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August 2024

1938 Blueprint Maps & Information for Grand Lake Water System

A. V. Dunn

Associate Engineer of National Park Service

National Park Service Branch of Land Acquisition and Regulation Water Rights Section

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	SUPT.	
✓	ASST. SUPT.	
	CH. RANGER	
	CHIEF CLERK	
	NATURALIST	
	ENGINEER	
	ARCHITECT	
	WORKKEEPER	
	COMMISSIONER	
	E. C. W.	
✓		
	ANSWERED BY	

NATIONAL PARK SERVICE
 BRANCH OF LAND ACQUISITION AND REGULATION
 WATER RIGHTS SECTION

601 Sheldon Bldg.,
 San Francisco, Calif.,
 May 3, 1938.

MEMORANDUM TO MR. JOSEPH E. TAYLOR, REGIONAL ATTORNEY:

Re: Grand Lake Water System,
 Rocky Mountain National Park.

I enclose two prints of the map of the Grand Lake Area showing the Grand Lake Water System and its relation to existing decreed and filed claims. This map is a reduced scale photostat of the map from which I am preparing a tracing for filing, but the filed map, of course, will not show so much detail. I should like to have you discuss the matter with Mr. Canfield and be sure that I am working in accordance with his ideas.

Diversions

There will be three diversions, as follows:

1. The penstock diversion at the north line of Section 32, T4N, R75W.
2. The auxiliary domestic diversion near the power house of the Grand Lake Lodge System.
3. The auxiliary domestic diversion at the well, at the Grand Lake Ranger Station, in the Southeast quarter of the Southwest quarter of Section 31, of the same township and range.

Quantities

I have not yet completed final quantities for the system, but there will be the full penstock capacity (about 10 sec. ft.) for power, and approximately 0.5 sec. ft. for domestic use. I will claim all I can justify in any case, for domestic use.

Use and Sites

There are two immediate uses, as follows:

1. The Grand Lake Lodge, in the leased area shown on the map.

MAY 6 1938

2. The present Grand Lake Ranger Station, Utility Area, and Checking Station.

There are also two proposed additions, or alterations, as follows:

1. An additional Lodge of the Rocky Mountain Lodges, Inc., which will be located on the West shore of Grand Lake at the time that this area is brought into the park. At this time, too, it seems safe to assume that the checking station will be moved down to the present junction of the Grand Lake, Granby, and Estes Park Roads on the West edge of the Rocky Mountain Lodges, Inc., property.
2. The Grand Lake Ranger Station and Utility Area will be enlarged, and moved to the area just north of the property of the Mitchell heirs, on the West side of Tonahutu Creek.

We thus have a demand for domestic use for two hotels, a campground near the new Utility Area, and a ranger station and utility area. Only the present power installation will be filed, assuming that the second hotel will obtain power from the Colorado-Big Thompson Project. In fact, in the report which I will get out at the time of filing the map, I will also provide for possible abandonment of all power when the Colorado-Big Thompson Project is complete, but that is only to be used in case of a protest by Harbison.

Right of Way

You will notice that the present pipe line cross the Northwest corner of the Mitchell Estate in Section 32. Please determine from Mr. Canfield when, if at all, the park will acquire that land. Also, if it is still owned by Mitchell heirs, decide what should be done about the right of way, and whether the Lodge ever obtained such right of way privileges.

You will also notice that if a new lodge on the West shore of Grand Lake is to be served by the system, a right of way will be required across the Grand Lake Townsite. Please decide, with Mr. Canfield, just what provisions should be made for that right of way.

Protests

You will notice that the most probable protest is from Harbison, whose ditch is crossed by the Grand Lake Lodge Penstock. This ditch is in a position to suffer by the 10 sec. ft. draft for power, but not by the domestic draft, to judge from my stream measurement last summer.

In addition, you will note the various pipe lines serving the Grand Lake area are shown with diversions near the park boundary, on Tonahutu Creek, and on North Inlet below the mouth of Tonahutu Creek. These should not protest the power draft, since it is returned to the stream above them. They may, however, protest the domestic demand which is lost to them.

From my superficial inspection of records, and my one measurement of 15.8 sec. ft. at the diversion on August 4, it seems probable that the minimum flow of Tonahutu Creek, during the park season, is about 7 second feet during late August and early September, and about 12 second feet at the peak of park travel on August 10.

I have not gone into details enough to state anything with assurance, but in general it seems that Harbison has 4.6 second feet decreed, which would have to come senior to the Park Headquarters. It would leave about 5.0 second feet for power, which was the noon use on August 4. Note that of the total 9.1 second feet of Harbison decree, only 4.6 can be drawn at one time.

There is a total decreed right to about 11.125 second feet on Tonahutu Creek, to serve senior to the park domestic use. This gives a shortage late in August if all rights were active at that time, but I think all have dropped, and I doubt if full appropriation has ever been made. Incidentally, the Mitchell Decree of 1.25 second feet is not shown on the map, as I do not know where it is on his land.

There is one filing - Ish Pipe Line - which would probably be adjudicated with any park claims. It claims 21.5 second feet, and would be cut in quantity, of course.

Cairns Pipe Line No. 2 has a decree for 5.015 second feet, but since it is from North Inlet, it will not figure in the picture.

Then, if we can adjudicate the park claim soon, I think we will get about the last valuable right on Tonahutu Creek. If we wait for more claimants to develop systems, we are likely to suffer in quantity and priority.

I can see that I should give this system much more study as soon as possible, and before filing, but perhaps this picture will help you and Mr. Ganfield decide on a general policy which will help me in my final preparation of the filing and data for an adjudication.

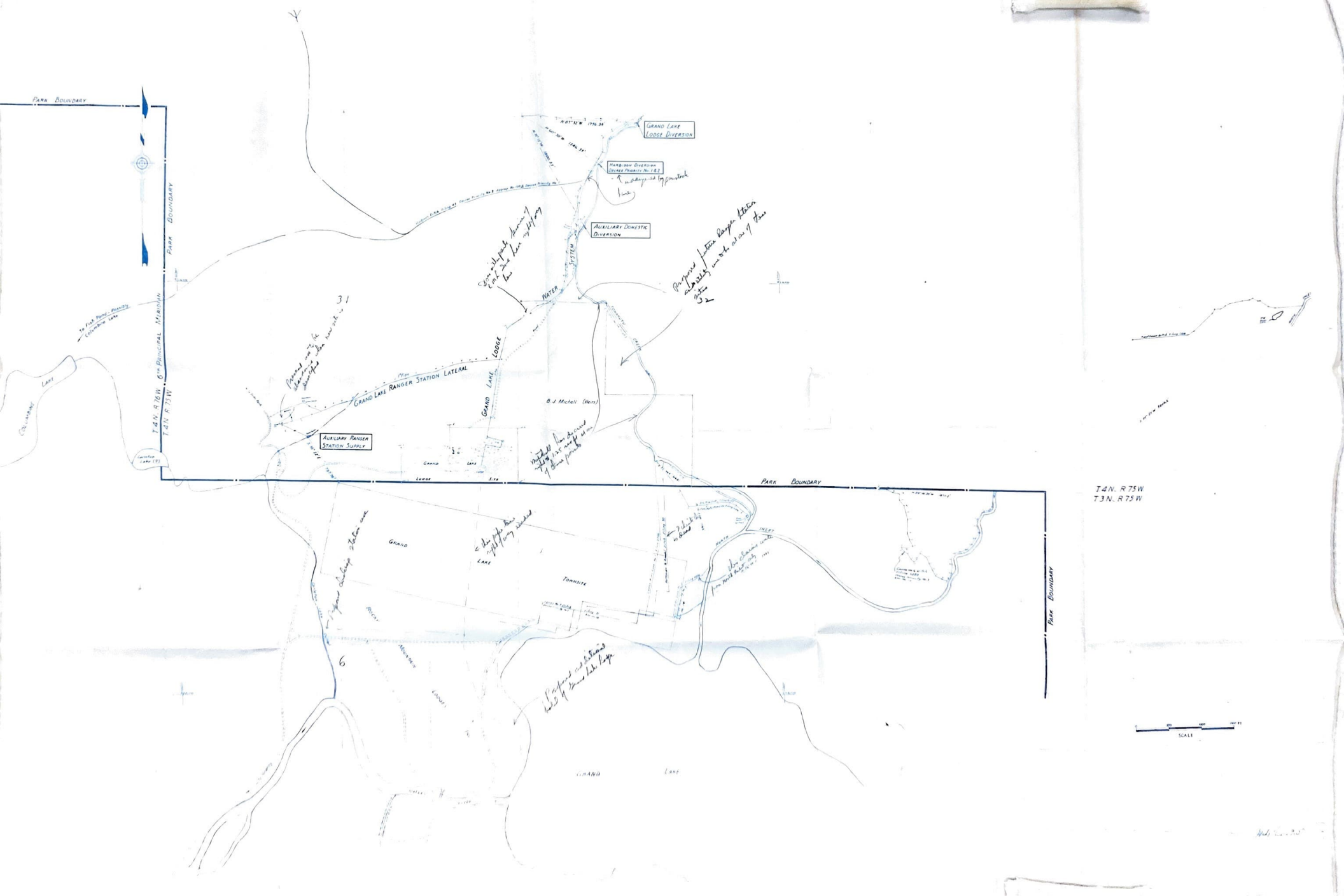
AVVD:SH

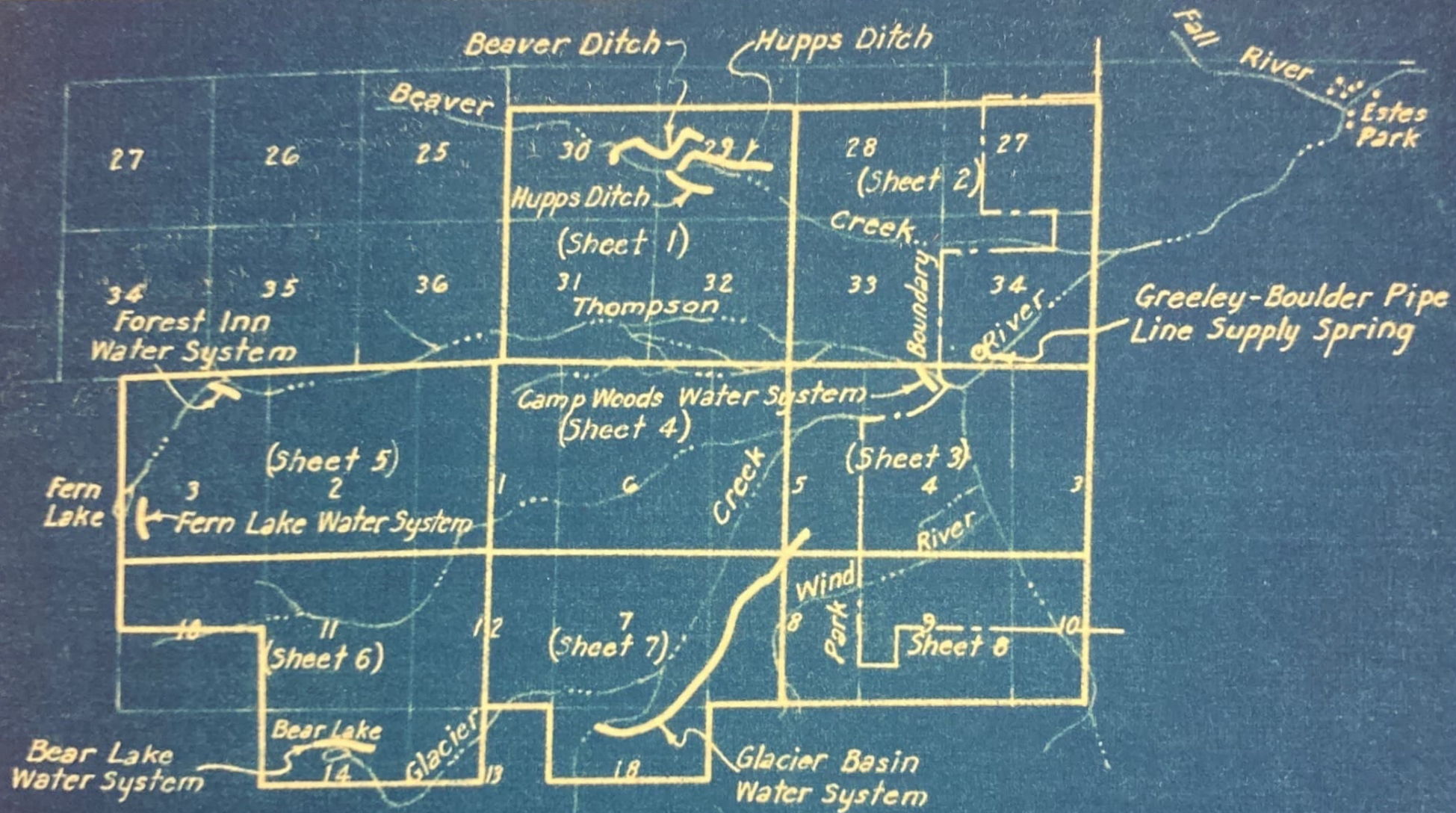
A. van V. Dunn,
Associate Engineer.

CC: Supt., Rocky Mt. Nat. Park.



















P.S.-- Since writing the foregoing memorandum, I have decided, in the interest of postage economy, to send only one copy of the map by airmail with this memorandum. The second copy is being forwarded to the Superintendent by regular mail.

A. v.V. D.





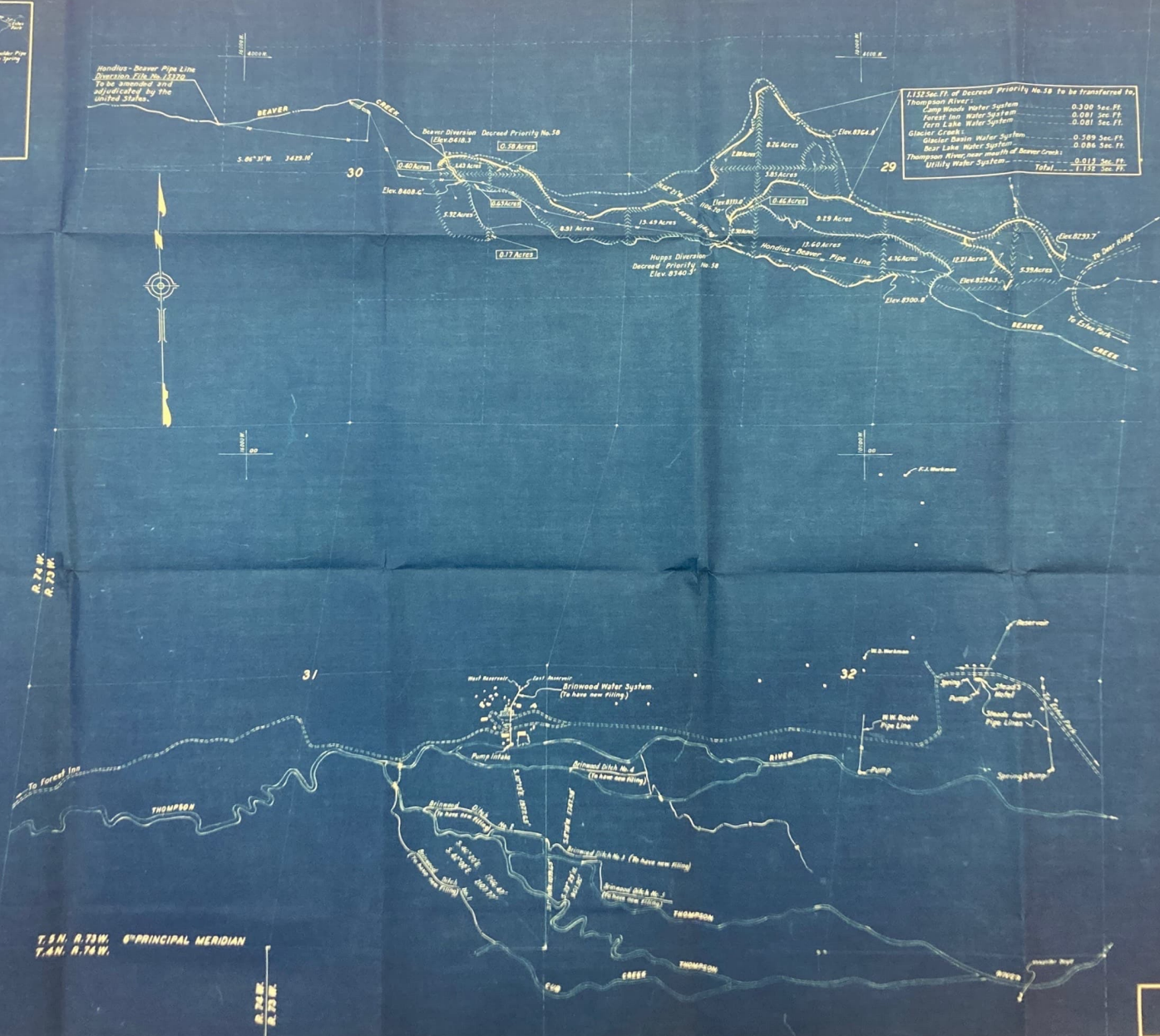
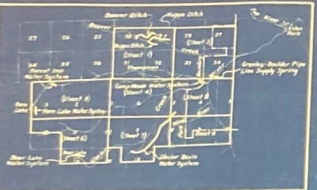
LEGEND

-  ROADS
-  DITCH
-  STREAMS
-  CO-ORDINATE LINES
-  SECTION LINE
-  SECTION LINE
-  SECTION LINE
-  SURVEY STATION
-  WATER LINE
-  BUILDINGS
-  POLE BOUNDARY
-  PRIVATE LAND BOUNDARY
-  IRRIGATION AREA
-  MARSH
-  TEMPORARY GAUGE STATION
-  DRAINAGE DITCH
-  TRAIL
-  THEORETICAL SECTION LINE

1.152 Sec. Ft. of Decreed Priority No. 18 to be transferred to:

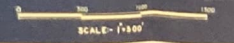
Thompson River	0.300	Sec. Ft.
Camp Woods Water System	0.081	Sec. Ft.
Forest Inn Water System	0.001	Sec. Ft.
Glacier Creek	0.309	Sec. Ft.
Glacier Basin Water System	0.086	Sec. Ft.
Beaver Lake Water System	0.015	Sec. Ft.
Thompson River near mouth of Beaver Creek	0.015	Sec. Ft.
Utility Water System	0.015	Sec. Ft.
Total	1.152	Sec. Ft.

Hondius - Beaver Pipe Line
 Direction Elev. No. 42370
 To be abandoned and
 relinquished by the
 United States.



REVISIONS
 3-14-38. Huggs & Beaver Ditches Transfers Modified.

T. 5 N. R. 73 W. 6° PRINCIPAL MERIDIAN
 T. 4 N. R. 74 W.



UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION
	II
	SHEET 1 OF 8
	NP
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION 1 ROCKY MOUNTAIN NATIONAL PARK	RM-



REVISIONS
 3-25-34. Utility Meter System Dates Changed.

SCALE - 1" = 100'

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.		REGION II SHEET 2 OF 8
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION 1 ROCKY MOUNTAIN NATIONAL PARK		N P R.M.

PREPARED BY: COMPILED & DRAWN BY: CHECKED BY:
 A. J. B. D. H. S. J. W. S. J.

T. 5N. R. 73W. 6th PRINCIPAL MERIDIAN
T. 4N. R. 73W.

33

34

To Bear Lake
WILL
CREEK

Diversion Filing No. 14173
By Estes Park Water Co.

Proposed Glacier Creek Pipe Line

Camp Woods Thompson River
Diversion, 6,300 Sec. 18 of
Decrease Priority No. 22 to
be transferred from Huggs
and Beaver Ditches.
Agreement needed for use of
Park Service Water on
Damping Area by C.H. Woods.

CAMP

J. M. Downing
(Power's Line)

Withbach
Camp Woods Spring
(To have new filling)

Timothy Stone Diversion,
Partial Supply for Camp
Woods, needs issue of
government use.

Reservoir

Timothy Stone

Area Served By Stone Water System

ESTES PARK CONFERENCE
Y. M. C. A.

20,000 Gallon
Regulating Reservoir

Spring, Filing No. 14625
Amended No. 14625
By James Scott.

Water Supply Tanks

Diversion, Filing 6464
By A.G. Parsons.

The A.G. Parsons Power & Water
Supply Lines

Seven Diversions From Unknown Springs,
Filing 15807, Frank W. Spencer
and John L. Spencer.



N. 84° 30' E. 2537' From N.W. Sec. 3
File Map No. 14173

8,11000

8,11000

SCALE - 1" = 1,000'

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
BRANCH OF LAND ACQUISITION AND REGULATION
SAN FRANCISCO, CALIF.

WATER SYSTEMS AND CLAIMS
THOMPSON RIVER DRAINAGE
WATER DISTRICT 4 DIVISION 1
ROCKY MOUNTAIN NATIONAL PARK

REGION
II

SHEET 3 OF 8

NP
RM-

PREPARED BY SCOTT & GRADY INCORPORATED
P. O. Box 7, Denver
July 24, 1936

T. 5 N. R. 73 W. 6th PRINCIPAL MERIDIAN

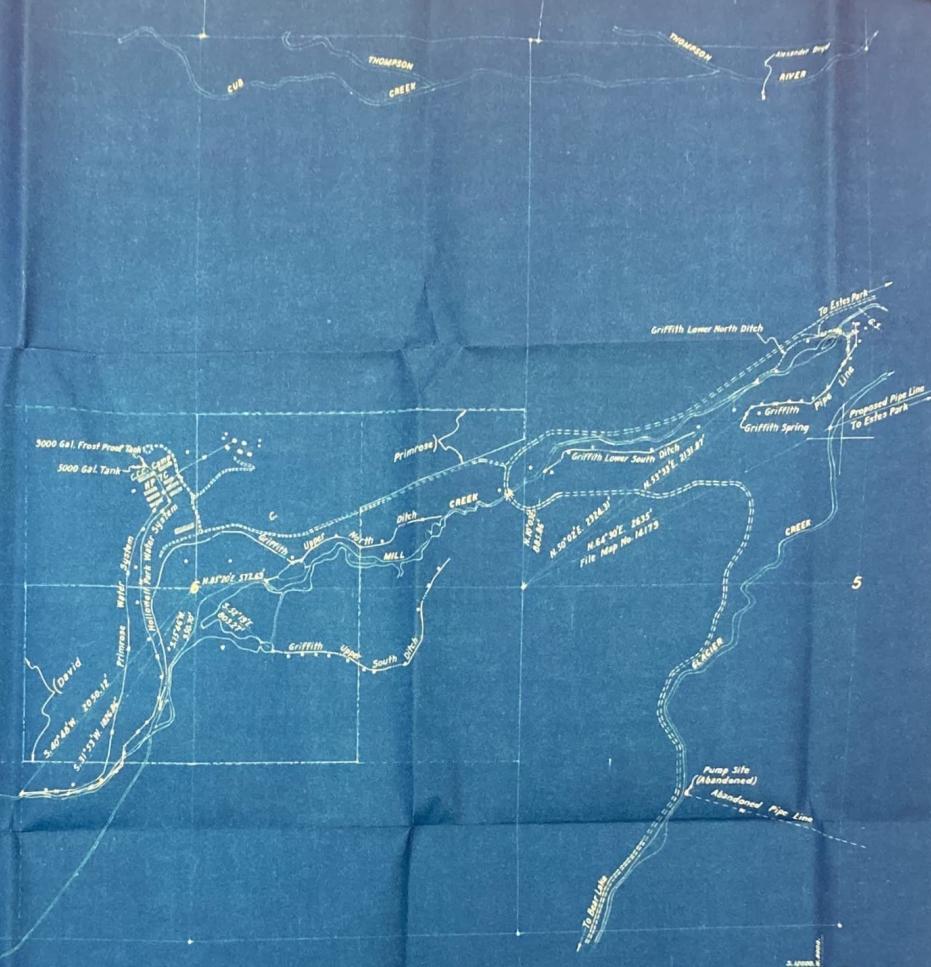
T. 4 N. R. 73 W.

R. 74 W.
R. 73 W.



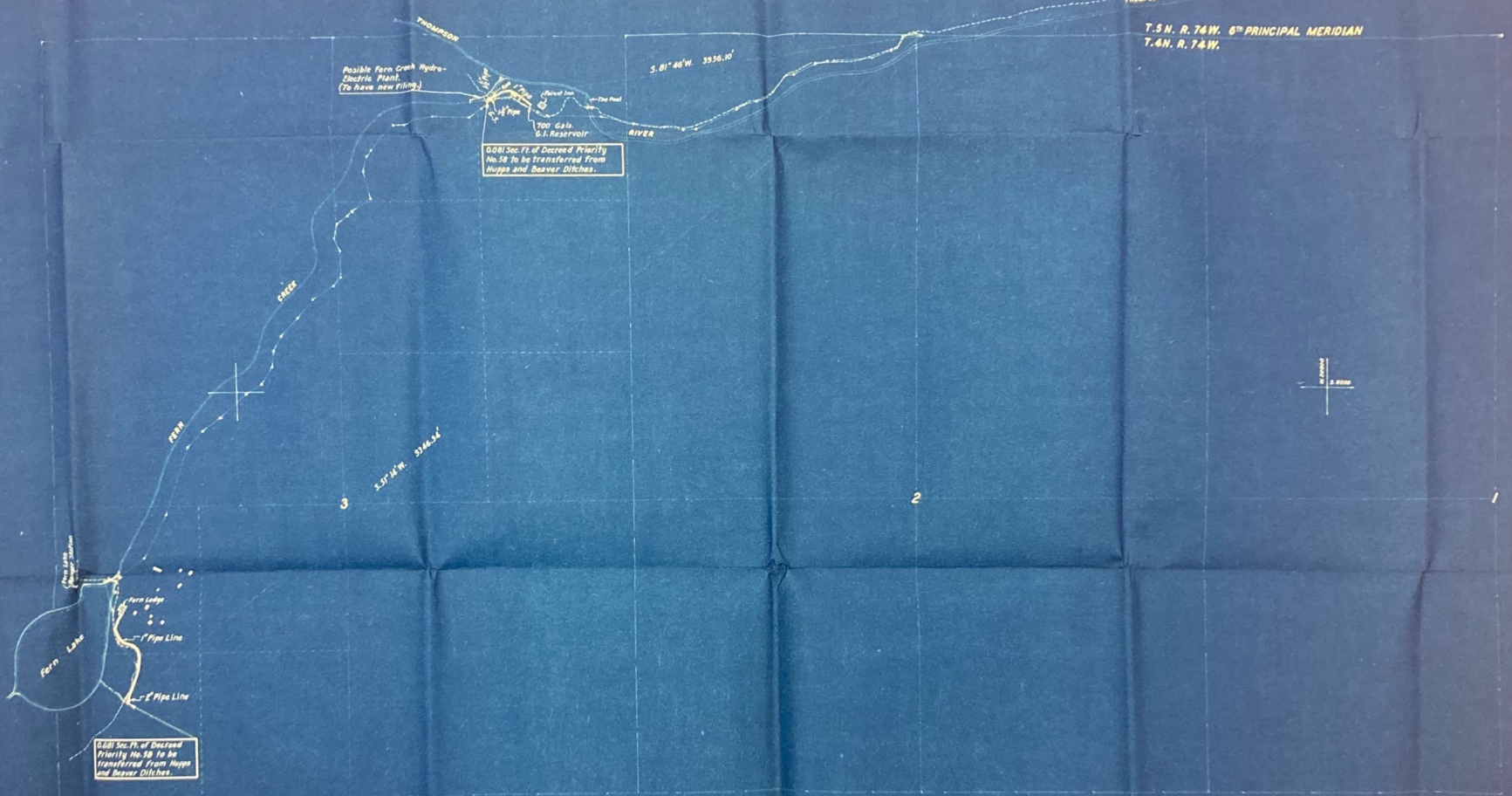
SCALE - 1" = 500'

SCALE - 1" = 500'



SCALE - 1" = 500'

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION
	II
	SHEET 4 OF 8
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION I ROCKY MOUNTAIN NATIONAL PARK	N P
	RM-



Possible Fern Creek Hydro-Electric Plant (To have new filling)

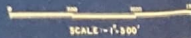
0.081 Sec. Ft. of Decreased Priority No. 58 To be transferred from Hoppes and Beaver Ditches.

0.081 Sec. Ft. of Decreased Priority No. 58 To be transferred from Hoppes and Beaver Ditches.

T. 5 N. R. 7 & W. 6th PRINCIPAL MERIDIAN
T. 4 N. R. 7 & W.

S. 81° 46' W. 3356.10'

S. 57° 14' W. 3184.64'



SCALE - 1" = 200'

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION II
	SHEET 5 OF 8
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION 1 ROCKY MOUNTAIN NATIONAL PARK	N.P. RM-

PREPARED BY CAMPBELL & BRADSHAW, TRACED BY
 A. J. ...
 1952



10

11

12

Spring, 0.688 Sec. 11, of decreed priority No. 50 to be transferred from Haggis & Besser Ditches.

5.77⁰⁰ W. 109.51⁵⁰ from N. 53.5⁰⁰ W. Sec. 7, T. 4N. R. 73W.

BEAR LAKE WATER SYSTEM

Filing 02850
Henry J. Heintz
Not Shown

Filing 86, Bear Lake Reservoir and Fishing Co.
Filing 3212 B.D. Sanborn

Bear Lake

Bear Lake Reservoir

BLANDED CREEK

To Estes Park

14

13



SCALE 1" = 1000'

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
BRANCH OF LAND ACQUISITION AND REGULATION
SAN FRANCISCO, CALIF.

WATER SYSTEMS AND CLAIMS
THOMPSON RIVER DRAINAGE
WATER DISTRICT 4 DIVISION 1
ROCKY MOUNTAIN NATIONAL PARK

REGION
II
SHEET 6 OF 8
NP
RM-

PREPARED BY: CONTROLLED & DRAWN BY: STAGED BY:
A. van D. D. 1917
#5.7. #5.7.



Glacier Basin Diversion, 0.588 Sec. 17, of Deceased Priority No. 18 to be transferred from Hupper and Deaver Ditches.

SCALE - 1" = 300'

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION II SHEET 7 OF 8
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION I ROCKY MOUNTAIN NATIONAL PARK	NP RM-



1:25000

1:25000

T. 4 N. R. 73 W. 6th PRINCIPAL MERIDIAN

Boundary
River
WFO

RIVER

Seven Dissections from Unknown Springs,
Filing 12487, Frank W. Spencer
and John L. Spencer.

Mahony Ditch No. 1

Part Boundary

Mahony Ditch No. 1
18800

Part of Filing No. 12115
by Martha M. Mahony.

Filing 1068 and 2249
M. F. Buchanan, et al.
and Shorn.

Part of Filing No. 12115
by Martha M. Mahony.

0 200 400 600 800
SCALE - 1"=500'

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION II
WATER SYSTEMS AND CLAIMS THOMPSON RIVER DRAINAGE WATER DISTRICT 4 DIVISION I ROCKY MOUNTAIN NATIONAL PARK	SHEET 8 OF 8 N P RM-

PREPARED BY COMPILED AND DRAWN BY
DATE: 1952
M.S.J.

TRAVERSE TABLE			REMARKS
STATION	READING	DISTANCE	
GRAND LAKE LODGE DIVERSIONS			N.W. COR. SEC. 32, T.4N. R.7W.
1	5 38' 10" W	112.00	
2	5 38' 02" W	112.42	
3	5 37' 48" W	112.80	
4	5 38' 34" W	112.97	
5	5 38' 42" W	112.31	
6	5 38' 17" W	112.10	
7	5 37' 12" W	112.20	
8	5 37' 32" W	108.85	
9	5 37' 32" W	107.92	
10	5 37' 42" W	107.20	
11	5 37' 32" W	112.63	
12	5 37' 32" W	112.72	
13	5 37' 32" W	112.76	
14	5 37' 32" W	112.71	
15	5 37' 32" W	112.71	
16	5 37' 32" W	112.43	
17	5 37' 00" W	112.39	
18	5 37' 42" W	112.48	
19	5 37' 42" W	112.72	
20	5 37' 17" W	112.50	
21	5 37' 32" W	112.97	
22	5 37' 32" W	112.83	
23	5 37' 32" W	112.94	
24	5 37' 32" W	112.93	
25	5 37' 32" W	112.93	
26	5 37' 32" W	112.93	
27	5 37' 32" W	112.93	
28	5 37' 32" W	112.93	
29	5 37' 32" W	112.93	
30	5 37' 32" W	112.93	
GRAND LAKE LODGE PIPE LINE			
RANGES	STATION	EXTERNAL	
A	5 37' 32" W	112.93	
B	5 37' 32" W	112.93	
C	5 37' 32" W	112.93	
D	5 37' 32" W	112.93	
E	5 37' 32" W	112.93	
F	5 37' 32" W	112.93	
G	5 37' 32" W	112.93	
H	5 37' 32" W	112.93	
I	5 37' 32" W	112.93	
J	5 37' 32" W	112.93	
K	5 37' 32" W	112.93	
L	5 37' 32" W	112.93	
M	5 37' 32" W	112.93	
N	5 37' 32" W	112.93	
O	5 37' 32" W	112.93	
P	5 37' 32" W	112.93	
Q	5 37' 32" W	112.93	
R	5 37' 32" W	112.93	
S	5 37' 32" W	112.93	
T	5 37' 32" W	112.93	

Courses Referred To True Meridian.

Know All Men By These Presents: That the undersigned, the United States Of America claimant, whose postoffice address is Rocky Mountain National Park, Estes Park, Colorado has caused to be located the Grand Lake Lodge and Ranger Station Water Systems as hereinafter mentioned, has made these several statements relative thereto, and filed the same in compliance with the laws of the State of Colorado. The accompanying map shows the location of said pipe lines, and forms a part of this filing.

GRAND LAKE LODGE PENSTOCK
DEED: The headgate is located at a point on the west bank of Tonahulu Creek from which it derives its supply of water, whence the North West Corner of Section No. 32, Township 4 North, Range 75 West, of the Sixth Principal Meridian bears N 87° 32' W. 1756.34'
SECTION: The said penstock is of wood and is served by 100 feet of ditch from the point of diversion.
 The ditch has a greater capacity than the penstock and the surplus is returned to Tonahulu Creek near the end of the ditch and beginning of penstock.

The diameter of said penstock is 20 inches.
 The grade of said penstock is _____
 The length of said penstock is _____
TOTAL: The carrying capacity of said penstock is _____ cubic feet per second of time, for which claim is hereby made for

COSTS: The estimated cost is \$ _____
FILED: Work was commenced by _____ and abandoned when the present system was completed.

GRAND LAKE LODGE PIPE LINE
DEED: The headgate is located at a point on the west bank of Tonahulu Creek from which it derives its supply of water, whence the North West Corner of Section No. 32, Township 4 North, Range 75 West, of the Sixth Principal Meridian bears N 31° 12' W. 1800.55'
 An auxiliary connection is made to the penstock permitting all, or partial diversion through the Grand Lake Lodge Penstock from its point of diversion.

SECTION: The said pipe line is of galvanized iron.
 The diameter of said line is _____
 The grade of said pipe line is _____
 The length of said pipe line to Grand Lake Lodge reservoir is _____
 A lateral of 1" galvanized iron pipe of _____ feet in length also serves the Grand Lake Ranger Station and Utility Area.
TOTAL: The carrying capacity of said pipe line is _____ cubic feet per second of time, for which claim is hereby made for

COSTS: The estimated cost is \$ _____
FILED: Work was commenced by _____

GRAND LAKE RAMBER STATION PIPE LINE
DEED: The head works consist of a well and pump in nameless water course tributary to Outlet Creek through Carlton Lake Outlet, and it derives its water from the drainage of this valley, at a point whence the South & Corner of Section No. 3, Township 4 North, Range 75 West, of the Sixth Principal Meridian bears S 36° 22' E. 727.76'

SECTION: The well is 3 feet square by 8 feet deep.
 The pump unit consists of a 3 horse power gasoline driven engine and an air lift type of pump of 5 gallons per minute capacity.
 The pipe line is of galvanized iron.
 The diameter of said pipe is 1 inch.
 The length of said pipe line is _____
TOTAL: The carrying capacity of said pipe line is 0.01 cubic feet per second of time, for which claim is hereby made for

COSTS: The estimated cost is \$ _____
FILED: Work was commenced by _____

UNITED STATES OF AMERICA
 By _____
 Supt. Rocky Mountain National Park

UNITED STATES OF AMERICA }
 NORTHERN DISTRICT OF CALIFORNIA }
 A. Van U. Dunn being duly sworn on his oath, deposes and says that he is the Engineer of the Grand Lake Lodge and Ranger Station Water Systems; that the survey of the same and the map thereon was made under his supervision and instructions and that such survey is accurately represented upon this map; that he has read the statements thereon, and that the same are true of his own knowledge.

Assoc. ENGINEER NATIONAL PARK SERVICE
 Subscribed and sworn to before me this _____ day of _____ A.D. 19 _____

S. B. COMMISSIONER
 By virtue of United States Code
 Title 5 Section 32

Accepted for filing in the office of the State Engineer of Colorado on the _____ day of _____ 19 _____

















STATE ENGINEER

By _____
 DEPUTY

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF.	REGION II SHEET 2 OF 2 DRAWING NO.
GRAND LAKE LODGE AND RANGER STATION WATER SYSTEMS GRAND COUNTY, COLORADO WATER DISTRICT 51, DIVISION 5 ROCKY MOUNTAIN NATIONAL PARK	



LEGEND

-  BUILDINGS
-  ROADS
-  TRAILS
-  STREAMS
-  BRIDGE ON CULVERT
-  SURVEY STATION
-  WATER LINES
-  DITCH
-  SECTION LINE
-  1/4 SECTION LINE
-  1/2 SECTION LINE
-  3/4 SECTION LINE
-  TIE
-  PRIVATE LAND BOUNDARY
-  GRID LINES
-  PARK BOUNDARY



PREPARED BY: COMPLETED BY: DRAWN BY: TRACKED BY:
 P. H. J. STONE, JR. M. S. J. H. R. J. H. R. J.

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE BRANCH OF LAND ACQUISITION AND REGULATION SAN FRANCISCO, CALIF. GRAND LAKE LODGE AND RANGER STATION WATER SYSTEMS GRAND COUNTY, COLORADO WATER DISTRICT 51 DIVISION 3 ROCKY MOUNTAIN NATIONAL PARK	REGION II SHEET 1 DRAWING
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