN/9E-6CL	Middle Fork American River	NE	SW	6	12N	9E	MD	0.027 cfs	Jan 1-Dec 31	Mining	L-5824
17382	12/7/56	Walter N. and Marjorie Kurtz	DLN/9E-35BL	Tributary to Weber Creek	NW	NE	35	11N	9E	MD	19 afa	Sept 15-May 15	Irrigation, recreational and stockwatering	P-10898
17398	12/27/56	Nector Williamson	DLN/9E-35LL	Tributary to Weber Creek	NE	SW	35	11N	9E	MD	49.3 afa	Oct 15-June 1	Irrigation, recreational, stockwatering and fish culture	L-6893
17411	12/27/56	Edward S. and Theresa G. Markovich	DLN/9E-27HL	Brushy Creek	SE	NE	27	14N	9E	MD	20 afa	Nov 1-Apr 30	Recreational	L-6810
17447	2/1/57	Robert J. and Evelyn L. Ottow	--	Tributary to Penobscot Creek	NW	SW	12	12N	9E	MD	0.05 cfs 19 afa	Oct 1-May 31	Irrigation and recreational	L-6586
17448	2/1/57	Jessie J. Crowder and Carl C. Davis	--	Warner Ravine	NW	NW	18	12N	9E	MD	40 afa	Nov 1-May 31	Domestic and other miscellaneous uses	P-11104
17461	2/8/57	Russell M. and Lucille A. Perry	--	Spring tributary to Indian Creek	NW	NW	33	15N	10E	MD	300 gpd	Jan 1-Dec 31	Domestic	L-6179
17517	3/18/57	United States El Dorado National Forest	--	Hawley Spring	NW	NE	18	11N	18E	MD	15,000 gpd	Jan 1-Dec 31	Domestic, recreational and fire protection	P-11265
17521	3/22/57	United States El Dorado National Forest	--	Cerie Creek	SE	SW	2	13N	14E	MD	10,000 gpd	May 1-Oct 31	Domestic	P-11280
17562	4/23/57	L. F. McAllister	--	Spring tributary to Indian Creek	SW	SE	32	15N	10E	MD	400 gpd	Jan 1-Dec 31	Domestic	L-6183
17846	10/11/57	United States El Dorado National Forest	--	Rocky Canyon	SE	SE	7	11N	17E	MD	300 gpd	May 1-Nov 1	Domestic	L-6935
18022	3/3/58	United States El Dorado National Forest	--	Spring tributary to Silver Fork American River	SE	NE	28	10N	17E	MD	10,000 gpd	Jan 1-Dec 31	Domestic	P-11627
18053	3/17/58	Morris E. and Lucille A. Minkelman	--	Tributary to Weber Creek	NW	NW	23	10N	11E	MD	6 afa	Sept 15-Apr 1	Irrigation and fish culture	P-11628
18063	3/27/58	California Water Commission	--	Silver Fork American River			22	10W	16E	MD	300 cfs 70,000 afa	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	Inc.
18064	3/27/58	California Water Commission	--	Silver Fork American River			22	10W	16E	MD	195 cfs 70,000 afa	Jan 1-Dec 31	Power	Inc.
18065	3/27/58	California Water Commission	--	Alder Creek			8	10W	15E	MD	195 cfs 30,000 afa	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	Inc.
18066	3/27/58	California Water Commission	--	Alder Creek			8	10W	15E	MD	195 cfs 30,000 afa	Jan 1-Dec 31	Power	Inc.
18067	3/27/58	California Water Commission	--	South Fork American River			26	11N	14E	MD	400 cfs 31,000 afa	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	Inc.
18068	3/27/58	California Water Commission	--	South Fork American River			26	11N	14E	MD	400 cfs 31,000 afa	Jan 1-Dec 31	Power	Inc.
18069	3/27/58	California Water Commission	--	South Fork American River	NW	NW	35	11N	15E	MD	100 cfs 11,000 afa	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	Inc.
18070	3/27/58	California Water Commission	--	South Fork American River	NW	NW	35	11N	15E	MD	100 cfs 11,000 afa	Jan 1-Dec 31	Power	Inc.
18071	3/27/58	California Water Commission	--	South Fork American River	NE	NE	19	11N	12E	MD	500 cfs 75,000 afa	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	Inc.
18072	3/27/58	California Water Commission	--	Fium Creek	SE	SE	32	11N	14E	MD	10,000 afa	Jan 1-Dec 31	Municipal and industrial	Inc.

P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.				
18084	4/7/58	Placer County Water Agency	--	Duncan Canyon	NW	SW	24	15N	13E	MD	150 cfs 25,000 afa	Nov 1-July 1	Power and recreational	P-13855
				Middle Fork American River	NW	NE	36	15N	13E	MD	290 cfs 95,000 afa			
				Abicton River	SW	SE	16	14N	14E	MD	675 cfs 129,000 afa	Jan 1-Dec 31		
				South Fork Long Canyon	SW	NE	24	14N	13E	MD	400 cfs			
				North Fork Long Canyon	NW	SW	24	14N	13E	MD	100 cfs			
				Middle Fork American River	NW	NE	35	14N	12E	MD	1,000 cfs			
				Middle Fork American River	NW	NW	3	13N	11E	MD	1,225 cfs 6,300 afa	Nov 1-July 1		
18085	4/7/58	Placer County Water Agency	--	North Fork American River	NE	SW	23	12N	8E	MD	1,225 cfs	Nov 1-July 1	Irrigation, domestic and other miscellaneous uses	P-13856
				Duncan Canyon	NW	SW	24	15N	13E	MD	25,000 afa			
				Middle Fork American River	NW	NE	36	15N	13E	MD	95,000 afa			
				Abicton River	SW	SE	16	14N	14E	MD	129,000 afa			
18086	4/8/58	Placer County Water Agency	--	Duncan Canyon	NW	SW	24	15N	13E	MD	50 cfs	Nov 1-July 1	Power and recreational	P-13857
				Middle Fork American River	NW	NE	36	15N	13E	MD	110 cfs			
				Abicton River	SW	SE	16	14N	14E	MD	10,000 afa			
				South Fork Long Canyon	SW	NE	24	14N	13E	MD	155 cfs			
				North Fork Long Canyon	NW	SW	24	14N	13E	MD	36,000 afa			
				Middle Fork American River	NW	SW	4	14N	13E	MD	15,000 afa			
				Middle Fork American River	NW	SW	1	13N	10E	MD	7,700 cfs			
18087	4/8/58	Placer County Water Agency	--	North Fork American River	NE	SW	23	12N	8E	MD	800 cfs	Nov 1-July 1	Irrigation, domestic and other miscellaneous uses	P-13858
				Middle Fork American River	NW	NE	36	15N	13E	MD	10,000 afa			
				Abicton River	SW	SE	16	14N	14E	MD	36,000 afa			
				South Fork Long Canyon	SW	NE	24	14N	13E	MD	13,000 afa			
				North Fork Long Canyon	NW	SW	24	14N	13E	MD	7,000 afa			
18095	4/17/58	Quintette Service	--	Spring tributary to Wheeler Creek	SW	NE	7	12N	12E	MD	0.12 cfs	Jan 1-Dec 31	Domestic and recreational	P-11572
18106	4/28/58	Truett B. and Dorothy I. Hadsorath	--	Tributary to Traverse Creek	NE	NW	1	11N	10E	MD	6 afa	Oct 1-Mar 31	Irrigation	L-6767
18131	5/9/58	Philip E. Hartwick	--	Brush Canyon Creek	SE	SE	32	11N	12E	MD	98 afa	Oct 15-Apr 15	Irrigation and fish culture	P-11606
18157	5/26/58	Fay Ruplej Gumbo	D10N/11E-1101	Tributary to Weber Creek	NW	SW	11	10N	11E	MD	0.22 cfs 105 afa	Nov 1-Apr 30	Irrigation	P-11643
18158	5/26/58	Fay Ruplej Dunby	D10N/11E-1102 D10N/11E-1101	Spring tributary to Weber Creek	NE	NE	11	10N	11E	MD	0.18 cfs	May 1-Oct 30	Irrigation	P-11644
				Tributary to Weber Creek	SW	NE	11	10N	11E	MD	25 afa	Nov 1-Apr 30		
18182	6/13/58	George S. and Tessie A. Bromson	--	Tunnel tributary to White Rock Creek	NE	SE	32	11N	11E	MD	400 gpd	Jan 1-Dec 31	Domestic	L-6484
18189	6/18/58	LeRoy and Jewell Kahl	D1.2N/10E-28E1	Coloma Canyon	NW	NE	28	12N	10E	MD	36 afa	Nov 1-May 1	Irrigation, stockwatering and fire protection	L-6789
18196	6/25/58	Western States Trail Hide, Inc., et al	--	Spring tributary to Middle Fork American River	NE	NW	24	13N	9E	MD	0.05 cfs	Jan 1-Dec 31	Domestic, recreational and stockwatering	P-12706
18211	7/9/58	Malcolm S. and Maude E. Dixon	--	Green Spring Creek	NE	NE	24	10N	8E	MD	10 afa	Dec 1-June 30	Irrigation and stockwatering	P-11657
				Spring tributary to New York Creek	SW	SE	14	10N	8E	MD	8,000 gpd	May 1-Sept 1		
18291	8/27/58	James L. Murphy, et al	--	Brimstone Creek	SE	SW	5	14N	11E	MD	12.5 cfs	Nov 1-May 1	Irrigation and domestic	P-13583
				Shirteall Canyon	SE	NW	8	14N	11E	MD	2,000 afa			
				Cottage Home Creek	NE	SW	6	14N	11E	MD	12.5 cfs			
				Mill Creek	NW	SE	7	14N	11E	MD	12.5 cfs			
				Temperance Creek	SW	SE	7	14N	11E	MD	12.5 cfs			
				Kent Creek	NW	NW	18	14N	11E	MD	12.5 cfs			
				Blackhawk Canyon	NE	SW	13	14N	10E	MD	12.5 cfs			
				Second Brushy Canyon	SE	SE	23	14N	10E	MD	12.5 cfs			
				First Brushy Canyon	SW	NW	26	14N	10E	MD	12.5 cfs			
18304	9/8/58	Manly P. and Elsie N. Bishop	--	Spring tributary to South Fork American River	SW	NE	20	11N	11E	MD	350 gpd	Jan 1-Dec 31	Domestic	L-6615
18320	9/16/58	Melvin F. and Mary J. Peterson	--	China Creek	SE	NE	13	10N	11E	MD	5,000 gpd	Jan 1-Dec 31	Domestic and stockwatering	P-11778

APPLICATIONS TO APPROPRIATE WATER IN AMERICAN RIVER HYDROGRAPHIC UNIT (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion				Amount	Period of Diversion	Purpose	Status		
					1/4	1/4	Sec.	Tp.					R.	B. & M.
18363	10/7/58	Francis H. Elliot	--	Slat Creek	NE	SE	23	12N	10N	MD	0.15 cfs	Nov 1-May 1	Irrigation, domestic and stockwatering	P-11791
18400	11/6/58	Kenneth G. Cotton	--	South Fork American River	SW	NW	16	11N	17E	MD	10,000 gpd	Nov 1-Apr 30	Domestic	P-11994
18465	1/9/59	La Verne I. Shumberger	--	Spring tributary to South Fork American River	SW	SE	29	11N	14E	MD	200 gpd	May 5-Nov 15	Domestic	L-4817
18485	1/21/59	N. Jon and H. Adelle Nelson	--	China Creek	NW	SE	13	10N	11E	MD	2,750 gpd	Jan 1-Dec 31	Irrigation and domestic	P-12089
18487	1/23/59	Ralph K. and Cassie Wilkine	--	Spring tributary to Hangtown Creek	NE	SE	17	10N	11E	MD	12,500 gpd	Jan 1-Dec 31	Irrigation, domestic and other miscellaneous uses	P-11895
18512	1/29/59	Al and Myrtle J. Rumpel	D.24/11E-1871	Tributary to Bear Creek	SE	SW	18	12N	11E	MD	0.075 cfs 25 afa	Jan 1-Dec 31 Nov 15-May 15	recreational and fish culture	P-12002
18515	2/3/59	Stanley W. Bishop	--	Spring tributary to South Fork American River	SE	SE	9	11N	17E	MD	0.04 cfs	Jan 1-Dec 31	Irrigation and domestic	P-13834
18541	2/19/59	J. R. Hodgson	--	Tributary to Blue Canyon Creek	NE	NW	1	16N	11E	MD	0.13 cfs 110 afa 0.15 cfs 110 afa	Jan 1-Dec 31 Nov 1-May 15 Jan 1-Dec 31 Nov 1-May 15	Irrigation and domestic	P-12027
18551	2/24/59	Foresthill Public Utility District	D16N/11E-101	Blue Canyon Creek	NE	NW	17	14N	11E	MD	1 cfs	Jan 1-Dec 31	Municipal	P-13584
18559	2/26/59	D. P. Kussnerf	--	Tributary to South Fork American River	SW	NE	35	11N	13E	MD	8,000 gpd	Jan 1-Dec 31	Domestic and fire protection	P-12063
18566	3/4/59	Donald P. and Emily N. Duesonville	--	Spring tributary to Slat Creek	SE	SE	32	10N	10E	MD	180 gpd	Jan 1-Dec 31	Irrigation, recreational, stockwatering and fish culture	L-6634
18572	3/6/59	Mark Hayden	--	Tributary to Slat Creek	SE	NE	32	10N	10E	MD	0.9 afa	Nov 1-May 15	Domestic, recreational and stockwatering	P-11930
18579	3/9/59	Sam and Maria Virga	--	Spring tributary to Tennessee Creek	SW	NW	6	9N	10E	MD	7,000 gpd	Jan 1-Dec 31	Domestic, recreational and stockwatering	P-11931
18590	3/12/59	Stockton Box Company	--	Spring tributary to Tennessee Creek	SE	SE	1	9N	9E	MD	7,000 gpd	May 1-Oct 15	Irrigation	P-13585
18657	4/21/59	James J. and Marjorie P. Price	D14N-10E-3501 D14N-10E-3441	Spring tributary to Tennessee Creek	SW	SW	36	10N	9E	MD	7,000 gpd	Oct 15-May 1	Industrial and domestic	L-6495
18658	4/21/59	Harold H. and Elsie M. Enzler	--	Spring tributary to Tennessee Creek	SW	SW	31	10N	10E	MD	15 afa	Dec 1-May 1	Irrigation and domestic	L-6624
18684	4/30/59	Brian B. and Emma Hughes	--	Spring tributary to Owl Creek	SE	NE	17	10N	11E	MD	175 gpd	Jan 1-Dec 31	Domestic	P-12034
18685	4/30/59	Bernard P. and Helen A. Wohlberg	--	Spring tributary to Jayhawk Creek	NE	NW	15	10N	9E	MD	2,000 gpd	Jan 1-Dec 31	Irrigation and domestic	P-12083
18721	5/20/59	United States Bureau of Reclamation	--	Spring tributary to White Oak Creek	SW	SW	15	10N	9E	MD	2,000 gpd	Jan 1-Dec 31	Domestic and stockwatering	Pending
18722	5/20/59	United States Bureau of Reclamation	--	North Fork American River	NE	NW	26	12N	8E	MD	100 cfs 170,000 afa	Nov 1-July 1	Irrigation and domestic	Pending
18723	5/20/59	United States Bureau of Reclamation	--	North Fork American River	NE	NW	26	12N	8E	MD	100 cfs 800,000 afa	Nov 1-July 1	Municipal and other miscellaneous uses	Pending
18759	6/3/59	Phillip E. Hartwick	--	North Fork American River	NE	NW	26	12N	8E	MD	6,300 cfs 170,000 afa	Nov 1-July 1	Power and other miscellaneous uses	Pending
18807	6/17/59	Harold J. Smith	--	Brushy Canyon	SW	NE	33	11N	12E	MD	0.25 cfs 0.25 cfs 49 afa	Apr 1-Oct 1 Apr 1-Oct 1 Dec 1-Apr 1	Irrigation	P-12130
18929	8/20/59	Christian Churches of N. California and W. Nevada	--	South Fork American River	NE	NE	18	11N	17E	MD	200 gpd	Nov 15-Apr 1	Domestic	L-6790
18930	8/20/59	Christian Churches of N. California and W. Nevada	--	Spring tributary to El Dorado Canyon	NE	SE	15	14N	11E	MD	0.22 cfs	Jan 1-Dec 31	Domestic and recreational	P-12275
			--	Spring tributary to Poor Mans Canyon	NW	NW	22	14N	11E	MD	0.22 cfs	Jan 1-Dec 31	Domestic and recreational	P-12276
			--	Spring tributary to Volcano Canyon	NE	NE	16	14N	11E	MD	0.11 cfs	Jan 1-Dec 31	Domestic and recreational	P-12276

* P - Indicates permit number of application approved. I - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion				Amount	Period of Diversion	Purpose	Status*								
					1/4	1/4	Sec.	Tp.					R.	B. S. M.						
18943	8/26/59	Placer County Water Agency	--	West Branch El Dorado Canyon	NE	SE	23	15N	11E	MD	19 cfs	Irrigation, domestic and stockwatering	Inc.							
					NW	SE	34	15N	11E	MD	1,775 afa									
					SE	SE	4	14N	11E	MD	980 afa									
					NW	NE	4	14N	11E	MD	19 cfs									
					NE	SE	33	15N	11E	MD	325 afa									
					SW	NE	33	15N	11E	MD	19 cfs									
					NE	NE	33	15N	11E	MD	215 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	355 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	310 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	28	15N	11E	MD	620 afa									
					SE	SE	21	15N	11E	MD	19 cfs									
					SE	NE	20	15N	11E	MD	630 afa									
					NE	SE	17	15N	11E	MD	19 cfs									
					NW	SE	24	15N	10E	MD	530 afa									
					18944	8/26/59	Placer County Water Agency	--	West Branch El Dorado Canyon	NE	SE			23	15N	11E	MD	6 cfs	Municipal	Inc.
NW	SE	34	15N	11E						MD	590 afa									
SE	SE	4	14N	11E						MD	6 cfs									
NW	NE	4	14N	11E						MD	325 afa									
NE	SE	33	15N	11E						MD	6 cfs									
SW	NE	33	15N	11E						MD	110 afa									
NE	NE	33	15N	11E						MD	6 cfs									
NW	NE	33	15N	11E						MD	70 afa									
SE	NE	33	15N	11E						MD	6 cfs									
NE	NE	33	15N	11E						MD	120 afa									
NW	NE	33	15N	11E						MD	6 cfs									
SE	NE	33	15N	11E						MD	6 cfs									
NW	NE	28	15N	11E						MD	210 afa									
SE	SE	21	15N	11E						MD	6 cfs									
NE	SE	20	15N	11E						MD	6 cfs									
NW	SE	17	15N	11E						MD	175 afa									
18955	9/1/59	Robert D. and Lorine B. Rolfe	--	Johnstown Creek						NE	NE	33	12N	10E	MD	1,530 afa	Irrigation, domestic and stockwatering	P-12217		
										SE	NE	24	15N	10E	MD	1,085 afa				
					SE	NE	24	15N	10E	MD	10 cfs									
					SE	NE	33	12N	10E	MD	3,250 afa									
					SE	NE	33	12N	10E	MD	0.089 cfs									
					SE	NE	24	11N	9E	MD	2 afa									
					SE	NW	4	11N	11E	MD	35 afa									
					NW	SW	15	14N	11E	MD	0.63 cfs									
					NW	NE	28	12N	10E	MD	0.25 cfs									
					NW	SE	16	12N	13E	MD	0.037 cfs									
					NW	SE	19	10N	10E	MD	1,800 gpd									
					SW	NW	21	10N	10E	MD	47.5 afa									
					SW	NW	21	10N	10E	MD	0.2 cfs									
					SW	NW	21	10N	10E	MD	0.2 cfs									
					SW	NW	21	10N	10E	MD	1 afa									
					18969	9/4/59	Frank Wickham and Fay Hopley Gunby	--	Granite Creek	SE	NE	24	11N	9E	MD	0.089 cfs			Irrigation and recreational	P-12290
										SE	NW	4	11N	11E	MD	0.63 cfs				
										NW	SW	15	14N	11E	MD	0.25 cfs				
NW	NE	28	12N	10E						MD	0.037 cfs									
NW	SE	16	12N	13E						MD	1,800 gpd									
NW	SW	19	10N	10E						MD	47.5 afa									
SW	NW	21	10N	10E						MD	0.2 cfs									
SW	NW	21	10N	10E						MD	0.2 cfs									
SW	NW	21	10N	10E						MD	1 afa									
19015	10/5/59	Irvin A. Schulz	--	Harricks Ravine						SE	NW	4	11N	11E	MD	0.63 cfs	Domestic and mining	P-12316		
										NW	SW	15	14N	11E	MD	0.25 cfs				
										NW	NE	28	12N	10E	MD	0.037 cfs				
										NW	SE	16	12N	13E	MD	1,800 gpd				
										NW	SW	19	10N	10E	MD	47.5 afa				
										SW	NW	21	10N	10E	MD	0.2 cfs				
										SW	NW	21	10N	10E	MD	0.2 cfs				
										SW	NW	21	10N	10E	MD	1 afa				
										19034	10/16/59	Christian Churches of N. California and N. Nevada	--	Volcano Creek	NE	SE				
					NW	SE	34	15N	11E						MD	1,775 afa				
					SE	SE	4	14N	11E						MD	980 afa				
					NW	NE	4	14N	11E						MD	19 cfs				
					NE	SE	33	15N	11E						MD	325 afa				
					SW	NE	33	15N	11E						MD	19 cfs				
					NE	NE	33	15N	11E						MD	215 afa				
					NW	NE	33	15N	11E						MD	19 cfs				
					SE	NE	33	15N	11E						MD	355 afa				
					NW	NE	33	15N	11E						MD	19 cfs				
SE	NE	33	15N	11E	MD	310 afa														
NW	NE	33	15N	11E	MD	19 cfs														
SE	NE	28	15N	11E	MD	620 afa														
SE	SE	21	15N	11E	MD	19 cfs														
SE	NE	20	15N	11E	MD	630 afa														
NE	SE	17	15N	11E	MD	19 cfs														
19092	11/23/59	R. F. and Marie N. Bell	--	Tributary to Coloma Canyon	NE	SE	23	15N	11E						MD	19 cfs	Irrigation	P-12498		
					NW	SE	34	15N	11E						MD	1,775 afa				
					SE	SE	4	14N	11E	MD	980 afa									
					NW	NE	4	14N	11E	MD	19 cfs									
					NE	SE	33	15N	11E	MD	325 afa									
					SW	NE	33	15N	11E	MD	19 cfs									
					NE	NE	33	15N	11E	MD	215 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	355 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	310 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	28	15N	11E	MD	620 afa									
					SE	SE	21	15N	11E	MD	19 cfs									
					SE	NE	20	15N	11E	MD	630 afa									
					NE	SE	17	15N	11E	MD	19 cfs									
					19114	12/2/59	Nells M. and Claude D. Lewis, Estate of	--	Onion Creek	NE	SE	23	15N	11E	MD	19 cfs			Domestic and fire protection	P-12541
										NW	SE	34	15N	11E	MD	1,775 afa				
SE	SE	4	14N	11E						MD	980 afa									
NW	NE	4	14N	11E						MD	19 cfs									
NE	SE	33	15N	11E						MD	325 afa									
SW	NE	33	15N	11E						MD	19 cfs									
NE	NE	33	15N	11E						MD	215 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	33	15N	11E						MD	355 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	33	15N	11E						MD	310 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	28	15N	11E						MD	620 afa									
SE	SE	21	15N	11E						MD	19 cfs									
SE	NE	20	15N	11E						MD	630 afa									
NE	SE	17	15N	11E						MD	19 cfs									
19119	12/3/59	Stephen F. Williams, et al	--	Tributary to Dry Creek						NE	SE	23	15N	11E	MD	19 cfs	Irrigation, domestic, recreational and stockwatering	P-12388		
										NW	SE	34	15N	11E	MD	1,775 afa				
					SE	SE	4	14N	11E	MD	980 afa									
					NW	NE	4	14N	11E	MD	19 cfs									
					NE	SE	33	15N	11E	MD	325 afa									
					SW	NE	33	15N	11E	MD	19 cfs									
					NE	NE	33	15N	11E	MD	215 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	355 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	33	15N	11E	MD	310 afa									
					NW	NE	33	15N	11E	MD	19 cfs									
					SE	NE	28	15N	11E	MD	620 afa									
					SE	SE	21	15N	11E	MD	19 cfs									
					SE	NE	20	15N	11E	MD	630 afa									
					NE	SE	17	15N	11E	MD	19 cfs									
					19125	12/8/59	William H. and Vivian L. Boxell	--	Spring tributary to Dry Creek	NE	SE	23	15N	11E	MD	19 cfs			Irrigation, domestic, recreational, stockwatering and fish culture	P-12391
										NW	SE	34	15N	11E	MD	1,775 afa				
SE	SE	4	14N	11E						MD	980 afa									
NW	NE	4	14N	11E						MD	19 cfs									
NE	SE	33	15N	11E						MD	325 afa									
SW	NE	33	15N	11E						MD	19 cfs									
NE	NE	33	15N	11E						MD	215 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	33	15N	11E						MD	355 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	33	15N	11E						MD	310 afa									
NW	NE	33	15N	11E						MD	19 cfs									
SE	NE	28	15N	11E						MD	620 afa									
SE	SE	21	15N	11E						MD	19 cfs									
SE	NE	20	15N	11E						MD	630 afa									
NE	SE	17	15N	11E						MD	19 cfs									

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion						Amount	Period of Diversion	Purpose	Stipule*
					1/4	1/4	Sec.	Tp.	R.	S. & M.				
19251	2/23/60	Gene and Lizzie Brewer	--	Tributary to Coloma Canyon	NW	NE	20	12N	10E	MD	1 afa	Oct 1-June 1	Irrigation and other miscellaneous uses	P-12434
19300	3/11/60	A. C. and Doris M. Van Deventer	--	Tributary to Coloma Canyon	NW	NE	20	12N	10E	MD	3 afa	Jan 1-Dec 31	Domestic and recreational	P-12592
19328	3/28/60	Fred and Vivian D. Becker	--	Spring tributary to South Fork American River	NW	NW	32	11N	13E	MD	2,000 gpd	Dec 1-Apr 15	Recreational and fish culture	P-12673
19352	4/14/60	Rutherford N. and Vera T. Leher	--	Oter Creek	NW	NW	23	13N	11E	MD	0.4 cfs 32 afa	Jan 1-Dec 31	Irrigation and domestic	P-12760
19392	4/26/60	Morton W. and Julianne M. Robinson	--	Big Canyon	NW	NW	36	11N	10E	MD	0.05 cfs	Jan 1-Dec 31	Irrigation and domestic	P-13781
19396	4/29/60	William P. and Patricia G. St. Clair	--	Spring tributary to North Fork American River	SW	SE	4	10N	12E	MD	0.13 cfs	Jan 1-Dec 31	Irrigation and domestic	P-12564
19425	5/6/60	Pearley A. Monroe, Estate of	--	South Fork American River	NE	NE	28	11N	15E	MD	300 gpd	Jan 1-Dec 31	Domestic	P-13341
19433	5/11/60	Orin L. and Mary J. Gill	--	Burnt Shanty Creek	NE	SE	22	11N	9E	MD	35 afa	Sept 15-May 15	Irrigation, recreational and stockwatering	P-12710
19447	5/24/60	Otto and Irene I. Wunschal	--	Spring tributary to Weber Creek	SW	NE	24	10W	11E	MD	0.025 cfs	Jan 1-Dec 31	Irrigation and domestic	P-12745
19514	6/30/60	Ralph L. and Dorothy N. Clark	--	Indian Creek	SW	SE	12	10W	9E	MD	0.25 cfs	May 1-Oct 1	Irrigation and stockwatering	P-12715
19537	7/12/60	State of California, Division of Highways	--	Tributary to Greenwood Creek	NW	SW	7	12W	10E	MD	25.1 afa	Oct 1-June 1	Irrigation	P-12868
19544	7/13/60	United States El Dorado National Forest	--	Rock Canyon	SE	SE	21	11N	15E	MD	2,500 gpd	Jan 1-Dec 31	Domestic and fire protection	P-12808
19546	7/13/60	United States El Dorado National Forest	--	Jerry's Canyon Spring	NE	SE	12	13W	12E	MD	2,880 gpd	May 1-Nov 30	Domestic and stockwatering	P-12810
19547	7/13/60	United States El Dorado National Forest	--	Chimnank Ridge Spring	SW	NW	13	14N	13E	MD	4,000 gpd	May 1-Nov 30	Domestic and stockwatering	P-12811
19548	7/13/60	United States El Dorado National Forest	--	Lynchburg Spring	SW	NW	10	13N	12E	MD	4,000 gpd	May 1-Nov 30	Domestic and stockwatering	P-12812
19549	7/13/60	United States El Dorado National Forest	--	Bear Springs	SE	SE	35	14N	13E	MD	4,000 gpd	May 1-Nov 30	Domestic and stockwatering	P-12813
19569	7/22/60	United States El Dorado National Forest	--	Desert Cold Spring	SW	SW	2	13N	13E	MD	4,000 gpd	May 1-Nov 30	Domestic and stockwatering	P-13982
19632	7/29/60	Christian Churches of N. California and W. Nevada	--	Spring tributary to Poor Mans Canyon	NE	NW	22	14W	11E	MD	0.067 cfs	Jan 1-Dec 31	Domestic and recreational	P-13774
19754	9/27/60	Henry, William and Azaise M. Hilo	--	Bear Creek	NW	NW	20	12N	11E	MD	0.25 cfs	Feb 1-July 1	Irrigation, domestic and stockwatering	P-13040
19764	9/30/60	Robert J. and Evelyn Ottow	--	Spring tributary to Panobocat Creek	SW	NW	12	12N	9E	MD	4,600 gpd	Jan 1-Dec 31	Domestic and stockwatering	P-12790
19790	10/3/60	Carmelita Andre	--	Morapito Creek	SE	NE	21	11N	11E	MD	19 afa	Nov 1-May 1	Irrigation and recreational	P-12962
19792	10/14/60	L. C. and Lillian M. Petersen	--	Tributary to Weber Creek	SE	NE	23	10N	10E	MD	0.038 cfs	Mar 15-Nov 15	Irrigation	Inc.
19793	10/14/60	California Water Commission	--	Pilot Creek	SE	SE	7	12N	13E	MD	5,000 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
19794	10/14/60	California Water Commission	--	Mutton Creek	NW	NW	9	12W	12E	MD	3,000 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
19795	10/14/60	California Water Commission	--	Rock Creek	SW	SW	3	12W	11E	MD	25 cfs 6,500 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
19795	10/14/60	California Water Commission	--	Rock Canyon Creek	SE	SW	7	12W	11E	MD	10 cfs 1,600 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.

* P - Indicates permit number of application approved. L - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board on or October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion					Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.				
19796	10/4/60	California Water Commission	--	Canyon Creek Bacon Canyon Tributary to Pilot Creek Deep Canyon Tributary to Pilot Creek Tributary to Pilot Creek Tributary to Pilot Creek Tributary to Pilot Creek Tributary to Other Creek Tributary to Other Creek Tributary to Other Creek	SW SW NW SE SE SE SW SW SE NE SE NW NW	33 4 4 21 21 6 31 26 26 23 26 26	13W 12W 12W 13W 12W 12W 13W 13W 13W 13W 13W 13W	10E 12E 12E 12E 12E 12E 11E 11E 11E 11E 11E 11E	HD HD HD HD HD HD HD HD HD HD HD HD	9,500 afa 2,000 afa 2,000 afa 2,000 afa 2,000 afa 2,000 afa 5,000 afa 5,000 afa 5,000 afa 5,000 afa 5,000 afa 5,000 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
19797	10/4/60	California Water Commission	--	Traverse Creek Johntown Creek Greenwood Creek	SW SW SW	5 27 18	11N 12N 12W	11E 10E 10E	HD HD HD	30 cfs 30,000 afa 10 cfs 5,000 afa 10,000 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
19825	10/24/60	Charles L. and Hilda E. Carroll	--	Spring tributary to Traverse Creek	SE	14	12N	10E	HD	4,275 gpd	Jan 1-Dec 31	Domestic	P-12971
19826	10/24/60	Robert V. Neilsen	--	Springs tributary to South Fork American River	SE	19	11N	15E	HD	0.058 cfs	Jan 1-Dec 31	Irrigation and domestic	P-12972
19850	11/24/60	Margaret Lahiff, et al	--	Sugar Loaf Creek Silver Fork American River	NW SE	28 28	11N 11N	15E 15E	HD HD	0.094 cfs 0.094 cfs	Jan 1-Dec 31	Domestic	P-13243
19872	12/9/60	Stockton Box Company	--	Spring tributary to Middle Fork American River	SE	36	15N	13E	HD	14,400 gpd	May 1-Dec 1	Domestic and industrial	P-13025
19880	12/16/60	J. R. Bancroft and M. W. Steen	--	Kelly Creek	SW	26	17N	12E	HD	2,99 cfs 152 afa	Nov 1-Aug 1 Dec 15-June 15	Irrigation, domestic and recreational	P-13228
19900	12/30/60	Jerry and Lois Brown	--	Weber Creek	NW	9	10W	10E	HD	498 afa	Nov 1-Apr 1	Recreational and fish culture	P-13002
19922	1/17/61	Edgar and Frances North	--	Tributary to Brushy Canyon	SE	33	11N	12E	HD	0.17 cfs	Jan 1-Dec 31	Irrigation and domestic	P-13052
19943	1/31/61	L. J. and Shirley M. Lovang	--	Black Rock Creek	NE	4	11N	9E	HD	0.5 cfs 100 afa	Jan 1-June 30	Irrigation, domestic and stockwatering	P-13983
19975	2/8/61	noeoe D. Cook, et al	--	Tributary to Iowa Canyon Tributary to Iowa Canyon Tributary to Iowa Canyon	SE NE NE	35 35 35	11N 11N 11N	12E 12E 12E	HD HD HD	0.04 cfe 1.5 afa 5 afa	Jan 1-Dec 31 Nov 1-Apr 30 Nov 1-Apr 30	Irrigation, domestic, recreational and fish culture	P-13290
19976	2/8/61	Alice E. Lyon and M. J. Sicks	--	Alice Creek	NE	11	11N	17E	HD	0.048 cfs	Nov 1-May 15	Domestic and fire protection	P-13244
19977	2/8/61	Merrill N. and Margaret A. Carlton	--	North Fork American River North Fork American River Carlton Spring North Fork American River	NE SW NE NW	21 21 21 22	13N 13N 13N 13N	9E 9E 9E 9E	HD HD HD HD	0.03 cfe 0.03 cfe 0.03 cfe 0.03 cfe	Jan 1-Dec 31	Domestic	P-13093
20011	2/28/61	L. J. and E. Belle Espar	--	Knickerbocker Creek	NE	24	12N	8E	HD	22 afa	Nov 1-Apr 1	Irrigation	P-13161
20019	3/6/61	Hughes Bros.	--	Cottage Home Creek	NE	6	14N	11E	HD	0.077 cfs	Jan 1-Dec 31	Industrial	P-13191
20048	3/24/61	C. R. and H. M. Woods	--	Tributary to Ringold Creek Ringold Creek	NE NE	34 34	10W 10W	11E 11E	HD HD	0.07 cfe 0.07 cfe	Jan 1-Dec 31	Irrigation and domestic	P-13105
20065	4/4/61	Tom M. and Eva E. Ault	--	Spring tributary to Bear Creek	SE	30	12W	11E	HD	0.125 cfe	Jan 1-June 30 Nov 1-Dec 30	Irrigation, domestic and mining	P-13877
20074	4/10/61	Walter F. and Imogens Woodruff	--	Empire Creek	NW	10	12N	10E	HD	8.67 afa	Nov 1-Apr 30	Irrigation, recreational and stockwatering	P-13432
20086	4/13/61	Jessamine Schueller and Rolland Oliver	--	Tunnel tributary to Poor Mans Canyon	SW	22	14N	11E	HD	2,240 gpd	Jan 1-Dec 31	Domestic and stockwatering	P-13353
20256	6/8/61	Robert E. and Virginia R. Donaldson	--	White Rock Creek	SE	32	11N	11E	HD	0.057 cfe	Jan 1-Dec 31	Irrigation, domestic and stockwatering	P-13189

* P - Indicates permit number of application approved. I - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

APPLICATIONS TO APPROPRIATE WATER IN
AMERICAN RIVER HYDROGRAPHIC UNIT

(Filed with State Water Rights Board as of October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion							Amount	Period of Diversion	Purpose	Status
					1/4	1/4	Sec.	Tp.	R.	B. & M.					
20259	6/12/61	Caslar and Millicent David	--	Tributary to Weber Creek	SW	3	10N	10E	ND		14,450 gpd	Jan 1-Dec 31	Domestic	P-13374	
20265	6/16/61	Ernest K. Richardson	--	Tamarack Creek	NW	9	11N	17E	ND		0.05 cfe	Jan 1-Dec 31	Domestic	P-13972	
20281	6/27/61	Alvin V. and Loretta J. Bird	--	Weber Creek	SE	14	10N	10E	ND		0.05 cfe	May 1-June 30	Irrigation, domestic and stockwatering	P-13937	
20289	7/5/61	Maude R. Mehauffey	--	South Fork American River	NE	24	11N	16E	ND		350 gpd	Jan 1-Dec 31	Domestic	Inc.	
20305	7/18/61	Vahan Eghojian	--	Tributary to Iowa Canyon	SE	31	11N	12E	ND		0.5 cfe	Jan 1-Dec 31	Irrigation and domestic	Pending	
20306	7/18/61	Elmer D. Mignelegorry	--	Tributary to Iowa Canyon	SE	31	11N	12E	ND		0.5 cfe	Jan 1-Dec 31	Irrigation and domestic	Pending	
20307	7/18/61	Owen Jay Maester	--	Tributary to Iowa Canyon	SE	31	11N	12E	ND		0.5 cfe	Jan 1-Dec 31	Irrigation and domestic	Pending	
20325	7/23/61	Alton W. and Myrie J. Rempel	--	Empire Creek	NE	27	12N	10E	ND		0.025 cfe 4 afa	Oct 1-July 1 Nov 1-May 1	Irrigation and domestic	P-13426	
20331	7/27/61	Booker G. and Marie E. Waddell	--	Marble Creek	NE	17	10N	9E	ND		0.25 cfe	Jan 1-Dec 31	Irrigation, domestic and stockwatering	P-13377	
20338	8/1/61	Lewis W. Caseill	--	Missouri Canyon	SW	15	13N	11E	ND		0.25 cfe	Jan 1-Dec 31	Mining	P-13394	
20339	8/2/61	Dollie E. Wright, et al	--	Spring tributary to South Fork American River	NW	29	11N	14E	ND		3,000 gpd	Jan 1-Dec 31	Domestic	P-13427	
20350	8/14/61	United States Bureau of Reclamation	--	American River	SW	24	10N	7E	ND		100 cfs 40,000 afa	Nov 1-Mar 31	Municipal and other miscellaneous uses	Pending	
20368	8/25/61	Warren A. and Harriet E. Milles	--	Spring tributary to Coloma Canyon	SE	19	12N	10E	ND		400 gpd	Jan 1-Dec 31	Domestic	P-13424	
20478	11/7/61	Archie K. and Jeanette L. Hance	--	North Fork American River	NE	21	13N	9E	ND		0.063 cfs	Nov 1-July 1	Irrigation and domestic	P-13934	
20480	11/7/61	Georgetown Divide Public Utility District	--	Rubicon River	NW	32	14N	14E	ND		50 cfs 30,000 afa	Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.	
20490	11/10/61	Dwight and Helen Bradford	--	Mosquito Creek	SW	22	11N	11E	ND		700 gpd 3 afa	Jan 1-Dec 31 Jan 1-Apr 30	Domestic and stockwatering	P-13614	
20514	12/5/61	Cealmer and Millicent David	--	Tributary to Weber Creek	SW	3	10N	10E	ND		0.024 cfe 12 afe	Nov 1-June 30 Nov 1-May 1	Irrigation, domestic and fish culture	P-13836	
20522	12/12/61	Sacramento Municipal Utility District	--	South Fork American River	SE	25	11N	11E	ND		1,900 cfe	Jan 1-Dec 31	Power	P-13746	
20543	12/29/61	Harold H. and Lora C. Hixson	--	Springs tributary to South Fork American River	SW	29	11N	14E	ND		450 gpd	Jan 1-Dec 31	Domestic	P-13567	
20564	1/17/62	Clarence Entwisle	--	Weber Creek	SE	15	10N	11E	ND		45 afa	Nov 1-Mar 31	Recreational and fish culture	P-13757	
20601	2/9/62	Sierra Lakes Club of California	--	Ice Lakee	NE	34	17N	14E	ND		1,177 afa	Oct 1-June 30	Municipal, recreational and fish culture	P-14248	
20607	2/13/62	George H. and Iva J. Augusta	--	Tributary to Johnstown Creek	SW	33	12N	10E	ND		0.25 cfe	Jan 1-Dec 31	Irrigation and stockwatering	Pending	
20627	2/23/62	Hector and Carita Williamson	--	Shenogle Creek	SE	1	10N	9E	ND		5.1 afa 1.5 afa	Nov 15-May 1	Irrigation, stockwatering and fish culture	P-13629	
20628	2/23/62	Hector and Carita Williamson	--	Anderson Creek	NE	1	10N	9E	ND		7 afa	Nov 15-May 1	Irrigation, stockwatering and fish culture	P-13630	
20653	3/14/62	Josephine Schueller and Rolland Oliver	--	Spring tributary to Poor Mans Canyon	SW	22	14N	11E	ND		0.45 cfe	Jan 1-Dec 31	Irrigation, domestic and stockwatering	P-13784	
20659	3/19/62	United States El Dorado National Forest	--	Tributary to South Fork American River	SW	23	11N	16E	ND		600 gpd	Jan 1-Dec 31	Domestic	P-13789	
20675	3/26/62	United States El Dorado National Forest	--	Owens Camp Spring	SE	6	10N	16E	ND		2,000 gpd	Apr 1-Dec 31	Domestic	P-13795	

• P - Indicates permit number of application approved. I - Indicates license number of right confirmed. Inc. - Indicates application not yet complete. Pending - Indicates application complete but not yet approved.

TABLE C-1 (Continued)
 APPLICATIONS TO APPROPRIATE WATER IN
 AMERICAN RIVER HYDROGRAPHIC UNIT
 (Filed with State Water Rights Board on or October 1, 1963)

Application Number	Date Filed	Present Owner	DWR Diversion Number	Source	Location of Point of Diversion				Amount	Period of Diversion	Purpose	Status		
					1/4	1/4	Sec.	Tp.					R.	B. B. M.
20787	5/23/62	Lawrence H. and Louise S. Tong	--	Tributary to Empire Creek	NW	SW	11	12N	10E	10E	MD	0.12 cfs Jan 1-Dec 31	Irrigation and domestic	Pending
20795	5/28/62	Walter J. and Nina B. Smith	--	Tributary to Slate Creek	NW	NW	2	9N	10E	10E	MD	25 afa Oct 30-May 30	Irrigation and stockwatering	P-13803
20796	5/29/62	Hector and Carla Williamson	--	Shenogle Creek	SE	SE	35	11N	9E	9E	MD	149.5 afa Nov 1-May 15	Irrigation, recreational and fish culture	P-13838
20827	6/22/62	R. C. and Nellie Williams	--	Tributary to Weber Creek	NW	NE	13	10W	11E	11E	MD	4,300 gpd 5 afa Jan 1-Dec 31	Domestic, recreational and fire protection	P-13966
20890	6/22/62	Wickard H. and Mildred Steed	--	Spring tributary to South Fork American river	SW	NW	34	11N	11E	11E	MD	4,500 gpd Jan 1-Dec 31	Domestic	P-14231
20840	7/3/62	Leo E. and Dorothy K. Finneran	--	Tributary to Granite Canyon	NW	NW	25	11N	9E	9E	MD	10 afa Oct 15-Mar 31	Irrigation, domestic and stockwatering	P-13791
21022	11/21/62	Helen Roudabush	--	Spring tributary to Snail Canyon	NE	NE	36	15N	10E	10E	MD	2,500 gpd Jan 1-Dec 31	Domestic	Pending
21023	11/21/62	G. W. Hecereau	--	Spring tributary to Snail Canyon	SE	NW	36	15N	10E	10E	MD	2,500 gpd Jan 1-Dec 31	Domestic	Pending
21032	11/27/62	Mabel Rainier	--	Miley Springs	NE	SE	10	10N	11E	11E	MD	0.027 cfs Jan 1-Dec 31	Irrigation, domestic and stockwatering	Inc.
21185	3/8/63	Thomas J. and E. Lorraine Foreyth	--	Weber Creek	SE	NW	14	10W	10E	10E	MD	16,000 gpd Mar 1-Oct 31	Irrigation and domestic	Pending
21189	3/13/63	Rudolph and Ora Miegel	--	Tributary to Knickerbocker Creek	NE	NE	25	12N	8E	8E	MD	19 afa	Irrigation and fish culture	P-14220
21225	4/8/63	Lawrence L. Cabodi, et al	--	Spring tributary to Gerle Creek	NE	NE	34	14N	14E	14E	MD	0.05 cfs Jan 1-Dec 31	Domestic and recreational	Inc.
21232	4/10/63	William C. Fredericks	--	Tributary to Slate Creek	NW	NE	33	10W	10E	10E	MD	24 afa Oct 1-Apr 30	Irrigation, recreational and stockwatering	Inc.
21395	7/15/63	Georgie A. Gardner	--	Tributary to American Canyon	SE	NE	1	12N	9E	9E	MD	40,000 gpd Jan 1-Dec 31	Irrigation and domestic	Inc.
21428	8/15/63	State of California Department of Fish and Game	--	South Fork American River	SW	SW	23	11N	15E	15E	MD	3.0 cfs Apr 1-Oct 31	Fish culture	Inc.
21430	8/16/63	United States Tahoe National Forest	--	Spring tributary to Middle Fork American River	NE	SW	25	15N	13E	13E	MD	0.10 cfs Jan 1-Dec 31	Domestic and fire protection	Inc.
21480	10/1/63	James R. Bancroft and William W. Steen	--	Kelly Creek	SW	NE	26	17N	12E	12E	MD	44 afa Dec 15-June 15	Domestic, irrigation and recreational	Inc.

APPENDIX D
DETAILED DESCRIPTIONS
OF
CERTAIN SURFACE WATER DIVERSIONS

DETAILED DESCRIPTIONS
OF
CERTAIN SURFACE WATER DIVERSIONS

TABLE OF CONTENTS

	<u>Page</u>
El Dorado Irrigation District	D-5
New Weber Ditch	D-7
Sly Park-Camino Conduit	D-7
Diamond Ditch	D-8
Gold Hill Ditch	D-8
Farmers Ditch	D-9
Georgetown Divide Public Utility District	D-9
Loon Lake	D-11
Gerle Creek Ditch and South Fork Ditch	D-11
Georgetown Divide Ditch	D-12
Pacific Gas and Electric Company	D-12
South Yuba and Bear Rivers Power System	D-15
Drum Canal	D-15
Lake Valley Canal	D-16
South Canal	D-16
Placer Water System	D-18
Boardman Canal	D-18
Towle Canal	D-20
Pulp Mill Canal	D-20
Colfax Pipeline	D-20
Shirland Canal	D-21
Gaylord Canal	D-21
Monte Rio Pipe	D-21

TABLE OF CONTENTS (continued)

	<u>Page</u>
Pacific Gas and Electric Company (continued)	
South Fork American River System	D-21
El Dorado Ditch	D-22
American River Flume	D-23
Upstream Reservoirs Releasing to South Fork	D-23

APPENDIX D

DETAILED DESCRIPTIONS OF CERTAIN SURFACE WATER DIVERSIONS

This appendix presents additional data on surface water diversions by El Dorado Irrigation District, Georgetown Divide Public Utility District, and Pacific Gas and Electric Company which could not be described adequately in Table 6 of this report. The points of diversion and the diversion ditch systems are delineated in detail on the various sheets of Plate 2.

El Dorado Irrigation District

With the discovery of gold in 1848, the demand for water soon resulted in the construction of many ditches by the miners in an effort to bring water from the snow fed streams to the gold-laden gravels. One of the larger undertakings was the construction of the South Fork and Placerville Canal in 1851, extending from Weber Creek to Coon Hollow, south of Placerville. In 1852 north of Camino, Iowa Canal conveyed water to Iowa Canyon and later was extended to Long Canyon. The most profitable of the early ditches constructed was Gold Hill Ditch. This canal extending from Placerville to Gold Hill was able to sell water over and over again to the miners in the same area.

In 1856 John Kirk of Placerville posted his first notice of appropriation claiming water of the South Fork American River. Surveys were made, dam sites located, and by

1872 the first section of ditch started near Sportsman Hall. Due to a lack of capital, Kirk's plan to bring water to the Placerville area was never completed.

In 1873 the El Dorado Water and Deep Gravel Mining Company, through a series of purchases, obtained the rights and holdings of Kirk and certain other valuable lands in the area. In 1876 water from the South Fork American River was conveyed to the Placerville area. Over the years the property belonging to the El Dorado Water and Deep Gravel Mining Company has changed hands many times. In the early 1920's that section of the El Dorado Canal from the South Fork American River to the El Dorado Forebay was purchased by Western States Gas and Electric Company, a predecessor of the Pacific Gas and Electric Company. The Main Canal, including all associated ditch systems and properties below the El Dorado Forebay, was purchased by the El Dorado Water Company, predecessor of the El Dorado Water Corporation. In 1927 the El Dorado Water Corporation sold its properties to the El Dorado Irrigation District which had been organized in 1925. Between the South Fork American River diversion point (D11N/15E-29Q1) and the forebay, the conduit is known as the El Dorado Ditch, utilized by the Pacific Gas and Electric Company to transport water for hydroelectric power and for deliveries to the El Dorado Irrigation District.

From the El Dorado Forebay, the El Dorado Irrigation District's Main Canal travels along the ridge between the South Fork American River and Weber Creek to Smith Flat supplying the Sportsman Hall, Camino, and Smith Flat areas

enroute. North of Smith Flat the Negro Hill Ditch runs westward to the area north of Placerville where it serves the Luse Ditch. From Smith Flat the Main Canal runs southwest to a junction with the New Weber Ditch near Texas Hill. Here deliveries are made to the Placerville municipal reservoirs. From the reservoir area the Main Canal turns south, conveying water which augments supplies in Weber Creek for Farmers Ditch.

In addition to the El Dorado Irrigation District's Main Canal, there are four district diversions and one independent diversion, used conjunctively, which bring water supplies into the district. The following is a description of each diversion:

New Weber Ditch (D10N/12E-18Q1). Construction of Weber Reservoir on North Fork Weber Creek was started by the El Dorado Water Corporation in 1922. The triple arch dam had a design height of 110 feet. Beset by financial troubles, the corporation was unable to complete the project but put the partially completed dam, at a height of 89 feet, into operation in 1924. The present storage capacity is 1,275 acre-feet. Flows to the New Weber Ditch are released via a 24-inch diameter pipe through the north arch near the right abutment. The ditch follows approximately the 2,400-foot contour, north of Weber Creek Channel to the Cedar Ravine Road where it joins the El Dorado Irrigation District's Main Canal.

Sly Park-Camino Conduit (D10N/12E-14L1). Sly Park Dam, which impounds Jenkinson Lake with a capacity of 41,033 acre-feet, was constructed in 1955 by the United States

Bureau of Reclamation as part of the Central Valley Project on Sly Park Creek in the Cosumnes River Basin. It is an earth and rockfill dam 172 feet high and 760 feet long at the crest. Deliveries to the El Dorado Irrigation District are made through 5.6 miles of steel pipe, 0.5 mile of tunnel, and 1.5 miles of concrete pipe to the district's Main Canal just west of Camino. Deliveries of about 20,000 acre-feet are made annually. Water diverted through the Sly Park-Camino Conduit is reported as an import in Table 8.

Storage in Jenkinson Lake is mainly supplied by diversion from Camp Creek through the Camp Creek Tunnel to the reservoir. Camp Creek Diversion Dam is a concrete overflow weir-type dam 20 feet high and 70 feet long at the crest. Flow is diverted through a 7.0 foot diameter concrete-lined tunnel 2,855 feet long.

Diamond Ditch (D10N/11E-19P1). Diamond Ditch is part of the Diamond Ditch System which has continuously appropriated and delivered water since 1852. The ditch diverts from Squaw Hollow Creek, a tributary of North Fork Cosumnes River, and imports to the El Dorado Irrigation District area southwest of Placerville through an open ditch and enters the unit east of Diamond Springs. The ditch then turns north-westward to join the district's Main Canal. About 1,700 acre-feet are diverted annually through the ditch.

Gold Hill Ditch (D10N/11E-7P1). The Gold Hill Ditch constructed in 1853 by the Gold Hill Canal Company, diverts the augmented flow of Hangtown Creek near the west edge of Placerville. From the diversion a concrete pipe connects to

a lined canal extending from Placerville to the Gold Hill area. This canal has helped in bringing about the development of one of the richest fruit-growing areas in the Sierra foothill region.

Farmers Ditch (D10N/11E-19F1). Farmers Ditch heads on Weber Creek above the bridge on the Diamond Springs road. This ditch was constructed by the American River Deep Gravel and Water Company in 1862. Originally known as the Missouri Flat Ditch, it served landowners south of Weber Creek near Missouri Flat. After a series of different ownerships ending in a sheriff's sale, possession of the ditch went to a group of ranchers and came to be known as the Farmers Free Ditch. On April 1, 1930, an agreement was reached between the ranchers and El Dorado Irrigation District whereby the ranchers would purchase water at the district's prevailing rate during the irrigation season. The district maintains the ditch as part of its system and serves other users along the ditch. The original diversion right was retained by the ranchers and is exercised during the nonirrigation period.

Georgetown Divide Public Utility District

The Georgetown Divide Public Utility District serves the area in the northwest portion of El Dorado County between the Middle Fork and South Fork American Rivers. The district was incorporated on June 11, 1946, under the Public Utility Act of 1921 and stemmed from the desire of the people in the area to obtain a more adequate water supply. The district comprises approximately 64,600 acres of foothill and

mountainous lands of which about 30,500 acres are classed as irrigable.

The Georgetown Divide Ditch System was originally constructed about 1852 through a concerted effort of three companies: Pilot and Rock Creek Company, New York and Ohio Water Company, and Pilot Creek Ditch Company. A succession of owners followed, until 1952 when the Georgetown Water Company sold the entire system to the Georgetown Divide Public Utility District.

The ditch system's first diversion was located on Pilot Creek, a tributary of the Rubicon River. Subsequent development took place during the period 1874 to 1883 with the construction of Loon Lake Dam and a canal which brought water from the Upper Rubicon River area into the Pilot Creek drainage. From Pilot Creek flows were rediverted into the Georgetown Divide Ditch.

At present water supplies in the upper basin area are obtained from storage at Loon Lake and by gravity diversions from Gerle Creek and South Fork Rubicon River. However, the upper basin facilities and rights to water have been sold to Sacramento Municipal Utility District. Consummation of this sale is contingent upon construction of Stumpy Meadows Dam and Reservoir on Pilot Creek. The regulated water from Stumpy Meadows Reservoir will supplant the waters now received from the upper basin. At this time, the transfer of rights to water in the upper basin to Sacramento Municipal Utility District will be completed and the facilities formerly

utilized by the Georgetown Divide Public Utility District will be abandoned.

Following is a description of each of the present diversions:

Loon Lake (D13N/15E-5H1). In the early 1870's the first storage was obtained at Loon Lake by construction of a small log crib dam. In 1881 and 1882 the California Water Company built the present masonry dam at Loon Lake, using funds obtained by a bond issue. Funds were depleted before completion of the dam, leaving it at a height of 26 feet. This height provided a storage capacity of about 8,000 acre-feet. Construction of the dam was from quarried blocks, hewed out of the massive granite formations of the upper basin. Some of these blocks weighed from 4 to 8 tons each. On the upstream face of the dam an earth fill was placed to prevent leakage through the masonry section of the dam.

In 1934 the Georgetown Divide Water Company increased the height of Loon Lake Dam to 28 feet, which increased the storage capacity of the lake to about 10,000 acre-feet. This was accomplished by using granite blocks which had been cut at the time that the original dam was built and left at one end of the dam when construction was terminated.

Gerle Creek (D13N/14E-15G1) and South Fork Ditch (D13N/14E-24B1). Both Gerle Creek Ditch diverting from Gerle Creek and the South Fork Ditch diverting from Little South Fork Rubicon River were constructed in the early 1870's by the California Water and Mining Company. Releases from

Loon Lake down the stream channel are diverted by Gerle Creek Diversion Dam to the Gerle Creek Ditch. South Fork Ditch, diverting from the South Fork Rubicon River, adds supplemental flow to Gerle Creek Ditch enroute to the Pilot Creek drainage.

Georgetown Divide Ditch (D12N/12E-12P1). Georgetown Divide Ditch, the main distribution canal for the Georgetown Divide Public Utility District, diverts from Pilot Creek, a tributary of the Rubicon River. From the Pilot Creek diversion the flow is conveyed about 26 miles to the city reservoir at Georgetown where distribution is made to major service laterals. From the distribution point near Georgetown, the Main Canal conveys smaller flows westward to terminate in the vicinity of Knickerbocker Creek.

Pacific Gas and Electric Company

The Pacific Gas and Electric Company was founded in October 1905. It was originally incorporated as a holding and operating company to take over California Gas and Electric Corporation and San Francisco Gas and Electric Company, both of which absorbed many other systems. Since its incorporation, continued acquisitions by mergers, lease agreements and outright purchases of both large and small generating and distributing concerns have combined to make Pacific Gas and Electric Company the largest public utility system in the world.

The first hydroelectric generating plant in Central California was built and put into operation on the American River by the Sacramento Electric Power and Light Company in 1895. In 1866 initial work was started by the Natomas Water

and Mining Company to supply power to the Folsom area. The project consisted of a diversion dam on the American River near Folsom, a canal and a generating plant which would return flows to the river. Only the diversion dam and part of the canal were completed by 1881 when the company reorganized as the Folsom Water Power Company. Construction progress again continued slowly until the power rights were leased by Sacramento Electric Power and Light Company, who built the power station and a 21.5 mile transmission line to Sacramento. The original equipment of this plant consisted of four 750 kilowatt generators with a potential of 11,000 volts. Power was delivered to Sacramento by this line on July 13, 1895. Ownership of the station and other project facilities was obtained by Sacramento Electric Gas and Railway Company in 1896, by California Gas and Electric Corporation in 1901, and finally by Pacific Gas and Electric Company in 1905.

To the north in the watersheds of the Yuba and Bear Rivers, the South Yuba Water Company operated a ditch system which was built in the 1850's to supply portions of Placer and Nevada Counties with water for hydraulic mining. With the passage of the debris control legislation, most of the hydraulic mining stopped, and the company had to find a new market for its water. About 1895, when electric transmission became a reality, the Central California Electric Company was formed as a subsidiary of the South Yuba Water Company to develop the power sites within the system.

The first plant constructed by the Central California Electric Company, located at Newcastle, began to transmit

power to Sacramento on December 31, 1896. A second plant, located about a mile northeast of Auburn, began operation on October 3, 1898. A third plant, Alta Powerhouse, was put into commission on November 7, 1902. Today, only Alta Powerhouse with reduced generating capacity remains in commission.

In 1893 the South Yuba Water Company expanded its facilities by construction of the Boardman Canal which provided needed irrigation service along the ridge between the Bear and American Rivers. At present the Boardman Canal and its associated works comprise several connected canals and numerous distribution laterals.

Through acquisition of the South Yuba Water Company in 1910, the Pacific Gas and Electric Company came into possession of what are now the South Yuba and Bear Rivers Power System and the Placer Water System.

The American River Electric Company, organized in 1903, constructed the American River Powerhouse to supply power to the Stockton area and local distribution points enroute. This plant is located on the South Fork American River northeast of Placerville and is the oldest of the American River Basin powerplants now in operation. In November 1910 the Western States Gas and Electric Company was incorporated to acquire and operate the properties of the American River Electric Company.

In the early 1920's the El Dorado Powerhouse was constructed on the South Fork American River northwest of Pollock Pines. This plant and the El Dorado Ditch were operated by Western States Gas and Electric Company. These

facilities were acquired by Pacific Gas and Electric Company with their purchase of Western States Gas and Electric Company in 1927.

South Yuba and Bear Rivers Power System

Water is imported to and exported from the American River Hydrographic Unit by the South Yuba and Bear Rivers Power System and Placer Water System complexes of the Pacific Gas and Electric Company. The principal sources of supply to these systems are the upstream storage facilities of the Drum Division of Pacific Gas and Electric Company on the South Yuba River.

In addition to water diverted and stored by Pacific Gas and Electric Company, water developed by Nevada Irrigation District is routed through the South Yuba and Bear Rivers Power System for the generation of power. The Nevada Irrigation District and Pacific Gas and Electric Company's South Yuba and Bear Rivers Power System are located in the Yuba-Bear Rivers Hydrographic Unit and are reported in detail in Bulletin No. 94-3 , "Land and Water Use in the Yuba-Bear Rivers Hydrographic Unit," Volume 1, September 1963.

Following are discussions of the diversion facilities within the South Yuba and Bear Rivers Power System that are pertinent to the American River Hydrographic Unit:

Drum Canal (D16N/11E-16L1). The Drum Canal was constructed in 1912-13 at the same time that Drum Powerhouse and Spaulding Dam were built. The construction was part of Pacific Gas and Electric Company's expansion to meet new

demands for power service. Releases from Lake Spaulding go through Spaulding Powerhouse No. 1 to the Drum Canal. The canal has a length of 8.5 miles to the Drum Powerhouse which is located on the Bear River.

In addition to the releases from Lake Spaulding, water is exported from the American River Hydrographic Unit to the Drum Canal via Lake Valley Canal near Emigrant Gap. Lake Valley Canal diverts from the North Fork of North Fork American River at D17N/12E-33B1. Although all the flows in the Drum Canal pass through the American River Hydrographic Unit, only that portion released from the Drum Forebay to Canyon Creek for rediversion in the Boardman Canal System is reported as an import. The major portion of the canal flow is released to the Bear River via the Drum Powerhouse.

Lake Valley Canal (D17N/12E-33B1). Lake Valley Canal diverts from the North Fork of North Fork American River to supplement the Drum Canal in the Yuba-Bear Rivers Hydrographic Unit. Flows in the canal are exported from the American River Hydrographic Unit in the vicinity of Emigrant Gap at D17N/12E-30R1. Winter flow in the North Fork of North Fork American River is stored and regulated upstream by Kelly Lake (D17N/12E-25F1) and Lake Valley Reservoir (D17N/12E-35C1). These reservoirs have a combined capacity of about 8,500 acre-feet. Releases made from late spring to early fall constitute most of the water diverted by Lake Valley Canal during this period.

South Canal (D12N/8E-32P1). The South Canal is the last segment of Bear River Canal System of Pacific Gas and

Electric Company Power Supply System in the Bear River drainage area. The Bear River Canal System diverts from the Bear River near Chicago Park (D15N/9E-22Q1) in the Yuba-Bear Rivers Hydrographic Unit. It is known as the Bear River Canal through its course to Halsey Forebay. From the tailrace of Halsey Powerhouse through Rock Creek Reservoir and subsequently through Wise Powerhouse located below Auburn, it is known as the Wise Canal. From the Wise Powerhouse tailrace to its spill into Mormon Ravine in the American River Basin, it is known as the South Canal. The principal source of water for this system, in addition to the natural flow of Bear River, are waters released from Lake Spaulding via the South Yuba Canal bypassing the Boardman Canal intake and the power releases from Drum Powerhouse.

South Canal was constructed in 1919 to convey water from Wise Powerhouse to the American River Basin. This is the only water imported to the unit by the Bear River Canal System. Enroute an interchange of water is effected between South Canal and Boardman Canal. Below Wise Powerhouse the South Canal supplies several laterals of the Boardman Canal, the last one being Lower Greeley Canal which services Monte Rio Pipe (D11N/8E-5B1).

South Canal extends into the American River Hydrographic Unit approximately 0.9 mile before it spills into Mormon Ravine. Enroute it picks up tail waters of Gaylord, Shirland, and Shirland Stub Canals, all laterals of the Boardman Canal.

Placer Water System

The Placer Water System provides municipal, industrial, and irrigation water to most of the area along the divide between the American and Bear Rivers. The principal area served is along Interstate Highway 80 from Baxter to Roseville. One powerhouse, Alta, is included in the system and operated in conjunction with Pacific Gas and Electric Company's Power System. Placer Water System and South Canal provide all of the water imported into this portion of the American River Hydrographic Unit. Laterals of the system that enter the unit are classed as imports and the location numbers are shown in the tables and on Plate 2. The Placer Water System is described in detail in Bulletin No. 94-3, "Land and Water Use in Yuba-Bear Rivers Hydrographic Unit," Volume 1, September 1963.

Following are discussions of the diversion facilities within the Placer Water System pertinent to the American River Hydrographic Unit:

Boardman Canal (D16N/11E-16M1). Boardman Canal is the main stem of the Placer Water System. Water is first diverted from the Bear River about 1 mile below State Highway 20 at D17N/11E-36D1 in the Yuba-Bear Rivers Hydrographic Unit, and conveyed via the Upper Boardman Canal to Canyon Creek in the American River Watershed. The Boardman Tunnel conveys the flow into the unit at D16N/11E-16M1 immediately below the Drum Forebay. Although the Boardman Canal intake heads on the Bear River, the primary source of water is flow released from Lake Spaulding through Spaulding Powerhouse No. 2 and conveyed

by the South Yuba Canal to the Bear River where it is spilled to the stream channel.

At Canyon Creek water is spilled into the stream channel for rediversion in the Towle Canal (D16N/11E-21E1), which conveys it to Alta Powerhouse. In the Towle Canal, flows are exported out of the unit at D16N/11E-31C1, approximately one-half mile above the Alta Powerhouse and Forebay. From the powerhouse to Lake Alta the canal is known as the Lower Boardman Canal. From Lake Alta to Monte Vista the conduit is known as the Cedar Creek Canal. From Monte Vista to the area south of Auburn the canal generally parallels the unit boundary meandering back and forth across it at several points. From Monte Vista to its terminus at the Roseville Regulator it is known as the Boardman Canal. The canal system is 73.7 miles in length from the intake on the Bear River to the terminus near Roseville, exclusive of laterals.

Most of the water deliveries from the Boardman Canal are made in the Auburn-Rocklin area. The principal laterals are Shirland, Greeley, Red Ravine, and Caperton Canals.

The Boardman Canal receives additional water at several points. In the upper reaches of the canal some minor recharge is obtained from Pitman Ravine (D16N/11E-9J1) above the Drum Forebay and from the Little Bear River at the Alta Powerhouse (D16N/10E-25P1), both tributaries of the Bear River. The Towle Canal rediversion from Canyon Creek includes releases to Canyon Creek made from Drum Forebay. Canyon Creek runoff below Towle Canal rediversion point is diverted by Pulp Mill Canal (D16N/10E-36Q1) to Lake Alta, thence to the

Boardman Canal. In the lower reaches, other inflow to the Boardman Canal is affected by Ragsdale Tunnel Canal, Fiddler Green-Boardman Diversion Canal, and South Canal, all units of the South Yuba and Bear Rivers Power System.

Towle Canal (D16N/11E-21E1). The Towle Canal conveys water from Canyon Creek to the Alta Forebay, leaving the unit as an export at location D16N/11E-31C1. The supply for the canal is derived from three sources: flow of the Upper Boardman Canal that is routed through Boardman Tunnel and spilled via an unnamed ravine into Canyon Creek, releases from the Drum Forebay, and natural flow of the creek. Before leaving the unit, a small portion of the flow is diverted to Crystal Springs Pipeline to supply an undetermined number of domestic users in the vicinity of Baxter.

Pulp Mill Canal (D16N/10E-36Q1). Flow in Canyon Creek not diverted by the Towle Canal can be diverted by Pulp Mill Canal directly to Lake Alta, leaving the unit as an export at D16N/10E-35J1. Thus flow from the Upper Boardman Canal and releases from the Drum Forebay may bypass Alta Powerhouse and be routed via Pulp Mill Canal directly to Lake Alta. Lake Alta regulates flows from Pulp Mill Canal and Lower Boardman Canal before releasing to Cedar Creek Canal.

Colfax Pipeline (D15N/9E-27R1). The Colfax Pipeline imports from the Boardman Canal to provide municipal service to the City of Colfax and domestic service to the urban area near Colfax. A small part of this service is outside the hydrographic unit. There are 403 connections served by this

lateral, with 390 reported as municipal and domestic uses and the remaining 13 as miscellaneous uses.

Shirland Canal (D12N/8E-15P1). Shirland Canal imports from the Boardman Canal just inside the city limits of Auburn to supply irrigation and domestic uses in the Shirland Tract, an area about two miles south of the city. The Shirland Stub, an extension of Shirland Canal, conveys excess water to Mormon Ravine. This excess water unites with tail water from South Canal and spills to Folsom Lake.

Gaylord Canal (D12N/8E-20Q1). Gaylord Canal imports from the Boardman Canal to supply irrigation and domestic uses in the western portion of the Shirland Tract not supplied by Shirland Canal. Tail water from this canal is received by South Canal and subsequently spilled via Mormon Ravine to Folsom Lake.

Monte Rio Pipe (D11N/8E-5B1). Monte Rio Pipe, a branch lateral of Greeley Canal which is a direct lateral of the Boardman Canal, imports to the hydrographic unit just below South Canal. Since Greeley Canal and South Canal are interconnected at their crossing, this imported supply can originate from either the Boardman Canal or the South Yuba and Bear Rivers Power System.

South Fork American River System

Principal water development in the American River Basin is largely confined to the South Fork American River Watershed. Significant storage is impounded in Silver Lake and Twin Lakes Reservoirs, both tributary to Silver Fork

American River, and in Medley Lakes Reservoir (Lake Aloha) on Pyramid Creek, a tributary of the South Fork American River. Water from the Upper Truckee River Watershed is imported from Echo Lake for use in the American River System. These reservoirs are operated by Pacific Gas and Electric Company mainly for power purposes. Releases made down the South Fork American River are diverted to the El Dorado Forebay via the El Dorado Ditch. From the forebay releases are made to El Dorado Irrigation District, previously described, and to the El Dorado Powerhouse which discharges back to the river channel. Downstream, flow is diverted to the American River Flume which conveys the water to American River Powerhouse where it is again returned to the stream.

Following are discussions of the diversion facilities and pertinent features of the South Fork American River area:

El Dorado Ditch (D11N/15E-24R1). Water regulated by upstream storage together with the natural runoff of the South Fork and Silver Fork, is diverted at a point just below their confluence by the El Dorado Ditch. The El Dorado Ditch extends along the south canyon wall for a distance of about 25 miles to the El Dorado Forebay, a 400 acre-foot regulating reservoir. Additional water is diverted into the El Dorado Ditch below its intake. This supplemental diversion is from Alder Creek (D11N/14E-36M1) through an 18-inch pipeline which discharges into the ditch at a point about 3 miles below its intake. At the El Dorado Forebay releases are made to the El Dorado Irrigation District's Main Canal for urban and agricultural use,

but most of the water flows through a penstock to the El Dorado Powerhouse located on the south bank of the South Fork American River.

The El Dorado Powerhouse was constructed by the Western States Gas and Electric Company in the early 1920's to utilize the head available between the El Dorado Ditch and the South Fork American River. The present generating capacity of the powerplant is 21,000 kilowatts.

American River Flume (D11N/12E-19N1). About 5 miles below the El Dorado Powerhouse flow is diverted from the South Fork American River into the American River Flume by a diversion dam constructed by the American River Electric Company in 1903. The flume extends westerly along the north canyon wall 7.3 miles to the American River Powerhouse.

The American River Powerhouse, with a maximum operating head of 120 feet, was also constructed by the American River Electric Company in 1903. The present generating capacity is 6,500 kilowatts.

Upstream Reservoirs Releasing to South Fork. Pacific Gas and Electric Company operates a number of reservoirs located in the South Fork American River upstream area to store winter runoff for release during the low flow season. These are: Echo Lake, Medley Lakes, Silver Lake, and Twin Lakes, all constructed by predecessors of the company; Ropi Lake, Toem Lake, Lake of the Woods, and Winnemucca Lake, all constructed in conjunction with the United States Forest Service.

Echo Lake (D11N/18E-6M1), with a capacity of 1,900 acre-feet, is located in the Truckee River Basin which bounds this unit on the east. Flows are imported into the unit via an earth ditch and tunnel before spilling to the South Fork American River. The average annual amount imported during the 31 year period of record is 1,501 acre-feet.

Medley Lakes (D12N/17E-30G1), with a capacity of 5,350 acre-feet, in conjunction with Ropi Lake (D12N/17E-32P1), Toem Lake (D12N/17E-32N1), and Lake of the Woods (D12N/17E-32H1), which have a combined total capacity of about 200 acre-feet, release to Pyramid Creek, a tributary of the South Fork American River.

Silver Lake (D10N/17E-32Q1), located on the Silver Fork American River, with a capacity of 11,800 acre-feet, regulates runoff for release to the South Fork American River.

Winnemucca Lake (D10N/18E-34E1), with a capacity of 225 acre-feet, is located upstream from Twin Lakes where it regulates runoff before releasing to Caples Creek.

Twin Lakes (D10N/18E-18N1), with a capacity of 21,581 acre-feet, stores and reregulates releases to Caples Creek, a tributary of the Silver Fork American River.

All of these lakes are operated by Pacific Gas and Electric Company in conjunction with the United States Forest Service and the California State Department of Fish and Game for streamflow maintenance and power generation.

APPENDIX E

PRESENT DEVELOPMENT OF PROJECTS
UNDER CONSTRUCTION BY OTHER AGENCIES

APPENDIX E

PRESENT DEVELOPMENT OF PROJECTS
UNDER CONSTRUCTION BY OTHER AGENCIES

TABLE OF CONTENTS

	<u>Page</u>
Georgetown Divide Public Utility District	E-5
Placer County Water Agency	E-7
Sacramento Municipal Utility District	E-8

APPENDIX E

PRESENT DEVELOPMENT OF PROJECTS UNDER CONSTRUCTION BY OTHER AGENCIES

This appendix presents information on the present development of projects under construction by other agencies which could not be adequately described in Chapter I, "Local Agencies Concerned with Water Development." Only those projects in the advanced planning stage or presently under construction, but not completed at the time of the field survey for this report, are described in this appendix.

Georgetown Divide Public Utility District

The Georgetown Divide Public Utility District was organized in 1946 under the Public Utility District Act to provide for progressive development of an adequate water supply for the growing needs of the Georgetown Divide area. In 1952 the district purchased from the Georgetown Water Company the existing water system including Loon Lake in the Upper Rubicon River Basin. Those features utilized at the time of the field survey for this report are described in Appendix D.

In 1957 the district entered into an agreement with the Sacramento Municipal Utility District providing for annual payments for the purchase of the district's right to water in the Upper Rubicon River Basin. The waters secured by these rights will be used for power generation by Sacramento Municipal Utility District in their Upper American River Project.

From the funds received by the Georgetown Divide Public Utility District, storage facilities on Pilot Creek are to be constructed as a substitute supply for Upper Rubicon River waters.

As outlined in a feasibility report prepared by the district in 1958, Stumpy Meadows Reservoir would provide necessary storage facilities on Pilot Creek. Conveyance would be accomplished via a new section of conduit, the El Dorado Ditch. This ditch would divert from Pilot Creek along the south bank about one-half mile below the dam and connect with the existing Georgetown Divide Ditch at a point about 1.5 miles below its former intake.

Construction of Stumpy Meadows Project was started in 1960 and completed in January 1962. Upon completion of the project, those facilities above the reservoir and in the Rubicon Basin were abandoned and all rights to water in the Rubicon Basin officially turned over to the Sacramento Municipal Utility District.

The general plan of development includes future improvement of the Georgetown Divide Ditch from the junction with the new conduit to the Georgetown area, and improvement of the distribution system below Georgetown. As outlined in the district's 1958 feasibility report, Onion Creek Diversion is also considered a part of the Pilot Creek works. This diversion, to be located on a tributary of Silver Creek, will divert a portion of the flow in Onion Creek to storage in Stumpy Meadows Reservoir. This feature is scheduled for construction in the near future.

Placer County Water Agency

The Placer County Water Agency, created by the California State Legislature in 1957, commissioned McCreary-Koretsky-Engineers, to study possible water development on the Middle Fork American River. Findings from this study resulted in the Middle Fork American River Project on which construction was initiated early in 1963.

The initial phase of the project is the "French Meadows Complex." This includes French Meadows Dam and Reservoir, started early in 1963; Duncan Creek Diversion Dam; and the connecting diversion tunnel from Duncan Creek to French Meadows. This phase of the project is expected to be completed in late 1964.

The second phase, the "Hell Hole Complex," includes French Meadows Tunnel, Hell Hole Dam and Reservoir, North Fork and South Fork Long Canyon Diversion Dams, and the diversion tunnel from Hell Hole Reservoir to Middle Fork American River. This second phase is scheduled for completion in November 1965.

The third phase entitled "Power Facilities" includes all elements of the project necessary to make the whole of the project fully operable and is scheduled for completion on or prior to September 1966. This phase includes Interbay Diversion Dam, Ralston Tunnel, Ralston Afterbay, and four powerplants complete with penstocks.

The farthest upstream powerplant is French Meadows Powerhouse, situated on the north edge of Hell Hole Reservoir. Water to this plant is supplied from French Meadows Reservoir

via French Meadows Tunnel and discharges into Hell Hole Reservoir. Middle Fork Powerhouse, the next plant downstream, receives the diverted flow from Hell Hole Reservoir and Long Canyon Diversion Dams before discharging to Interbay Diversion Dam. Water at Interbay Diversion Dam is diverted to Ralston Powerhouse, located just above Ralston Afterbay. From Ralston Afterbay water is released through Oxbow Powerhouse to the Middle Fork American River.

Another feature of this project is Auburn Pumping Plant, located downstream near the City of Auburn. This plant will divert from the American River through the Auburn Tunnel to meet water demands in the western part of Placer County.

Sacramento Municipal Utility District

Organized in 1923, the Sacramento Municipal Utility District began electric distribution operations in the Sacramento County area on December 31, 1946. Initially the district purchased its power requirements from Pacific Gas and Electric Company, later purchasing power from the United States Bureau of Reclamation, Central Valley Project.

At the present time, the Sacramento Municipal Utility District is completing an extensive hydroelectric project in the American River Hydrographic Unit which will supply part of its power requirements. The project area is that portion of the Upper American River Watershed situated on the Rubicon River, Silver Creek, and South Fork American River below Silver Creek. The project consists of three powerplants,

10 dams and reservoirs, tunnels, conduits, roads, and a remote control system operating semiautomatically from Sacramento. The powerplants have a design capacity of 238,000 kilowatts and the reservoirs will provide about 420,000 acre-feet of gross storage.

Union Valley Powerhouse and Union Valley Reservoir are located on Silver Creek. The reservoir is supplied by the natural runoff of Silver Creek supplemented by the diversion from tributaries of the Rubicon River. Runoff from this diversion is collected, stored, and diverted in order by: Rubicon Dam and Diversion Tunnel; Buck Island Dam and Diversion Tunnel; Loon Lake Dam, Gerle Creek Dam and Diversion Canal; and Robbs Peak Dam and Diversion Tunnel.

Ice House Reservoir, one of the first features of the project to be completed, stores runoff from the upper reaches of the South Fork of Silver Creek. Water from this reservoir, plus natural runoff below the dam and water discharged from Union Valley Powerhouse, flow into Junction Reservoir. Junction Reservoir, located on Silver Creek just below its confluence with South Fork Silver Creek, reregulates this water which is then diverted via tunnel to the Jaybird Powerhouse. Discharge from this plant is reregulated by the Camino Reservoir, then diverted via tunnel to the Camino Powerhouse.

Additional features proposed for future construction below Union Valley Reservoir include a 72,000 kilowatt generating unit to be added to Camino Powerhouse. Expansion of this plant's facilities will include development of diversion

facilities on Brush Creek and a tunnel to the present Camino Tunnel. Below Camino Powerhouse on the South Fork American River, water will be further regulated by construction of Slab Creek Reservoir. Releases will be diverted via tunnel through White Rock Powerhouse, then reregulated in Chili Bar Reservoir, now under construction, and released through Chili Bar Powerhouse to the stream channel below.

Above Union Valley Reservoir in the Rubicon River drainage, four powerplants and three tunnels are additional proposed features. A tunnel from Loon Lake Reservoir would divert to Loon Lake Powerhouse No. 1, situated on the South Fork Rubicon River. Discharges from this plant are to be conveyed through another tunnel to Loon Lake Powerhouse No. 2, which will be located adjacent to the Gerle Creek Diversion Canal. Flows from this plant will discharge to the diversion canal. Robbs Peak Powerhouse, located at the end of Robbs Peak Diversion Tunnel, will discharge to Union Valley Reservoir, thereby utilizing all the inflow from the Rubicon River Watershed for power purposes.

Also above Union Valley Reservoir but on the South Fork Silver Creek, a proposed tunnel will divert flow from Ice House Reservoir to the proposed Jones Fork Powerhouse, located at the southeast end of Union Valley Reservoir.

SEP 19 '84

OCT 1 '84

THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

RENEWED BOOKS ARE SUBJECT TO IMMEDIATE
RECALL

MAR 12 1969

MAR 4 REC'D

MAR 4 REC'D

JUN 18 1977

APR 25 REC'D

JUN 17 1977

JUN 16 REC'D

MAY 24 1990
RECEIVED

JUN 05 1990

PHYS SCI LIBRARY

LIBRARY, UNIVERSITY OF CALIFORNIA, DAVIS

Book Slip-25m-6,'66 (G3855s4)458



3 1175 01434 2987

No 479878

California. Dept.
of Water Resources.
Bulletin.

TC824
C2
A2
no. 94:14
v.1

PHYSICAL
SCIENCES
LIBRARY

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

