



WATER-RIGHT DOCKET

Grand Canyon National Park

Docket No: 9

CLIFF DWELLING SPRING IN TRANSEPT CANYON

Preliminary Docket Information

08-14-1973: water right/source docket information

WATER RESOURCES/WATER RIGHTS

DATE: August 14, 1973

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western Region AREA Grand Canyon

SITE Cliff Dwelling Spring in Transept Canyon

STATE Arizona COUNTY Coconino DOCKET NO WR #9

LOCATION NW 1/4, NW 1/4, Sec. 3, T32N, R3E G&SR

REGIONAL BASIN _____ LOCAL BASIN _____

ACQUIRED BY appropriation

APPLICATION A-2254 PERMIT A-1514 CERTIFICATE 1249

ACTION DUE _____ PRIORITY March 13, 1940 RESERVATION January 11, 1908

QUANTITY Vested: 11,000 gpd/Used: -0- USE None

STATUS Inactive SOURCE Spring

REMARKS Hydrologic Unit #15010001

NARRATIVE: The National Park Service filed application A-2254 with the state of Arizona on March 13, 1940. This application requested the issuance of a permit for the appropriation of 11,000 gpd of water from Cliff Dwelling Fork of Transept Canyon, tributary to Bright Angel Creek, in Grand Canyon National Park. The water was to be piped to the town of Kaibab Post Office, on the North Rim, to be used to provide municipal services. During times of peak demand, this water was to be commingled with water from Roaring Springs to supply the town; during slack periods, Cliff Dwelling Fork water alone would be used for this purpose.

Permit A-1514 for this project was issued on June 17, 1940. Certificate 1249 was issued on June 2, 1943, after proof of complete application of the water was made.

Use of this source ceased some years ago (probably in the 1950's). The old pipeline is reported to still be present at the mouth of the spring. All water for the North Rim is presently supplied by Roaring Springs.

Compiled by Wm. N. Murray

Approved by W. Werrell

Page 1 of 1

Certificate Record No. 1249Page No. 1249

STATE OF ARIZONA

WATER DISTRICT NO. COUNTY OF COCONINO

CERTIFICATE OF WATER RIGHT

(For rights perfected under original, enlargement or secondary permits)

This is to Certify, That **UNITED STATES OF AMERICA,
GRAND CANYON NATIONAL PARK**
of **GRAND CANYON,** ~~LAND~~ **ARIZONA,** has made proof
to the satisfaction of the STATE ~~WATER~~ **LAND** COMMISSIONER of Arizona of a right to the use of the waters of
CLIFF DWELLING FORK OF TRANSEPT CANYON, a tributary of **BRIGHT ANGEL CREEK,**
for **MUNICIPAL PURPOSES,** under
Application No. **A-2254,** Permit No. **A-1514** of the State Water Commissioner, and that said right
to the use of said waters has been perfected in accordance with the laws of Arizona, and made and en-
tered of record in the Records of the State ~~Water~~ **Land** Commissioner at Phoenix, Arizona, in Volume **4,**
at page **1249,** on the **2nd** day of **JUNE, 1943**; that the priority of the right
hereby confirmed dates from **MARCH 13, 1940**; that the amount of water to which such right is
entitled and hereby confirmed, for the purposes aforesaid, is limited to an amount actually beneficially
used for said purposes, and shall not exceed **ELEVEN THOUSAND (11,000) GALLONS PER DAY.**

A description of the lands under such right, and to which the water hereby confirmed is appurtenant,
or if for other purposes, the place where such water is put to beneficial use, is as follows:

**ON UNSURVEYED LAND, WHICH PROBABLY WILL BE WHEN SURVEYED, WITHIN THE
SOUTH HALF OF THE NORTHWEST QUARTER (S $\frac{1}{2}$ NW $\frac{1}{4}$), THE SOUTHWEST QUARTER
(SW $\frac{1}{4}$) AND THE WEST HALF OF THE SOUTHEAST QUARTER (W $\frac{1}{2}$ SE $\frac{1}{4}$) OF SECTION
THIRTY-FOUR (34), TOWNSHIP THIRTY-THREE (33) NORTH, RANGE THREE (3)
EAST, G. & S. R. M., COCONINO COUNTY, ARIZONA; AND WITHIN THE EAST HALF
OF THE NORTHWEST QUARTER (E $\frac{1}{2}$ NW $\frac{1}{4}$), THE WEST HALF OF THE NORTHEAST
QUARTER (W $\frac{1}{2}$ NE $\frac{1}{4}$), AND THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER
(NW $\frac{1}{4}$ SE $\frac{1}{4}$) OF SECTION THREE (3), TOWNSHIP THIRTY-TWO (32) NORTH, RANGE
THREE (3) EAST, G. & S. R. M., COCONINO COUNTY, ARIZONA; AND THE POINT
OF DIVERSION UNDER THIS APPROPRIATION AND RIGHT TO THE USE OF WATER IS
APPROXIMATELY WITHIN THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER
(NW $\frac{1}{4}$ NW $\frac{1}{4}$) OF SAID UNSURVEYED SECTION THREE, AT WHAT IS KNOWN AS CLIFF
DWELLING SPRING, WHICH IS S. 16°-46' E. 49,658 FEET FROM THE SOUTH QUARTER
CORNER OF SECTION 18, TOWNSHIP 34 NORTH, RANGE 3 EAST, G. & S. R. M.**

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use
herein described, and subject to all prior existing rights.

Rights to the use of water for power purposes are limited to a period of forty years from the date of
priority of the right, as herein set forth, subject to a preference right of renewal under the laws existing at
the date of the expiration of the right for power purposes, as hereby confirmed and limited.

Witness the seal and signature of the STATE

LAND
~~WATER~~ COMMISSIONER affixed this

(SEAL)

2nd day of JUNE, 19 43

By /s/ O. C. WilliamsState ~~Water~~ **Land** Commissioner.

Attest: /s/ Tessie L. Flynn
Secretary.

Recorded in State Record of Water Right Certificates, Volume **4,** Page **1249.**

5-3

m-1

h5

Certificate of Water Right

STATE OF ARIZONA

to

h6

Application No. A-234Receipt N^o 1423

Department of the State Water Commissioner

Phoenix, Arizona, May 24 1943

Received from U.S. of A. Grand Canyon, Address Grand Canyon,
 (Applicant's Name)
 payment being made by U.S. Treasurer, Address Albuquerque, N.M.,
 (Applicant's Agent)
 the sum of Three & 50/100 Dollars in payment of fee in connection
 with the above designated application as follows:

Examination	\$.....	Certifying	\$.....
Filing and Recording	\$.....	Blue Prints	\$.....
Misc. Recording	\$ <u>1.50</u>	C. W. R.—Recorder	\$ <u>2.00</u>
Copying	\$.....		\$.....

Cash	
✓ Check / S-SI # 17,094	
M. O.	
Amount Rec'd	\$ <u>3.50</u>
Payment	\$.....
Change	\$.....

Remarks Rept. mailed Mr. H. C. Bryant, Supt.

Municipal	\$ <u>✓</u>	Stock watering	\$.....
Domestic	\$.....	Mining	\$.....
Irrigation	\$.....	Power	\$.....

STATE WATER COMMISSIONER

By Laura Hick
CashierT.F. Water Division

Grand Canyon National Park
Grand Canyon, Arizona

May 13, 1943.

Mr. O. C. Williams, State Land Commissioner,
Water Division, State Land Department,
Phoenix, Arizona.

Dear Sir:

On January 5, this office transmitted to Mr. Wanslee one copy of Proof of Appropriation of Water, for the waters of Cliff Dwelling Spring, Application A-2254, Permit A-1514. We are holding a voucher in the amount of \$3.50 representing the fee for recording the permit, until the license is returned to this office. Please advise when the license may be expected.

Very truly yours,

John M. Davis,
Assistant Superintendent

FILE COPY

Ca
666-057

Cox
Jms
600-65.7
10-08-01

January 5, 1943.

Mr. Jesse C. Wanslee,
State Water Commissioner,
State House,
Phoenix, Arizona.

Dear Mr. Wanslee:

Transmitted herewith is one copy of Proof of Appropriation of Water, for the waters of Cliff Dwelling Spring, Application A-2254, Permit A-1514, together with a voucher in your favor in the amount of \$7.00. It is our understanding that your fee for recording and issuing the license is \$5.00, and \$2.00 to be forwarded by your office to the county as their fee for recording.

If the attached voucher is correct please sign where indicated by red pencil mark, and return to this office for payment.

Very truly yours,

[SGD] H. C. BRYANT

H. C. BRYANT,
Superintendent.



STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA

April 23, 1942

JESSE C. WANSLEE
COMMISSIONER

ACTION	
Superintendent	☒
Asst. Sec.	☐
Chief Engineer	☐
Chief Clerk	☐
Recorder	☒
Naturalist	☐
Asst. Supt.	☐
Prepare Reply	☒
Comment	☐
Your Use	☐

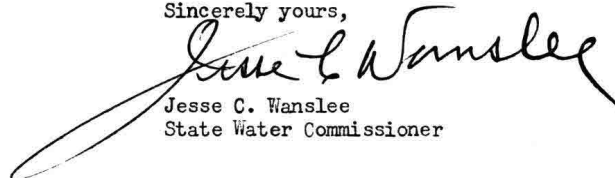
Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Re: App. No. A-2254
Per. No. A-1514
Cliff Dwelling Fork
of Transept Canyon

Dear Sir:

We are enclosing herewith form for "Proof of Appropriation",
which are to be filled out in the above designated case.

Sincerely yours,


Jesse C. Wanslee
State Water Commissioner

JCW:LC
Enc. 1.

PROOF OF APPROPRIATION OF WATER

- (Quantity of water in second-feet,
acre-feet per acre per annum, gallons per day or gallons per annum.)

- [illegible]

(Attach separate sheet if necessary)

9. (a) If a dam has been constructed, give description: Height, ...ft.; length on top, ...ft.; length on bottom ft.; material used and character of construction, **Impounding sump of concrete and rubble masonry, 15' x 20' x 2', capacity 4400 gallons.**
- (b) Give description of headgate: Width, ...ft.; depth, ...ft.; material used and character of construction, ...
- (c) Size of canal: Width on top (at waterline) ft.; width on bottom, ...ft.; depth of water, ...ft.; grade, ...ft. fall per 1,000 ft. Actual capacity, ... sec.-ft. Give general description:
- (d) Pipe line: Description of intake, **3" G.I. suction in collecting sump -- 2 1/2" G.I. discharge reducing to 2" G.I.; 1102 ft. in length to junction with main Kaibab P.O. water system described in Application A-1765, Permit A-1093.**
- Length of pipe, ...ft.; size at intake, ...in.; size at ft. from intake, ...in.; size at place of use, ...in. Difference in elevation between intake and place of use, ...ft. Is grade uniform? **No, variable** Actual capacity of pipe line, **0.08** sec.-ft. Give general description: **Galvanised iron**
(Material: Steel, wrought, cast iron, wood stave, etc.)
- (e) Pumping plant: Give size and type of pump, **not known. Single stage centrifugal rated at 33 gpm at 350 ft. head.** Suction lift, **5** ft.; discharge lift, **576** ft. Type of motor used **1 phase, 60 cycle, induction.** Horse power rating, **3** H. P. Actual capacity of pump, **0.07** sec.-ft.
10. During what months is water beneficially used? **Chiefly May to October and for winter emergencies.**
11. State character of soil
- Kind of crops raised
12. Does the accompanying map, filed with your application, show correctly the point of diversion, area of land irrigated, or place of use? **Yes.**
13. If not, wherein is such map in error?
14. Domestic Use. State number of families and persons actually served, and describe other domestic uses of water
15. Stock Watering Use. State kind of stock served State average number served per day for a period of one year
16. If for municipal, power, mining or any other purpose than irrigation state the extent and method of such use **From June until after Labor Day the town has a population of 750 or more in hotel, residences and campgrounds, saddle horses as needed, and utility shops. This water supply is supplemental to that from Boaring Springs under Application No. A-1765, Permit No. A-1093 for which completion is not required until 1945. Full diversion from each source has been used to capacity of present installations, but supply from Cliff Dwelling Fork of Transept Canyon is limited to 11,000 gpd. There is thus no question of full use of this source, but rather the additional amount which can be proven under Permit A-1093 at later date.**

AFFIDAVIT OF APPROPRIATOR

STATE OF ARIZONA, }
 County of Cocconino } ss.

I, Harold C. Bryant, Supt. Grand Canyon Nat'l Park, being first duly sworn, depose and say that I have read the above and foregoing proof of appropriation of water; that I know the contents thereof, and that the facts therein stated are true.

IN WITNESS WHEREOF, I have hereunto set my hand this 5 day of January, 1943

Harold C. Bryant

Subscribed and sworn to before me this 5 day of January, 1943

Gordon P. Cox
 Notary Public.

(Notarial Seal)

My commission expires June 15, 1946

AFFIDAVIT OF WITNESSES

STATE OF ARIZONA, }
 County of Cocconino } ss.

We, Clark M. Carrel, and Arthur L. Brown of Grand Canyon, Arizona, being first duly sworn, depose and say that we are well acquainted with the facts and conditions set forth in the foregoing statement relative to proof of appropriation of water under Permit No. 1-1524; that we and each of us have been over and upon each tract described in said proof, and from such personal inspection have knowledge that all necessary ditches, dams and other diversion and distributing works have been constructed, and water used as stated therein; that we have carefully read such proof of appropriation, and that each and every statement contained therein is true to the best of our knowledge and belief.

Clark M. Carrel
Arthur L. Brown

Subscribed and sworn to before me this 5 day of January, 1943

Gordon P. Cox
 Notary Public.

(Notarial Seal)

My commission expires June 15, 1946

REPORT OF PERSON MAKING INSPECTION

I, _____, do hereby certify that I have made
an inspection of the works described herein and in Permit No. _____, on the _____ day
of _____, 19_____, and found the foregoing statements and descriptions of works to
be accurate. In my opinion the appropriation has been completed to the extent of _____

(Quantity of water in second-feet,
acre-feet per acre per annum, gallons per day or gallons per annum.)

and I recommend the issuance of a water right certificate for this amount.

(Name)

(Title)

Rec'd. 4/24/42

NOTICE OF COMPLETE APPLICATION OF WATER TO A BENEFICIAL USE

I, The United States of America, the permittee under Application No. A-2254,
 Permit No. A-1514, issued by the State Water Commissioner of the State of Arizona for the
 appropriation of the waters of Cliff Dwelling Spring in Cliff Dwelling Fork of Transept
 Canyon, tributary of the Colorado River,
(Describe source of water supply)
 in accordance with the terms of said permit, completely applied the water to a beneficial use, on the
1st & 2nd day of September, 1940 ~~and during 1941~~, being within the time fixed in said permit or with-
 in such time as extended by the State Water Commissioner for the complete application of water to
 the proposed use, as follows:
 From the first day of September, 1940, to the 15th day of April,
 1942, 11,000 gallons of water per day was used for
State quantity of water in same terms used in permit Per annum or per day
 the purpose of an auxiliary municipal supply for the town of Kaibab Post Office,
State number of acres irrigated, number and kind of stock served or extent of other use of water
Arizona, being commingled with waters from Roaring Springs under Application No. A-1765,
Permit No. A-1093, during periods of peak demand, and as total off season supply when
demand does not justify operation of Roaring Springs system, to supply all water use
described in permit.
 In Witness Whereof, I have hereunto set my hand this 1st day of September, 1940.
Grand Canyon, Arizona.
(Present address)
(Signature of applicant)
 Fill out, detach, and mail to the State Water Commissioner, Phoenix, Arizona. Supt., Grand Canyon National Park.

660-05.7

May 14, 1941.

State Water Commissioner,
State Capitol Building,
Phoenix, Arizona.

Dear Sir:

There is transmitted herewith "Notice of Beginning of Construction" and "Notice of Ending of Construction" of a water system to direct the waters of Cliff Dwelling Spring in Cliff Dwelling Fork of Transept Canyon for municipal use in the town of Kaibab Forest Post Office, Arizona.

The system was constructed according to plans described in application A2254, the permittee being the United States of America.

Very truly yours,

(Sgd) F. A. KITTREDGE

F. A. Kittredge,
Superintendent.

Enclosure.

cc. Director
Regional Three Headquarters
Regional Four Headquarters (Attention: Attorney Johnson).

gh/ljs

Water Rights Section, San Francisco

NOTICE OF COMPLETION OF CONSTRUCTION

I, The United States of America, the permittee under Application No. A-2254,
 Permit No. A-1514, issued by the State Water Commissioner of the State of Arizona for the
 appropriation of the waters of Cliff Dwelling Spring in Cliff Dwelling Fork of Transept Canyon,
 tributary of the Colorado River (Describe source of water supply)
through Bright Angel Creek municipal use to supply
 for town of Kaibab Post Office, Arizona (State use of water)

in accordance with the terms of said permit, completed the construction of the works described
 therein the 27th day of August, 1940, being within the time fixed in said
 permit or extended by the State Water Commissioner for the completion of construction work.

Remarks: The system was constructed according to plans described in said
application.
 If the works have a less capacity than as described in the permit, or you have definitely abandoned your plan of irri-
 gating any of the lands described in your permit, you should so state.

In Witness Whereof, I have hereunto set my hand this 27th day of May, 1941.
Grand Canyon, Arizona.

(Present address) (Signature of applicant)
 Fill out, detach, and mail to the State Water Commissioner, Phoenix, Arizona. Superintendent, Grand Canyon
National Park.

NOTICE OF BEGINNING OF CONSTRUCTION

I, The United States of America, the permittee under Application No. A-2254,
 Permit No. A-1514, issued by the State Water Commissioner of the State of Arizona for the
 appropriation of the waters of Cliff Dwelling Spring in Cliff Dwelling Fork of Transept Canyon,
 tributary of the Colorado River (Describe source of water supply)
through Bright Angel Creek municipal use to supply
 for town of Kaibab Post Office, Arizona (State use of water)

in accordance with the terms of said permit, began the actual construction of the works described
 therein on the 4th day of July, 1940, being within the time fixed in said
 permit for the beginning of construction work.

Labor crews of the Utah Parks Company were employed for about 2 months and completed
the project on August 27, 1940.
 The appropriator should state the manner of beginning construction work, number of men employed, the amount of work completed up
 to the date of this statement, and any additional information which may tend to show the beginning of work in good faith.

In Witness Whereof, I have hereunto set my hand this 27th day of May, 1941.
Grand Canyon, Arizona

(Present address) (Signature of applicant)
 Fill out, detach, and mail to the State Water Commissioner, Phoenix, Arizona. Superintendent, Grand Canyon
National Park.

660-05.7

April 14, 1941.

Mr. Jesse C. Wanslee, State Water Commissioner,
Arizona State House,
Phoenix, Arizona.

660

Dear Mr. Wanslee:

Re: App. A-2254, Per. A-1514
Cliff Dwelling Springs

Reference is made to your letter of April 12, 1941, regarding the "Beginning of Construction" enclosures.

We are just in receipt of a letter from Mr. W. J. Larsen, Superintendent, Utah Parks Company, Cedar City, Utah, containing the information requested some time ago.

A letter is being prepared to our Water Rights Division in San Francisco giving this information and you, no doubt, will within a very short time receive the completed notice of beginning of construction.

For your information, this work was initiated on July 4, 1940, completed on August 27, 1940, and placed in full use during the latter part of the 1940 tourist season. However, this information will come to you through regular channels and will comply with all requirements.

Yours very truly,

F. A. KITTEDGE,
Superintendent.

cc: A. Vanv Dunn,
Hydraulic Engineer
Region IV NPS

Regional III Director

FILE COPY



STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA
April 12, 1941

JESSE C. WANSLEE
COMMISSIONER

Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Re: App. A-2254, Per. A-1514
Cliff Dwelling
Grand Canyon National Park

Dear Mr. Lloyd:

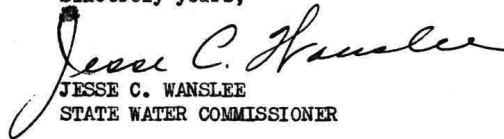
This is to advise you that the permit in the above designated case states that construction work shall begin on or before June 17th, 1941.

The State Water Commissioner has no authority to extend the time for beginning of construction and for that reason it is very important that you start construction before the expiration of one year from the date your permit was granted. See Sec. 3288, Revised Water Code of Arizona, 1928.

We are enclosing notice in duplicate for your use in this case. The yellow copy is for your file.

Kindly give this matter your early attention.

Sincerely yours,


JESSE C. WANSLEE
STATE WATER COMMISSIONER

JCW:T
Enclosures

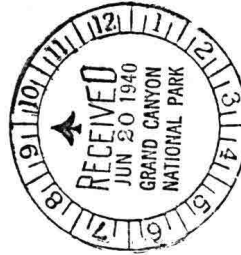


STATE WATER COMMISSIONER

STATE HOUSE
PHOENIX, ARIZONA

JESSE C. WANSLEE
COMMISSIONER

June 18, 1940



Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

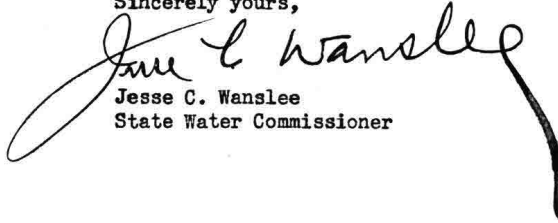
Re: App. No. A-2254
Per. No. A-1514
Cliff Dwelling.

Dear Mr. Lloyd:

We are herewith enclosing permit granted June 17, 1940 to United States of America, Grand Canyon National Park, in the above designated application.

Your attention is directed to the terms of the permit on the fourth page of the instrument as to the time of beginning of construction, completion of construction and complete application of the water to beneficial use.

Sincerely yours,

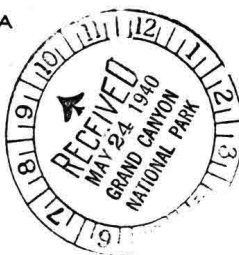

Jesse C. Wanslee
State Water Commissioner

JCW:LC
Enc.

660-05.1



STATE WATER COMMISSIONER

STATE HOUSE
PHOENIX, ARIZONAJESSE C. WANSLEE
COMMISSIONERVo. 15-989
Feb.May
22
1940Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, ArizonaRe: Application No; A-2254
Cliff Dwelling Fork of
Transept Canyon,
The United States of America,
Grand Canyon National Park.

Dear Mr. Lloyd:

This is to notify you that we are now
ready to approve the above designated application
upon the receipt of the recording fee for permit
in the amount of \$5.00.

Sincerely yours,

JESSE C WANSLEE
STATE WATER COMMISSIONER

JCW:f

FROM	TO
☒ Superintendent	
☒ Asst. Superintendent	
☒ Chief Clerk	
☐ Purchasing Clerk	
☐ Storekeeper	
☐ Cost Accountant	
☐ Timekeeper	
☐ File Clerk	
☐ Stenographer-Secretary	
☐ Sanitary Inspector	
☐ Park Engineer	
☐ Chief Ranger	
☐ Asst. Chief Ranger	
☐ Information Desk	
☐ Park Naturalist	
☐ C. C. C.	
☐ Plumber	
☐ Electrician	
☐ Mechanic	
☒ Hamilton	
FOR	
Action	
Comment: Verbal	
Comment: Memorandum	
Prepare Reply for Supr. Sign	
Initial and Return	

for action

Vol. mailed
for signature
5/24
Cox

660-05.7

Castro

OK

Carroll

April 30, 1940.

Mr. Jesse C. Wanslee, State Water Commissioner,
State House Building,
Phoenix, Arizona.

Dear Mr. Wanslee:

In accordance with the instructions contained in your letter of March 29 there is attached hereto executed Affidavit of Posting Notice in connection with application for permit A-2254 to appropriate Public Waters of the State of Arizona.

Very truly yours,

(SGD) J. V. LLOYD

J. V. Lloyd,
Acting Superintendent.

Enclosure.

Castro.

FILE COPY

FROM	TO
Superintendent	
Asst. Superintendent	
Chief Clerk	
Purchasing Clerk	
Steno-clerk	
Cost Accountant	
Timekeeper	
Book Clerk	
Planner-Recorder	
Public Relations Officer	
Truck Driver	
Cashier	
Arch. & Eng. Designer	
Information Clerk	
Per. Specialist	
C. C. C.	
Plumber	
Electrician	
Mechanic	
FOR	Action Mr. J. V. Lloyd, Comment: Verbal Acting Superintendent, Comment: Memorandum Grand Canyon National Park, Prepare Reply for Supt. Sign Grand Canyon, Arizona. Initial and Return Initial and Return to File



STATE WATER COMMISSIONER

STATE HOUSE
PHOENIX, ARIZONA
March 29, 1940.



JESSE C. WANSLEE
COMMISSIONER

4/2/40
Mr. Carrel for comment
Hand
Re: App. A-2254
Cliff Dwelling
Grand Canyon National Park
U. S. of America.

Dear Mr. Lloyd:

There are enclosed herewith two copies of notice of the pendency of the above designated application, post card to be used for advising this department of the posting of notices, and an affidavit of posting and continuous posting of notices, with copy of notice attached.

The two notices must be posted within ten (10) days from the date of issuance appearing at the bottom thereof and remain so posted until the expiration of thirty (30) days from such date of issuance. In no event should the notices be posted in inconspicuous places, and they must remain continuously posted from the date of posting until the expiration of the posting period. It is suggested that one notice be posted at, or near, the post office where those who reside in the locality of the proposed appropriation receive mail.

The post card advising this department of posting the notices must be filled out and mailed the day the notices are posted.

The affidavit of posting, with copy of notice attached, must be filled out, signed and sworn to before some officer qualified to administer oaths in the State of Arizona at the conclusion of the notice period and then immediately mailed to the State Water Commissioner, Phoenix, Arizona.

Prompt attention to posting the notices and returning the affidavit of posting at the end of the period of notice will facilitate the approval of the application.

Very truly yours,

JESSE C. WANSLEE
STATE WATER COMMISSIONER

noted
4/3/40

OFFICE OF ARIZONA STATE WATER COMMISSIONER
PHOENIX, ARIZONA
NOTICE OF APPLICATION TO APPROPRIATE WATER

Application No. A-2254

Notice is hereby given that on the 13th day of March, 1940
The United States of America, Grand Canyon National Park
filed application No. A-2254, with the State Water Commissioner of Arizona, for permit to
Appropriate Public Waters of the State of Arizona

Description of Project

Source of water supply Cliff Dwelling Fork of Transept Canyon, tributary of Bright Angel Creek
Amount applied for 11,000 gallons per day
Proposed use of water Municipal Use
Point of diversion within NW $\frac{1}{4}$ NW $\frac{1}{4}$ section 3, T. 32 N., R. 3 E., Coconino County.
Place of using water S $\frac{1}{2}$ NW $\frac{1}{4}$, SW $\frac{1}{4}$ and W $\frac{1}{2}$ SE $\frac{1}{4}$ of section 34, T. 33 N., R. 3 E., and E $\frac{1}{2}$ NW $\frac{1}{4}$, W $\frac{1}{2}$ NE $\frac{1}{4}$ and NW $\frac{1}{2}$ SE $\frac{1}{4}$ of section 3, T. 32 N., R. 3 E., G&SR&M, Coconino County, Arizona.
Remarks:

Protest

Any person desiring to protest against the granting of such permit shall within 90 days from the date of issuance of this notice file with the State Water Commissioner at Phoenix, Arizona, a signed statement in duplicate clearly setting forth the protestant's objections to the approval of the application, which statement shall contain the following information:

- (1) Statement of the injury which would result to protestant from such appropriation and use.
- (2) The basis of protestant's water right, and date of initiation of the right.
- (3) Protestant's past and present use of water both as to amount used and land irrigated, or use made of water, if other than irrigation.
- (4) A description of the protestant's land or place of use, and the point of diversion of the water.
- (5) There may also be filed with such statement such maps and data as the protestant may care to submit in support of his protest.

Forms for protest will be furnished on request.

Issued at Phoenix, Arizona,
March 29, 1940

JESSE C WANSLEY T
State Water Commissioner.

660-05.7

March 12, 1940.

The Arizona State Water Commissioner,
Capitol Building Annex,
Phoenix, Arizona.

Dear Sir:

Reference is made to your letter of February 7, 1940, regarding corrections on the application for appropriating waters of Cliff Dwelling Spring.

A corrected copy signed by the acting superintendent is herewith attached.

It is hoped that the application may now be approved at as early a date as is possible, and that the usual permit will be used.

Very truly yours,

(SGD) J. V. LLOYD

J. V. Lloyd,
Acting Superintendent.

Enclosure.

cme/lje

cc. Reg. Director, Reg. III w/enclosure.

FILE COPY

Permit No. A-1514Application No. A-2254

APPLICATION FOR A PERMIT

To Appropriate Public Waters of the State of Arizona

Filed March 13, 1940 at 9:00 A. M.

(Applicant must not fill in the above blanks.)

The United States of America, by

I, Acting Superintendent of Grand Canyon National Park,
(Applicant's name as inserted here must agree with signature.)of Grand Canyon, County of Cocconino,
(Postoffice.)State of Arizona, do hereby make application for a permit to appropriate the following described unappropriated waters of the State of Arizona.1. The source of the proposed appropriation is from Cliff Dwelling Fork of
(Name of stream or name of reservoir and stream if water is diverted from reservoir.)
Transcript Canyon, tributary of Bright Angel Creek

2. The amount of water which the applicant intends to apply to beneficial use is:

For Municipal use, 11,000 gallons per day
(Municipal or Domestic.) (Gallons per annum, or gallons per day.)For use,
(Irrigation.) (Acre feet per acre per annum.)For use,
(Mining or Stock Watering.) (Cubic feet per second, or gallons per annum.)For use, cubic feet per second
(Power.)3. The point of diversion is located South 16° 46' East 49,658 feet from the South 1/4
(State bearing and distance or coordinate distances to section or quarter section corner.)
corner of Section 18, T. 34 N., R. 3 E., at what is known as Cliff Dwelling Spring.being within the unsurveyed NW 1/4 of NW 1/4, of Sec. 3, T. 32 N.,
(State 40-acre subdivision of U. S. Government survey or projection thereof.) (No. N. or S.)R. 3 E., G. & S. R. B. & M., in the County of Cocconino,
(No. E. or W.) as projected from said Section 18.

(Note—Complete paragraph below for all proposed uses of water, except irrigation.)

4. The water will be used for municipal purposes in the SW 1/4, SE 1/4 & NW 1/4
(40 or 10 acre subdivision.)
of Sec. 34, T. 33 N., R. 3 E. and for same purposes in the SE 1/4, NW 1/4 & NW 1/4
(40 or 10 acre subdivision.)
of Sec. 3, T. 32 N., R. 3 E., G. & S. R. B. & M., Cocconino County, Arizona.

DESCRIPTION OF WORKS

5. Diversion Works: (a) Diversion will be by gravity, the diverting dam to be
feet in height (stream bed to overflow), long on top, and constructed of
The diversion structure will be a concrete basin to impound water for 24" to 72" head supply. The dimensions of the basin at this time are not known.(b) Description of headgate
(Timber, concrete etc., number and size of openings.)(c) If water is to be pumped give general description Electrically driven single stage centri-
(Size and type of pump.)
fugal pump 3" suction 2-1/2" discharge; capacity 33.0 GPM at 350 feet head. Motor 3 phase
(Size and type of engine or motor to be used, total head water is to be lifted, etc.)
60 cycle 9.9 BHP. The water is impounded in a small concrete collecting sump at the spring,
from which the pump delivers it to the pipe line.

Do not use this form in making application for a permit to construct a reservoir and store water. A special form for this purpose may be obtained from the State Water Commissioner.

Copy mailed Director 6/24/40

See letter from Act. Supt., Grand Canyon N.P., 6/28/40
55 6-1

6. **Conduit System.** (a) Canal, ditch, flume: Width on top (at water line).....feet; width at bottom.....feet; depth of water.....feet; length.....feet; grade.....feet per 1,000 feet; materials of construction.....

(b) Pipe line: Diameter.....inches; length.....feet; grade.....feet per 1,000 feet; total fall from intake to outlet.....feet; kind.....
(Riveted steel, cement, wood-stave, etc.)

NOTE—If different sizes or kinds of conduit are to be used, attach extra sheets with complete description, also show location of each clearly on map.

7. **Distributing Works.** 3 tanks / See rider. 1 tank, 24' diameter, 16' high
(No.) (Tanks or Troughs.) Material redwood 2 tanks, 40' diameter, 18' high
(State dimensions)
50,000 gallons, 150,000 gallons, and 150,000 gallons.
(and capacity of each.)

8. **Cost and Construction Schedule.** The estimated cost of the proposed project is \$ 2,000.00.
It is proposed to begin construction within one year after the approval of this
(Not over 1 year.)
application, to complete construction within one year thereafter and to completely apply the
(Not more than 5 years.)
water to the proposed use five years after the beginning of construction.
(State time in months or years.)

DESCRIPTION OF PROPOSED USE

9. **Domestic Use.** Domestic use is proposed as follows:
(Describe nature of use which may include the irrigation of gardens)

10. **Municipal Use.** To supply the city of Halibut Post Office, Arizona. See rider
having a present population of, and an estimated population of in 19.....

11. **Irrigation Use.** (a) The land to be irrigated has an area of acres; is located in County, Arizona, and is particularly described by legal subdivisions as follows:

(Describe the subdivisions of the township or section the entire area of which it is proposed to irrigate, by the largest possible legal subdivisions, in the table below, inserting the area in the acreage column. In cases of irregular shaped parcels use a separate line to describe each 40 acre subdivision in which they occur and insert only the area of such subdivision to be irrigated in the acreage column.)

Tp.	Range	Sec.	SUBDIVISIONS	Number Acres To Be Irrigated

(If more space is required, attach separate sheet.)

(b) What is the character of the soil?.....
(c) What quantity of water is necessary to raise proposed crops?.....
(Acre feet per acre per annum.)
(d) Land to be irrigated is owned by.....
(Name of owner.) (If applicant is lessee, etc., so state.)
(e) The irrigation season will begin about.....and end about.....
(Beginning date each season.) (Closing date each season.)
(f) Has the land to be irrigated any water right or source of water supply other than that herein applied for?..... Describe the nature and amount of any additional supply.....

12. **Stock Watering Use.** (a) What kind of stock is it proposed to serve?.....
(b) What is the average number of stock it is proposed to serve?.....
(c) What is the maximum number of stock it is proposed to serve?.....
(d) The use of water will begin about....., and end about.....
(Beginning date each season.) (Closing date each season.)

Rider

6 (b):

- (1) Pump to junction with distribution mains at Campground Store and Restaurant at Station 4:

Diameter 2"; length 1102 ft.; grade variable;
material of construction butt welded steel with
screw joints.

- (2) From Station 4 to main distribution line to lodge area at Station 8 the existing distribution pipe is used for diversion:

Diameter 4"; length 1301 ft.; grade variable;
material of construction butt welded steel with
screw joints.

- (3) From Station 8 to distribution reservoirs at Station 9, through main distribution line:

Diameter 6"; length 972 ft.; grade variable;
material of construction butt welded steel.

The total pump lift is 332 ft.

- 7 The water is discharged into the three distribution tanks described under Permit A-1093, application A-1765, commingled with waters from Roaring Springs, and thence distributed as described in that application and permit. The 80,000 gallon tank described under Permit A-1093 has been replaced by a second 150,000 gallon tank of which the additional 70,000 gallons of regulatory storage is hereby designated for use with the Cliff Dwelling Spring diversion and made part of this application.

- 10 Municipal Use: To supply the town of Kaibab Post Office, Arizona. The uses include fire protection, drinking water, lavatories, limited industrial activities, stock watering and incidental irrigation. The population during an appreciable portion of the time is in excess of 750 and at times reaches 1500. It is estimated that an average population of 1600 and seasonal peak of 2500 will be reached by 1945.

13. **Power Use.** (a) The maximum amount of water to be used through the penstock is.....
cubic feet per second.
- (b) Total amount of power to be developed.....theoretical horsepower.
(Second feet $\times$ fall $\div$ 8.8.)
- (c) Total fall to be utilized.....feet.
(Pressure head.)
- (d) The nature of the works by means of which the power is to be developed.....
(Turbine, Pelton wheel, hydraulic ram, etc.)
- (e) The works to be located, and the water to be released, in.....of Sec.....,
T....., R....., G. & S. R. B. & M.
(No. N. or S.) (No. E. or W.) (40-acre subdivision.)
- (f) Is water to be returned to any stream?..... If so, name stream and describe location
of point where returned.....in the....., Sec....., T.....,
(Name of stream.) (40-acre subdivision.) (No. N. or S.)
R....., G. & S. R. B. & M.
(No. E. or W.)
- (g) The use to which the power is to be applied is.....
(For distribution and sale or private use, etc.)
(Give general description of locality where power will be used.)
14. **Mining Use.** The mines to be served are.....known
as the.....
(Placer gold, lode gold, copper, etc.)
(Names of claims or name of group.)
located in....., Sec....., T....., R....., G. & S. R. B. & M.
(40-acre subdivision.) (No. N. or S.) (No. E. or W.)
and owned by.....
The method of utilizing the water is.....
Will the water be polluted by chemicals or otherwise?.....
(Explain nature of pollution, if any.)
What disposition is made of water after use?.....
(State if stored for reuse. If returned
to a stream give name of stream and description of 40-acre tract to which returned.)

GENERAL

15. Are the maps required by the Rules and Regulations filed with Application? Yes..... If not,
(Yes or No.)
state specifically the time required for filing same.....
16. The proposed point of diversion is on land of The United States of America (Grand Canyon National Park)
(Insert name of owner, or state on Public Domain, National Forest, State Land, etc.)
17. The proposed conduit system is on land of The United States of America (Grand Canyon National Park)
(Insert name of owner, or state on Public Domain, National Forest, State Land, etc.)
18. The land at the proposed place of use is owned by The United States of America (Grand Canyon National Park)
(Insert name of owner, or state on Public Domain, National Forest, State Land, etc.)
19. Post office used by those living near the proposed point of diversion is Haibab Post Office, Arizona,
located in the area of water use.
20. Of the applicant's knowledge, has the water described herein ever been appropriated,
claimed or used by others? No..... If so, file a statement herewith furnishing names of
former appropriators or users of the water, and supporting applicant's claim that the water is now
subject to appropriation.
21. If the source of supply is a stream, state names and addresses of three water users from
the stream below the proposed point of diversion; or, if there are no water users from stream below
the proposed point of diversion, or if the source of supply is other than a stream, furnish the names
and addresses of at least three residents of the vicinity familiar with the source of supply and the
proposed use of water.

The United States of America.

Utah Parks Company - by lease from the United States.

Fred Harvey - by lease from the United States.

United States of America

By (Sgd) J. V. Lloyd

Signature of Applicant

Acting Superintendent, Grand Canyon National Park.

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6-4

0-5

ORDER OF CORRECTION

STATE OF ARIZONA, }
 County of Maricopa. } ss.

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for correction or completion, as follows:

In order to retain its priority, this application must be corrected, completed and refiled in the office of the State Water Commissioner on or before....., 19.....

WITNESS my hand and seal of office this.....day of....., 19.....

State Water Commissioner

Application No. A-2254.....

Permit No. A-1514.....

PERMIT

STATE OF ARIZONA, }
 County of Maricopa. } ss.

This is to certify that I have examined the foregoing application and do hereby approve the same, and grant to the applicant a permit to appropriate the water described therein subject to the following limitations and conditions:

The amount of water appropriated shall be limited to the amount which can be applied to beneficial use and shall not exceed Eleven Thousand (11,000) gallons per day for Municipal Use.

The priority of date under this permit is March 13, 1940.

Actual construction work shall begin on or before June 17, 1941....., and shall be prosecuted with reasonable diligence and be completed on or before June 17, 1944.....

Complete application of the water to the proposed use shall be made on or before June 17, 1945.....

WITNESS my hand and seal of office this.....17th.....day of.....June....., 1940.....

Seal of the State Water Commissioner
 affixed

(Sgd.) Jesse C. Wanslee
 State Water Commissioner

Application No. A-2254.....
 Permit No. A-1514.....

PERMIT
 To Appropriate Public Waters of
 the State of Arizona

District No.

This instrument was first received in the office of the State Water Commissioner at Phoenix, Arizona, on the.....13th.....day of March....., 1940....., at.....9:00.....o'clock A. M.

Returned to applicant for correction

Corrected application refiled

Approved
 June 17, 1940.

Recorded in Book No. 12.....of Applications for Permit at page 2254

(Sgd.) Jesse C. Wanslee
 State Water Commissioner

59



STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA

February 7, 1940



Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Re: Cliff Dwelling Spring
Grand Canyon Nat'l Park.

Dear Mr. Lloyd:

We have examined the application of the Grand Canyon National Park to appropriate the waters of Cliff Dwelling Spring and find some corrections desirable before it is filed.

If the spring is in the bed of a water course, the name of the water course should be stated as the source of supply in paragraph 1, then in paragraph 3, following the tie, add "at Cliff Dwelling Spring." However, if the spring is not in the bed of the canyon, but is to one side and somewhat above it and the water drains into the canyon, we suggest that the source of supply be designated as "Cliff Dwelling Spring Drain, tributary of Transept Canyon, tributary of Bright Angel Creek". In paragraph 5 describe the proposed dam or other diversion structure. We are not able to check the pipe line lengths as stated in paragraph 6(b) with the map and the table thereon and suggest that you make such corrections as are necessary.

Sincerely yours,

Jesse C. Wanslee
State Water Commissioner

JCW:HPS:LC
Encs.

FROM	TO
Superintendent	
Asst. Superintendent	
Chief Clerk	
Purchasing Clerk	
Storekeeper	
Cost Accountant	
Timekeeper	
File Clerk	
Stenographer-Secretary	
Sanitary Inspector	
Park Engineer	
Chief Ranger	
Asst. Chief Ranger	
Information Desk	
Park Naturalist	
G. C. O.	
Plumber	
Electrician	
Mechanic	
FOR	Action
	Comments: Marshal

*Corrections referred to
have been discussed and
application corrected Feb. 23, 1939
File of Cliff Dwelling Spring*

660-05.7

Amel

Grand Canyon National Park
Grand Canyon, Arizona.

January 27, 1940.

The Arizona State Water Commissioner,
Capitol Building Annex,
Phoenix, Arizona.

Dear Sir:

There is attached hereto original application for a permit to appropriate public waters of the State of Arizona, covering use of water from Cliff Dwelling Spring in Transept Canyon, a tributary of Bright Angel Creek, on the North Rim of the Grand Canyon, Grand Canyon National Park, Arizona. This is accompanied by a voucher to cover payment of the necessary fee, which you will please sign and fill in the amount to be paid. Upon receipt of the voucher it will be put in line for payment.

There is also attached original tracing and blue print of drawing NO-CC 6986, which shows all pertinent data in connection with the project.

Should you find that the map and application conform to your requirements, kindly issue the customary permit.

Yours truly,

(SGD) J. V. LLOYD

J. V. Lloyd,
Acting Superintendent.

FILE COPY

Form NPS-L-1 UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

State Arizona Tract No. _____
County Cocconino Deed No. 27
Civil Subdivision _____ Area _____ acres _____ Grand Canyon Nat. Park
Name of Park or Area
Right
~~XXX~~ based on ~~survey~~ Application, permit and certificate Date March 13, 1940 North Rim
Section of Park or Area
Legal Description: Water Right Application A-2254, Permit A-1514, Certificate 1249.

Method of Acquisition: Water right appropriation Appropriation or Source of funds: Water Rights
Cost: ~~approximately \$750.~~
Acquired from: State of Arizona
Accepted by Secretary () Opinion of Att'y. Gen.-title in U. S. () date: _____
Physical Characteristics: A perfected right to divert 11,000 gallons per day from springs in Transept Canyon for municipal use at North Rim with priority of March 13, 1940.

Improvements on Land at time of Acquisition: _____

Existing or outstanding special use permits, reservations, rights, or rights of way: _____

Report Based on: Records of Water Rights Section
Prepared by: A. van V. Dunn, Hydraulic Engineer date: 11/12/43
Map References: NP-GC-6986
Remarks: _____

25348

Other Supporting Information

2254

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
CHICAGO, ILLINOIS

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE

54

August 7, 1945.

MEMORANDUM for the Regional Director, Region Three.

Reference is made to your memorandum of July 13 with enclosed original water right permits and certificates relating to Grand Canyon Deeds Nos. 19 through 28, and a memorandum of July 10 from Superintendent Bryant to you. The procedure to complete all assemblies has become somewhat involved since the suggestions in my memorandum of June 27 were not followed, but I think we can still straighten things out without sending in any complete files.

The "original deeds" for the Director are now nearly complete. As Exhibit A, I enclose a list of the items still needed. Part of these items are what Mr. Bryant calls routine correspondence, but they have special significance as orders or instructions from the State Water Commissioner or his representatives. Hence, the original letters should be in the Director's assemblies for permanent record.

There are numerous orders granting extensions of time, but only a part of them are listed. In the other cases we have signed and sealed copies. It would be better to have all originals, but the main thing is to obtain some record of these orders with the Water Commissioner's signature and seal. Those listed will complete the files.

In the case of Deed No. 22, Application No. A-1786, Mr. Bryant seems to have sent us the original application-permit. A year or so ago the Park advised that it could not find the original and we purchased a certified copy from the Water Commissioner. It does not matter whether we have the original or the certified copy, but I wish to make certain that the one we have received is the original and should not have a certificate attached. If I am correct, then the certified copy, with certificate attached, should go in the assembly of the deed, either in your office or at the Park, in place of the copy of the certified copy which you are each supposed to have.

In connection with each water right covered by Deeds Nos. 19 through 27, but not No. 28, you prepared a very excellent summary on December 2 or 3, 1938, as Superintendent, which gave the action which had been taken, and the payments which had been made to those dates. Some of the summaries were dated on each of the two days as they were typed. The Director and I each had copies, and the original or a copy is reported to have been sent to the Regional Office. I assume that a copy was also retained in the Park. In making up the assemblies in June, one set of which I sent to you, I placed in each one a copy of the summary applicable thereto. Hence, I should like one of the other sets, and the other one should be used in the fourth deed assemblies which are still to be made for one field office.



In preparing the sample assembly of Deed No. 27, Application No. A-2254, Permit No. A-1514, we had to use one of our sets of the notices and proofs. Both you and the Superintendent have copies, and it is one of these sets which we now need in exchange. The other set will go in the fourth assembly.

If the fourth deed assemblies were to be made up here it would be necessary for both you and Mr. Bryant to send me all of your water right files because I do not know which may lack some of the instruments. It will be easier if the one who now has the sample assemblies will compare them with his old files and remove any of the instruments he finds in the latter which can be used in the fourth assemblies. These, then, should be sent to the other office with the sample assemblies and the process repeated there. A fourth set of assemblies should then be complete, and if not we will make copies of the remaining instruments on request. As Exhibit B, I enclose two copies of the lists of instruments which should be in each assembly except for the letter of request, notice of completion, and anticipated order of extension which are now being circulated or requested in connection with Applications A-1765 and A-1768.

There are also enclosed a copy of Certificate No. 723, issued on Application No. A-1764, which can be used in the fourth assembly of Deed No. 20, and a copy of the order of April 24, 1944, granting an extension of time on Applications A-1880 and A-1881, which can be used in either Deed No. 25 or Deed No. 26. These now become surplus in this Office.

In connection with orders granting extension of time, we are still holding a few copies which will become surplus when we receive the originals. It seems probable, therefore, that they will prove to be the instruments you may lack.

AvVD:sh.

Enclosure 274.
In duplicate.

(SGD.) A. VAN V. DUNN
Chief, Water Rights Division.

August 7, 1945.

EXHIBIT A

List of original instruments to be sent to Director
to complete original Grand Canyon deeds.

1. Deed 19:
Summary sheet of instruments, payments, etc., by M. R. Tillotson,
dated December 3, 1938.
2. Deed 20:
Summary sheet of instruments, payments, etc., by M. R. Tillotson,
dated December 3, 1938.
3. Deed 21:
 - (a). Summary of instruments, payments, etc., by M. R. Tillotson,
dated December 3, 1938.
 - (b). Order dated April 23, 1942, extending time under Application
No. A-1765, Permit A-1093, with actual signature of Jesse
C. Wanslee. (Our records show that we made copies of this
and returned the original to the Superintendent on
April 30, 1942.)
4. Deed 22:
 - (a). Summary similar to above.
 - (b). Letter of August 23, 1941, from Jesse C. Wanslee, State Water
Commissioner, to H. C. Bryant, Superintendent. (Original
is wanted for Director's assembly and a copy should be
found or made for field assembly.)
 - (c). Amended Application No. A-1766, Amended Permit No. A-1094,
seems to be original -- where is certified copy?
5. Deed 23:
 - (a). Summary similar to above.
 - (b). Order, dated November 9, 1942, extending time under Applica-
tion No. A-1876, Permit No. A-1192, with actual signature
of State Water Commissioner. (Original sent to Superin-
tendent November 16, 1942, and copy sent to Region Three
on the same date.)
6. Deed 24:
 - (a). Summary similar to above.
 - (b). Letter of February 28, 1944, from Tessie L. Flynn, Secretary,
Water Division, State Land Department, to Superintendent.
(Original wanted.)

7. Deed 25:
 - (a). Summary similar to above.
 - (b). Letter of October 16, 1939, from Commissioner Jesse C. Wanslee to J. V. Lloyd. (Original wanted.)
 - (c). Letter of February 24, 1944, from Tessie L. Flynn, Secretary, Water Division, State Land Department, to Superintendent. (Original wanted.)
 - (d). Letter of April 24, 1944, from Engineer Edwin T. Stewart, Water Division, State Land Department, to John M. Davis, Acting Superintendent, transmitting order and relating to amendments. (Original wanted.)
8. Deed 26:
 - (a). Summary similar to above.
 - (b). Letter of October 16, 1939, from State Water Commissioner Jesse C. Wanslee to J. V. Lloyd. (Original wanted.)
 - (c). Letter of February 24, 1944, from Tessie L. Flynn, Secretary, Water Division, State Land Department, to Superintendent, advising of expiration of extension of time.
9. Deed 27:
 - (a). Summary similar to above.
 - (b). Notice of Beginning of Construction, dated May 1941.
 - (c). Notice of Completion of Construction, dated May 1941.
 - (d). Notice of Complete Application of Water to Beneficial Use. (About 1942.)
 - (e). Proof of Appropriation of Water, dated January 5, 1943.
10. Deed 28:
 - (a). Letter of August 23, 1941, from State Water Commissioner Jesse C. Wanslee to H. C. Bryant regarding Amended Application A-1766, in which the last paragraph gives instructions and information on this filing. (Original wanted.)
 - (b). Letter of January 9, 1942, from Engineer Edwin T. Stewart to J. M. Davis, recommending against issuing permit until license on Application No. A-1766 is granted. (Original wanted.)

August 7, 1945.

EXHIBIT B

List of instruments in Grand Canyon deeds
(listed from bottom up in each deed).

Deed 19:

1. File Map NP-GC-5113.
2. Application A-1735, Permit A-1091.
3. Certificate 722.
4. Summary by M. R. Tillotson, dated December 3, 1938.

Deed 20:

1. File Map NP-GC-5124.
2. Application A-1764, Permit A-1092.
3. Certificate 723.
4. Summary by M. R. Tillotson, dated December 3, 1938.

Deed 21:

1. File Map NP-GC-5124.
2. Application A-1765, Permit A-1093.
3. Summary by M. R. Tillotson, dated December 3, 1938.
4. Letter of April 22, 1942, from Superintendent Bryant to State Water Commissioner requesting extension of time.
5. Order Granting Extension of Time to December 31, 1945.

Deed 22:

1. File Map NP-GC-5120.
2. Application A-1766, Permit A-1094. (May 15, 1937).
3. Summary by M. R. Tillotson, dated December 3, 1938.
4. Letter of July 8, 1941, from Engineer Stewart to Superintendent Kittredge regarding amendment.
5. Amended File Map NP-GC-5120A.
6. Amended Application A-1766, Amended Permit A-1094. (Aug. 22, 1941.)
7. Letter of August 23, 1941, from State Water Commissioner to Superintendent regarding approval of amended application.
8. Notice of Beginning of Construction.
9. Letter of September 23, 1941, from Acting Superintendent Carrel to State Water Commissioner advising that full water use had not been made and suggesting construction to be incomplete.
10. Copy of Certificate attached to copy of Permit purchased from State Water Commissioner when original was reported lost.

Deed 23:

1. File Map NP-GC-5136.
2. Application A-1878, Permit A-1192 (Cottonwood Camp).
3. Summary by M. R. Tillotson, dated December 2, 1938.
4. Letter of September 11, 1942, from A. van V. Dunn to State Water Commissioner, requesting extension of time.
5. Letter of September 15, 1942, from Tessie Flynn to A. van V. Dunn, acknowledging request for extension of time.
6. Letter of November 6, 1942, from A. van V. Dunn to State Water Commissioner, regarding extension of time.
7. Order Granting Extension of Time to November 27, 1944.
8. Letter of November 10, 1941, from State Water Commissioner to A. van V. Dunn, regarding extension of time.
9. Letter of December 6, 1944, from Dunn to Water Division, requesting extension of time.
10. Order Granting Extension of Time to November 27, 1947.
(Director's original held by Dunn.)

Deed 24:

1. File Map NP-GC-5137A.
2. Application A-1879, Permit A-1193.
3. Summary by M. R. Tillotson, dated December 2, 1938.
4. Letter of February 28, 1944, from Secretary, Water Division, to Superintendent, regarding potential lapse.
5. Letter of March 1, 1944, from Acting Superintendent to State Water Division, declaring abandonment of this water claim.

Deed 25:

1. File Map NP-GC-5113.
2. File Map NP-GC-5135.
3. Application A-1880, Permit A-1194.
4. Summary by M. R. Tillotson, dated December 2, 1938.
5. Letter of October 13, 1939, from J. V. Lloyd to State Water Commissioner, requesting extension of time.
6. Letter of October 16, 1939, from State Water Commissioner to J. V. Lloyd, stating he cannot extend time.
7. Letter of November 20, 1939, from Acting Supt. Bryant to State Water Commissioner regarding extension of time.
8. Order Granting Extension of Time to November 27, 1942.
9. Letter of November 25, 1942, from A. van V. Dunn to Regional Director, Region Three, regarding renewal.
10. Letter of February 24, 1944, from Tessie Flynn to Superintendent regarding lapse and reinstatement.
11. Letter of April 22, 1944, from Acting Superintendent John M. Davis to Tessie Flynn requesting extension of time.
12. Order Granting Extension of Time to November 27, 1948.
13. Letter of April 24, 1944, from Engineer Stewart to John M. Davis transmitting extension and explaining amendment.

Deed 26:

1. File Map NP-GC-5135.
2. Application A-1881, Permit A-1195.
3. Summary by M. R. Tillotson, dated December 2, 1938.
4. Letter of October 13, 1939, from J. V. Lloyd to State Water Commissioner.
5. Letter of October 16, 1939, from State Water Commissioner to J. V. Lloyd.
6. Letter of November 20, 1939, from Acting Superintendent Bryant to State Water Commissioner.
7. Order Granting Extension of Time to November 27, 1942.
8. Letter of November 25, 1942, from A. van V. Dunn to Regional Director, Region Three, regarding renewal.
9. Letter of February 24, 1944, from Tessie Flynn to Superintendent regarding lapse and reinstatement.
10. Letter of April 22, 1944, from Acting Superintendent John M. Davis to Tessie Flynn, regarding extension of time.
11. Order Granting Extension of Time to November 27, 1948.
12. Letter of April 24, 1944, from Engineer Stewart to John M. Davis transmitting extension and explaining amendment.

Deed 27:

1. File Map NP-GC-6986.
2. Application A-2254, Permit A-1514.
3. Notice of Beginning of Construction.
4. Notice of Completion of Construction.
5. Notice of Complete Application of Water to Beneficial Use.
6. Proof of Appropriation.
7. Certificate No. 1249.

Deed 28:

1. File Map NP-GC-5120A.
2. Application A-2511, filed September 23, 1941.
3. Letter of August 19, 1941, from Acting Superintendent Davis, to State Water Commissioner.
4. Letter of August 23, 1941, from State Water Commissioner to Superintendent.
5. Letter of January 9, 1942, from Engineer Stewart to Acting Superintendent Davis.
6. Memorandum of January 13, 1942, from Superintendent Bryant to Regional Director, Region Four.
7. Memorandum of January 19, 1942, from A. van V. Dunn, to Superintendent.
8. Letter of August 18, 1942, from A. van V. Dunn, to State Water Commissioner.
9. Letter of August 20, 1942, from State Water Commissioner to A. van V. Dunn.
- 7A. Letter of January 22, 1942, from Superintendent to Engineer Stewart. (This should follow item 7.)

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Grand Canyon National Park
Grand Canyon, Arizona

Mr. Van Dunn
JUN 10 1944
JUN 6 1944
June 6, 1944.

MEMORANDUM for the Regional Director, Region Three.

Reference is made to Hydraulic Engineer Dunn's memorandum of June 1 to you (copy of which was air mailed to this office) concerning posting of notices of appropriating water.

On February 27, 1937, former Superintendent Tillotson wrote the Director (a copy of which was sent Attorney Taylor) in substance that the posting of notices was not required "except in unusual cases involving the appropriation of large quantities of water and where there was likely to be controversy." This is substantiated by a letter from former State Water Commissioner Stewart under date of February 17, 1937.

No posting or advertising has been done by this park in connection with any Water Rights Applications.

(sgd.) John M. Davis
John M. Davis,
Assistant Superintendent.

For [unclear] [unclear]



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WATER RIGHTS SECTION
SAN FRANCISCO, CALIF.
601 Sheldon Building

ACTION	
✓ Superintendent	
✓ Asst. Supt.	
Chief Ranger	
✓ Chief Clerk	
✓ Business Clerk	✓
Naturalist	
CCC Supt.	
Prepare Reply	✓
Comment	
Your Use	

December 31, 1942.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

In accordance with your memorandum of December 8, 1942, we have completed the Proof of Appropriation of the waters of Cliff Dwelling Spring, Application A-2254, Permit A-1514, for execution by you and two witnesses. At the moment we have only three copies of the form in addition to the one you returned. We are holding the latter temporarily and suggest that you sign the other three, send one to the State Water Commissioner, keep one, and return the other to us in order that we may complete additional copies when more forms arrive.

As we interpret the manual, the proof should be accompanied by a voucher for \$7.00, of which \$5.00 is the Commissioner's fee for recording and issuing license, and \$2.00 is for him to forward with the license for recording with the county. These fees can be billed back to us after the amount is verified by the Commissioner.

When the license is received, we shall wish to borrow it to make copies for the other interested offices.

G. O. and J. D. Sann
Hydraulic Engineer.

Enclosure 2122100.

sent

December 8, 1942.

MEMORANDUM for the Regional Director, Region Four.

Attention: Hydraulic Engineer Dunn

Reference is made to Mr. Dunn's memorandum of April 30, 1942 relative to Proof of Appropriation of Water for Application No. A-2254, Permit No. A-1514, Cliff Dwelling Spring.

We have just received from the Utah Parks Company the information requested and have shown it on the attached form. As we do not have a supply of these forms, we are returning your original for completion in your office.

[SGD] H. C. BRYANT

Superintendent.

Enclosure 2179219.

FILE COPY



W. P. ROGERS
GENERAL MANAGER
SUN VALLEY, IDAHO

ACTION	
☒	Superintendent <i>ROC</i>
☒	Asst. Supt.
☒	Chief Ranger
☒	Chief Clerk
☒	Engineer <i>Eme.</i>
☒	Naturalist
☒	ASO Supt.
☐	Prepare Reply
☐	Comment
☐	Your Use

December

Dr. H. C. Bryant, Superintendent
Department of Interior
National Park Service
Grand Canyon National Park
Grand Canyon, Arizona.

Dear Doctor Bryant:

Your letter of November 18th, addressed to Mr. Hansen has been sent to me at Sun Valley, as Mr. Hansen has been transferred to Omaha for the duration and will work as Assistant to Mr. H. A. Hansen, Manager of the Dining Car Department of the Union Pacific Railroad Company.

In answer to your inquiries:

1. Dimensions of Sump: Approximately 15'x20'x2' deep, would contain about 4,440 gallons of water.
2. Total pump lift calculated from gauge pressure at pump is 581 ft. Water level in sump is about 5 ft above pump.
3. A. 3 H. P. 1 Phase induction motor is used on the pump.

For any emergency information you may desire, please contact George Croft who will remain in Cedar City as the Utah Parks engineer. All other officers, with the exception of myself, have been transferred from the Utah Parks, probably for the duration.

I presume that the weather is rather nice at the South Rim of the Grand Canyon and I hope that there are plenty of people visiting there. We have been doing an exceedingly fine business here and the prospects for the winter operation are most encouraging. In fact, we will not be able to take care of all those who desire to come to Sun Valley this winter. We have 20 inches of snow on the valley floor and on the peaks and ski runs the depth ranges from 30 to 50 inches. This is most unusual so early in the season and is a good indication of the wonderful skiing we can expect throughout the winter.

I hope that you will have an opportunity to visit us this winter as I am sure you would enjoy looking over our facilities.

WPR:FR

Sincerely,

W. P. Rogers

Ans

November 16, 1942.

Mr. W. J. Larsen, Superintendent,
Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

In order that we may complete the certificate of title to water rights in connection with the diversion of Cliff Dwelling Spring, it will be necessary that we have the following information from you;

(1) Size of dam or dimensions of the impounding sump. The sump was estimated to have a capacity of between 11,000 and 33,000 gallons, which had not been determined when we filed the application. Can you give us a more nearly correct estimate at this time?

(2) The total pump lift was said to be 332 feet in the application. The suction lift is the difference in elevation of water surface on the sump and the center of the rotor on the pump. The discharge lift is the difference between 332 feet and the suction lift. You need not estimate nearer than a foot.

(3) Type of motor used in connection with the pump - "Induction" or other type.

It would be greatly appreciated if you would furnish us this information at your earliest convenience.

Sincerely yours,

(SGD) H. C. BRYANT
H. C. Bryant,
Superintendent.

FILE COPY



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WATER RIGHTS SECTION
SAN FRANCISCO, CALIF.
601 Sheldon Building

ACTION	
☒	Superintendent
☒	Asst. Supt.
☐	Chief Ranger
☐	Chief Clerk
☒	Engineer
☐	Naturalist
☐	CC Supt.
☐	Prepare Reply
☐	Comment
☐	Your Use

November 12, 1942.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

Reference is made to Water Right Application No. A-2254,
Permit A-1514, covering Cliff Dwelling Spring.

Please advise whether you have received the certificate yet,
and if so please forward it to us for a few days in order that we
may make copies for the Director, Regional Director, and ourselves.

A. C. Lunn
Hydraulic Engineer.



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA

ACTION	
☒	Superintendent
☒	Asst. Dir.
☒	Chief Ranger
☒	Chief Clerk
☒	Inspector (Comp.)
☒	Naturalist
☒	CCC Supt.
☐	Prepare Reply
☐	Comment
☐	Your Use

April 30, 1942.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

Reference is made to your memorandum of April 28, 1942, regarding North Rim water rights.

We have copied the order granting extension of time under Application A-1765, Permit A-1093, and return your copy herewith. We assume you also have the original with signature, which is the valuable one of course.

We have also filled out the Proof of Appropriation under Application A-2254, Permit A-1514, so far as we are able. There are certain items you will have to complete, as follows:

- 9 (a). Either give size of dam or dimensions of impounding sump. The sump was supposed to have a capacity of between 11,000 and 33,000 gallons, which had not been determined when we filed the application.
- 9 (b) & (c). Can be left blank.
- 9 (e). The total pump lift was said to be 332 feet in the application. The suction lift is the difference in elevation of water surface on sump and the center of the rotor on the pump. The discharge lift is the difference between 332 feet and the suction lift. You need not estimate nearer than a foot, but some one who has seen it will have to do that. Under motor type, after 3 phase, 60 cycle, we should add "induction" or other type as it may be.

The only other suggestion is that you check the rest of my statements as I have relied largely on data in the application, assuming that there were no changes in final design. I am a little dissatisfied with my statement under 16, but do not know how to express the

idea otherwise. You are at liberty to alter it if you wish. The main thing is that you have used far more than 11,000 gpd, you have actually diverted 11,000 gpd from this source, and therefore you are perfecting this claim and leaving the hard proof for the Roaring Springs right.

A handwritten signature in cursive script, appearing to read "A. C. Lunn".

Hydraulic Engineer.

Enclosure 2121969.

660-099
1-20-42
O.S.

April 28, 1942.

MEMORANDUM for the Regional Director, Region Four.

Attention; Hydraulic Engineer.

The attached papers have been received from the State Water Commissioner and are being transmitted to you for completion of the Proof of Appropriation of Water form for Application Number A-2254, Permit Number A-1514 -- Cliff Dwelling Fork; and to make whatever copies you may need of the Order Granting Extension of Time on Application Number A-1765, Permit Number A-1093, Roaring Springs.

Please return all attached correspondence, completed forms, and original "Order". The Affidavits will be completed in this office.

(SGD.) JOHN M. DAVIS

Assistant Superintendent.

CMC/abh

FILE COPY

6 copies

Memorandum for the Regional Director, Region 4:

Attention of Mr. Dunn.

Reference is made to Hydraulic Engineer Dunn's memo of April 20, with enclosure, in connection with Water Right Application of Roaring Springs and Cliff Divergence Spring.

Attached please find copy of letter sent to the State Water Commissioner, together with your copy of the Notice of Complete Application of Water to Beneficial Use which has been signed.

Upon receipt of the Certificate of Water Right from the Commissioner your office will be advised.

Assistant Superintendent:

C.M.C. 4/22/42

601 Sheldon Building

June 5, 1941

MEMORANDUM for Superintendent Kittridge,
Grand Canyon National Park:

In response to your inquiry of May 27 concerning the purport of the recently enacted amendment to the Arizona Water Code known as Senate Bill No. 55, will state that you are correct in being of the opinion that it does not affect our present filings. It accomplishes the purpose for which we were striving in 1936 and 1937 under Superintendent Fillotson. In other words, we can now file for water rights for fish and wildlife purposes and use some of the designated natural reservoirs mentioned in our preliminary water rights survey of Grand Canyon.

I believe the Water Commissioner and the Water Rights Section will both be gratified to make use of the new law to enable us to make further water right filings for the protection of wildlife there.

W. S. ALLEN, Associate Attorney

cc: Regional Director, Region Three
Director

AJ:as

FILE COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA



May 10, 1941.

MEMORANDUM for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to your memorandum of April 15 transmitting information regarding the perfection of water rights applicable to Cliff Dwelling Spring, Grand Canyon National Park.

From the information supplied, it is evident that both beginning and completion of construction can be reported. We have therefore drawn up both applications for your signature. It is requested that you execute the Notice of Beginning of Construction again, as a new form seems to have been adopted since our previous correspondence. After signing, the original, on white paper, should go to the State Water Commissioner, and the other four copies may be distributed to the Director, the Regional Director, this office, and yourself.

This will also acknowledge receipt of information regarding the changes in the Phantom Ranch water system. Mr. Dunn has learned from the State Water Commissioner that, since the right is still in the form of an application and permit, no change in point of diversion is needed and that the change will be merely an amendment of the existing application. Mr. Jackson is preparing the necessary map at this time, and it should be ready for submission shortly after Mr. Dunn's return from an emergency trip to Death Valley, about ten days hence.

Albert L. Johnson.
S.H.

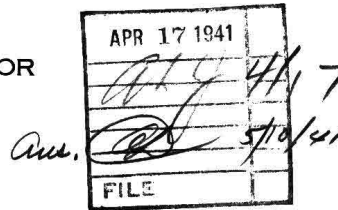
Associate Attorney.

Enclosure 2136638.

cc: Director.
Regional Director, Region III.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

April 15, 1941.



Memorandum for Hydraulic Engineer,
Mr. A. Vanv Dunn, Region IV, N. P. S.,
San Francisco, California:

Please refer to recent correspondence in the matter of
Water Right Application No. A-2254, Permit No. A-1514, for the
appropriation of the water of Cliff Dwelling Springs for the
North Rim.

Enclosed herewith is copy of Mr. W. J. Larsen, Superin-
tendent, Utah Parks Company's reply to our letter of inquiry
concerning this development, which indicates that the project
was commenced in July, 1940, and completed in August, 1940, and
placed in full use during the same year.

Also enclosed is copy of a letter from State Water Com-
missioner Jesse C. Wanslee, dated April 12, 1941, our reply
to which was sent under date of April 14, with copy to you.

In accordance with instructions contained in your memo-
randum dated March 26, 1941, enclosed herewith are several
copies of "Notice of Beginning of Construction" which I have
signed and are to be completed and distributed by your office.


F. A. KITTEDGE,
Superintendent.

Encls:

cc: Regional III Director
w/copies of letter.

C O P Y

STATE WATER COMMISSIONER, STATE HOUSE,
Phoenix, Arizona.

April 12, 1941.

Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Re: App. A-2254, Per. A-1514
Cliff Dwelling
Grand Canyon National Park

Dear Mr. Lloyd:

This is to advise you that the permit in the above designated case states that construction work shall begin on or before June 17th, 1941.

The State Water Commissioner has no authority to extend the time for beginning of construction and for that reason it is very important that you start construction before the expiration of one year from the date your permit was granted. See Sec. 3288, Revised Water Code of Arizona, 1928.

We are enclosing notice in duplicate for your use in this case. The yellow copy is for your file.

Kindly give this matter your early attention.

Sincerely yours,

/s/ Jesse C. Wanslee
STATE WATER COMMISSIONER

C O P Y

C O P Y

UTAH PARKS COMPANY, CEDAR CITY, UTAH.

April 9, 1941.

File W - 1

Mr. J. V. Lloyd, Acting Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Lloyd:

I refer to your letter of March 28th relative to the status of work in connection with the Cliff Dwelling Spring water development.

Work on this project was begun July 4, 1940 and completed August 27, 1940. It was placed in full use during the year 1940.

Trusting this is the desired information, I remain

Very truly yours,

UTAH PRKS COMPANY

/s/ W. J. Larsen
Superintendent.

C O P Y



4/12/41.
7 - Carrel to prepare correspondence -
UTAH PARKS COMPANY
LODGE, HOTEL AND TRANSPORTATION SERVICE *for*

BRYCE-ZION-GRAND CANYON NATIONAL PARKS
CEDAR BREAKS NATIONAL MONUMENT

W. P. ROGERS, GENERAL MANAGER
W. J. LARSEN, SUPERINTENDENT



CEDAR CITY, UTAH

April 9, 1941

File W - 1

Mr. J. V. Lloyd, Acting Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Lloyd:

I refer to your letter of March 28th relative to the status of work in connection with the Cliff Dwelling Spring water development.

Work on this project was begun July 4, 1940 and completed August 27, 1940. It was placed in full use during the year 1940.

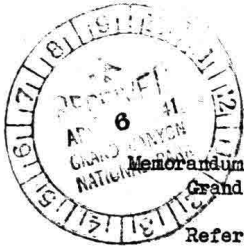
Trusting this is the desired information, I remain

Very truly yours,

UTAH PARKS COMPANY

W. J. Larsen
Superintendent

Handwritten: 4/7/41.
Handwritten: 660-05.7
Handwritten: to Supp. K
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA



April 4, 1941.

Memorandum for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to your memorandum of April 2 regarding Water Right Application No. A-2254, Permit No. A-1514, for the appropriation of waters of Cliff Dwelling Springs.

I gather from this memorandum that proof of beginning of construction and proof of completion of construction are definitely possible by the required June 17 of this year, and that full proof of beneficial use may also be possible. On this basis, it is not necessary to communicate with the State Water Commissioner until the latter part of May, though we may at any time we have all the information.

I am leaving for Colorado early next week, and may not be back in the office until about the 5th or 6th of May. Therefore, if you will forward the reply which you will probably receive from Superintendent Larsen of the Utah Parks Company, I shall draw up as many of the proofs as are possible at that time and see that you get them shortly after the middle of May for execution and forwarding to the Water Commissioner.

Handwritten: R. O. Dunn
R. O. Dunn
Hydraulic Engineer.

cc: Director.
Reg. Director, Reg. III.

660-057
2/1

April 2, 1941.

**Memorandum for the Regional Director, Region IV,
Attention: Hydraulic Engineer A. Vany Dams:**

Receipt is acknowledged of your memorandum dated March 28, 1941, concerning Water Right Application No. A-2254, Permit No. A-1514, for the appropriation of the waters of Cliff Dwelling Springs for the North Rim together with "Notice of Beginning of Construction" forms in quadruplicate.

To keep you currently advised of the action taken in this matter by this office, there is attached hereto copy of our letter dated March 28, 1941, to Mr. H. J. Larsen, Superintendent, Utah Park Company, Cedar City, Utah, requesting necessary information on the project.

**F. A. HITTENDGE,
Superintendent.**

**cc: The Director.
The Regional III Director.
Attachment.**

FILE COPY

C-O-P-Y

660-05.7

March 28, 1941.

Cancel
See 7x

W. J. Larsen, Superintendent,
Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

Please refer to our letter of July 5, 1940, in which we ask that you keep us advised as to the status of the work in connection with the Cliff Dwelling Spring water development.

It is our understanding that this development work was initiated and completed last season. However, we do not know the date you started work on this project, neither do we know the date of completion, which we must have to enable us to complete the "Notice of Beginning of Construction" form which we are required to send to the State Water Commissioner.

If the project is completed and was put in full use during last season, you should so state in your reply.

Please get this information to us at the earliest possible date.

Very truly yours,

F. A. RITTLEDGE,
Superintendent

By - J. V. Lloyd,
Acting Superintendent.

C-O-P-Y

3/28/41 *Mr. Carrel for a ion -*
Jan 660-057
UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA



March 26, 1941.

Memorandum for the Superintendent,
Grand Canyon National Park:

Reference is made to Regional Attorney Taylor's memorandum of June 24, 1940, regarding Water Right Application No. A-2254, Permit No. A-1514, for the appropriation of the waters of Cliff Dwelling Springs for the North Rim, in which your attention was called to the fact that construction should begin prior to June 17, 1941.

If construction has not actually started, it will be necessary to request an extension of time. May we request, therefore, that you advise us of the status of that water supply development, and if no construction has been started give us the best reasons you can offer for the delay, in order that we may prepare the necessary request.

On the other hand, if any construction has been started, we should execute the enclosed form, Notice of Beginning of Construction. It is my understanding that this spring has been used at some time in the past. Therefore, even though no construction may have been made since the application was filed, the existing structures may be offered as "Proof of Beginning of Construction" and should be described at the point noted on the form. If you prefer, you may sign the notice and return to us with a description of the status of such development, and we shall be glad to complete the notice and forward it to the State Water Commissioner.

In either case, we enclose four copies of the form with the understanding that one is to be submitted to the State Engineer, one if for your files when fully completed, and the other two are to be returned to this office for transmittal to the Director and the Regional Director. One copy is also needed for our own files, but we have no more forms at the moment. We are ordering some from the State Water Commissioner at this time, but if you have an extra one it would save retyping if you made that fifth copy.

Enclosure 2136623.

A. Grant Dunn
Hydraulic Engineer.

cc: Director.
Regional Director, Region III.

Hamilton

August 26, 1940.

Mr. W. J. Larsen, Superintendent,
Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

Your letter of August 13, requesting a copy of the application filed with the State of Arizona to appropriate the waters of Cliff Dwelling Spring on the North Rim of Grand Canyon National Park has been received.

There is enclosed for your use a copy of the Notice of Application to Appropriate Water and a copy of the Application for a Permit. The Certificate of Water Right will not be granted until the proposed construction has been completed and the maximum beneficial use has been made of the waters.

In order that we may keep the State Water Commission informed on the progress of construction on the development of the spring, will you keep this office advised on the information requested in our letter to you on July 5.

It is hoped that the attached copies will serve your needs until the Certificate of Water Right is issued.

Sincerely yours,

F. A. Kittredge,
Superintendent.

(SGD) J. V. LLOYD

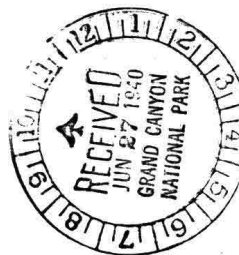
By: J. V. Lloyd,
Assistant Superintendent.

WH/ha

FILE COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA

601 Sheldon Building
June 24, 1940



Memorandum for Acting Superintendent Lloyd,
Grand Canyon National Park:

Reference is made to your memorandum of June 20, 1940, furnishing us with a copy of application No. A-2254 for the appropriation of waters of Cliff Dwelling Springs for municipal use on the North Rim of Grand Canyon National Park. It is noted that the application has been approved and permit A-1514 thereon has been executed.

Under date of June 13, 1940, you wrote to Mr. W. J. Larsen, Superintendent, Utah Parks Company, with respect to the Company's use of the waters of Cliff Dwelling Spring, and you very kindly furnished me with a copy of that letter. The letter was intended as an authorization for the company to use the waters until such time as the National Park Service should require them for Government use.

Inasmuch as the terms of permit No. A-1514 would require the commencement of construction on or before June 17, 1941, it is suggested that you require of the Utah Parks Company from time to time reports of any construction accomplished by the Company, to obtain such information as will serve your needs in making progress reports to the State Water Commission.

[Handwritten signature]
Acting Regional Attorney.

cc: Director.
Regional Director, Region III.

FOR	TO
Superintendent	
Asst. Superintendent	
Chief Clerk	
Purchase Clerk	
Storekeeper	
Cos. App. Mkt.	
Timekeeper	
Fire Cook	
Steward • Foreman	
Steward • Foreman	
Per. Insp.	
Chf. Insp.	
Asst. Insp.	
Inform. Insp.	
P. M. Insp.	
C. C. Insp.	
Plumber	
Electrician	
Mechanic	
Acton	
Comm. Verbal	
Comm. Memo undum	
Prep. Rept. for State Sign	
Rept. and Return	
For Rept. Return to R. S.	

mem 13/40
construction to be started
within one year but
delaying until permit
- a complete construction
one year and a half
applying the water to
the park at once
and at regular intervals

6/20/40
Miss. Hides
Please check the
receipt of one house
admission to see if
reports on construction
are due to the
company
J.E.Z.

REC'D JUN 23 1940

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

16 27
② ↑

June 13, 1940.

Mr. W. J. Larsen, Superintendent,
Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

Reference is made to the status of the water right application for the appropriation of the waters of Cliff Dwelling Spring on the North Rim of Grand Canyon National Park.

For your information the application was sent to the office of the State Water Commissioner on March 13 for examination. On May 22 a letter was received from the State Water Commission informing this office that the application was acceptable and that it would be filed and recorded upon receipt of a \$5.00 fee. The amount due for filing charges has been forwarded.

As the filing of the application for the use of the waters of Cliff Dwelling Spring for municipal purposes has been accepted, this letter will serve as authorization for the Utah Parks Company to use the waters until such time as the National Park Service requires the water for Government use.

Sincerely yours,


J. V. Lloyd,
Acting Superintendent.

CC: The Director,
The Regional Director,
Joseph E. Taylor, Regional Attorney. ←

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

Shelton up 2/8

REC'D JUN 10 1940

4421
[Signature]

June 7, 1940.

Memorandum for Regional Attorney Joseph E. Taylor:

Reference is made to your memorandum of June 3 inquiring as to the status of the water right application for the appropriation of the waters of Cliff Dwelling Spring on the North Rim of Grand Canyon National Park.

For your information, the application was sent to the office of the State Water Commissioner on March 13 for examination. On May 22, a letter was received from the State Water Commission informing this office that the application was acceptable and that it would be filed and recorded upon receipt of the \$5.00 fee. The amount due for filing charges has been forwarded.

When the permit is received, a copy will be sent you for your reference.

[Signature]
J. V. Lloyd,
Acting Superintendent.

FILE COPY

March 6, 1940

Memorandum for Acting Superintendent Lloyd,
Grand Canyon National Park:

Reference is made to your memorandum of March 1, and particularly to that portion relating to the issuance of a use permit to cover the installation of the Cliff Dwelling Spring water supply on the North Rim.

I am aware of the provisions of the amendment to the Water Power Act referred to in Acting Director Cammerer's memorandum of February 5, 1932, Associate Director A. E. Demaray's memorandum of November 20, 1933, and Superintendent Tillotson's letter to Mr. W. A. Kent of December 27, 1933, copies of which communications accompanied yours of March 1, 1940. I believe you will have to consider the prohibition contained in that act as not applying to permits for the carriage of water in national parks and national monuments where in effect the use is in accordance with the purposes for which the area was established.

In theory and in fact the use of water by an operator in a national park or monument is a public use for the benefit of the public visiting the area. It is merely one means of providing necessary accommodations to the public, and without doubt the authority granted to the Secretary of the Interior and the National Park Service to provide for the enjoyment of such areas and the convenience of the visiting public is sufficiently broad to cover contracts between the Secretary and the operators as means toward those ends.

Undoubtedly our Washington office has prepared instructions or some form of opinion upon this specific point, but I am unable to find any reference to such an opinion in any of my files. However, I do not believe you need be unduly worried about the prohibition above referred to as applying to uses by the operators under their contracts with the Secretary of the Interior. Assuming the validity of the issuance of a use permit to the Utah Parks Company for this right of way, may we refer you to the questions raised in our memorandum of February 17 upon this same subject.

cc: Director.
Regional Directors,
Regions III and IV.

Regional Attorney.

JET:SH

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA



March 5, 1940.

Memorandum for Acting Superintendent Lloyd,
Grand Canyon National Park:

Re: Water Right Application,
Cliff Dwelling Spring,
Grand Canyon National Park.

In accordance with your memorandum of March 1, 1940, we re-typed the application for the appropriation of the waters of Cliff Dwelling Spring. This procedure, of course, disqualifies the original date of filing noted in pencil at the top of the original application.

The new instructions for filling out applications, included with your correspondence, give a new State differentiation between springs as the origin of, or tributary to, a stream, which is important to have.

Apparently Engineer Stewart is rather particular about details. The true pipe length along the slope would have a bearing if enough water were to be pumped to cause serious friction losses, but it is far less important in this case than many questionable features covered by Hydraulic Engineer Dunn's memorandum to me of December 9, 1940. To add the 300 feet of length for conversion from horizontal to slope distance, for instance, adds approximately 0.1 foot to the friction head, or 0.0434 pounds to the pressure against which to pump. On the other hand, if there is an error of 100 feet in the total pump lift, as suggested by Mr. Dunn's memorandum, this would increase or decrease the pumping pressure by 43.4 pounds. Since length was so unimportant in this case, Mr. Dunn merely scaled the horizontal lengths as adequate for the case, and apparently used the wrong scale at some point on the 4-inch line.

The lengths shown on the new application are based on the traverse lengths tabulated on the map (and differ slightly from your red notations) as follows:

	<u>Horizontal Length</u>	<u>Slope Length</u>	
		<u>Your Red</u>	<u>By Traverse</u>
2-inch pipe	1039 ft.	1083 ft.	1102 ft. $\neq$
4-inch pipe	1299 ft.	1274 ft.	1301 ft. $\neq$
6-inch pipe	971 ft.	930 ft.	972 ft. $\neq$

The changes in paragraphs 1 and 3 are entirely in accordance with the new instructions regarding springs. We have followed your description in paragraph 5a on the assumption that it was approved by Mr. Stewart, but fail to see that it adds to the description under 5c except to limit capacity to three days' flow as regulation rather than storage. We had intended to correct paragraph 8 as you have done, after we learned from Dr. Bryant that the system was not actually built last year.

It will be well to have answers to the questions in Mr. Dunn's memorandum of December 9, 1939, before future filings and proof of appropriation and use are made, but to make radical changes in the present application may cause needless conflict with the more important permit to appropriate from Roaring Springs. Changes can be handled better in the final proof on both of these systems; hence we suggest that the enclosed application be filed with no more explanation than is necessary.

You will note that we have left the name and title of the administrative officer to be filled in by the one signing on line 2 and at the close of the application.

Enclosure 1782800.

Joseph E. Taylor
Regional Attorney.

cc: Regional Director, Region III.

P.S. We are herewith returning the print of drawing NP-CC-6986 which accompanied your memorandum of March 1, and original letter of State Water Commissioner Jesse C. Manslee of Feb. 7, 1940.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

REC'D MAR 4 1940

March 1, 1940.

Memorandum for Regional Attorney Taylor:

Reference is made to your memorandum of February 17, 1940, regarding the preparation of a use permit to cover the installation of the Cliff Dwelling water supply on the North Rim.

There is attached copies of letters written in connection with two other cases concerning water supply across Park and Monument lands. It seems quite apparent from these letters that only thru Congressional authority may a permit be issued. On the other hand, Article III (b) in the contract between the Government and the Utah Parks Company, reads as follows:

"To lay, in accordance with the plans and specifications approved by the Secretary of the Interior, water supply, drains and sewer pipes, conduits and mains necessary for a proper and adequate water supply, drainage and sewer systems necessary for the enjoyment of the privileges herein granted".

This clause is also incorporated in Article IV (b) in the 20-year contract between the Government and Fred Harvey. All of which would indicate that the Secretary of the Interior has the power to authorize projects of this nature without reference to Congress.

In this specific case a plot of the project was submitted and approved by the Acting Director on October 19, 1939; and the operator was advised that he could proceed with the work. The job was completed in November.

It is quite evident that there is a necessity for clarification of the application of the law in cases of this kind, and would appreciate your advice so that there will be no question as to procedure in the future.

The application for a permit to use the waters of Cliff Dwelling Spring was returned by the Commissioner for corrections, which we have made on the original. All three copies are being returned to you herewith for your final draft. As there are no corrections to be made on the plan, all copies will be held here pending the receipt of your corrected draft of the Application. Kindly return Mr. Wallingford's memo, also the letter from Commissioner Wanslee.

(Original of previous draft returned to Act. Supt. Lloyd with memo 3/5/40.)

CC to Regional Directors
Region III and Region IV

J. V. Lloyd,
Acting Superintendent.

C O P Y

STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA

February 7, 1940

Mr. J. V. Lloyd
Acting Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Re: Cliff Dwelling Spring
Grand Canyon Nat'l Park.

Dear Mr. Lloyd:

We have examined the application of the Grand Canyon National Park to appropriate the waters of Cliff Dwelling Spring and find some corrections desirable before it is filed.

If the spring is in the bed of a water course, the name of the water course should be stated as the source of supply in paragraph 1, then in paragraph 3, following the tie, add "at Cliff Dwelling Spring." However, if the spring is not in the bed of the canyon, but is to one side and somewhat above it and the water drains into the canyon, we suggest that the source of supply be designated as "Cliff Dwelling Spring Drain, tributary of Transept Canyon, tributary of Bright Angel Creek". In paragraph 5 describe the proposed dam or other diversion structure. We are not able to check the pipe line lengths as stated in paragraph 6(b) with the map and the table thereon and suggest that you make such corrections as are necessary.

Sincerely yours,

/s/ Jesse C. Wanslee.

JCW:ETS:LC
Encs.

Jesse C. Wanslee
State Water Commissioner.

C O P Y

United States
Department of the Interior
National Park Service
Grand Canyon National Park
Grand Canyon, Arizona.

December 27, 1933.

Mr. W. A. Kent,
Tuwweep, Arizona.

Dear Mr. Kent:

Reference is made to your application for a permit to cross lands of the Grand Canyon National Monument with a pipe line to carry water from the spring known as "Coyote Hole" to be used for domestic purposes. I am now advised by our Washington Office that the Act of Congress approved March 3, 1921, provides as follows:

"That hereafter no permit, license, lease, or authorization for dams, conduits, reservoirs, power houses, transmission lines, or other works for storage or carriage of water, or for the development, transmission, or utilization of power, within the limits as now constituted of any national park or national monument shall be granted or made without specific authority of Congress, and so much of the Act of Congress approved June 10, 1920, entitled 'An Act to create a Federal Power Commission; to provide for the improvement of navigation; the development of water power; the use of the public lands in relation thereto; and to repeal section 18 of the River and Harbor Appropriation Act, approved August 8, 1917, and for other purposes,' approved June 10, 1920, as authorizes licensing such uses of existing national parks and national monuments by the Federal Power Commission is hereby repealed."

In view of this statutory provision it seems that the National Park Service would be without authority to grant the permit. However, I am again taking the matter up with the Washington Office to see if any relief whatever can be had. In the meantime you are, of course, not authorized to cross Government lands with the proposed pipe line.

Sincerely yours,

M. R. Tillotson,
Superintendent.

C O P Y

C O P Y

United States
Department of the Interior
Office of National Parks
Buildings and Reservations
Washington.

November 20, 1933.

The Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Sir:

This will acknowledge the receipt of your letter of November 11, inclosing in quintuple for approval of this office, special use permit, issued to Walter A. Kent of Tuweep, Arizona, for the purpose of a right of way for a pipe line across certain lands in the Grand Canyon National Monument.

In this connection your attention is called to the following Act of Congress, approved March 3, 1921 (41 Stat. 1453):

"That hereafter no permit, license, lease, or authorization for dams, conduits, reservoirs, power houses, transmission lines, or other works for storage or carriage of water, or for the development, transmission, or utilization of power, within the limits as now constituted of any national park or national monument shall be granted or made without specific authority of Congress, and so much of the Act of Congress approved June 10, 1920, entitled 'An Act to create a Federal Power Commission; to provide for the improvement of navigation; the development of water power; the use of the public lands in relation thereto; and to repeal section 18 of the River and Harbor Appropriation Act, approved August 8, 1917, and for other purposes,' approved June 10, 1920, as authorizes licensing such uses of existing national parks and national monuments by the Federal Power Commission is hereby repealed".

It is not readily apparent from the permit whether Mr. Kent wishes to have a right of way for installation of a new pipe line or whether the pipe line is already installed, that is previously used by him before this office assumed jurisdiction over the monument area, and continuance of authorization therefore desired. If the former case we would have no authority to approve the permit. Please furnish us with a report in this matter as soon as possible.

Sincerely yours,

(Signed) A. E. Demaray

Associate Director.

C O P Y

C O P Y

United States
Department of the Interior
National Park Service
Washington.

February 5, 1932.

The Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Sir:

Referring to your letter of January 26, regarding the grazing privileges of the Havasupai Indians within their allotted territory in the Tusayan National Forest and the Grand Canyon National Park, we would be willing to approve the extension of the permit heretofore issued to the Havasupai Indians by this Service for a period of ten years to conform to a similar policy agreed to by the Forest Service.

In this connection, however, we do not know from the information submitted in your letter how far we can go in authorizing the Indians to carry out their plan for water development on the range allotted within the Grand Canyon National Park. We are, of course, prohibited by the amendment to the Federal Water Power Act of March 3, 1921, from granting permits or authorizations for dams, conduits, reservoirs, etc., or other works for the storage or carriage of water within the national parks. The specific language of this amendment reads as follows:

"That hereafter no permit, license, lease, or authorization for dams, conduits, reservoirs, power houses, transmission lines, or other works for the storage or carriage of water, or for the development, transmission, or utilization of power, within the limits as now constituted of any national park or national monument shall be granted or made without specific authority of Congress, and so much of the act of Congress approved June 10, 1920, entitled 'An Act to Create A Federal Power Commission; to provide for the improvement of navigation; the development of water power; the use of the public lands in relation thereto; and to repeal section 18 of the river and harbor appropriation act, approved August 8, 1917, and for other purposes,' approved June 10, 1920, as authorizes licensing such uses of existing national parks and national monuments by the Federal Power Commission is hereby repealed".

In a former decision by the Solicitor of this Department it was held that this law would prohibit our granting the Indian Service a permit to cross national monument lands with an irrigation canal for the benefit of the Indians and special legislative authority had to be secured for this purpose. See act of June 13, 1930, (46 Stat. 582).

Sincerely yours,

(Signed) Arno B. Cammerer,

Acting Director.

C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

February 26, 1940.

Re: Application for Water from
Cliff Dwelling Spring.

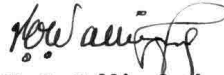
Reference: Letter of J. C. Wanslee 2/7/40
State Water Commissioner

To C. M. Carrel,
Park Engineer,
Grand Canyon.

Copy of Formal Application with
attached rider.
Print of Sheet 1 of 1 NPGC 6986.

Using part of my leave while in Phoenix, I spent part of the day of February 23, 1940 in the office of J. C. Wanslee, State Water Commissioner in study of the above-named documents. I was able to go over the documents with Edwin T. Stewart and Earl Parker, Engineers in the office of the Commissioner, at which time questions raised in the letter of 2/7/40 were discussed and corrections made in the attached copy of application form. Mr. Stewart made a pencil notation of the interview on the margin of the Commissioner's letter. Corrections are also indicated in red pencil on the rider as estimated by computation.

The entire file is returned for transmission to the Regional Office for inspection and following action.


V. O. Wallingford,
(Office Assistant)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

February 26, 1940.

Re: Application for Water from
Cliff Dwelling Spring.

Reference: Letter of J. C. Wanslee 2/7/40
State Water Commissioner

To C. M. Carrel,
Park Engineer,
Grand Canyon.

Copy of Formal Application with
attached rider.
Print of Sheet 1 of 1 NPGC 6986.

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The entire file is returned for transmission to the Regional Office for inspection and following action.

V. O. Wallingford,
(Office Assistant)

FILE COPY

601 Sheldon Building
February 17, 1940

Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

Reference is made to Acting Regional Director Herbert Maier's memorandum for me of January 29, 1940, concerning the proposed contract with the Utah Parks Company covering a right of way for use of waters from Cliff Dwelling Spring on the North Rim of Grand Canyon National Park.

In accordance with Mr. Maier's request, we were proceeding to prepare a draft of a use permit which was designed to cover this case. However, following computations and calculations made to determine the extent of the area under lease at the present time to the Utah Parks Company, it appeared that perhaps a special use permit is not even required in this instance.

In order to save time and fully understand the following comments, it is suggested that you refer immediately to the print of drawing No. NP-GC-6986, which map was prepared to accompany the water right filing for the Cliff Dwelling Spring system. Unless specifically indicated, all map references hereinafter will be to this map.

Our determinations were made upon the basis of information available in January and February of 1937, and with respect to our check upon the boundaries of the leased area you are referred to the maps from which our information was secured -- namely, the park's drawing No. GC-5105, and the Utah Parks Company's drawings CE-Drawing No. 50675, 50678, and 50679. From this information it was determined by Hydraulic Engineer A. van V. Dunn that the northernmost line of the leased area crossed the Cliff Dwelling Spring proposed pipe line approximately at Station 2 upon the line as shown in the above-mentioned drawing. This would mean, therefore, that both the spring and that portion of the pipe line between the spring and Station 2 were already within the leased area.

The north line as drawn by Mr. Dunn indicated approximately two-thirds of the campground area to be within the leased area, and one-third outside. Also the cabin camp area and the store and restaurant were determined to be entirely outside. This finding led us to wonder whether or not the north boundary may have been extended to the north by approximately 1000 feet in order to include these areas. If such an extension has been made or is in contemplation, it would include within its area the line of the pipe from Cliff Dwelling Spring all of the way from the spring to Station 8, which is its junction with the North Rim main.

While I do not know the terms of the lease between the Department and the operator, I would assume that its provisions were broad enough to provide for the use of water facilities by the operator, and therefore that if the entire pipe line route necessary were within the area covered by the lease no special use permit would be necessary, and supervision over the construction, maintenance, and use of that line and the water supply would be an administrative function falling within the scope of the Superintendent's authority.

If you find that the leased area has been extended to the north to include the cabin camp area, and if you agree with the belief herein expressed to the effect that under those circumstances no special permit would be required, I would greatly appreciate your advices.

On the other hand, if you find that the leased area has not been extended, and no extension is under contemplation, I would propose to draw the special use permit merely to describe the line of the pipe from approximately Station 2 on the line to Station 8. The termination at Station 8 is suggested upon the assumption that some permit is already in existence with respect to the North Rim main to the storage tanks at Station 9. (If this assumption is not correct, kindly notify me.) And in a description of that portion of the pipe line lying outside of the leased area, we would add a reference to the right to use the water of Cliff Dwelling Springs under the specific water right acquired on behalf of the National Park Service. In order to do this latter, we should have the number assigned to the application and permit if such permit has been issued.

May we have your own reactions to this proposal, and any suggestions you or your staff may care to make.

Regional Attorney.

cc: Director.
Regional Director, Region III.

JET:SH

601 Sheldon Bldg.,
San Francisco, Calif.,
January 30, 1940.

Memorandum for Regional Attorney Taylor:

Re: North Rim Water Rights,
Grand Canyon National Park.

I agree with Acting Superintendent Lloyd in his memorandum of January 25 that there seems to have been some misunderstanding regarding North Rim Storage at the time of filing our Roaring Spring application. Actually, Superintendent Tillotson is the only one who slipped in signing all as true. I signed as having compiled data from park and company records, and have data to back most any condition -- all conflicting. It shows the importance of having the application more fully understood by the park officials who sign them.

I do not see any harm in this case, however, since true conditions are recorded by the Cliff Dwelling Spring application.

With regard to water consumption, I hope the park can obtain daily records of population in the area and also metered records of water consumption. My estimates may be a little high, but I doubt if they are as high as Mr. Lloyd seems to feel. In any case, they include a very uncertain element in the future trend of travel. A trend is always dangerous to use, and should be high enough to cover emergencies or minor variations. The actual conditions in 1943 are what will count most.

It is not important whether we file on more water for power now except that priority is being lost. The priority is not so important on such a non-consumptive development. But, for my own information, I should like to know just what generator units are in at the North Rim plant, and just how much water is available at the diversion.



A. van V. Dunn,
Hydraulic Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION THREE
SANTA FE, NEW MEXICO

FEB 1 1940	
ROUTING	INITIALS DATE
Regional Director	
Assoc. Reg. Director	
Asst. R.D. (P. & I.)	
Asst. M. (Admin.)	
Personnel-Records	
Legal	
Labor Relations	
Legal	
Project Control	
Equipment	
Information	
Travel Bureau	
Recreation Study	
Engineering	
Landscape Arch.	
Forestry	
Geology	
History	
Wildlife	
FILE	

January 20, 1940.

Memorandum for Regional Attorney Taylor, Region IV:

Reference is made to your memoranda of December 26, 1939, and January 16, 1940, concerning a proposed contract with the Utah Parks Company covering right-of-way and water rights at Cliff Dwelling Spring on the North Rim of Grand Canyon National Park.

This Office purposely delayed answering your memorandum of December 26, 1939, as we believed that Acting Superintendent Bryant would communicate with this Office concerning the preparation of such forms for necessary right-of-way. Dr. Bryant's letter to you of January 4 apparently indicates a desire by him that you proceed with the preparation of a special use permit for the acquisition of the right-of-way, in addition to the water rights. It is realized, though, that all matters relating to right-of-way are the responsibility of this Office.

However, since you have done considerable work on this matter, are familiar with the situation, and any contract or use permit covering right-of-way must be satisfactory to you, it would be appreciated if you would prepare 5 copies of a form of special use permit in either final or rough draft and incorporate therein such provisions as you think are necessary. It is requested that you then transmit 4 copies of such special use permit, and the proposed contract, to Dr. Bryant, who, upon receipt thereof, is requested to retain one copy of the form of special use permit for his files and forward 3 copies thereof, and the proposed contract, to this Office for examination.


Acting Regional Director.

cc: Actg. Supt. Bryant.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

REC'D JAN 27 1940

January 25, 1940.

Memorandum for Regional Attorney Taylor:

Reference is made to yours of January 16th regarding the application to appropriate the waters of Cliff Dwelling Spring, and acknowledgement is made of the receipt of three copies of the application, original tracing and two black line prints of Drawing NP/GC 6986 -- Cliff Dwelling Spring Diversion, together with copies of your memorandum to the Regional Director, Region Three, and two memorandums to you from Hydraulic Engineer Dunn.

Your assumption that the application and map are satisfactory is correct, and they are being sent on to the Water Commissioner for filing, together with a voucher for \$5.00. The extra print and two copies of the application (one of which will later be forwarded to the Regional Director) are being retained in our files.

It is quite evident that there is some misunderstanding regarding the type and capacity of the two storage tanks owned by the U. P. These 150,000 gallon tanks are of redwood, and were so constructed. At one time there were rumors of replacing them with one 300,000 gallon reinforced concrete reservoir, but nothing ever developed from the rumors. This, of course, should have been corrected on the original application A-1765 but was evidently overlooked. However, the rider in the new application seems to clarify this point, and when proof of completion of construction is made, this can be taken care of.

Your decision to "stick to an entirely independent claim for this auxiliary supply" meets with my approval, because, while it could be considered as augmenting the supply from Roaring Springs, actually, it will only be used when the Roaring Springs system is not in operation and will function as an independent unit.

Some danger here if Roaring Spgs. supply not used over any considerable time.
P.D.

I also agree that we should defer requesting an additional 2.5 second feet of water for power use.

While it is felt that Mr. Dunn's use figures are high, and consumption will not for some time reach his estimates, it is satisfactory to let them ride until such time as a more accurate analysis and estimates can be made.

During the coming season an effort will be made to assemble some reliable data on present and future needs for the purpose of determining requirements for further physical improvements to prove full beneficial use under Permit A-1093. As soon as a permit is granted on this application you will be advised as to its wording.

CC: The Director,
The Regional Director.

J. V. Lloyd
J. V. Lloyd,
Acting Superintendent.

660-057

January 25, 1940.

Amel

Memorandum for Regional Attorney Taylor:

Reference is made to yours of January 16th regarding the application to appropriate the waters of Cliff Dwelling Spring, and acknowledgement is made of the receipt of three copies of the application, original tracing and two black line prints of Drawing HP/OC 6986 -- Cliff Dwelling Spring Diversion, together with copies of your memorandum to the Regional Director, Region Three, and two memorandums to you from Hydraulic Engineer Dunn.

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During the coming season an effort will be made to assemble some reliable data on present and future needs for the purpose of determining requirements for further physical improvements to prove full beneficial use under Permit A-1093. As soon as a permit is granted on this application you will be advised as to its wording.

CC: The Director,
The Regional Director.

cme/ke

FILE COPY

(SGD) J. V. LLOYD
J. V. Lloyd,
Acting Superintendent.

FILE COPY

601 Sheldon Building
January 16, 1940

Memorandum for the Regional Director, Region III:

Reference is made to our memorandum of December 26, 1939, with which we forwarded you a copy of a memorandum for the Acting Superintendent, Grand Canyon National Park, relating to a proposed contract between the United States and the Utah Parks Company covering the use of water from Cliff Dwelling Spring on the North Rim of Grand Canyon.

For your information, we have completed the filing map in connection with this system, and we are presently drafting the applications to be filed along with the map. We intend to designate this system as an auxiliary supply for the municipal system on the North Rim, and at the time it is forwarded to Grand Canyon we will forward you a copy of the accompanying explanatory memorandum, and will forward an extra copy of the application to the Acting Superintendent in order that after any necessary corrections are made he may furnish you with a copy for your files.

In the meanwhile, I would greatly appreciate an answer to my memorandum of December 26 with respect to proper procedure in handling the negotiations for the right of way. I am retaining the copy of the proposed contract in our files, but if you agree with me that a more feasible method of handling this matter would be by special use permit and that your Regional Attorney is probably the proper one to prepare it, I will forward the proposed contract to you for such action as you care to take.

By way of answer to my suggestion that the matter be handled by special use permit, Acting Superintendent H. C. Bryant wrote me under date of January 4, 1940, and I enclose a copy of his letter for your information.

JET:SH

Regional Attorney.

Enclosure 1782746.

cc: Director, with copy of Mr. Bryant's letter.
Acting Supt., Grand Canyon National Park.

FILE COPY

601 Sheldon Building
January 16, 1940

Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

We enclose a revised application to appropriate the waters of Cliff Dwelling Spring, tracing and two prints of drawing NP-GC-6986 to accompany this application, and copies of two memoranda to me from Hydraulic Engineer A. van V. Dunn, dated January 15 and January 16 respectively, which relate to some of the data in Superintendent W. J. Larsen's letter to you of December 31, 1939.

We assume that since you made no independent comments on Mr. Dunn's memorandum to me of December 9, 1939, the application and map are satisfactory to you except for points mentioned by Mr. Larsen. If so, please sign the original application and have Mr. Garrel sign the tracing and one print of the map, and forward all to the State Water Commissioner with a voucher in the amount of \$5.00 to cover payment of the filing fee. The extra copy of the application and one print of the drawing are for your files.

In Mr. Dunn's memorandum of January 15 he calls attention to several apparent changes in the Roaring Springs diversion. These should be noted in the next proof you are called on to submit to the State Water Commissioner. In this connection, please note that we have taken care of the increased regulatory storage by changing the 80,000 gallon tank to a 150,000 gallon tank, by claiming the difference of 70,000 gallons for regulatory use with the Cliff Dwelling Spring system. This eliminates any question of exceeding the authority of the Permit No. A-1093. You will have to show that redwood instead of concrete was used for these larger tanks.

I do not think I agree with Mr. Dunn regarding the transfer of priority from Roaring Springs to Cliff Dwelling Spring. It is true that it would give an earlier date, but with no intervening claim on Bright Angel Creek, the municipal status of the North Rim use, and the Arizona interest in increasing its State claims to the Colorado River, I believe we should stick to an entirely independent claim for this auxiliary supply.

Further, with respect to Mr. Dunn's memorandum of January 15, I do not believe that we should be concerned at this time with filing for an additional quantity of 2.5 second feet of water for power use. This additional use, a non-consumptive one, is hardly capable of being protested by other persons, but I believe we should wait until the power requirements and possibilities have become stabilized before making any new filings, so that they can be attended to all at once rather than bit by bit. If you agree, we will not attempt to add anything to the power filing at this time.

In Mr. Dunn's second memorandum of January 16 he has made an analysis of possible water consumption as a basis for his description of the municipal use. He has given considerable detail in order that you can use the same method for more exact figures from your actual attendance records if you see fit. However, since use of a proposed water system is only an estimate, we doubt if the labor of revision is justified. A rider, on the basis of Mr. Dunn's estimate, is enclosed, to be attached to the application if acceptable.

If Mr. Dunn has correctly interpreted Mr. Larsen's letter, it would seem that we cannot prove up on full beneficial use under Permit A-1093 without some physical improvements. If such be the fact, we should begin to consider our future procedure before 1943, which is the expiration of our extended time to complete construction.

In addition to the extra copy of the application and print of drawing for your files, we have decided to forward herewith an additional copy of the application and print of the map in order that you may forward them to the Regional Director after making the necessary insertions and corrections, if any. We suggest that you wait until the issuance of permit upon the application before forwarding to the Regional Director so that his copy may contain the provisions of the permit. At that time, please also furnish us with the information contained in the permit so that we may complete our file copy.

JET:SH

Regional Attorney.

Enclosure 1782745.

cc: Director.

Regional Director, Region III.

File

Permit No.....

Application No.....

APPLICATION FOR A PERMIT

To Appropriate Public Waters of the State of Arizona

Filed..... at..... M.
(Applicant must not fill in the above blanks.)The United States of America, by
I, H. C. Bryant, Acting Superintendent of Grand Canyon National Park
(Applicant's name as inserted here must agree with signature.)of Grand Canyon, County of Cocconino
(Postoffice.)State of Arizona, do hereby make application for a permit to appropriate the following described unappropriated waters of the State of Arizona.

- The source of the proposed appropriation is from Cliff Dwelling Spring in
(Name of stream or name of reservoir and stream if water is diverted from reservoir.)
Transept Canyon, tributary of Bright Angel Creek.
- The amount of water which the applicant intends to apply to beneficial use is:
For Municipal use, 11,000 gallons per day
(Municipal or Domestic.) (Gallons per annum, or gallons per day.)
For _____ use, _____
(Irrigation.) (Acre feet per acre per annum.)
For _____ use, _____
(Mining or Stock Watering.) (Cubic feet per second, or gallons per annum.)
For _____ use, _____ cubic feet per second.
(Power.)
For _____ use, _____
- The point of diversion is located South 16° 46' East 49,658 feet from the South 1/4
(State bearing and distance or coordinate distances to section or quarter section corner.)
corner of Section 18, T. 34 N., R. 3 E.

being within the unsurveyed NW 1/4 of NW 1/4 of Sec. 3, T. 32 N.
(State 40-acre subdivision of U. S. Government survey or projection thereof.) (No. N. or S.)
R. 3 E., G. & S. R. B. & M., in the County of Cocconino
(No. E. or W.) as projected from said Section 18.

(Note: Complete paragraph below for all proposed uses of water, except irrigation.)

- The water will be used for municipal purposes in the SE 1/4, SW 1/4 & NW 1/4
(40 or 10 acre subdivision.)
of Sec. 34, T. 32 N., R. 3 E. and for same purposes in the SE 1/4, SW 1/4 & NW 1/4
(40 or 10 acre subdivision.)
of Sec. 3, T. 32 N., R. 3 E., G. & S. R. B. & M., Cocconino County, Arizona.

DESCRIPTION OF WORKS

- Diversion Works: (a) Diversion will be by gravity, the diverting dam to be _____ feet in height (stream bed to overflow) _____ long on top, and constructed of _____
(Concrete, earth, brush, etc.)

- Description of headgate _____
(Timber, concrete, etc., number and size of openings.)

- If water is to be pumped give general description Electrically driven single stage centri-
(Size and type of pump.)
fugal pump 3" suction 2-1/2" discharge; capacity 12.0 GPM at 350 feet head. Motor 3 phase
(Size and type of engine or motor to be used, total head water is to be lifted, etc.)
60 cycle 9.9 HHP. The water is impounded in a small concrete collecting sump at the spring,
from which the pump delivers it to the pipe line.

Do not use this form in making application for a permit to construct a reservoir and store water. A special form for this purpose may be obtained from the State Water Commissioner.

Rider

6 (b):

- (1) Pump to junction with distribution mains at Campground Store and Restaurant at Station 4:

Diameter 2"; length 1020 ft.; grade variable;
material of construction butt welded steel with
screw joints.

- (2) From Station 4 to main distribution line to lodge area at Station 8 the existing distribution pipe is used for diversion:

Diameter 4"; length 1074 ft.; grade variable;
material of construction butt welded steel with
screw joints.

- (3) From Station 8 to distribution reservoirs at Station 9, through main distribution line:

Diameter 6"; length 971 ft.; grade variable;
material of construction butt welded steel.

The total pump lift is 332 ft.

- 7 The water is discharged into the three distribution tanks described under Permit A-1093, application A-1765, commingled with waters from Roaring Springs, and thence distributed as described in that application and permit. The 80,000 gallon tank described under Permit A-1093 has been replaced by a second 150,000 gallon tank of which the additional 70,000 gallons of regulatory storage is hereby designated for use with the Cliff Dwelling Spring diversion and made part of this application.

- 10 Municipal Use: To supply the town of Kaibab Post Office, Arizona. The uses include fire protection, drinking water, lavatories, limited industrial activities, stock watering and incidental irrigation. The population during an appreciable portion of the time is in excess of 750 and at times reaches 1500. It is estimated that an average population of 1600 and seasonal peak of 2500 will be reached by 1945.

13. **Power Use.** (a) The maximum amount of water to be used through the penstock is..... cubic feet per second.

(b) Total amount of power to be developed.....theoretical horsepower.

(Second feet X fall ÷ 8.8.)

(c) Total fall to be utilized.....feet.

(Pressure head.)

(d) The nature of the works by means of which the power is to be developed.....

(Turbine, Pelton

wheel, hydraulic ram, etc.)

(e) The works to be located, and the water to be released, in.....of Sec.....

(40-acre subdivision.)

T....., R....., G. & S. R. B. & M.

(No. N. or S.)

(No. E. or W.)

(f) Is water to be returned to any stream?..... If so, name stream and describe location of

(Yes or No.)

point where returned.....in the....., Sec....., T.....

(Name of stream.)

(40-acre subdivision.)

(No. N. or S.)

R....., G. & S. R. B. & M.

(No. E. or W.)

(g) The use to which the power is to be applied is.....

(For distribution and sale or private use, etc.)

(Give general description of locality where power will be used.)

14. **Mining Use.** The mines to be served are..... known

(Placer gold, lode gold, copper, etc.)

as the.....

(Names of claims or name of group.)

located in....., Sec....., T....., R....., G. & S. R. B. & M.

(40-acre subdivision.)

(No. N. or S.)

(No. E. or W.)

and owned by.....

The method of utilizing the water is.....

Will the water be polluted by chemicals or otherwise?.....

(Explain nature of pollution, if any.)

What disposition is made of water after use?.....

(State if stored for reuse. If returned

to a stream give name of stream and description of 40-acre tract to which returned.)

GENERAL

15. Are the maps required by the Rules and Regulations filed with Application?..... **Yes** If not, state specifically the time required for filing same.....

(Yes or No.)

16. The proposed point of diversion is on land of **The United States of America (Grand Canyon National Park)**

(Insert name of owner, or state on Public Domain, National Forest, State Land, etc.)

17. The proposed conduit system is on land of **The United States of America (Grand Canyon National Park)**

(Insert name of owner, or state on Public Domain, National Forest, State Land, etc.)

18. The land at the proposed place of use is owned by **The United States of America (Grand Canyon National Park)**

19. Post office used by those living near the proposed point of diversion is **Salib Post Office, Arizona,**

located in the area of water use.

20. Of the applicant's knowledge, has the water described herein ever been appropriated, claimed or used by others?..... **No** If so, file a statement herewith furnishing names of former appropriators or users of the water, and supporting applicant's claim that the water is now subject to appropriation.

21. If the source of supply is a stream, state names and addresses of three water users from the stream below the proposed point of diversion; or, if there are no water users from stream below the proposed point of diversion, or if the source of supply is other than a stream, furnish the names and addresses of at least three residents of the vicinity familiar with the source of supply and the proposed use of water.

The United States of America.

Utah Parks Company - by lease from the United States

Fred Harvey - by lease from the United States.

United States of America

By

Signature of Applicant.

Acting Superintendent, Grand Canyon National Park

ORDER OF CORRECTION

STATE OF ARIZONA, }
County of Maricopa. } ss.

This is to certify that I have examined the foregoing application, together with the accompanying maps and data, and return the same for correction or completion, as follows:

In order to retain its priority, this application must be corrected, completed and refilled in the office of the State Water Commissioner on or before....., 19.....

WITNESS my hand and seal of office this.....day of....., 19.....

State Water Commissioner.

Application No.....

Permit No.....

PERMIT

STATE OF ARIZONA, }
County of Maricopa. } ss.

This is to certify that I have examined the foregoing application and do hereby approve the same, and grant to the applicant a permit to appropriate the water described therein subject to the following limitations and conditions:

The amount of water appropriated shall be limited to the amount which can be applied to beneficial use and shall not exceed.....

The priority of date under this permit is.....

Actual construction work shall begin on or before..... and shall be prosecuted with reasonable diligence and be completed on or before.....

Complete application of the water to the proposed use shall be made on or before.....

WITNESS my hand and seal of office this.....day of....., 19.....

State Water Commissioner.

Application No.....

Permit No.....

PERMIT
To Appropriate Public Waters of
the State of Arizona

District No.....

This instrument was first received in the office of the State Water Commissioner at Phoenix, Arizona, on the.....day of....., 19..... at.....o'clock.....M.

Returned to applicant for correction

Corrected application refilled

proved

Recorded in Book No.....of
Applications for Permit at page.....

State Water Commissioner.

BY ARIZONA NOTARIES, INC.

Acting Supt., Grand Canyon

601 Sheldon Bldg.,
San Francisco, Calif.,
January 16, 1940.

Memorandum for Regional Attorney Taylor:

Re: Cliff Dwelling Spring,
Grand Canyon National Park.

In my memo of December 9, 1939, I suggested that Acting Superintendent Bryant might wish to revise his estimates of population for the North Rim in order to show the increases in water demand. I have just checked park records in the Travel Bureau and find that travel alone does not offer the proper justification. This memorandum offers another approach, which I think will suffice.

The travel figures show the following North Rim attendance:

1936.....	40,954
1937.....	40,992
1938.....	41,742
1939.....	41,454

There is only a $1\frac{1}{2}\%$ increase shown for these four years.

For Permit A-1093, Mr. Carrel offered the information that the population in 1936 was about 400. This was evidently the average for the season, which I assume to be about 100 days in length.

At Rocky Mountain National Park, 88.5% of the annual attendance in 1936 was from June to September, as follows:

June.....	16%
July.....	25%
August.....	36.5%
September.....	11%

Assuming that all North Rim travel were during this period, this ratio would assign the following monthly visitors for the peak year of 1938:

	<u>Months Total</u>	<u>Average Per Day</u>
June	7600	254
July	11,772	380
August	17,200	555
September	5,170	172

At the North Rim this ratio might be slightly different, but the August average is probably fairly close. My studies at Rocky also showed the attendance during the peak week (including August 10) was roughly 20% greater than the monthly average, and the peak day was roughly 195% of the average for the peak week. On this basis the North Rim could have a week with an average daily attendance of 660, and a peak day as high as 1290. To both figures should be added at least 100 park and company employees.

A rather crude estimate of the actual water consumption would then be:

	<u>Daily August</u>	<u>Daily Peak Week</u>	<u>Peak Day</u>
100 employees @ 100 gpc	10,000	10,000	10,000
100 hotel guests @ 275 gpc	27,500		
200-300 hotel guests @ 275 gpc		55,000	82,500
560 campers & transients @ 33-1/3 gpc		18,666	
455 campers & transients @ 33-1/3 gpc	15,166		
1,000 campers & transients @ 33-1/3 gpc			33,333
100 horses and mules @ 20	2,000	2,000	2,000
Shops	<u>5,000</u>	<u>5,000</u>	<u>5,000</u>
Total	59,666 gpd	90,666 gpd	132,833 gpd

With this water consumption the average diversion is only about 60,000 gallons. The peak week and peak day amount to 259,000 gallons extra, or slightly less than the regulatory storage. There is actually a period before and after the peak week when the 60,000 average would be inadequate so that either more storage or a slightly greater diversion -- say, 75,000 gallons per day -- is needed for two or three weeks. Likewise, the longer period of more than average consumption would deplete the storage for the peak day, justifying Mr. Larsen's statement that perhaps as much as 100,000 gallons per day were needed for some time.

Mr. Bryant may wish to use more specific figures for the North Rim. Hence, I suggest that we leave item 9 of the application blank, and under item 10 insert "see rider". We can offer the following rider, but leave it unattached in case Mr. Bryant does prefer one with more specific figures:

Rider

- "10. Municipal Use: To supply the town of Kaibab Post Office, Arizona. The uses include fire protection, drinking water, lavatories, limited industrial activities, stock watering and incidental irrigation. The population during an appreciable portion of the time is in excess of 750 and at times reaches 1500. It is estimated that an average population of 1600 and seasonal peak of 2500 will be reached by 1945."

A. van V. Dunn,
Hydraulic Engineer.

Acting Supt, Grand Canyon

601 Sheldon Bldg.,
San Francisco, Calif.,
January 15, 1940.

Memorandum for Regional Attorney Taylor:

Re: Cliff Dwelling Spring Water Right,
Grand Canyon National Park.

Acting Superintendent Bryant has forwarded a letter from Mr. W. J. Larsen of the Utah Parks Company, which comments on my memo of December 9, 1939. There was no further comment from Mr. Bryant and Engineer Carrel. I gather, therefore, that they wish to have the filing on Cliff Dwelling Spring completed in the form of my draft except as far as the Utah Parks Company requests changes. On this basis, I am proceeding with the filing, which should be ready for submission within another week.

In my memo I asked why limit the quantity to 11,000 gallons, and the answer is that there is no more stream flow. I also asked if we should not make this claim a temporary development under the Roaring Springs permit, a plan to which the company is not agreeable. Since Cliff Dwelling Spring has such a small flow, I agree that it can be an independent claim without jeopardizing the perfection of beneficial use from Roaring Springs.

Comparing previous notes and the filing on Roaring Springs with Mr. Larsen's letter of December 31, 1939, there seem to have been several changes in the North Rim water system.

1. The two 20.g.p.m. pumps at Roaring Springs have been replaced by three 30 g.p.m.
2. The two 50 H.P. motors have been replaced by, or increased to a 150 H.P. installation.
3. The storage on the North Rim has been changed as follows:

	<u>1937</u>	<u>1939</u>
Park Redwood Tank.....	50,000 gallons	50,000 gallons
Company Concrete Tank.....	80,000 gallons	not listed
Proposed Concrete Tank.....(not in)		
(Two 150,000 gal.).....		<u>300,000 gallons</u>
Total Storage.....	130,000 gallons	350,000 gallons

These three changes should be remembered and noted when it is next necessary to submit a progress report on the Roaring Springs right. All of the changes are in accordance with the filing except that the storage has been increased 70,000 gallons more than planned. I am not just sure what effect increasing regulatory storage above the filed claim would have, so I propose to introduce this 70,000 gallons as part of the filing on the Cliff Dwelling Spring. On this basis, the next progress report on Roaring Springs should refer to the construction of the 150,000 gallon tank listed in the Roaring Springs filing, and a mention of the replacement of the 80,000 gallon tank by one of 150,000 gallons, of which 80,000 gallons is claimed under Roaring Springs permit and 70,000 gallons under Cliff Dwelling Springs permit.

According to Mr. Larsen, the pump capacity has been increased from 57,600 g.p.d. to 129,600 g.p.d., of which 108,000 g.p.d. has been beneficially used on some days when pumping 20 hours per day. On this basis, the full 150,000 g.p.d. will be required by about 1943 when final proof is needed. According to pump agents here in town, the 20 g.p.m. pumps were capable of a 20% capacity in excess of their rating. On that basis, it is probable that with extra power the present pumps could supply the full 150,000 g.p.d. by pumping 24 hours per day.

At the same time, Mr. Larsen advises that they are unable to spare all needed power when the daily peak lighting load is required. The power filing called for three 100 H.P. turbines running with 12 sec. ft. and a 229 ft. head, and I believe one unit was considered as spare at the time we made the filing. At all events, only about 250 H.P. can be really developed with the appropriated water. If all three units are working at rated capacity, the park is using more water than it is entitled to for power, and another filing should be made for the difference.

If an additional power filing is in order, it need be for only about 2.5 sec. ft. to serve the three generator units installed at the time of the original filing. But, if there is any plan to increase the power installation, we should file on the additional water needed for the new unit.

More available power would offer a possibility of delivering the claimed 150,000 gallons per day with the present pump installation. If more power is not possible, the only way to perfect the whole claim is by installing more pumps to permit forced delivery during a twenty hour day. This might be possible, but the resulting pipe velocity of 4.2 ft. per sec. should be studied.

My points are:

1. That the trend of use during the past two or three years seems to indicate full beneficial demand by the time it is needed in 1943.
2. That full beneficial use is only possible through enlarged pump capacity and perhaps greater power output.
3. That from the tone of Mr. Larsen's letter there seems to be an economic or physical reason which may permanently limit the Roaring Springs diversion to less than 150,000 gallons per day.
4. If the Roaring Springs diversion is to be less than the filed claim, it still might be advantageous to transfer some of the rights under permit No. A-1093 rather than lose them.

Mr. Larsen's letter explains why he wishes to consider the Cliff Dwelling Spring a permanent auxiliary supply for 11,000 g.p.d. It suggests, however, that I may not have been clear in explaining the matter of priority dates. This memorandum may be no better. What I still wonder is:

1. Can the Utah Parks Company actually foresee a total diversion of 161,000 gallons per day from Cliff Dwelling and Roaring Springs, or only 150,000 gallons per day?
2. How much more than 12 sec. ft. does that company use, or plan to use, from Bright Angel Creek for power purposes?

A. van V. Dunn,
Hydraulic Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA

601 Sheldon Building
January 15, 1940

Memorandum for Regional Attorney Taylor:

Re: Cliff Dwelling Spring Water Right,
Grand Canyon National Park.

Referring to Acting Superintendent Bryant's memorandum of January 4, 1940, I should think either a contract or special use permit would cover the proposed use of Cliff Dwelling Spring by the Utah Parks Company, if this use is not the type for which special use permits are now forbidden by Washington. Since the rest of the Utah Parks areas on the North Rim are leased, however, I should think the same type of contract would be used in this case for the sake of uniformity.

If a lease is selected, I should like to suggest that it be drawn to the same grid and azimuth as the others, regardless of the fact that I found the section ties in those other descriptions to be inconsistent. These leases were for small rectangles at the pump, storage, and hotel areas, and I believe a traverse pipe or other facility from one area to the other, all using a North value $21^{\circ}12'$ off of true North.

If a special use permit is selected, I think it might be ample to describe the development as "The development and use of Cliff Dwelling Spring as described in drawing NP-GC-6986 as filed by the Park Service with the State Engineer for Water Right purposes." As soon as we make the filing and obtain an application number, the special use permit could refer to both map and application number.


A. van V. Dunn,
Hydraulic Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
Grand Canyon National Park,
Grand Canyon, Arizona.

REC'D JAN 8 1940

January 4, 1940.

*Return for
a-sweat,*

Mr. Joseph E. Taylor, Regional Attorney,
National Park Service,
601 Sheldon Building,
San Francisco, Calif.

Dear Taylor:

If you feel that the proposed use of Cliff Dwelling Springs
can be handled more easily with a special use permit rather than
a contract we shall await a draft which can be sent to the Utah
Parks Company for their concurrence.

Very truly yours,

H. C. Bryant
H. C. Bryant,
Acting Superintendent.

Copy mailed Director. Held

Regional Director, Region III 1/16/40

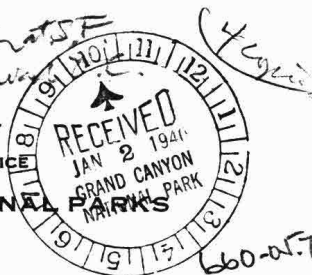


*Send copy to J. Hay Coatsworth
Sent 1/4/40.*

UTAH PARKS COMPANY
LODGE, HOTEL AND TRANSPORTATION SERVICE

BRYCE-ZION-GRAND CANYON NATIONAL PARKS
CEDAR BREAKS NATIONAL MONUMENT

W. P. ROGERS, GENERAL MANAGER
W. J. LARSON, SUPERINTENDENT



Carroll
file
HJB

CEDAR CITY, UTAH

December 31, 1939

File W - 1

Mr. H. C. Bryant, Acting Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Bryant:

I have your letter of December 21st, and a copy of Mr. Dunn's Memorandum for Regional Attorney Joseph E. Taylor relative to the appropriation of water from Cliff Dwelling Spring.

We concur in your suggestion that a new appropriation be made. It should be noted, however, that about 11,000 gallons per 24 hours is the total water furnished by the spring. Therefore, no more could be appropriated as suggested under Item 2 of Mr. Dunn's letter.

The water supply developed from Cliff Dwelling Spring would relieve some load from the power plant and would serve as an auxiliary source of supply for early spring and late fall when the power and pumping plants are closed down, at which time it could be operated by our stand-by Diesel plant near the lodge area.

A number of times in the past floods and land slides have wrecked the pipe line to Roaring Springs. In such future emergencies, this independent source of water would tide over the North Rim facilities until the Roaring Springs line could be put in operation again.

cmc It should be brought to Mr. Dunn's attention that we have 3 - 30 gallon per minute pumps in operation at Roaring Springs, and that for approximately two months during the operating season, they were operated about 20 hours per day pumping approximately 100,000 gallons per day. This required 150 H.P. electrical energy, and this load together with the power load at Bright Angel Point nearly consumes the total output of the power plant.

As to the various other Items listed which probably require information from us:

Mr. H. C. Bryant

December 31, 1939

Item 5-a. The collecting sump would be a small concrete basin at the Spring.

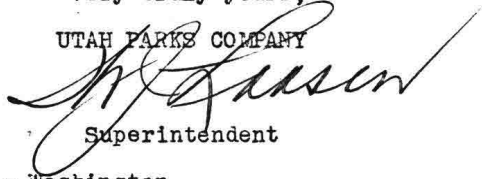
Item 6-b. Existing pipe line is butt-welded steel screw joint. Additional pipe to Spring would be same type.

Item 7. Existing storage tanks shown on map are as follows:
2 - 150,000 gallon Redwood storage tanks 40 feet in diameter by 18 feet in height placed on concrete piers close to ground level.
1 - 50,000 gallon Redwood tank 24 feet in diameter by 16 feet in height placed on low concrete piers.

Trusting the above information will answer Mr. Dunn's questions, we remain

Very truly yours,

UTAH PARKS COMPANY



Superintendent

cc: Mr. J. V. Lloyd - Washington
Mr. C. M. Carrel - Grand Canyon
Mr. W. P. Rogers - Sun Valley

660-05.7

December 21, 1939.

Mr. W. J. Larsen,
c/o Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

As you are aware we are planning to secure a proper permit for the appropriation of water from Cliff Dwelling Spring for municipal use. Before preparing the final papers there has been submitted to us (copy enclosed) a memorandum by Hydraulic Engineer Mann. We should like your concurrence on method 1, (p. 2) which proposes an original new appropriation. There is attached also a proposed map to accompany the application to the Water Commission, approval of which we need also.

Any comments which you may have on these tentative instruments will be appreciated.

Very truly yours,

(SGD) H. C. BRYANT

H. C. Bryant,
Acting Superintendent.

CC: J. V. Lloyd at Washington.
CC: C. M. Carrel,

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

REC'D DEC 21 1939
Ans. 12/26/39.

December 19, 1939.

Mr. Joseph E. Taylor,
Regional Attorney,
National Park Service,
601 Sheldon Building,
San Francisco, Calif.

Dear Mr. Taylor:

I am enclosing herewith a suggested form of contract covering the use of water from Cliff Dwelling Spring on the North Rim of Grand Canyon. If this meets with your approval please submit it to Washington for proper approval. You will notice that the benefit to be obtained by the National Park Service is that an additional water supply will be available free of cost. The value of such a nearby source would be unestimable should the main pumps at Roaring Springs break down. We are ready to approve this contract should you and our solicitor find it to be of a proper type.

Very truly yours,



H. C. Bryant,
Acting Superintendent.

CC: J. V. Lloyd at Washington,
W. J. Larsen.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA
601 Sheldon Building
December 19, 1939



Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

There is enclosed a copy of a memorandum from Hydraulic Engineer Dunn to Mr. Taylor, analyzing the North Rim water situation and the influence of the latest diversion from Cliff Dwelling Spring, together with prints of the map to accompany the water right application.

As pointed out by Mr. Dunn, there are several methods of treatment for the present use which should be carefully studied to provide the most complete water right in the quickest period. We suggest that you and the operator consider this problem and advise us.

In addition, Mr. Dunn has revised the draft of the application as if for a new water system, in order to illustrate certain additional data which should be obtained from the park. This of course will need further modifications if one of the other methods of treatment is followed.

A handwritten signature in cursive script, appearing to read 'Albert L. Johnson'.

Albert L. Johnson,
Acting Regional Attorney.

Enclosure 1782723.

cc: Regional Director, Region III, with
copy of Mr. Dunn's memorandum of Dec. 9, 1939.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA
601 Sheldon Building
December 9, 1939

Memorandum for Regional Attorney Joseph E. Taylor:

A study of Acting Superintendent Bryant's tentative application for the appropriation of water from Cliff Dwelling Spring, Grand Canyon National Park, and its comparison with permit No. A-1093 to appropriate 150,000 gallons per day from Roaring Springs, indicates a need for cautious treatment. The two systems are to be connected near the campground restaurant, and thence both serve the same greater North Rim area with commingled water.

Permit No. A-1093 is to appropriate 150,000 gallons a day, but the present pump capacity is only 57,600 gallons per day. Unless the two pumps run 24 hours per day, even less water is being diverted and applied to beneficial use. It is quite possible, however, that the average consumption on the North Rim is 100 gallons per capita per day. Permit No. A-1093 claimed a maximum daily population of 400 prior to April 1937, when the total annual park attendance to that date had been 268,412. With the 1939 park attendance of 395,940, the North Rim should have had a maximum of approximately 600. This suggests that the pumps may actually have delivered their full daily capacity for a few days this past summer.

In other words, proof of diversion is now possible for 57,600 gallons per day, or 38.4% of the permit quantity, and a slightly greater maximum beneficial use might be proved to the capacity of the regulatory tanks. No greater amount of water can be diverted and used until greater pump capacity is provided.

From local dealers I find that a 20 g.p.m. pump, complete with motor, costs approximately \$3,000 for use under a 3800 ft. head, and weighs approximately 6 tons. Each pump is capable of approximately 20% greater capacity. Therefore, the equivalent of three more 20 g.p.m. units are needed to complete total diversion, and should not cost over \$4500 each in place, or a total of \$13,500.

The present pumphouse, including two units, was reported to have cost \$30,010.07. Apparently, the house cost about \$21,000, and should be ample for the complete installation. The 3 1/2 inch pipe will deliver the whole 150,000 g.p.d. at a velocity of approximately 3.5 ft. per second, which is not excessive.

Permit A-1093 requires that this total installation shall be made by June 28, 1942, and the water fully applied to beneficial use by June 28, 1943. If the North Rim attendance has increased from 400 to 600 per day in the past three years, it might reach 1000 per day in 1943. Resident Engineer Carrel probably has more reliable data on the rate of consumption from which to determine whether the beneficial use will be 100,000 gallons per day, the claimed 150,000 gallons per day, or even more.

Permit A-1093 was granted for municipal use without the "and/or domestic" which was in that for the South Rim auxiliary supply. This implies that an extension of time may be easily obtained to complete beneficial use, but it also implies that ultimate consumption may exceed 150,000 gallons per day.

The development of Cliff Dwelling Spring at a cost of only \$2,000 offers temporary relief at a little less than half the cost of another unit at Roaring Springs, but the diversion of only 11,000 gallons per day is negligible compared with the 92,400 gallons still to be provided from Roaring Spring. With the pump capacity of 33 g.p.m., or 47,500 gallons per day, it will only have to operate about 5.5 hours per day; though this would necessitate a pipe velocity of about 3-1/4 ft. per second, which I consider a little high for 2-inch pipe.

I wonder whether the 11,000 gallon quantity was determined by spring flow or last summer's campground attendance. If the former is true, the development acquires a probable temporary aspect, but if the spring can produce the major part of the pump capacity it becomes the equivalent of one unit at Roaring Springs at much less installation cost.

This analysis suggests three alternate methods of treatment for the Cliff Dwelling development which should be referred to the park for further consideration before completing the application. From an engineering point of view, they are:

1. As an original, new appropriation, which will increase the total water claim for the North Rim to more than 150,000 gallons per day, but retard proof of full beneficial use of that 150,000 gallons per day covered by permit A-1093.

2. As a permanent diversion of part of the 150,000 gallons per day claimed under permit A-1093, by changing the point of partial diversion from Roaring Springs to Cliff Dwelling Spring, in which case the quantity might advantageously be increased to approximately 30,000 gallons per day if the spring has that flow.
3. As a temporary stage in the increasing diversion and use under permit A-1093 by exchange between Roaring Springs and Cliff Dwelling Spring, both of which are tributary to Bright Angel Creek at the junction of the Transept, until the increasing demand more fully justifies the more expensive enlargement at Roaring Springs.

Since each method has its own advantages, I have prepared an amended application and map as a new right, in order to illustrate certain suggestions common to all cases, and in order to show certain additional data and checks which we should have from the park.

The Application

Item 2:

This is municipal use if commingled with waters of Roaring Springs at Campground Restaurant. The quantity should be reconsidered and probably increased to 30,000 g.p.d. or even 47,500 g.p.d.

Item 3:

I have condensed tie for brevity, and eliminated reference to Hopper coordinates for reasons explained under Map.

Item 4:

As a new diversion, the use becomes auxiliary to that under permit A-1093, and by physical connection can serve the much larger area described.

Item 5a or b:

There should be a description of collecting sump.

Item 5c:

The "at 350 ft. head" might be omitted as possible conflict with actual conditions.

Item 6b:

Full diversion pipe from headgate to distribution reservoir must be described as shown. Mr. Carrel should check material as part of line may be cast iron and steel could be classified as riveted, butt welded, etc.

Item 7:

We should describe dimensions of each of three tanks as in permit A-1093, but first determine whether 150,000 gallon concrete tank has been built. The rider is in accordance with footnote in A-1093, which was specified by the Water Commissioner.

Items 9 & 10:

These should be filled in nominally as in permit A-1093, but qualifying as to whether auxiliary, temporary, or as amendment of that application, depending on Mr. Bryant's decisions. Population trends should be revised on basis of 1939 travel.

Items 15 to 21:

Should be exactly as on Permit A-1093.

The Map

We have redrawn the map as Mr. Bryant suggested, chiefly because the State requires sheet of tracing line, 2' x 3', with title describing diversion and use as shown, and to show whole area which can be served. The rest of the Roaring Spring Pipe Line will be required if it is decided to make a change in point of diversion, or to temporarily exchange water.

We modified the Engineer's Statement slightly to incorporate a little more of the wording of model in instruction, and eliminate extra note regarding sources. For Mr. Carrel's information before signing again, we found the following inconsistencies while preparing the map, some of which should be checked, and others of which are not important in this case:

1. We know that the basic tie to the S $\frac{1}{2}$ of Section 18 is debatable, but this has been fully explained to the Water Commissioner in my analysis of all the previous applications a year ago -- which he accepted. This map and application are prepared with same value for tank location in order that all ties could be corrected by single operation at any future date -- not now required.

2. Computing traverse from tanks to Hopper coordinate 62,000 N, 32,000 E, from drawing GC-8382, we failed to close on my older checked coordinates for the tank by 48.81 ft. N-S and 570.96 ft. E-W. We eliminated reference to Hopper coordinates in ties.
3. The tie between tank and Cliff Dwelling Spring is shown to be 2450 feet, but scales approximately 2405. We assumed a transposition of numbers on GC-8382, and used scaled distance because it made a more critical relation to the 40-acre subdivisions and indicates excusable uncertainty. We can change it in accordance with any check determination by Mr. Carrel, but either value is within the 50-foot limit previously signified as acceptable to Engineer Stewart of the Water Commission, and unimportant in this case where there are no dangers of conflicting claims.
4. On profile sheet V. O. W. has shown diversion at elevation 8150, but shown vertical scale to place it at 8050. We assumed that 8050 was correct.
5. In preparing map for permit A-1093 we fixed an elevation of water surface in tanks as 8635 based partially on Mr. Carrel's verbal information that towers were 50 or 60 tall. I do not recall, but believe the elevation of ground at tank was probably from Utah Parks Company maps. Drawing GC-8382 shows tank elevation to be 8365, which the area master plan for 1937 -- post-dating my other map -- shows to be ground surface. I also interpreted Mr. Carrel's statement to mean the tanks were on top of towers, but Assistant Regional Landscape Architect Langley now advises he thinks tops of water surfaces are probably about 55 feet above ground.

The apparent 200-foot error in sea level datum is not important for water rights, and the 15-foot uncertainty as to tank elevation was negligible in permit A-1093. We have, therefore, shown the profile on GC-6986 as pump lift instead of from sea level datum, eliminating the need for correcting accepted permit maps.

6. Drawing GC-8382 shows three tanks by solid line to indicate "existing". In line with tank elevation 8365, shown by V. O. W., we wonder if the concrete tank has been built, and if so, is it elevated, or buried?
7. Using a tank water surface 55 feet above ground, the pump lift is 370 feet, while the application gives pump capacity at 350 static head.
 - a. Are these conditions true? (They are reasonable and possible, since pumps can usually handle greater overload.)
 - b. If not, what is actual pump lift?
 - c. If pump lift is uncertain, does Mr. Carrel agree with me, that it might be well to eliminate static head from pump rating in application?
8. If concrete tank is complete, we need its inside dimensions as well as capacity and elevation. This should also be noted in next progress report in connection with permit A-1093.

We can return drawing GC-8382 to the park.

A. van V. Dunn,
Hydraulic Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

REC'D NOV 6 1939
26-70

November 3, 1939.

Mr. Joseph E. Taylor, Regional Attorney,
National Park Service,
601 Sheldon Building,
San Francisco, Calif.

Dear Mr. Taylor:

We are grateful to you for your memorandum of November 1 relative to the extension of applications now pending with the State Water Commissioner. Please let us know when Attorney Johnson plans to be in Phoenix and we will try and be present at the meeting.

I believe we have already called your attention to the desire of the Utah Parks Company to utilize for a supplemental water supply, a certain spring on the North Rim, known as Cliff Dwelling Spring. It will be necessary to file on this spring and we would appreciate obtaining your approval on this action. We have an application blank here which can be filled out and approved by your office.

Very truly yours,

H. C. Bryant

H. C. Bryant,
Acting Superintendent.

660-05.7

November 20, 1939.

Carrel

Mr. Joseph E. Taylor, Regional Attorney,
National Park Service,
601 Sheldon Building,
San Francisco, Calif.

Dear Mr. Taylor:

There is being transmitted herewith a tracing, profile and application for a Permit to Appropriate Public Waters, covering the use of Cliff Dwelling Spring on the North Rim.

It would be appreciated if you would examine both for errors or omissions, and return them to me for filing with the Water Commissioner.

Should you think it advisable to prepare another map using your standards, it would be quite all right and we would use it for filing purposes.

Very truly yours,

(SCD) H. C. BRYANT

H. C. Bryant,
Acting Superintendent.

CBC/ha

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

REC'D AUG 24 1939
Ans 8/25/39 A.V.D.

August 22, 1939.

Memorandum for Joseph E. Taylor, Regional Attorney.

Reference is made to your memorandum of August 16 relative to the possible use of Cliff Dwelling Spring on the North Rim of Grand Canyon. You are entirely wrong as to the location of this spring. It is on the North Rim of Trancept Canyon, a little more than 200 feet below the rim, and directly south of the public campgrounds. This spring was used when the North Rim was first developed. The pipe line is still almost intact and at present the fine flow of this spring could be utilized as a stand-by service in early spring and late fall and in times of drought to augment the water pump from Roaring Springs. The spring gains its name from its nearness to an old cliff dwelling. After the pumps were installed at Roaring Springs the old gasoline pumping plant at Cliff Dwelling Springs was abandoned.

We have been looking at previous correspondence and find that although the matter was mentioned many years ago, water filings did not include numerous fine springs on the North Rim. As a consequence we are having a careful survey made of all of these springs (flowage data had been obtained for several years past) so as to furnish you with proper data for making filings. We are surprised to discover that in this state, spring waters are not owned by the owner of the land.

If and when the Union Pacific installs a pumping plant, we will ask for an engineering drawing showing the installation. Meantime we are anxious to go ahead with filings on all of the numerous springs on the North Rim of the Canyon.

H. C. Bryant
H. C. Bryant,
Acting Superintendent.

660.

File
HR2

Memorandum for Acting Supt. Bryant:

With reference to the above I would suggest that you request Chief Engineer Broder of the U. S. to furnish us a map showing their proposed installation, giving a tie to the spring and show in detail just what they contemplate doing. On receipt of this information we can make formal application for water rights. Or we can send it in to Taylor to work up for us.

The spring is in the Transept Canyon and not in Higher Angel Canyon.

O. M. O.

8/21/39.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA

601 Sheldon Building
August 16, 1939



Memorandum for the Acting Superintendent,
Grand Canyon National Park:

Reference is made to your letter of July 28 addressed to Mr. W. J. Larsen, Manager of the Utah Parks Company, relating to the installation of an electric pump at Cliff Dwelling Spring to augment the water supply and provide a standby service in time of emergency.

Naturally we presume that you refer to some spring within Grand Canyon National Park, but we are unable to find any record of Cliff Dwelling Spring in that park. I referred the matter to our engineer, and he advised me that he believes it is what we know as an unnamed spring about three miles above the mouth of Roaring Spring Creek on Bright Angel Creek.

You advised Mr. Larsen that the installation would be agreeable provided, first, that such temporary use of this water does not involve in any way the ownership of the water now vested in the Government. If this is a flowing spring, our records disclose no appropriation of the waters thereof, and it is therefore quite doubtful that ownership of the water can be construed as vested in the Government.

If use therefrom is desired, we should make a proper filing, and in order to do so we will have to prepare a map of the proposed pipe line, and a description of the pipe sizes, pump capacity, pump lift, and diversion works. The traverse of the pipe line should be tied into the North Rim system, in order that a section corner tie may be computed.

Such other conditions as you may see fit to impose upon the use of this system are within your discretion, but we urge that a filing be made upon the spring, inasmuch as Arizona law does not recognize the ownership of the waters of the spring in the owner of the land, but specifically states that the waters of such a spring are subject to appropriation.

Joseph E. Taylor
Joseph E. Taylor,
Regional Attorney.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA

601 Sheldon Building
August 15, 1939

Memorandum for Regional Attorney Taylor:

Referring to Acting Superintendent Bryant's letter to Mr. W. J. Larsen of July 28, 1939, I have no record of Cliff Dwelling Spring at Grand Canyon.

I believe, however, that it is the unnamed spring about three miles above the mouth of Roaring Spring Creek on Bright Angel Creek. It is not now appropriated in any case. Hence, we should file if it is to be developed. To do so, we will need a map of the proposed pipe line, and the description of pipe sizes, pump capacity, pump lift, and diversion works. The traverse of the pipe should be tied into the North Rim system in order that I can compute a section corner tie.

I have also looked through my records on Cedar Breaks, Zion and Bryce. None of them refer to a Cliff Dwelling Spring. I do not know why Superintendent Bryant would discuss these areas, anyway.



A. van V. Dunn,
Associate Engineer.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZ.

REC'D AUG 1 1939

North Rim

Kaibab Forest, Arizona.
July 28, 1939.

Mr. W. J. Larsen, Manager,
Utah Parks Company,
Cedar City, Utah.

Dear Mr. Larsen:

You have made inquiry as to the possibility of installing an electric pump at Cliff Dwelling Spring to augment the water supply and provide a standby service in time of emergency.

Investigation has shown that this spring seems to have a minimum flow of 400 gallons per hour and a maximum of over 600. With some repair, the old pipeline should be usable and the expense of motor, pump and electric line would be reasonable.

Such an installation as you suggest would be agreeable to us provided it is understood that:

1. Such temporary use of this spring water does not involve in any way the ownership of the water now vested in the Government.
2. The installation shall be considered of temporary nature and removable by the company on request, should the water be needed for Government use.
3. The National Park Service shall, at all times, designate and control the amount of water measured by meter which shall be pumped.

The above are to be considered reasonable safeguards of the Government's interest with leeway remaining for temporary utilization of a needed source of water supply by the Company.

Very truly yours,

H. C. Bryant,
Acting Superintendent.

cc: Director, Region III

Mr. Joseph E. Taylor, Regional Atty, 
Region IV.

Maps and Miscellaneous Information

