Docket No: 7

BRIGHT ANGEL CREEK, SOUTH RIM

Preliminary Docket Information

12-02-1938: application covering appropriation of water from bright angel creek: application no. a-1880

Grand Canyon, Arizona.
December 2, 1938.

APPLICATION NO.: A-1880.

COVERING APPROPRIATION OF WATER FROM: Bright Angel Creek.

AMOUNT: 646,000 gals. per day.

FOR USE AT: Grand Canyon Village on South Rim. Water to be diverted by dam near Phantom Ranch, thence carried through pipe line to South Rim via Indian Gardens to supplement Indian Gardens supply now in use under application A-1735, permit A-1091.

DATE OF FILING: April 14, 1938, at 11:00 a.m.

FILING FEE: $3.00, Receipt No. 228, dated April 14, 1938.

RECORDING FEE: $5.00, Receipt No. 348, dated August 8, 1938.

PERMIT NO.: A-1194.

PERMIT DATED: November 28, 1938.

DATE OF PRIORITY: April 14, 1938.

DATE BY WHICH CONSTRUCTION SHALL BEGIN: November 27, 1939.

DATE BY WHICH CONSTRUCTION SHOULD BE COMPLETED: November 27, 1943.

DATE BY WHICH COMPLETE USE OF WATER SHALL BE MADE: November 27, 1944.

FURTHER ACTION REQUIRED: This application was, of course, made to cover anticipated or possible use of water from Bright Angel Creek by the Santa Fe to supplement the Indian Garden supply. No funds have been set up for this project by the railway company and it is, of course not known when they will start work, if at all. There is a limit of one year in the application as to date on which construction shall begin after approval of the application. In filing the application I took the advantage of the full year allowable and since it was approved on November 28, 1938, this automatically puts the date by which construction shall begin to November 27, 1939. If it is seen that work will not actually be started by that date, then an amended application must be filed or authority for extension of time must be secured from the State Water Commission. In any event, there must be filed with the State Water Commission formal notice of beginning of construction and upon completion of the work there must be filed formal notice of completion of construction. Under the permit as it now stands, construction work is to be completed by November 27, 1943, and complete application of the water to the proposed use shall be made within one year from that date. Consequently, on or before November 27, 1944, there must be filed with the State Water Com-

mission notice of "Complete Application of Water to a Beneficial Use", and also "Proof of Appropriation of Water". Upon filing such forms and payment of the required fee ($3.50 at present), a Certificate of Water Right will be issued by the State Water Commission.

REMARKS: A copy of application No. A-1880 (Permit A-1194) and a copy of this summary is being sent to the Director, to Mr. M. C. Blanchard, Chief Engineer, A.T.&.S.F. Railway and to Mr. Joseph E. Taylor. The latter should substitute the attached for the copy now in his files, since certain corrections and additions required by the State Water Commission were made in the form before filing. The original of all papers, receipts and documents in connection with this case is on file in my office.

M. R. TILLOTSON,
Superintendent.

WATER RESOURCES/WATER R[illegible]HTS DATE: August 31, 1973

WATER RIGHT/SOURCE DOCKET INFORMATION

REGION Western Region AREA Grand Canyon National Park

SITE Bright Angel Creek for South Rim

STATE Arizona COUNTY Coconino DOCKET NO WR #7

LOCATION SE¼ SE¼ Sec. 32, T32N, R3E, G&SRB&M

REGIONAL BASIN LOCAL BASIN

ACQUIRED BY Appropriation

APPLICATION A-1880 PERMIT A-1194 (cancelled) CERTIFICATE

ACTION DUE PRIORITY April 14, 1938 RESERVATION January 11, 1908

QUANTITY -0- USE None

STATUS Inactive SOURCE Creek

REMARKS Hydrologic Unit #15010001

NARRATIVE: The National Park Service filed application A-1880 with the state of Arizona on April 14, 1938. This application requested that a permit be issued for the appropriation of 1 sec. ft. of water from Bright Angel Creek, to be used as a supplemental municipal supply for the South Rim area of Grand Canyon National Park. Permit A-1194 was issued for this purpose on November 28, 1938.

Several extensions of time were granted for perfection of this water right. The final extension gave the government until November 27, 1960 to complete construction of the project, and until November 27, 1961 to make full application of the water to beneficial use.

It was not until 1963 or 1964, however, that work began on the trans-canyon pipeline to convey water from Roaring Springs across the canyon for use on the South Rim. By that time, according to William Matteson, Grand Canyon Park Engineer, it had been decided that the original location for which application A-1880 had been filed would not be used. In the late 1950's, when plans for the present trans-canyon pipeline were being drawn up, the pipeline was designed to carry 1 c.f.s. (the amount allowed by this permit.) However, the actual place of diversion is not at the location listed in the application, but in SW 1/4, SW 1/4, Sec.1, T32N, R3E (unsurveyed), which is in the mouth of the cave from which Roaring Springs flows. The water in both of these locations is discharge from Roaring Springs; thus no change in actual water source was made when the diversion point was changed. The trans-canyon project took about five years to construct, and has been in full operation since that time.

Since completion of the project, residents of Tusayan, Arizona (immediately south of the Park boundary on Highway US 180) have requested to obtain water from the trans-canyon water system, Several recent letters in the docket discuss the feasibility and legality of this request.

In a memorandum of February 22, 1973, the Director, Western Region sent to the State Director, Arizona, the official statement on this matter: the National Park Service will not furnish water to Tusayan.

On August 22, 1973, the State Land Department sent to the Park an order to show cause why application A-1880 should not be cancelled. The matter was referred to this office, and on September 14 we made application for an extension of time to complete construction and make proof of appropriation.

On Oct. 28, 1974, the State Land Department cancelled Application No. A-1880 due to NPS lack of diligence in perfecting its water right. In a memo dated Nov. 14, 1974, the Service position was stated as follows: that any future water use in Grand Canyon National Park would fall under the Reservation Doctrine, making the loss of the State water right irrelevant. The South Rim is presently supplied with water by the trans-canyon pipeline from Roaring Springs.

Kevin Kidder
June 30, 1976

Compiled by Wm. N. Murray

Approved by W. Werrell

1 1

STATE LAND DEPARTMENT OF THE STATE OF ARIZONA
BEFORE THE STATE LAND COMMISSIONER

IN THE MATTER OF APPLICATION TO APPROPRIATE WATER NO. A-1880 PERMIT NO. A-1194	
Bright Angel Creek/Colorado River	ORDER OF CANCELLATION
Applicant, Grand Canyon National Park	

Upon the files and records of the Arizona State Land Department, the State Land Commissioner, being fully advised in the premises, hereby makes the following findings of fact:

1. That Application to Appropriate Water No. A-1880 was filed with the Arizona State Land Department on April 14, 1938. That the said Applicant has not proceeded with due diligence to perfect said Application to Appropriate Water and was Ordered to Show Cause, if any there be, on or before September 17, 1973, why said application should not be cancelled.

2. That said Applicant has not shown cause nor did Applicant appear to show cause why Application to Appropriate Water No. A-1880 should not be cancelled and it is in the best interest of the State to cancel said application due to Applicant's lack of diligence.

NOW, THEREFORE, IT IS HEREBY ORDERED that Application to Appropriate Water No. A-1880 heretofore filed by Grand Canyon National Park, National Park Service, P.O. Box 36063, San Francisco, California 94102, Applicant(s) be and the same hereby is cancelled.

This Order is subject to appeal as in such cases is provided by the laws of the State of Arizona.

GIVEN under my hand and the official seal of the Arizona State Land Department this 26th day of October, 19 74

SEAL

Rudolph Bottweg
STATE LAND COMMISSIONER

64-74

BY CERTIFIED MAIL 569699

10-31-1974: stamp of receipt: october 31, 1974

Received
Division of Water Resources
OCT 31 1974

Name	Act	Info	File	Init

09-27-1973: letter to acting regional director of nps from director of the water rights division regarding an extension of time on com

JACK WILLIAMS
GOVERNOR

Arizona
State Land Department
1624 WEST ADAMS
PHOENIX, ARIZONA 85007
602 - 271-4634

ANDREW L. BETTWY
STATE LAND COMMISSIONER

September 27, 1973

Mr. Gustav W. Muehlenhaupt
Acting Regional Director
U. S. Department of the Interior
National Park Service
Western Region
Post Office Box 36063
San Francisco, California 94102

Dear Mr. Muehlenhaupt:

As per your request of September 14, 1973, find enclosed an extension of time on the Commissioner's Order To Show Cause on Application Nos. A-2823, A-1765, A-1880, A-3095, A-2601, A-2602, A-1878, A-1799, A-1881 and A-1766 to and including the 1st day of October, 1974.

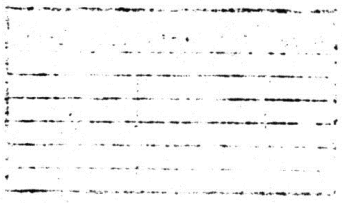
Very truly yours,

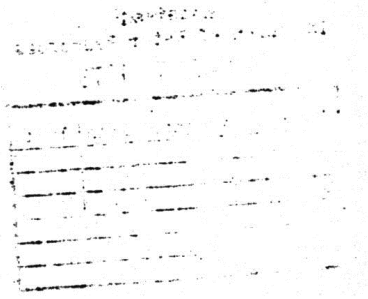
Wm Joe Melling

Wm. Joe Melling, Director
Water Rights Division

WJM/jaw

Enclosures





09-14-1973: letter to state land commissioner of the state land department of arizona from nps regarding response to show cause

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WESTERN REGION
450 GOLDEN GATE AVENUE. BOX 36063
SAN FRANCISCO. CALIFORNIA 94102

IN REPLY REFER TO:

L54(WR)PSSW
Water Rights/General

September 14, 1973

State Land Commissioner
State Land Department of the
State of Arizona
1624 West Adams - 4th Floor
Phoenix, Arizona 85007

Dear Sir:

This is in response to your orders to show cause in regard to applications listed below. In accordance with the telephone conversation of August 29 between Mr. William Melling of your office and Mr. Gerard Witucki of this office, a request is hereby made for an extension of time regarding these applications.

In reviewing our files concerning these applications, we have determined that the water usages under the following permits continue to have regular and active use:

Application A-2823, Permit A-1987 for Lower Saddlehorse Springs in Grand Canyon National Monument.
Application A-1765, Permit A-1093 for Roaring Springs.
Application A-1880, Permit A-1194 for Bright Angel Creek for South Rim of the Grand Canyon.
Application A-3095, Permit A-2147 for Rio Puerco water system in Petrified Forest National Monument.
Application A-2601, Permit A-1829 for Cholla Spring #1 in Tonto National Monument.
Application A-2602, Permit A-1830 for Cholla Spring #2 in Tonto National Monument.

The following diversionary systems are in place, operable, and are being maintained on a standby basis for use during emergencies or while repairs are being made to the principal water-delivery systems:

Application A-1878, Permit A-1192 for Bright Angel Creek
Application A-1799, Permit A-1132 for the Bonita Canyon Springs water system at Chiricahua National Monument.

The systems to which the following permits refer have not been used regularly therefore; we have placed these water usages on our inactive list:

Application A-1881, Permit A-1195 for the Bright Angel Creek hydroelectric system for Phantom Ranch.
Application A-1766, Permit A-1094 for Bright Angel Creek for Phantom Ranch.

Substantial funds were expended in planning and construction for the projects related to these applications, and we believe that increasing Park visitation and expansion of facilities may someday require the implementation of these projects.

Sincerely,

SIGNED
Gustav W. Muehlenhaupt
Acting Regional Director

bc:
Ass't Regional Director, Arizona
Superintendent, GRCA
Superintendent, PEFO
Superintendent, TONTO NM
Superintendent, CHIRICAHUA NM
Field Solicitor, San Francisco
Field Solicitor, Arizona

(WR)PSSW:WNMurray:GSWitucki:mpm 9/14/73

09-14-1973: state land commissioner: in the matter of application no. a-1880 to appropriate water: order to show cause

ATE LAND DEPARTMENT OF THE S TE OF ARIZONA

BEFORE THE STATE LAND COMMISSIONER

IN THE MATTER OF APPLICATION NO. A-1880 TO APPROPRIATE WATER

Re: Bright Angel Creek/Colorado River

Grand Canyon National Park, Applicant

ORDER TO SHOW CAUSE

The Arizona State Land Department, through its Water Rights Division, on lack of information that the above named applicant has complied with the requirements of ARS Section 45-150 relating to the completion of construction to appropriate surface waters, and further on the belief that the above named applicant has not complied with the requirements of Article I, Chapter IV, Rule 13 of the rules and regulations of the State Land Department governing surface waters, copy attached, HEREBY ORDERS that the above named applicant on or before 17th day of September, 19 73, personally or by verified writing appear and show cause why the State Land Department should not cancel the above numbered application to appropriate the certain waters herein described.

GIVEN under my hand and the Official Seal of the State Land Department this 13th day of August, 19 73.

ARIZONA STATE LAND DEPARTMENT

SEAL

Robert L. Bellamy

STATE LAND COMMISSIONER

Upon the written request of applicant, and due cause having been shown the date set for hearing the Order to Show Cause set forth above is hereby advanced to the 1st day of October, 19 74.

ARIZONA STATE LAND DEPARTMENT

for the Wm. Lee Milling

STATE LAND COMMISSIONER

BY CERTIFIED MAIL 570270

ARTICLE I, CHAPTER IV, RULE 13

13. Proof of Appropriation of Water and Issuance of Certificate.

When an applicant and a holder of a permit has completed the appropriation of the water set forth in his application and permit, he shall file with the Department on a Water Rights Division form PROOF OF APPROPRIATION OF WATER. After a field inspection or such other investigation of the completed project by the Department has been made and the Department is satisfied therefrom that all the requirements of law and these Rules and Regulations have been met, a CERTIFICATE OF WATER RIGHT shall be issued to the applicant or his assignee of record in the State Land Department, Water Rights Division and will be subject to the provisions and conditions therein contained, and such other conditions as may be added thereto, and the provisions of law and these Rules and Regulations.

STATE LAND DEPARTMENT OF THE STATE OF ARIZONA

BEFORE THE STATE LAND COMMISSIONER

IN THE MATTER OF APPLICATION NO. A-1878 TO APPROPRIATE WATER

Re: Bright Angel Creek/Colorado River

Grand Canyon National Park/Applicant

ORDER TO SHOW CAUSE

The Arizona State Land Department, through its Water Rights Division, on lack of information that the above named applicant has complied with the requirements of ARS Section 45-150 relating to the completion of construction to appropriate surface waters, and further on the belief that the above named applicant has not complied with the requirements of Article I, Chapter IV, Rule 13 of the rules and regulations of the State Land Department governing surface waters, copy attached, HEREBY ORDERS that the above named applicant on or before 17th day of September, 19 73, personally or by verified writing appear and show cause why the State Land Department should not cancel the above numbered application to appropriate the certain waters herein described.

GIVEN under my hand and the Official Seal of the State Land Department this 13th day of August, 19 73.

ARIZONA STATE LAND DEPARTMENT

SEAL

Robert L. Bettag

STATE LAND COMMISSIONER

Upon the written request of applicant, and due cause having been shown the date set for hearing the Order to Show Cause set forth above is hereby advanced to the _____ day of _____, 19_____.

ARIZONA STATE LAND DEPARTMENT

STATE LAND COMMISSIONER

BY CERTIFIED MAIL 570270

January 17, 1956.

Re: L54-L

COPY

Mr. A. van V. Dunn, Chief
Water Resources Section
National Park Service
Washington 25, D. C.

RE: Application No. A-1880, Permit No. A-1194; and
Application No. A-1881, Permit No. A-1195
Bright Angel Creek - Grand Canyon National Park

Dear Mr. Dunn:

In compliance with the request contained in your letter of January 6, 1956, we enclose herewith extension of time of five years within which to complete construction work in the above captioned cases.

Very truly yours,

C. H. W. Smith, Engineer
Surface Water Division

CHWS/k

Encls.

6

BEFORE THE STATE LAND COMMISSIONER OF THE STATE OF

ARIZONA

IN THE MATTER of Application No. A-1880 Permit No. A-1194; and Application No. A-1881 Permit No. A-1195 Bright Angel Creek The United States of America GRAND CANYON NATIONAL PARK	COMMISSIONER'S ORDER Granting an Extension of TIME

The United States of America, Grand Canyon National Park, through its Chief of Water Resources Section, A. van V. Dunn, having requested additional extension of time within which to complete construction work and within which to make complete application of water to beneficial use under the terms of Permits Nos. A-1194 and A-1195, granted pursuant to Applications Nos. A-1880 and A-1881, and the reasons submitted being considered good and sufficient cause therefor,

IT IS ORDERED, That the United States of America, Grand Canyon National Park, be and it is hereby granted, an extension of time dating from November 27, 1955 to November 27, 1960, within which time to complete construction work; and from November 27, 1956 to November 27, 1961, within which time to make complete application of water to beneficial use under the terms of said Permits Nos. A-1194 and A-1195.

This Order is made nunc pro tunc to serve as if made on November 27, 1955.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the State Land Commissioner of the State of Arizona, this 17th day of January, A. D., 1956.

Kathryn Pitt
Acting Deputy State Land Commissioner

GCNP Docket 7

1

154-L GRCA

REG. DIRECTOR
ASST. REG. DIRECTOR
CHF. DIV. OF ADMIN.
CHF. DIV. OF INTERP.
CHF. DIV. OF COOP. ACT.
FIELD SOLICITOR
ACTION TAKEN
FILE

January 6, 1956

Mr. Roger Ernst, State Land Commissioner
State Land Department
Phoenix, Arizona

Attention: Surface Water Division
Re: Application No. A-1880, Permit A-1194; and
Application No. A-1881, Permit A-1195 for
Grand Canyon National Park

Dear Mr. Ernst:

In reply to the letter of December 28, 1955, from Miss Hammond, a request is hereby made for another extension of time, for 5 years if possible, in which to complete construction of the Bright Angel Creek Supplemental Water Supply for the South Rim of Grand Canyon, and the related hydro-electric plant to serve Phantom Ranch and provide power to pump the supplemental water supply to the existing South Rim water system.

The actual construction has been suspended during the past two years while the United States negotiated the purchase of the interests of its concessioner in the existing water system. The National Park Service is now working on revision of plans to permit completion of the system in a manner to meet the growing municipal needs of the community on the South Rim of Grand Canyon. The project, as now being redesigned, will include a change in point of diversion, and the addition of considerable regulatory storage at a cost of more nearly $1,000,000 than the $115,000 which was originally estimated. It is now planned to contract for the actual reconstruction in the fiscal year 1958 or 1959.

Very truly yours,

A. van V. Dunn
Chief, Water Resources Section

Copy to: Regional Director, Region Three (2) for Dockets 7 & 8 w/c incoming
Superintendent, Grand Canyon (2), for Dockets 7 & 8 w/c incoming
Western Office of Design and Construction with Dockets 7 & 8 which will be completed later

00-00-0000: stamp of receipt



COPY

Office of
State Land Department
State of Arizona
Phoenix, Arizona

December 28, 1955

Re: L54-L

Mr. A. van V. Dunn, Chief
Water Resources Section
National Park Service
U. S. Department of the Interior
Washington 25, D. C.

Re: Application No. A-1880, Permit No. A-1194; and
Application No. A-1881, Permit No. A-1195 -
Grand Canyon National Park, applicant

Dear Sir:

On September 13, 1953, an extension of time was granted within which to complete construction work in the above captioned cases - said time expiring on November 27, 1955, therefore, we enclose herewith forms of Notice of Completion of Construction Work in the above captioned cases. Please complete same and return the white pages for recording purposes.

In the event that it is not possible to complete these forms at this time, we suggest that you write us to this effect, giving cause therefor and requesting an extension of time within which to do so.

Very truly yours,

/s/ Kay Hammond

Kay Hammond, Secretary
Surface Water Division

Encls.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

In reply refer to:
L54-L

October 2, 1953

Subject: Water Right Applications
No. A-1880 and A-1881

State Land Commissioner

Phoenix, Arizona

Dear Sir:

The water systems for the diversion and use of waters of Bright Angel Creek for the power plant at Phantom Ranch and supplemental water supply for the South Rim of Grand Canyon National Park have not been completed because of limitations on construction which have been imposed by Congress and the Bureau of the Budget. However, Park attendance, with related demand for the water, has increased about 30% since the last extension of time was granted in 1950, and the attendance is increasing at an accelerated rate. The existing water system is inadequate for the present demand.

Accordingly, request is hereby made for another extension of time in which to complete the water systems.

Sincerely yours,

(Sgd.) A. van V. Dunn

A. van V. Dunn
Chief, Water Resources Branch

BEFORE THE STATE LAND COMMISSIONER OF THE STATE OF AEIZONA

IN THE MATTER
OF
Application No. A-1880,
Permit No. A-1194,
Bright Angel Creek; and
Application No. A-1881,
Permit No. A-1195,
Bright Angel Creek,
The United States of America,
Grand Canyon National Park.

ORDER GRANTING
ADDITIONAL EXTENSION OF TIME

The United States of America, Grand Canyon National Park, by its Chief, Water Resources Branch, having requested additional extension of time within which to complete construction work and make complete application of water to beneficial use under the terms of Permits Nos. A-1194 and A-1195, granted pursuant to Applications Nos. A-1880 and A-1881, and the reasons submitted being considered good and sufficient cause therefor,

IT IS ORDERED, That the United States of America, Grand Canyon National Park, be and it is hereby granted an extension of time from November 27, 1953, to November 27, 1955, within which to complete construction work; and from November 27, 1954, to November 27, 1956, within which to make complete application of water to beneficial use under the terms of said Permits Nos. A-1194 and A-1195.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the State Land Commissioner of the State of Arizona, this the 13 day of September, A.D., 1953.

James R. Bunger
Deputy State Land Commissioner

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

In reply refer to:
L54 GRAN

November 16, 1950

NOV 1950
RECEIVED

Mr. W. W. Lane
State Land Commissioner
Phoenix, Arizona

Dear Mr. Lane:

Request is hereby made for an extension of time in which to complete the construction of the Roaring Springs Water System for the North Rim of Grand Canyon under Water Right Application No. A-1765, Permit No. A-1093.

The National Park Service has been unable to complete the construction necessary to permit the diversion of the full authorized quantity of water because of limitations which have been imposed by Congress and the Bureau of the Budget since 1947 in order to expedite the more urgent postwar national economic and housing recovery, and more recent defense activities. Any attempt to have the concessioner make the improvements has had to be deferred because of the expiration of its old contract, and protracted negotiations in connection with renewal for the next 20-year period.

In spite of failure to complete the water system, there has been no abandonment. The water system was only a little more than adequate for the water demand of 1941, when there were 431,816 visitors at the Park. In 1947, the first relatively normal postwar year, there were 611,318 visitors at the Park, and the number has grown to 645,348 visitors during the travel year ending September 30, 1950.

Sincerely yours,

(SGD.) A. VAN V. DUNN
A. van V. Dunn
Chief, Water Resources Branch

Copy to: Regional Director, Region Three (2)

RECEIVED
NOV 17 1950

C O P Y

OFFICE OF
STATE LAND DEPARTMENT
STATE OF ARIZONA
PHOENIX, ARIZONA

W. W. Lane
State Land Commissioner
Water Division

November 22, 1950

Re: L54 GRAN

Mr. A. van V. Dunn, Chief
Water Resources Branch
National Park Service
United States Department of the Interior
Washington 25, D. C.

Dear Mr. Dunn:

Re: Application No. A-1880, Permit A-1194
Application No. A-1881, Permit A-1195
BRIGHT ANGEL CREEK

We enclose herewith the Commissioner's Order granting an extension of time in the above captioned cases as requested in your letter of November 13th.

Very truly yours,

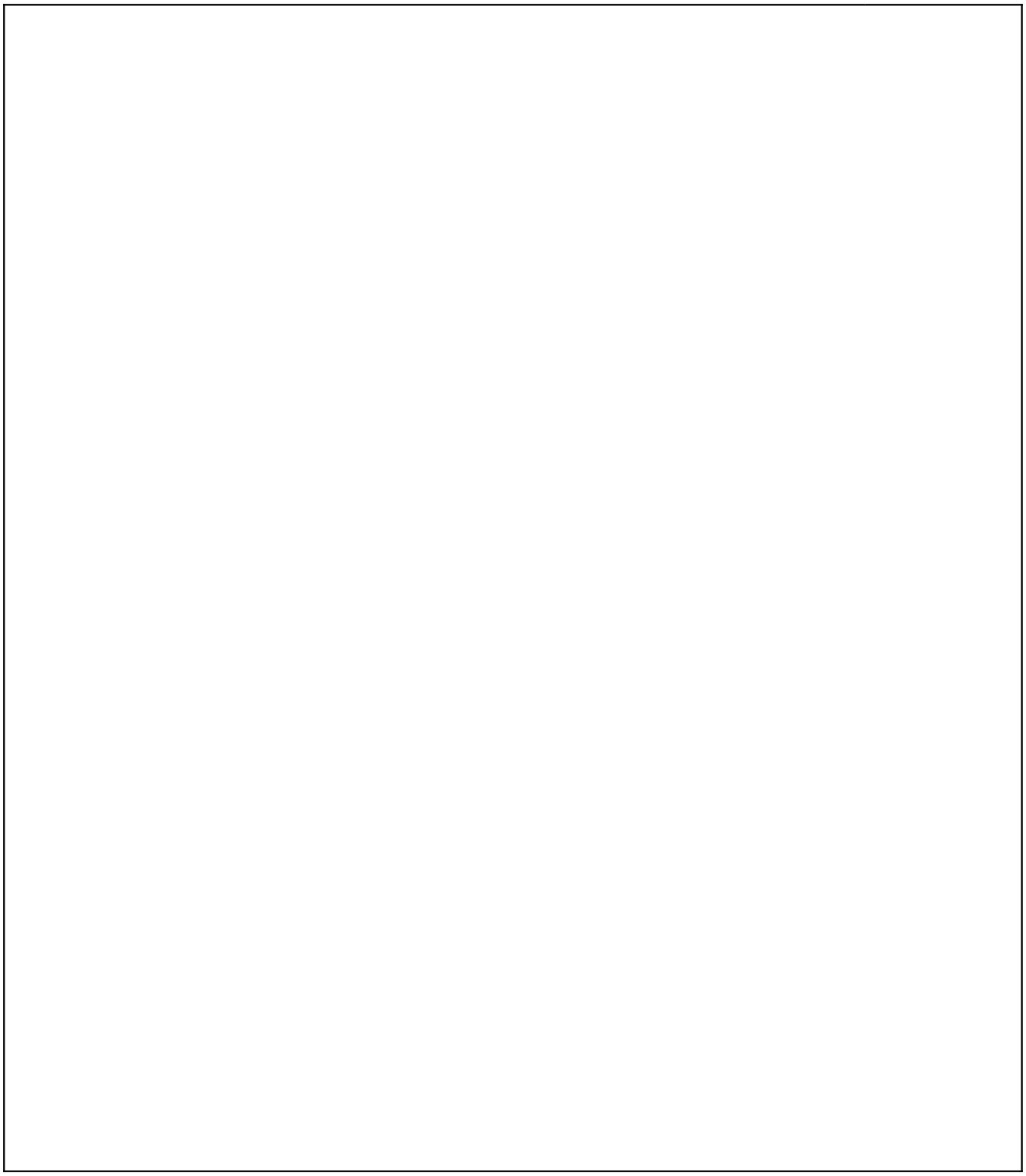
/s/ Kay Hammond

Kay Hammond
Acting Secretary
Water Division
State Land Department

Enc-2

k

11-22-1950: before the state land commissioner of the state of arizona: in the matter of app. no. a-1880, permit no. a-1194, and a



11-22-1950: before the state land commissioner of the state of arizona: in the matter of app. no. a-1880, permit no. a-1194, and a

BEFORE THE STATE LAND COMMISSIONER OF ARIZONA

IN THE MATTER

OF

Application No. A-1880, Permit No. A-1194, Bright Angel Creek;
Application No. A-1881, Permit No. A-1195, Bright Angel Creek;

THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK

ORDER

GRANTING EXTENSION OF TIME

THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK, by its Chief, Water Resources Branch, having requested an additional extension of time within which to complete construction work and make complete application of water to beneficial use under the terms of Permits Nos. A-1194 and A-1195, granted pursuant to Applications Nos. A-1880 and A-1881, and the reasons submitted being considered good and sufficient cause therefor,

IT IS ORDERED, that THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK, be, and it is hereby granted an extension of time from November 27, 1950, to November 27, 1953, within which to complete construction work; and from November 27, 1951, to November 27, 1954, within [illegible] which to complete application of water to beneficial use under the terms of Permits Nos. A-1194 and A-1195.

IN WITNESS WHEREOF I have hereunto set my hand and affixed the Seal of the State Land Commissioner of the State of Arizona, this 22nd day of November, A. D., 1950.

/s/ James R. Burger
Deputy State Land Commissioner

(SE

COPY

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON 25, D. C.

In reply refer to:
L54 GRAN

November 13, 1950

Mr. W. W. Lane
State Land Commissioner
Phoenix, Arizona

Dear Mr. Lane:

Request is hereby made for a further extension of time in which to complete the water systems and make beneficial use of the water under Water Right Application A-1880, Permit A-1194, and Application A-1881, Permit A-1195, at Grand Canyon National Park.

Although the waters of Bright Angel Creek have been partially diverted and used, it has been impossible and impractical to complete the authorized systems for the following reasons:

1. Congress and the Bureau of the Budget have limited Federal expenditures for such public recreational developments since 1941, first because of the war, then to make funds available for more urgently needed postwar national readjustments and housing, and now for further defense expansion.

2. The concessioner did not feel justified in making investments during the wartime drop in public use, and could not obtain labor and materials. He has also had no justification for making such improvements since the cessation of hostilities, and because the renewal of the concession contracts have been suspended pending establishment of a new Departmental policy regarding concessions which was signed by the Acting Secretary on October 13, 1950.

In spite of the unavoidable delay, the need for the developments is urgent, to accommodate the public. The increasing public use of the Park may be measured by the following total annual attendance:

1941 - 431,816 visitors
1948 - 618,210 visitors
1950 - 645,348 visitors

Sincerely yours,

(SGD.) A. VAN V. DUNN.

A. van V. Dunn
Chief, Water Resources Branch

BEFORE THE STATE LAND COMMISSIONER OF ARIZONA

- - - - - -

In the Matter of Application No. A-1880, Permit No. A-1194, Bright Angel Creek; Application No. A-1881, Permit No. A-1195, Bright Angel Creek; THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK.	ORDER GRANTING EXTENSION OF TIME

THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK, by its Chief, Water Division, having requested an additional extension of time within which to complete construction work and make complete application of water to beneficial use under the terms of Permits Nos. A-1194 and A-1195, granted pursuant to Applications Nos. A-1880 and A-1881, and the reasons submitted being considered good and sufficient cause therefor,

IT IS ORDERED, That THE UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK, be, and it is hereby granted an extension of time from November 27, 1947, to November 27, 1950, within which to complete construction work; and from November 27, 1948, to November 27, 1951, within which to make complete application of water to beneficial use under the terms of said Permits Nos. A-1194 and A-1195.

IN WITNESS WHEREOF I have hereunto set my hand and affixed the Seal of the State Land Commissioner of the State of Arizona, this 17th day of November, A. D., 1947.

Ren Bone

DEPUTY STATE LAND COMMISSIONER

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
~~CHICAGO, ILLINOIS~~
Washington 25, D. C.

ADDRESS ONLY
THE DIRECTOR, NATIONAL PARK SERVICE

November 12, 1947.

Mr. O. C. Williams,
State Land Commissioner,
Phoenix, Arizona.

My dear Mr. Williams:

Permit No. A-1194 for the diversion of waters of Bright Angel Creek as a supplemental supply for the South Rim of Grand Canyon National Park, under Application No. A-1880; and Permit No. A-1195 for the diversion of waters of Bright Angel Creek for the generation of electric power to pump the water under Permit A-1194 and to serve the Phantom Ranch, under Application No. A-1881; require that construction of the necessary water systems be completed by Nov. 27, 1947.

It has been impractical, and largely impossible, to complete these projects during the war and the subsequent period of recovery and reconversion of industry. Congressional legislation and directives of the Office of War Manpower and Reconversion have made it necessary for the United States to concentrate on new residence housing and the production of more essential equipment at the expense of recreational developments. In addition, the particular water systems depend, in part, on development plans now suspended during the adoption of a new basic contract with the concessioners who provide public accommodationsin the national parks and monuments. This contract is now being studied by the Secretary of the Interior.

For these reasons, it is requestedthat the time be extended in which to complete the water systems and prove beneficial use under said Permits Nos. A-1194 and A-1195.

In addition, will you please change your records to show our new address as National Park Service, Interior Building, Washington 25 D. C., and not as erroneously given in our letter of October 7.

Sincerely yours,

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

AvVD:sh.

cc: Regional Director, Region Three (2).



COPY

Office of
State Land Department
State of Arizona
Phoenix, Arizona

April 24, 1944

Mr. John M. Davis
Acting Supt., Grand Canyon Nat'l. Park
Grand Canyon, Arizona

Re: App. No. A-1880
Per. No. A-1194

App. No. A-1881
Per. No. A-1195

Bright Angel Creek

Dear Mr. Davis:

Reference is made to your letter of the 22nd inst. requesting an extension of time in which to complete construction work under Permits Nos. A-1194 and A-1195.

We enclose herewith Order granting the extension of time under these permits for the completion of construction and making complete application of water to beneficial use.

You will note that the time for completing work has been extended to November 27, 1947, and the time for making complete application of water to beneficial use has been extended to November 27, 1948.

No reference is made in this Order to the time for amending the applications and permits. This matter can be taken care of whenever the time arrives that the applicant proposes to proceed with the work.

Very truly yours,

/s/ Edwin T. Stewart, Engineer
Water Division

C
o
p
y

BEFORE THE STATE LAND COMMISSIONER OF ARIZONA

IN THE MATTER

OF

Application No. A-1880,
Permit No. A-1194,
Bright Angel Creek;
Application No. A-1881,
Permit No. A-1195,
Bright Angel Creek;

THE UNITED STATES OF AMERICA,
GRAND CANYON NATIONAL PARK.

ORDER

GRANTING EXTENSION OF TIME

The United States of America, Grand Canyon National Park, by its acting superintendent, John M. Davis, having requested an extension of time within which to complete construction work and make complete application of water to beneficial use, under permits Nos. A-1194 and A-1195, granted pursuant to applications Nos. A-1880 and A-1881, and the reasons for such extension being considered good and sufficient cause therefor,

IT IS ORDERED, that the UNITED STATES OF AMERICA, GRAND CANYON NATIONAL PARK, be, and it is hereby granted an extension of time from November 27, 1943, to November 27, 1947, within which to complete construction work; and from November 27, 1944 to November 27, 1948, within which to make complete application of water to beneficial use, under the terms of said permits Nos. A-1194 and A-1195.

THIS ORDER is made nunc pro tunc to serve as if made on November 27, 1943.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the State Land Commissioner this 24th day of April, A. D. 1944.

/s/ O. C. Williams
State Land Commissioner.

02-24-1944: letter to superintendent, grca from secretary, water division regarding order of the state water commissioner granting

C O P Y

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

April 22, 1944.

Miss Tessie L. Flynn, Secretary,
Water Division,
State Land Department,
Phoenix, Arizona.

Dear Miss Flynn:

Reference is made to your letter of February 24, 1944 relative to App. No. 1880, Per. A-1194 and App. No. A-1881, Per. A-1195, Bright Angel Creek.

It is regretted that there has been a delay in attending to this matter, but it has been due to correspondence with the Santa Fe Railway Company relative to their plans in initiating the project. A recent letter from their Chief Engineer Blanchard indicates that they would prefer deferring any action until some time in the future.

As the Railway Company is most concerned in this project, and the Government at this time unable to furnish funds with which to carry out the work, it is quite obvious that these Applications must be extended until after the end of the present war. Considerable work has been done in getting the Applications filed and it would seem too bad to throw this away if we can keep these applications in force until after the war period is ended.

We are, therefore, requesting that an Order granting an extension of time in an amount consistent with your legal authority be granted.

Sincerely yours,

(SGD) JOHN M. DAVIS

John M. Davis,
Acting Superintendent.

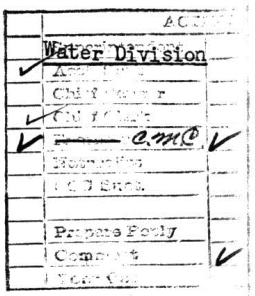
cc: Mr. Blanchard, A. T. & S. F. Ry.
Hydraulic Engineer Dunn, Region Four.
Regional Director, Region Three (2).

00-00-0000: letter to engineer, water rights section from state water commissioner regarding app. no. a-1878, permit no. a-1192, b



O. C. WILLIAMS
STATE LAND COMMISSIONER

OFFICE OF
State Land Department
STATE OF ARIZONA
Phoenix, Arizona



February 24, 1944

Superintendent, Grand Canyon Nat.Forest
Grand Canyon, Arizona

Re: App. No. A-1880, Per. A-1194
Bright Angel Creek

App. No. A-1881, Per. A-1195
Bright Angel Creek

Dear Sir:

This is to advise you that the Order of the State Water Commissioner granting extension of time within which to amend the above designated applications and permits expired November 27, 1942.

If you desire to prosecute these applications to completion, please give the matter your early attention.

Very truly yours,

Jessie L. Flynn
Secretary, Water Division

F:s

09-11-1942: letter to state water commissioner, state house, phoenix, arizona, from nps regarding incomplete water rights

COPY

STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA

Jesse C. Wanslee
Commissioner

Nov. 13, 1942.

Mr. A. van V. Dunn
Hydraulic Engineer
Water Rights Section
National Park Service
U. S. Dept. of Interior
601 Sheldon Building
San Francisco, California

Re: Application No. A-1878
Permit No. A-1192
Brignt Angel Creek
The United States of America,
Grand Canyon National Park

Dear Sir:

We enclose a copy of Order Granting Extension of Time in the above designated case, original of which we keep on file in this office.

Mr. Wanslee, the Commissioner, who was scheduled to leave on official business immediately after signing the Order, has instructed me to advise you that the other permits you mention in your letter of September 11, 1942, which were granted pursuant to Applications Nos. A-1705, A-1799, R-454, A-1880 and A-1881, are already protected under Orders Granting Extension of Time, and dates are set up on our tickler system to notify you in due time before such Orders expire.

The Commissioner also requests that I inform you that favorable consideration will be given further extensions in these cases should conditions outlined in your letter exist on the expiration date of the Orders, or should other problems arise to merit such extensions.

I trust that my interpretation of Mr. Wanslee's verbal instructions will be satisfactory to you and to him.

Very truly yours,

/s/ Tessie L. Flynn

For
JESSE C WANSLEE
STATE WATER COMMISSIONER

C O P Y

WATER RIGHTS SECTION
601 Sheldon Building
San Francisco, Calif.

September 11, 1942.

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

Dear Mr. Wanslee:

We have the following incomplete water rights in your State in the name of the United States:

Application A-1878, Permit A-1192,
Bright Angel Creek Diversion for Cottonwood Camp at Grand Canyon, requiring application of the water to beneficial use by Nov. 27, 1942.

Application A-1880, Permit A-1194,
Bright Angel Creek Diversion for Supplemental Municipal use at the Town of Grand Canyon, Arizona, requiring completion of construction by Nov. 27, 1942.

Application A-1881, Permit A-1195,
Bright Angel Creek Diversion for hydroelectric purposes at Phantom Ranch, Grand Canyon, requiring completion of construction by Nov. 27, 1942.

Application A-1799, Permit A-1132,
Bonita Canyon Springs Diversion for Chiricahua National Monument, requiring some further construction and proof of use by Sept. 30, 1943.

Application R-454, Permit R-235,
Toroweep Wash Reservoir for Grand Canyon National Monument, requiring proof of beneficial use by Aug. 8, 1944.

Application A-1765, Permit A-1093,
Roaring Springs Diversion for the Town of Kaibab Post Office, Arizona, in Grand Canyon National Park, requiring complete construction by Dec. 31, 1945.

We wonder if it is possible to obtain a blanket extension of time for all these claims until two years after the close of the war. For over a year now, almost all Park Service construction funds have been impounded as a war measure. Where funds have been available we have found our priority too low to obtain necessary materials. CCC activity was all terminated on July 1 of this year and from about the time of the first draft the personnel in these camps has been so far below normal that little more than emergency maintenance has been possible with them.

Full beneficial use is also impossible. The abandonment of each CCC camp is a decrease of about 10,000 gpd in water demand. Much of the regular Park Service staff has joined the armed forces and moved their families out of the Park Service areas and all temporary crews are far below normal strength. Public attendance has also decreased to only about 50% of that for last year. Some consideration is being given to re-opening part of the CCC camps for use as Civilian Public Service camps, but the effect on water use is still uncertain.

We have tentative plans for unusually heavy construction projects at the close of the war to help stabilize the economic situation. Thus it is anticipated that the construction program and water use will soon reach their normal position on the trend of development, but due to possible delays in releasing or appropriating the first funds, the time that may be required to restore manufacturing facilities and reassemble labor crews, we feel that two years should be provided in which to report completion of projects.

Yours very truly,

A. van V. Dunn,
Hydraulic Engineer.

AvVD:SH

cc: Director.
Region Three.
Supt., Grand Canyon Nat. Park.
Supt., S.W.Monuments.

C O P Y

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

November 20, 1939.

The State Water Commissioner,
State Office Building,
Phoenix, Arizona.

Dear Sir:

Reference is made to Permit No. A-1194 and Permit No. A-1196, having to do with the use of water of Bright Angel Creek, Grand Canyon National Park, for domestic and power use.

From studies thus far made, we find that the only adequate water supply suitable for use at Grand Canyon is that to be obtained from Bright Angel Creek. Grand Canyon has become a sizable town, with a permanent population and with some 200 voters. At times during the busy season the resident population amounts to nearly 2000 and the tourist population to between 3000 and 4000 per day. Consequently there is increased need for a domestic water supply greater than that which can be furnished from Garden Creek at Indian Gardens.

The original plan contemplated the construction of a hydro-electric power plant and a pumping station to furnish domestic and municipal use at Grand Canyon village. Recently engineers have investigated the possibility of siphoning water from this source of supply. This plan seems feasible because the source on the north side of the Canyon is much higher than Indian Gardens where the pumping plant is now located. Two possibilities are to be investigated, that of taking the flow of water from Phantom Springs at the head of Phantom Creek, a tributary of Bright Angel Creek and conducting it through the pipe line, through the Colorado Gorge to Indian Gardens. The other possibility, involving a longer pipe line, would be to divert water from Bright Angel Creek above Box Canyon, take it across the Tonto Platform and siphon across to Indian Gardens. In either case it would be feasible to secure sufficient water and head from this pipe line to run a small hydro-electric plant to furnish power to the development at Phantom Ranch.

In view of the fact that any scheme of siphoning water across the Canyon involves a complete change in plan from that outlined in the original permits, we are requesting that amended permits be issued to cover a three years period, allowing time to gather engineering data.

Furthermore, we contend that Grand Canyon village mentioned above is to be considered as a city or town under Section 3288 of the Water Code, for the reason that the present census of Grand Canyon shows a permanent resident status of 2076 plus a temporary

population on August 8, 1939, of 3828 additional, making a total maximum population in the summer of 1939 of 5094. Also Grand Canyon Village has all the essentials and elements of a town as defined by court decisions and otherwise. Your attention is called to the fact that the purposes stated in the application are for municipal uses, and therefore these permits should be exempt from the usual requirements.

Very truly yours,

(SGD) H. C. BRYANT

H. C. Bryant,
Acting Superintendent.

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

C O P Y



BEFORE THE STATE WATER COMMISSIONER OF

ARIZONA

In the Matter)
)
-of-)
) O R D E R
Application No. A-1880,)
Permit No. A-1194,)
Bright Angel Creek;) GRANTING EXTENSION OF TIME
Application No. A-1881,)
Permit No. A-1195,)
Bright Angel Creek;)
The United States of America,)
Grand Canyon National Park.)

The United States of America, Grand Canyon National Park, by its acting superintendent, J. H. Bryant, having requested an extension of time within which to amend Applications Nos. A-1880 and A-1881, filed April 4, 1938, and to anend Permits Nos. A-1194 and A-1195 which were granted November 28, 1938, before beginning construction work under the terms of the original Permits which were granted pursuant to the filing of said applications, and the reasons set forth by Permittee, which include a probable change in the points of diversion in order that an adequate supply of power and water can be furnished the Grand Canyon Village, a town of 2,076 permanent residents, being considered good and sufficient cause therefor,

IT IS ORDERED, That the United States of America, Grand Canyon National Park, be, and it is hereby, granted an extension of time from November 27, 1939 to November 27, 1942 within which to amend said applications Nos. A-1880 and A-1881, and to amend said Permits No. A-1194 and No. A-1195 before beginning construction under the terms of the original Permits.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the State Water Commissioner this 21st day of November, A. D., 1939.

SEAL

/s/ Jesse C. Wanslee
STATE WATER COMMISSIONER

COPY

STATE WATER COMMISSIONER
State House
Phoenix, Arizona.

October 16, 1939.

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

Re: App. No. A-1879, Per. A-1193
Clear Creek.
App. No. A-1880, Per. A-1194
Bright Angel Creek.
App. No. A-1881, Per. A-1195
Bright Angel Creek.

Dear Mr. Lloyd:

Your letter of the 13th instant requesting an extension of time for the beginning of construction work under Permits Nos. A-1193, A-1194 and A-1195 of the National Park Service is acknowledged.

We have consistently held that the Commissioner is without authority to extend the time for beginning work beyond the one year fixed for doing so in section 3288, R. C. A. 1928. You will observe in this section that the time for completing the work may be extended, with no reference to extending the time for beginning the work. In these cases the full year was allowed when the applications were approved, the 27th of November 1939, being set as the time limit for beginning the work. It is therefore our suggestion that a start be made on the actual construction of each of these projects before the time expires. Then, should more time be found necessary in which to complete the work, we will be glad to grant such extension as may be found necessary.

The question you raise does not appear to have ever reached our Supreme Court, and we have not searched for cases in point in other jurisdictions, but we are sure that without direct statutory provision for doing so the Commissioner cannot extend the time for beginning work.

If you feel that we are wrong in our construction of the law applicable in these cases we would be glad to receive any citations of authorities to the contrary you may be able to submit.

Sincerely yours,

(Signed) Jesse C. Wanslee,

Jesse C. Wanslee
State Water Commissioner.

COPY

08-16-1938: letter to state water commissioner from nps regarding applications a-1878, a-1879, a-1880, and a-1881

C O P Y

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

October 13, 1939.

Arizona State Water Commissioner,
Phoenix, Arizona.

Dear Sir:

Permission is herewith requested for an extension of two years in which to begin construction on the following projects covered by Water Use Permits:

Nos. A-1193, Clear Creek,
A-1194, Indian Gardens,
A-1195, Indian Gardens.

Inability to secure necessary funds with which to finance the construction of these projects, precludes the possibility of starting work in the immediate future.

Sincerely yours,

(Sgd) J. V. Lloyd

J. V. Lloyd,
Acting Superintendent.

CC to Mr. Joseph E. Taylor,
Regional Attorney,
Region Four, National Park Service,
601 Sheldon Building,
San Francisco, California.

RECD AUG 1

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

August 16, 1938.

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

Gentlemen:

Reference is made to Mr. Stewart's letter of July 7 in regard to Applications A-1878, A-1879, A-1880, and A-1881. As I advised you by my letter of July 21 your letter of July 7 was, necessarily, referred to our San Francisco attorney, Mr. Joseph E. Taylor, for the attention of Mr. Dunn who made the original survey. This for the reason that I did not have access to the original notes from which the surveys were made.

I am now enclosing a copy of Mr. Taylor's letter of August 12 to me, together with a copy of Mr. Dunn's memorandum of August 2 to Mr. Taylor, and a copy of Mr. Dunn's report dated August 2 analyzing the water right ties in this park. I believe that a study of the enclosed report will explain to your satisfaction the discrepancies, both real and apparent.

There will be noted Mr. Taylor's statement that one of the filings, namely A-1879, in connection with the Clear Creek diversion, is definitely in error. If you will kindly return that application with the accompanying map, direct to Mr. Taylor at 601 Sheldon Building, San Francisco, the necessary corrections will be made. As to the others, we will, as Mr. Taylor states, be guided by your wishes, and if you consider it necessary to return them for correction in view of Mr. Dunn's very complete analysis, and explanation, please feel free to do so. I trust, however, that you will not consider this absolutely necessary, and that the filings and maps will be found acceptable in their present form. In any event, please send me a copy of your letter of transmittal with which you forward any or all of the applications and maps to Mr. Taylor for correction.

I appreciate fully the desirability and necessity of checking all such matters very carefully, and I am glad that Mr. Stewart has gone into the matter with such detail. On the other hand, I am sure that you appreciate the fact that in terrain of this nature it is difficult to make a survey and map which will check exactly in every case, especially in view of the fact that area concerned is unsurveyed, probably never will be surveyed, and there is a

question as to the exact dimension of certain of the townships involved. I am sure, too, that you will appreciate the fact that both Mr. Taylor and I are conscientiously making every effort to submit these filings in such a way as to meet your every requirement, and to your entire satisfaction.

As suggested by the last paragraph of Mr. Stewart's letter of July 7, I am enclosing a copy of our base map (east half) scale 1/48000, on which I have indicated by an appropriate symbol, and just as accurately as possible, the approximate point of diversion and of use in connection with each application now before you. I trust that this will be of assistance in passing upon the various applications. If I can be of further assistance by making a visit to your office for the purpose of helping to clear up this entire matter, I shall be glad to do so.

Very truly yours,

M. R. Tillotson,
Superintendent.

CC: Mr. Taylor. ←

Rec'd 9

COMPARED
RECORDED

COPY

Permit No. A-1194 Application No. A-1880

APPLICATION FOR A PERMIT

To Appropriate Public Waters of the State of Arizona

Filed April 14, 1938 at 11:00 A. M.
(Applicant must not fill in the above blanks.)

I, The United States of America, by M. R. Tillotson, Superintendent Grand Canyon National Park
(Name of Applicant.)

of Grand Canyon (Postoffice.), County of Coconino,

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 Bright Angel Creek
(Name of stream or name of reservoir and stream if water is diverted from reservoir.)
, tributary of Colorado River

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

For Municipal and/or Domestic (Municipal or Domestic.) use, 646,000 gallons per day.

For (Irrigation.) use, (Cubic feet per second, or acre feet per acre per annum.)

For (Mining or Stock Watering.) use, (Cubic feet per second, or gallons per day.)

For (Power.) use, cubic feet per second.

For use,

3. The point of diversion is located N31°30'30"E, 25,165 feet from the SW corner
(State bearing and distance or coordinate distances to section or quarter section corner.)
Section 24, T 31 N, R 2 E.

being within the $SE\frac{1}{4}$ $SW\frac{1}{4}$ (State 40-acre subdivision of U. S. Government survey or projection thereof.) of Sec. 32 (unsurveyed), T. 32 N. (No. N. or S.),

R. 3E (No. E. or W.), G. & S. R. B. & M., in the County of Coconino.

4. The main pipe lines (Main ditch, canal or pipe line.) to be 6 miles in length, terminating in the

$SW\frac{1}{4}$ $SE\frac{1}{4}$ (State 40-acre subdivision of U. S. Government survey or projection thereof.) of Sec. 23, T. 31 N (No. N. or S.), R. 2E (No. E. or W.), G. & S. R. B. & M.,

the proposed location being shown throughout on the accompanying map.

DESCRIPTION OF WORKS

5. **Diversion Works:** (a) Diversion will be by gravity, the diverting dam to be 5 feet in height (stream bed to overflow), 150 long on top, and constructed of concrete
(Concrete, earth, brush, etc.)

(b) Description of headgate Headgate to be of concrete and steel - details not completed.
(Timber, concrete, etc., number and size of openings.)

(c) If water is to be pumped give general description See rider
(Size and type of pump.)

(Size and type of engine or motor to be used, total head water is to be lifted, etc.)

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.

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 .....

(Cross out two not used.)

(b) Pipe line: Diameter See rider 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 a combination of different sizes or kinds of conduit is to be used, attach extra sheets with complete description, also show location of each clearly on map.

7. Distributing Works. Tank ~~or Trough~~ Material Steel; Size --

(Cross out one.)

Capacity For further details see application A-1735, Diversion of East Spring and Garden Creek for Grand Canyon, Arizona

8. Cost and Construction Schedule. The estimated cost of the proposed project is $.....

It is proposed to begin construction within 1 year after the approval of this application, to complete construction within 5 years thereafter and to completely apply the water to the proposed use 5 years after the beginning of construction.

(Not over 1 year.)

DESCRIPTION OF PROPOSED USE

9. Domestic Use. Domestic use is proposed as follows: .....

(Describe nature of use which may include the irrigation of gardens not exceeding one-half acre, stating number of persons and number of domestic stock to be served, etc.)

10. Municipal Use. To supply the city of See rider .....

(Name of.)

County, 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~~ The place of use ~~acres;~~ is located in Coconino 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 2½ 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
			This application is to appropriate water in addition	
			to the 300,000 gallons per day covered by Application	
			No. A-1735, Permit No. A-1091 of the applicant for	
			Municipal and/or Domestic use in the SE¼ NE¼, the	
			SE¼ and E½ SW¼ of section 23; and the S½ NW¼ and SW¼	
			of section 24, T 31 N, R 2 E, G&SRB&M.	

(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 ..... (If applicant is lessee, etc., so state.)

(Name of owner.)

(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 per annum? .....

(c) What is the maximum number of stock it is proposed to serve? .....

Rider

#5c. There will be a 150 H.P. electric motor and a multiple stage pump of 1.0 sec.ft. capacity at 1260 ft. static head on lower Pipe Creek at approximate Station X-22 of map to pump from a 100,000 gallon collecting reservoir of concrete. At the existing pump site at Indian Gardens there will be a 500 H.P. electric motor and multiple stage pump of 1.0 sec.ft. capacity at 3320 foot static head to boost water to existing distribution system at Grand Canyon, Arizona. (For details of distribution see application A-1735, Diversion of East Spring and Garden Creek for Grand Canyon, Arizona.)

#6b.(1) The first 2600+ feet will divert the water with that for the Phantom Ranch hydroelectric plant through a penstock--diameter 42", length 2600+ ft; gradient 35.25. feet per 1000 feet, total fall 81 feet; kind, wood stave.

(2) The next section will carry water by gravity from Phantom Ranch to Pipe Creek pumping station by pipe; diameter 8", length 9600 ft.; gradient 4.1 feet per 1000 feet; total fall 39 feet; kind, special steel.

(3) The pump line pipe will be: diameter, 8"; length 24,000 feet; gradient --; total lift, first stage 1260 feet; second stage 3320 feet; kind, special steel.

#10. To supply the village of Grand Canyon, Arizona, with additional water. The present supply is barely adequate for the needs even through reclaimed sewage is used when possible. The annual attendance or population curve for Grand Canyon, as shown on map, indicates rate of growth that will triple or quadruple within the next five years at the present rate.

Nearly all this attendance is at the village of Grand Canyon in SE¼ Section 23, and SW¼ Section 24, T 31 N, R 2 E, G&SRB&M.

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-1880 RECORDED COMPARED PERMIT Permit No. A-1194

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 Six hundred forty-six thousand (646,000) gallons per day for Municipal and/or Domestic use.

The priority of date under this permit is April 14, 1938

Actual construction work shall begin on or before November 27, 1939, and shall be prosecuted with reasonable diligence and be completed on or before November 27, 1943

Complete application of the water to the proposed use shall be made on or before Nov. 27, 1944

WITNESS may hand and seal of office this 28th day of November, 1938

/s/ Jesse C. Wanslee

State Water Commissioner.

Application No. A-1880
Permit No. A-1194

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 14th day of April, 19 38, at 11:00 o'clock A. M.

Returned to applicant for correction

Corrected application refiled

Approved November 28, 1938

Recorded in Book No. 11 of Applications for Permit at page 1880

/s/ Jesse C. Wanslee
State Water Commissioner.

THE MANUFACTURING STATIONERS INC., PHOENIX, ARIZONA

04-05-1938: letter to grca from state water commissioner regarding corrected record of certificate of water right no. 722

STATE WATER COMMISSIONER

STATE HOUSE
PHOENIX, ARIZONA

JESSE C. WANSLEE
COMMISSIONER

APRIL
5
1938

APR 1938
RECEIVED
GRAND CANYON
NATIONAL PARK

Mr. M.R. Tillotson,
Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Tillotson:

Receipt of your letter of the 2nd instant, is acknowledged.

I have corrected the record of Certificate of Water Right No. 722 to conform to the original by lining out the word "unsurveyed" with reference to Sections 23 and 24, Township 31 North, Range 2 East, and have signed the voucher for $12.00 for examination fees for four new applications and return it herewith.

Sincerely yours,

Jesse C. Wanslee

JESSE C. WANSLEE
STATE WATER COMMISSIONER

JCW:T
Enclosure

Voucher turned over to Gordon to be filed in course of payment.
mcv

April 2, 1938.

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

Dear Mr. Wanslee:

Receipt is acknowledged of your letter of March 16 with which you enclosed Certificates of Water Right in the following designated cases:

Application No. A-1735,
East Spring and Garden
Creek: C. W. R. 722.

Application No. A-1764,
Bright Angel Creek;
C. W. R. 723. -1764

These were carefully examined and checked by me before I transmitted them to the County Recorder for recording. The certificate in connection with Application No. A-1~~73~~, Permit No. A-1092 was correct just as prepared. However, I found a very slight and perhaps inconsequential error in the certificate in connection with Application A-1735, Permit A-1091. This had to do with the description of the areas on which the water was put to beneficial use. The particular areas involved were certain described legal subdivisions of Sections 23 and 24, Township 31 North, Range 2 East, and in the description of these areas as given in your certificate, the sections involved were referred to as being unsurveyed. This of course, is not the case, and the land is actually surveyed, as evidenced by G. L. O. plats of survey on file in my office. Consequently, before submitting these to the County Recorder to be recorded, I took the liberty of crossing out the words "unsurveyed" in the description. This information is given so that you may correct your records accordingly.

The points of diversion are located on certain described legal subdivisions of Sections 12 and 13 of the same township and range, and those sections are, as stated in this certificate, unsurveyed.

I am enclosing herewith our voucher in the amount of $12.00 as filing and examination fee on the four applications still pending

FILE COPY

in your office. If you will sign and return this voucher to me at your earliest convenience it will be placed in prompt course of payment.

Very sincerely yours,

M. R. Tillotson,
Superintendent.

MRT/he.

MAR 1938
RECEIVED
GRAND CANYON
NATIONAL PARK

STATE WATER COMMISSIONER
STATE HOUSE
PHOENIX, ARIZONA

JESSE C. WANSLEE
COMMISSIONER

March 16, 1938.

Mr. M. R. Tillotson,
Superintendent of the Grand Canyon
National Park,
Grand Canyon, Arizona.

Re: Application No.A-1735, East Spring and Garden Creek; C.W.R. 722.
Application No. A-1764, Bright Angel Creek; C. W. R. 723.

Dear Mr. Tillotson:

We enclose herewith Certificates of Water right issued in the above designated cases, for your examination prior to filing same with the County Recorder for record.

Will you please transmit these Certificates, together with claim against the State of Arizona in the amount of $4.00, and the enclosed letter, to Mrs. Marie Easton Gregg, County Recorder, Coconino County, Flagstaff, Arizona.

Very truly yours,

Jesse C. Wanslee

JESSE C. WANSLEE
STATE WATER COMMISSIONER.

JCW:AC
ENC.

Ex

EDWIN T. STEWART
COMMISSIONER

OFFICE OF
STATE WATER COMMISSIONER
ROOM 407 ARIZONA STATE BUILDING
PHOENIX, ARIZONA

660-05

May
15
1937

Mr. M. R. Tillotson,
Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Tillotson:

In your letter of the 29th of March you mentioned an enclosed voucher in the amount of $3.00 to cover filing fee for one of the applications for permit to appropriate water recently filed.

I am not now able to say whether we signed and returned this voucher or not, but believe it was signed and handed to you in the office. In any event there is one $3.00 fee unpaid according to our records.

There were four applications filed, one of which was covered by voucher dated December 10, 1936 and the other two by voucher dated April 10, 1937. I believe that we either failed to return the voucher referred to in your letter of March 29th, or that for some reason the check in payment of this voucher failed to reach our office.

Very truly yours,

Edwin T. Stewart

EDWIN T. STEWART
STATE WATER COMMISSIONER

ETS:f

for WHD

04-14-1938: land ownership record: water right application a-1880, permit a-1194

Form NPS-L-1

UNIT' STATES DEPARTMENT OF THE 'ERI'
NATIONAL PARK SERVICE

LAND OWNERSHIP RECORD

State Arizona

Tract No. _____

County Coconino

Deed No. 25

Civil Subdivision _____ Area _____ acres _____ Grand Canyon Nat. Park
Name of Park or Area

Right based on Application & Permit Date April 14, 1938 South Rim
Section of Park or Area

Legal Description: Water Right Application A-1880, Permit A-1194, Certificate _____

Method of Acquisition: Water right appropriation Appropriation or Source of funds: Water Rights

Cost to date approximately $1500

Acquired from: State of Arizona

Accepted by Secretary (__) Opinion of Att'y. Gen.-title in U. S. (__) date: _____

Physical Characteristics: A conditional right to divert 1 sec. ft. of water from Bright Angel Creek as a supplemental municipal supply for the South Rim (priority of April 14, 1938, may be lost due to failure to construct system)

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-5135

Remarks: _____

25348

Supporting Hydro Data

SUPPLEMENTAL WATER SUPPLY

SOUTH RIM

GRAND CANYON NATIONAL PARK

WATER AVAILABLE FROM INDIAN GARDENS*

Month	1957	1958	1959	Avg. Gpd.
Jan.	12,031,496	11,166,200	10,146,400	358,540
Feb.	9,600,700	9,743,600	9,492,300	343,290
Mar.	11,161,600	11,499,600	12,753,200	380,800
Apr.	10,623,500	11,305,700	10,764,200	363,260
May	9,532,700	9,568,500	9,358,000	306,010
June	8,474,200	5,875,800	8,389,800	252,660
July	7,938,000	7,785,400	7,042,500	244,790
Aug.	6,717,000	8,503,600	7,823,700	247,790
Sept.	7,597,700	5,137,300	7,564,200	225,550
Oct.	10,477,000	10,358,100		336,050
Nov.	10,804,800	9,941,700		345,580
Dec.	9,874,100	11,118,800		338,600

* From Park "pumped" and "overflow" records, Appendix "B" of Study Group report 10/23/59.

June, July, August and September seem to be the most critical months and the average supply during that period is: 246,680 gallons per day or 170 gpm.

FLOW MEASUREMENTS OF HAUNTED SPRING:

The following flows are taken from actual weir readings. Only those taken during the equivalent of the peak visitor season are considered.

Date	GPM	Date	GPM
6/22/55	415	6/20/56	467
7/20/55	464	7/20/56	399
8/25/55	467	8/21/56	399
9/20/55	516	9/20/56	399

Based on the above low flows during 1956, the 6" pipe which will carry 350 to 380 gallons per minute from Haunted Spring to Indian Gardens was selected (See design calculations accompanying Drawing NP-GC-3428). The next larger pipe (8") would be capable of carrying 700 to 800 gpm and, therefore, was not considered.

Summary of water that can be made available:

Source	GPM		GPD
Indian Gardens	170		244,800
Haunted Spring	350		504,000
Depletion of Storage*			65,000
		Total	813,800

* Based on retention for emergencies of 2,000,000 gallons of recommended 10,000,00 storage and use of 8,000,000 gallons in 120-day period.

00-00-0000: population and water requirements taken from development outline and mission 66 prospectus

POPULATION AND WATER REQUIREMENTS TAKEN FROM

DEVELOPMENT OUTLINE AND MISSION 66 PROSPECTUS

FACILITY	Est. Population	Est. Rate	Est. GPD
South Rim Village:			
El Tovar Hotel, 66 rooms @ 2	132	100	13,200
Bright Angel Lodge	250	100	25,000
Grand Can.Motor Lodge	700	60	42,000
Proposed Lodge	200	60	12,000
Additional Future	250	60	15,000
Public Campground (Existing)	240	25	6,000
New Public Campground	800	25	20,000
New Public Trailer Court	700	40	28,000
New Overnight Accommodations	1,000	60	60,000
Transients (Not Overnight)	10,000	3	30,000
Concessioner Employees	400	100	40,000
NPS Employees & Families	375	100	37,500
Desert View:			
150 Campsites	600	25	15,000
Picnic Area - 30 Sites	120	3	360
150 Motel Units	450	60	27,000
Transients (Not Overnight)	5,000	3	15,000
Concessioner Employees	60	100	6,000
NPS Employees	25	100	2,500
			394,560
		Miscellaneous *	10,000
		Total	404,560
* Hermits Rest and similar developments.			
Irrigation Load: Estimate 10 acres @ 3,900 gpd / acre			39,000
TOTAL ESTIMATED CONSUMPTION			443,560

From the analysis of water which could be made available from Indian Garden, Haunted Spring and depletion of storage (813,800 gallons per day), 1.84 times the demand of developments as anticipated by the MISSION 66 Prospectus and Master Plan Development Outline could be served before further water supply would be required.

C
O
P
Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES - SURFACE WATER

October 17, 1952

Superintendent
Grand Canyon National Park
Grand Canyon, Arizona

Dear Sir:

Subject: Roaring Springs

The following lists the miscellaneous discharge measurements made in the Roaring Springs Creek area during the summer months of 1952:

Date 1952	Roaring Springs Cr. at mouth	Bright Angel Creek above Roaring Springs	Bright Angel Creek at mouth
June 21	13.0	19.4	39
July 31	9.6	11.3	28
Aug. 30	8.4	10.7	23
Oct. 10	7.3	8.83	*21

Note.- September measurement postponed because of Sept. 20-21 flood runoff in area.

*Estimated on basis of measurements made Oct. 7 and 14; 22.8 cfs and 20.4 cfs respectively.

This completes investigations which we propose to make this year. However, it is anticipated that we will again measure Roaring Springs about June 1953 under our general program of such spring inflow to the Colorado River in the Grand Canyon area.

Very truly yours

(SIGNED) John H. Gardiner

JOHN H. GARDINER
District Engineer

cc. Mr. Hely

Copy to: Reg Dir Region Three 2 ✓

11-14-1974: memorandum to superintendents for chiricahua, grand canyon and tonto from regional director regarding water right

United States Department of the Interior

NATIONAL PARK SERVICE
WESTERN REGION
450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94102

IN REPLY REFER TO:

L54(WR)PSW November 14, 1974
CHIR/WR Docket File #1
GRCA NM/WR Docket File #2
GRCA NP/WR Docket Files #3,
4,5,7 and 8
TONTO/WR Docket Files #1&2

Memorandum

To: Superintendent, Chiricahua
Superintendent, Grand Canyon
Superintendent, Tonto

From: ACTING Regional Director, Western Region

Subject: Water Right Docket Material

Enclosed for your docket files and information are State of Arizona orders of cancellation for various applications for diversion of water sources in Chiricahua National Monument, Grand Canyon National Monument, Grand Canyon National Park and Tonto National Monument. As you recall, we had been given an extension of time as a result of our letter of September 14, 1973, to the State Land Department of Arizona in which we discussed the status of our water use and the comity nature of our filings. This extension of time has lapsed and the State has administratively cancelled the applications, copies enclosed. These applications, however, have not been active and would not qualify for license according to Arizona State Law, in any case. All of these diversions are within the Park and are protected under the Reservation Doctrine when they are used.

Since we are essentially only appropriating water on a regular basis from Roaring Springs, any action taken on our part to acquire a State License on Roaring Springs might be construed by the State as an implied waiver (or abandonment) of our rights on the other points of diversion. The best course of action in this case is to allow the State to administer this unilateral action while we maintain our position of comity.

John H Davis

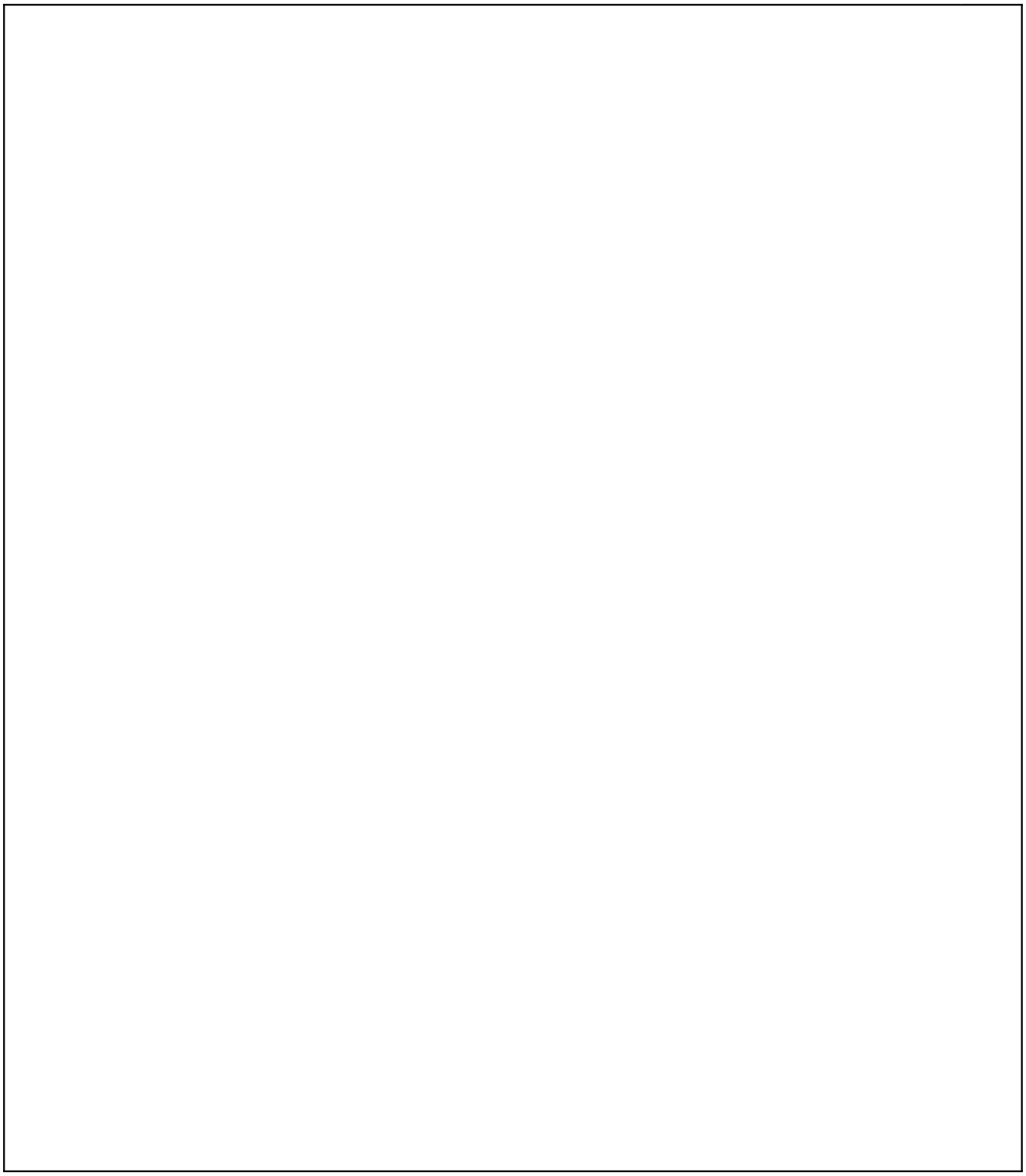
Enclosures

cc:
WASO, Water Resources, w/encls - Mr. Berte
Field Solicitor, San Francisco Office, w/o encls
General Superintendent, SOAR

CONSERVE AMERICA'S ENERGY

Save Energy and You Serve America!

02-22-1973: memorandum to state director from director regarding water for tusayan



McDowell
Dr. Kilgore
Patton
DIRECTOR

D18
xD5039
(WR):RO

February 22, 1973

Memorandum

To: State Director, Arizona

From: Director, Western Region

Subject: Water for Tusayan

This is in reply to your memorandum of February 8, 1973, subject: "Followup on Planning for Tusayan."

Public Law 91-383 provides authority to sell water from within areas in the National Park System under certain conditions, one of which is the absence of reasonable alternative to the sale of park water. In the case of Tusayan, a reasonable alternative does exist. Therefore, the sale of water would be inconsistent with Public Law 91-383. The performance standards applicable to this particular provision of this law also provides that the sale of water should be made only when no reasonable alternative exists. Therefore, since there is a reasonable alternative to the purchase of park water for use at Tusayan, the sale of park water would be inconsistent with the Act and also with the performance standards. You should proceed in accordance with Item (2) of our memorandum of January 9, 1973, concerning the sale of water from the Grand Canyon system.

The matter of quantity of water in the Grand Canyon system is irrevalent to the Tusayan situation and there is no reason to proceed with this determination except as it may have bearing on the management of Grand Canyon National Park. We are hopeful that the philosophy expressed in the second paragraph under Item (2) of our January 9 memorandum can be communicated to the representatives of Tusayan. This seems to be urgent to the report [illegible] their understanding of the concerns this matter should be [illegible] of water from the park. It is our opinion the date and that they clearly [illegible] resolved with Tusayan at the earliest possible

understand that no water is to be provided from the Park system. We are hopeful that you will confirm this action at an early date.

(Sgd.) Howard H. Chapman

cc:
Superintendent, Grand Canyon

bc:
Dr. Kilgore
Mr. Patton

LHMcDowell:pd:2/22/73

08-07-1970: memorandum to director, western service center from director, southwest region regarding policy on sale of park wate

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

SEP 9 1970

GRCA-URA3

WESTERN SERVICE CENTER
SEP 10 1970
DIRECTOR, WSC
CHIEF, E&P
CHIEF, ADM. SVC.
CHIEF, CSEM
CHIEF, LAND & WATER RIGHTS
CHIEF, HIST. & HIST. ARCHITEC.
CHIEF, PRGMS. MANAGEMENT

Memorandum

To: Director, Southwest Region

From: Chief, Division of Water Resources

Subject: Policy on sale of park water to users outside the park - Grand Canyon

This will acknowledge receipt of the copy of your memorandum of August 7 to the Director Western Service Center on the above subject. As discussed with you on your recent visit to Washington the matter has been referred to this office which is preparing more comprehensive statement on water rights policy with the aid of the Solicitor's Office. The question of sale of water will be considered carefully and we shall then communicate further with you.

(Sgd) Manuel Morris

Manuel Morris

cc:
WSC, Gerard S. Witucki

RECEIVED
WATER
SEP 10 1970
INITIALS DATE
FILE
REMARKS

07-30-1970: memorandum to director from superintendent regarding policy on sale of park water to users outside the park

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Southwest Region
Santa Fe, New Mexico 87501

IN REPLY REFER TO:
L54-AD

AUG-7 1970

WESTERN SERVICE CENTER
AUG 10 1970
DIRECTOR, WSC
CHIEF, [illegible]
CHIEF, ADM. S[illegible]
CHIEF, CS&M
CHIEF, LAND & WATER RIGHTS
CHIEF, [illegible] HIST. & HIST. ARCHITEC.
CHIEF, PRGMS. MANAGEMENT

Memorandum

To: Director, Western Service Center

From: Director, Southwest Region

Subject: Policy on sale of park water to users outside the park - GRCA

You were furnished a copy of Superintendent Lovegren's memorandum dated July 30 concerning the above subject. Mr. Lovegren has raised several pertinent questions concerning water rights which we would also appreciate receiving an answer to. It appears to us that conflicting directives have been issued by your office and the Washington Office concerning the necessity of validating and maintaining water rights in the various field areas. We think this matter should be made clear as soon as possible. In the arid southwest we can ill afford to jeopardize our water rights by failure to take timely and appropriate action to maintain these rights.

Frank F. Kowski

cc:
Supt., Grand Canyon

RECEIVED
WATER
AUG 4 1970
ACT. INFO. | INITIALS | DATE
WESTOVER, G.
GRAVES, D.
FILE
REMARKS

Grand Canyon National Park
Grand Canyon, Arizona 86023

L54-AD
Water Right Docket #3

JUL 30 1970

Memorandum

To: Director, Southwest Region

From: Superintendent, Grand Canyon

Subject: Policy on sale of park water to users outside the park

Please refer to Associate Director Eden's memorandums of July 10 concerning this subject. We certainly agree with the position taken by Mr. Eden and will so advise representatives of Elling Halvorson.

We still are somewhat confused over the water rights question. We read Regional Director Beard's letter of January 21, 1965 to the State Land Commissioner and his reply of September 13 to increase our water rights from Roaring Springs to South Rim by 150,000 GPD. In one day we pump 618,000 gallons to the South Rim. We wonder if the gallons per day figure is truly a daily limitation or only on an average or annual basis.

Members of the staff also understand that "water rights" are issued upon proof that the water appropriated under a valid permit is being put to beneficial use over an extended period of time. If this is true, and if we are to continue to recognize state authority to issue rights to our water, we stand to lose our rights to Indian Gardens.

Although it may not be important if we are able to stick with our position of not selling water outside the park, we wonder if one of our arguments for not doing so is the question of water rights. In other words, would the park be free to grant water to people outside without prior approval of the state; also if such water is given does the receiver receive a water right?

We understand from the Forest Service Supervisor of the Kaibab that Moqui Lodge hopes to build 100 additional units and that plans call for a water catchment system. Mr. Potter and Mr. Wisseman in the

Had Conversation regarding this matter with the Supt on 8/7/70 & also L. Reed who indicated a ltr probably signed by Regional Clarifying this will be forthcoming
JCS 8/11/70

meanwhile have expressed an interest in obtaining water.

We wonder what your thoughts are if we are approached on the sale of reclaimed water outside the park. Are there water rights to reclaimed water?

We would appreciate receiving clarification on the above points, as we are sure that the informal requests we have already received will become formalized and develop into a real political battle.

(SGD) Robert R. Lovegren

cc:
Assistant Director Hummel, WASO
WSC, Land and Water Rights

Grand Canyon National Park
Grand Canyon, Arizona 86023

L54-AD GRCA WR#3

JUL 30 1970

Memorandum

To: Director, Southwest Region

From: Superintendent, Grand Canyon

Subject: Policy on sale of park water to users outside the park

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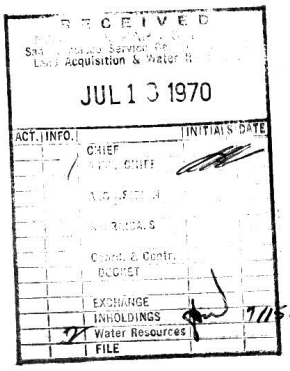
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(SGD) Robert R. Lovegren

cc:
Assistant Director Hummel, WASO
WSC, Land and Water Rights



Southwest Region
Santa Fe, New Mexico 87501

L54-AD
GRCA
WR #3

July 10, 1970

Memorandum

To: Superintendent, Grand Canyon

From: Associate Director

Subject: Our memorandum of July 10, 1970

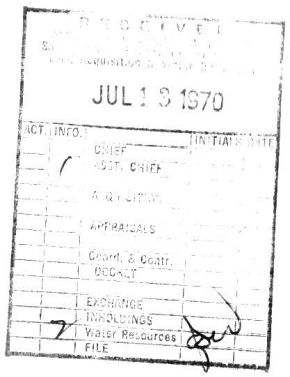
This is a follow-up to the above memorandum. I talked to Manuel Morris of the Division of Water Resources in Washington today and he assured me that it is not their intention to disturb situations where water rights have already been approved by the states. Therefore, it would appear that the status of your applications with the State of Arizona for Roaring Springs water, which appear to be approved, will not be disturbed.

Mr. Morris says it is their intention not to apply to the various states for water rights within the parks in the future. He agreed to give us something in writing on this, which I am sure he will do.

(SIGNED)

James M. Eden

cc:
Assistant Director Hummel, WASO
WSC, Land & Water Rights



Southwest Region
Santa Fe, New Mexico 87501

L54-AD

July 10, 1970

GRCA W.R. Docket #3

Memorandum

To: Superintendent, Grand Canyon

From: Associate Director

Subject: Policy on sale of park water to users outside the park

We believe most of the questions posed in your memorandum of July 6, 1970, are answered in Associate Director Hummel's memorandum of April 21, 1969, copy of which was furnished to your office.

We are at a loss to understand the questions posed in the second paragraph of your memorandum of July 6 with respect to our water rights on Roaring Springs. Our files disclose that Permit No. A-1093, granting the NPS the right to use 150,000 gallons of water per day, was approved by the Arizona State Water Commissioner on the 29th day of June 1937, copy enclosed. In response to Regional Director Daniel B. Beard's letter of January 21, 1965, to the State Land Commissioner for Arizona (copy enclosed) applying for an increase in the allotment for the South Rim, we received from the State Land Commissioner a letter that appears to amend Permit No. A-1093 to include the additional requested allotment. We also enclose a copy of this letter for your files.

We believe Mr. Hummel's letter of April 21, 1969, to the Honorable Morris K. Udall clearly states our position with respect to selling park water to users outside the park.

For the time being, at least, the position taken by Mr. Hummel in his memorandum is the one we still intend to follow. However, we are sending a copy of this correspondence to Assistant Director Hummel to advise him of our position. He can then inform us if the Service's position has changed or is apt to change.

(SIGNED)

James M. Eden

Enclosures

cc:
Assistant Director Hummel, WASO
WSC, Land & Water Rights

Expect W.H. Marcus 7/16/70 ltr

11-10-1953: memorandum to superintendent from regional chief regarding extension of time to perfect water rights, applications a-

L54-L

WESTERN OFFICE
DESIGN & CONSTRUCTION
FEB 6 1956
CHIEF
ADMIN. ASSIST.
PERSONNEL
PLANS & PROG.
SAFETY
ARCHITECT
ENGINEER
LAND. ARCH.
ACTION

January 30, 1956

Memorandum

To: Superintendent, Grand Canyon

From: Chief, Water Resources Section

Docket 7
Docket 8

Subject: Water Right Application A-1880 for Appropriation of 1 sec.ft. of Bright Angel Creek for South Rim, Docket 7; and Application A-1881 for Appropriation of 20.0 sec.ft. of Bright Angel Creek for Hydro-electric Plant at Phantom Ranch, Docket 8, Grand Canyon

In Dockets No 7 & 8

Two signed orders are attached, granting 5-year extensions of time in which to complete developments under the subject water rights. One order should be filed at top of contents of each docket.

Two copies of the order are being sent to the Region for similar disposition, with a copy of this memorandum. The Western Office of Design and Construction is being supplied with copies of the original applications, supporting maps, and copies of this order.

Rights under Application A-1880 will be amended to conform with plans to divert Haunted Spring or any other source which is selected. Rights under Application A-1881 may be amended or cancelled, depending on the ultimate plan for power development, which may not be as extensive as previously contemplated if power is not needed to pump water to Indian Gardens.

It is hoped that both plans, and some development may be completed by November 27, 1960, as now authorized. We should be supplied with revised plans as soon as they are available, in order to amend the water rights.

SIGNED

A. van V. Dunn
Chief, Water Resources Section

Attachments 2

Copy to: Regional Director, Region Three, with two attachments
~~WODC, with seven attachments~~

11-04-1953: memorandum to regional director from chief regarding extension of time to perfect water rights under applications a-1

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

In reply refer to:
L54

Region Three
Santa Fe, New Mexico

November 10, 1953

ACTION	
Superintendent	
Asst. Supt.	
Chief Clerk	
Chief Ranger	AS 11-17
Engineer	
Sanitation	
Admin. Asst.	11-12
Naturalist	

RECEIVED NOV 13 1953 GRAND CANYON NATIONAL PARK

Memorandum

To: Superintendent, Grand Canyon

From: Regional Chief, Land and Recreation Planning

Subject: Extension of time to Perfect Water Rights, Applications A-1880 and A-1881, Dockets 7 and 8, Grand Canyon

Attached are two signed copies of an order granting extension of time to perfect rights under Applications A-1880 and A-1881. Also attached are two copies of Mr. Dunn's letter of October 2 requesting the extension of time.

Please place one signed copy of the order and one copy of Mr. Dunn's letter of October 2 in Dockets 7 and 8 maintained at the Park. X meadows

Similar copies have been placed in Dockets 7 and 8 maintained in the Regional Office.

Milton J. McColm
Regional Chief, Land
and Recreation Planning

Attachments 4
Copy to: Director

In reply refer to:
L54-L

November 4, 1953

Memorandum

To: Regional Director, Region Three

From: Chief, Water Resources Branch

Subject: Extension of Time to Perfect Water Rights under Applications A-1880 and A-1881, Dockets 7 and 8, Grand Canyon

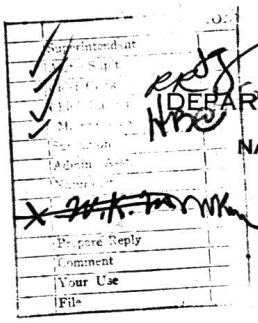
Attached are two signed copies and two photostats of an order granting extension of time in which to perfect the rights under Applications A-1880 and A-1881, and four copies of the letter requesting such extensions of time. The two signed copies of the order should be filed in Dockets 7 and 8 at Grand Canyon, with copies of the request. The other copies should be filed in the docket assemblies at your office.

SIGNED

A. van V. Dunn
Chief, Water Resources Branch

In duplicate

Attachments 8



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

In reply refer to:
L54 GRAN



January 3, 1951

Memorandum

To: Superintendent, Grand Canyon National Park

From: Regional Chief, Land and Recreational Planning

Subject: Water Right Application A-1765, Permit A-1093, for Appropriation of Waters of Roaring Springs, Grand Canyon National Park

There is attached a copy of a memorandum from Mr. A. van V. Dunn dated December 28, advising that an extension of time has been granted to complete construction and make beneficial use of the water rights application shown above.

A copy of Mr. Dunn's letter dated November 13 to Mr. Lane, requesting an extension, and a copy of Mr. Burger's order granting the extension are attached.

Will you please place one copy of the order and the letter in your assembly of Grand Canyon Deeds 25 and 26. Similar copies have been placed in our Regional Office assembly for Grand Canyon.

Milton J. McColm
Regional Chief of Land
and Recreational Planning

Attachments 3

660-05.7

Stricklin

GRAND CANYON NATIONAL PARK
GRAND CANYON, ARIZONA

December 1, 1950

Memorandum

To: Regional Director, Region Three

From: Superintendent, Grand Canyon NP

Subject: Water right applications, Grand Canyon NP

We believe Mr. Dunn's letters of November 13 and 16 to State Land Commissioner Lane adequately cover the subject of time extension to make use of park water, and we have no reason to consult him in this regard.

However, we note in the second paragraph of his letter of November 16, a reference to the expiration of the concessioner's contract, which gives the impression that the Utah Parks Company's contract with the Service is still being negotiated. Actually, this contract was executed in October 1948 and extends from January 1, 1949 to December 31, 1969.

H. C. Bryant
Superintendent

HBStricklin:fja

	ACTION
[illegible] nt	RB
[illegible] Supt.	✓
[illegible] Clerk	✓
[illegible] Ranger	
[illegible] tenance	
Sanitation	
Admin. Asst.	
Naturalist	
Prepare Reply	
Comment	
Your Use	
File	

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
Region Three
Santa Fe, New Mexico

November 28, 1950

~~Memorandum~~

To: Superintendent, Grand Canyon National Park

From: Regional Chief, Land and Recreational Planning

Subject: Water Right Applications, Grand Canyon National Park

There is attached a copy of Mr. Dunn's memorandum of November 13 to State Land Commissioner Lane regarding Water Right Application A-1880, Permit A-1194, and application A-1881, Permit A-1195, Grand Canyon National Park. A second memorandum to Mr. Lane from Mr. Dunn, dated November 16, concerns a North Rim Water Right Application No. A-1765, Permit No. A-1093.

Mr. Dunn is arriving in Albuquerque Tuesday evening, November 28, and will be at Mesa Verde on water rights matters through December 4. He plans to be in Organ Pipe Cactus National Monument December 9 and 10, leaving Phoenix Monday, December 11 at 10:40 A.M. In the event you wish to reach Mr. Dunn regarding either of these water right matters you could write to him in care of the Superintendent, Organ Pipe Cactus, with a copy to this office.

Milton J. McColm
Regional Chief, Land and
Recreational Planning

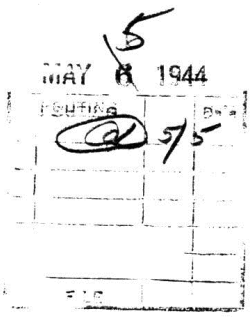
Attachments 2

advise Dunn of current UP contract
45



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

May 3, 1944



MEMORANDUM for the Regional Director, Region Four.

(Attention Hydraulic Engineer Dunn)

Reference is made to Mr. Dunn's memorandum of April 25 relative to Water Rights Applications Nos. 1880 and 1881.

By now our memorandum to you of April 25th has been received, together with copy of a letter of transmittal from Engineer Stewart and a copy of the order granting extension of time in which to start construction on the above mentioned projects, which complies with the request in his fourth paragraph.

Please note that the Commissioner has made the Order "nunc pro tunc" which automatically protects our priority until November 27, 1947, with no penalty of lapsing due to not having made an earlier request for an extension, even though Permits were granted.

H. C. Bryant,
Superintendent.

2 copies to Region Three

WATER RIGHTS SECTION
601 Sheldon Building
San Francisco 5, California

May 1, 1944.

MEMORANDUM for the Regional Director, Region Three.

Reference is made to your copy of the order granting an extension of time in which to perfect water rights under Applications A-1180 and A-1881 for Grand Canyon National Park, which Mr. Lassiter forwarded to us with the question as to whether a copy should be made for the Director.

When the original deeds for Grand Canyon are transferred to Chicago the original of this order will be part of the assembly. Also, since the order applies to two applications, which will be two deeds, there will have to be a copy or cross reference for one of them. So far we are making copies. As a result we will hold your copy with our own until we are ready to consider the deed assemblies.

This order is most interesting because it grants extensions of time on systems which were not started within the one year period required by law. Having received this special consideration we should be very careful not to make any further statements to the State Water Division which might result in reversal of the action. We should also do all we can to have the Santa Fe Railroad start construction before November 27, 1947 if the war permits.

It might be appropriate at this time, too, for all of us to consider the inconsistency of procedure where the Santa Fe builds nearly all the water systems for Grand Canyon to serve Park and Concessioners' needs while this Service builds them for the joint use for such places as Yosemite and the Yakima Park area of Mt. Rainier. I think I express the Service policy in adding that the Service is ultimately to be responsible for all public utilities in the Parks and Monuments. If so, why not set up these two proposed water systems for power at Phantom Ranch and a supplemental supply for the South Rim as National Park Service projects after the war? As John McLaughlin would say, I am thinking out loud.

AvVD:sh

A. van V. Dunn,
Hydraulic Engineer.

FILE COPY

WATER RIGHTS SECTION
601 Sheldon Building
San Francisco 5, California

April 25, 1944.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

Reference is made to Mr. Davis' letter of April 22 to the Secretary of the Water Division of the State of Arizona in reply to the Secretary's letter of February 24 which was also attached and relating to Water Right Applications A-1880 and A-1881 for Grand Canyon National Park.

These two letters will ultimately be made a part of the deed assemblies for the two water rights. They might therefore be marked in the letter file for the time being in such a way that they may be easily located.

Legally, both of these applications should have lapsed within a year after the Permits Nos. A-1194 and A-1195 were granted because no construction had been started. By giving reasons for failure to complete the systems, but not being too committal as to what progress had already been made, they have been kept open to date. It seems probable, however, from Mr. Davis' letter that they will now be declared to have lapsed because of the second paragraph indicating the projects have not been initiated.

It is requested that any reply from the Water Division be referred to this office before further answer is given. If the instruments are declared to have lapsed we will then reinstate them immediately in order not to lose any more priority, and request that the new permit be deferred until further request which will be made during the year immediately preceding the proposed construction. This office has already made arrangements with the State Water Commissioner to make filings in that manner in order that we may complete as many as possible during the war and reduce the last minute work needed to cover permits for all the proposed construction of this Service.

On the other hand, if the Water Division is charitable and grants an extension of time please advise us of that action. In any case, the next reply will be a letter or form which should be considered as part of the original instruments for the deeds ultimately to be assembled for the Director. It should therefore be treated in the same manner as the applications and permits previously issued.

We enclose an extra copy of this memorandum in case you wish to present it to the Santa Fe Railroad. We should also like to call attention

FILE COPY

to the fact that in assembling water right deeds for Grand Canyon where the systems are built in part by that Company we shall probably wish to make a complete file for their records. The assemblies will also include copies or originals for the Director, Regional Director, Park, and this Section. Therefore, in the future any correspondence relating to the water rights should have enough copies made for all the proposed assemblies even though they are not released at this time. For instance, I am not now trying to copy the letters of February 24 and April 22, but will have to do so for the Director at the time the deeds are assembled.

AvVD:sh

A. van V. Dunn,
Hydraulic Engineer.

cc: Director.
Region Three.
Extra.

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

APR 24 1944

April 22, 1944.

Miss Tessie L. Flynn, Secretary,
Water Division,
State Land Department,
Phoenix, Arizona.

Dear Miss Flynn:

Reference is made to your letter of February 24, 1944 relative to App. No. 1880, Per. A-1194 and App. No. A-1881, Per. A-1195, Bright Angel Creek.

It is regretted that there has been a delay in attending to this matter, but it has been due to correspondence with the Santa Fe Railway Company relative to their plans in initiating the project. A recent letter from their Chief Engineer Blanchard indicates that they would prefer deferring any action until some time in the future.

As the Railway Company is most concerned in this project, and the Government at this time unable to furnish funds with which to carry out the work, it is quite obvious that these Applications must be extended until after the end of the present war. Considerable work has been done in getting the Applications filed and it would seem too bad to throw this away if we can keep these applications in force until after the war period is ended.

We are, therefore, requesting that an Order granting an extension of time in an amount consistent with your legal authority be granted.

Sincerely yours,

(SGD.) JOHN M. DAVIS

John M. Davis,
Acting Superintendent.

cc; Mr. Blanchard, A. T. & S. F. Ry.
Hydraulic Engineer Dunn, Region Four.
Regional Director, Region Three (2).



Fa Deed

02-28-1944: letter to a. t. & s. f. rwy. co. from park engineer regarding applications for water use in bright angel creek

The Atchison, Topeka and Santa Fe Railway Company

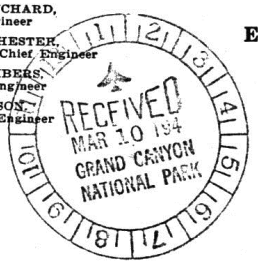
COAST LINES

M. C. BLANCHARD, Chief Engineer
W. H. ROCHESTER, Assistant Chief Engineer
R. E. CHAMBERS, District Engineer
R. D. PIERSON, Regional Engineer

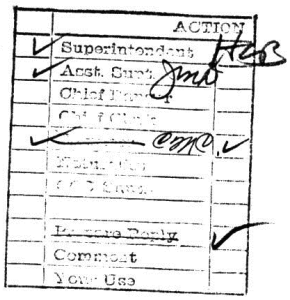
ENGINEERING DEPARTMENT

560 South Main St.
Los Angeles, 13, California

H. L. GILMAN, Architect
G. W. VARNUM, Office Engineer
G. L. DAVENPORT, Hydraulic Engineer



March 8th, 1944
File 1332-1



Mr. Clark M Carrel,
Park Engineer,
Grand Canyon, Arizona

Dear Sir:

Referring to your letter of February 28th regarding two applications for water use of Bright Angel Creek.

I do not have copies of these applications, though according to my records, they were filed by the Government with the State Water Commission some time in late 1938 or early 1939.

It seemed to me at the time that they were rather unnecessary as neither the railroad nor the government had any very definite idea as to future water developments.

Since that time, further study indicated that the most feasible method of supplementing Indian Gardens supply would be to construct a long, inverted siphon gravity line from the springs at the head waters of Phantom Creek.

At any rate, there is no intention of doing anything in the near future, and I would suggest that these applications be allowed to lapse, and that if and when the government has other applicants for water, consideration be given to this application. For the reason that the goverhment, as well as the railway company, is interested in this source of supply, I do not see that there would be any trouble in the future in working out with the state applications for any definite projects that might be agreed upon between the railroad and the Park Service.

Yours truly,

M C Blanchard

Chief Engineer

11-25-1942: memorandum to regional director, region three from nps regarding extensions of time

February 28, 1944.

Mr. M. C. Blanchard, Chief Engineer,
A. T. & S. F. Rwy. Co.,
Kerckhoff Building,
Los Angeles, Calif.

Dear Mr. Blanchard:

Attached is a copy of a letter just received from the Secretary, Water Division, of the State Land Department, regarding applications for water use in Bright Angel Creek.

Application No. A-1880 covers the proposed auxiliary supply to Indian Gardens, and Application No. A-1881 covers the proposed hydro-electric installation at Phantom Ranch. At the time these applications were filed, there seemed to be an urgent need, in the near future, for these projects. However, it would seem now that the need is so far in the future, the question arises whether or not we are justified in keeping the applications alive by requesting further extensions; or should the matter be dropped until such time as you feel assured the projects can be initiated?

As your interests are directly concerned in this matter, action will be deferred until I shall hear from you.

Sincerely yours,

Clark M. Carrel,
Park Engineer.

CMC/ja

FILE COPY

Mr. Dunn.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE
WATER RIGHTS SECTION

SAN FRANCISCO, CALIF.

601 Sheldon Building

November 25, 1942.

MEMORANDUM for the Regional Director, Region Three.

A copy of the State Water Commissioner's letter of November 19, in reply to mine of November 16, with regard to extensions of time, is enclosed. This is a very fine explanation, although he seems to have confused Toroweap Wash Lake with some Jacobs Lake. It certainly answers the questions of beginning of construction which I did not ask directly.

It would appear that all that is needed is a frank gesture to retain priorities for systems that have not been started. His letter of November 10 now seems to have the following meaning:

Application A-1878, Grand Canyon National Park -
Extension of time granted as stated because ditch has previously been reported constructed.

Application A-1765, Grand Canyon National Park -
Protected until 1945 when further extension of time must be requested. System has been reported complete for present capacity.

Application A-1799, Chiricahua National Monument -
Already reported largely complete. Must request extension of time next September.

Application R-454, Grand Canyon National Monument -
Must request extension of time in August 1944, but it will be granted since the dam is built whether it holds water or not.

Applications A-1880 and A-1881, Grand Canyon National Park -
Seem to have been accepted as under construction due to some previous misunderstanding, otherwise they would have lapsed. Why no extension is needed this Friday is not

clear, but I suggest we wait for him to notify us of further needed action or until construction is ready to start. We may lose some priority, but can do nothing if construction is not started. The line from Bright Angel Creek to Garden Creek is too great a project and the diversion point is subject to such change by erosion that it would be better to sacrifice the priority than sham work.

Hydraulic Engineer.

AxVD:SH
Enclosure 2122078.

cc: Director.
Supt., Grand Canyon.
Supt., S.W.Monuments.

08-10-1942: memorandum to grca from hydraulic engineer regarding water right applications a-1878, a-1880, and a-1881

601 Sheldon Building

November 16, 1942.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

We enclose the original of an order extending the time in which to make full beneficial use of water under Application No. A-1878, Permit No. A-1192, together with the State Water Commissioner's letter of transmittal.

There should also be an extension of time in which to begin construction of the Bright Angel Creek Hydroelectric Plant and the Bright Angel Creek Diversion for the South Rim, Applications Nos. A-1881 and A-1880 respectively, but by letter of April 12, 1941, the State Water Commissioner advised Acting Superintendent Lloyd that he had no authority to grant extension of time to start construction. However, Section 3288 of the code, mentioned in that letter, states that a longer time may be granted under special conditions for municipalities.

Rather than report immediately that the above construction has not started, we are sending the enclosed letter to the Water Commissioner. Since we can hardly be expected to report construction until after the limiting date, we suggest that you do not do so until we obtain a reply to this letter, even if not for several months.

AvVD:SH

Hydraulic Engineer.

Enclosure 2122070.

cc: Director, with enclosures.
Region Three, with enclosures.
Supt.,S.W.Mons., with enclosures.

FILE COPY

09-18-1941: memorandum to grca from nps regarding dug well and water use at phantom ranch

601 Sheldon Building

August 10, 1942.

MEMORANDUM for the Superintendent,
Grand Canyon National Park.

Our records show that Water Right Applications A-1878, A-1880, and A-1881 are due for certain proofs on November 27, 1942. Applications A-1880 and A-1881, which are due for completion of construction on that date, will require an extension of time.

Application A-1878 is for the use of water at Cottonwood Camp. There is probably no question but that 5 acre feet per acre of water have been applied to the designated 5 acres for irrigation. The question is whether you could definitely certify that people used as much as 1000 gpd on any specific days in the past few years and whether during that same year 100,000 gallons were consumed by stock.

The latter, at 10 gallons per day per horse or mule, would require an average of 27.4 head per day in camp throughout the year, or an average of 100 head a day during a season of 100 days. The stock might consume 12 to 15 gpd in hot weather.

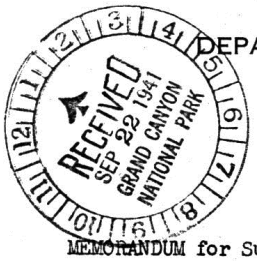
The domestic consumption depends on what facilities may have been added during the past few years. As described in the application the rate would be about 1.5 to 2 gpd per capita, which would require a camp population of at least 500 people on the specified day. If modern comfort stations have been provided we could probably claim a consumption of 25 gpd per capita which would require a party of only 40 people.

Please advise whether you prefer to make proof or request an extension of time for this right. If you are to make proof please send us the number of people and animals during the day and year of proof and the rate of domestic consumption you wish to use. The number of people is only needed for the peak day, but the total horse days of use is needed unless you are pretty sure of the average.

Hydraulic Engineer.

AvVD:SH

FILE COPY



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

September 18, 1941.

MEMORANDUM for Superintendent Bryant,
Grand Canyon National Park:

Reference is made to Acting Superintendent Davis' memorandum of September 12, 1941, with regard to the dug well and water use at Phantom Ranch.

O.M.C.

We enclose a Notice of Beginning of Construction in five copies to be signed and dated by you. The original should then be forwarded to the State Water Commissioner, and the others to the Director, Regional Director, yourself and to us for record purposes.

As soon as you finish the well and pump unit to your satisfaction, please advise and we will draw up a Notice of Completion of Construction. However, this notice does not have to be submitted until 1945 if you feel that you may wish to make changes meantime.

The reported attendance of April 12, 1941, does not permit us to claim complete application of the water to beneficial use. In fact, these figures are lower than some reported before.

It is not entirely clear from State Water Commissioner Wanslee's letter of August 23 whether we really have until 1946 in which to make full application of the water or whether we should prove such use before. It would be safer for us to prove such use as soon as possible. Hence, will you please ask the operator to check his records for the maximum attendance at any date since May 15, 1937, giving number there over night, number for only part of day, and number of mules and horses, and the dates. The stock watering maximum need not be the same as the date for maximum domestic consumption.

In transmitting the Notice of Beginning of Construction, I should refer to Mr. Wanslee's letter of August 23, 1941, and

advise that the report on beneficial use will be made as soon as possible, advising that all use for irrigation has been made for several years but that since the domestic use depends on the whims of the public you are still looking for that elusive day when the records cross the line.

A. Ward Dunn

Hydraulic Engineer.

Enclosure 2136774.

Ass't Supt
Supt K
Engr Chief
File 660-05

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



June 20, 1941.

MEMORANDUM for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to your memorandum of October 17, 1940, enclosing a copy of a letter of October 9, 1940, from Chief Engineer Blanchard of the Santa Fe, regarding Water Right Application A-1880, Permit A-1194, for Bright Angel Creek Diversion for an auxiliary water supply for the South Rim.

This is merely a reminder that construction should start by November 27, 1942, and that we still have no final plan or survey. It may be that the recent change from surface to well diversion for Phantom Ranch has changed the whole problem.

Please advise us of further developments as soon as they are known. Also note that we should know during the coming winter if we are to request another extension of time because of failure to start construction.

A. Grant Dunn
Hydraulic Engineer.

cc: Reg. III.

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

June 20, 1941.

MEMORANDUM for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to your memorandum of October 17, 1940, enclosing a copy of a letter of October 9, 1940, from Chief Engineer Blanchard of the Santa Fe, regarding Water Right Application A-1880, Permit A-1194, for Bright Angel Creek Diversion for an auxiliary water supply for the South Rim.

This is merely a reminder that construction should start by November 27, 1942, and that we still have no final plan or survey. It may be that the recent change from surface to well diversion for Phantom Ranch has changed the whole problem.

Please advise us of further developments as soon as they are known. Also note that we should know during the coming winter if we are to request another extension of time because of failure to start construction.

(SGD.) A. VAN V. DUNN

Hydraulic Engineer.

cc: Reg. III.

10-17-1940: memorandum to associate attorney from grca regarding status of plans for the auxiliary south rim water supply

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 Tillotson. 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.

[redacted]

Associate Attorney

cc: Regional Director, Region Three
Director

AJ:as

FILE COPY

10-09-1940: letter to nps from the atchison, topeka and santa fe railway company regarding water development for grand canyon

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

RECD OCT 21 1940

October 17, 1940.

Memorandum for Associate Attorney,
Mr. A. L. Johnson:--

Reference is made to your memorandum of September 23, relative to the status of plans for the auxilliary South Rim water supply at Grand Canyon, Water Right **Application A-1880, Permit A-1194.**

There is attached a copy of Mr. Blanchard's reply to our letter of October 2, which, it is believed, answers the questions contained in your memorandum. Please be assured that we will keep this matter in mind and advise you of developments.

We appreciate very much your calling our attention to this, and hope you will feel free to write us at any time concerning our Water Rights matters, particularly, pending action which may be overlooked by this office, due to press of more current matters.

Frank A. Kittredge

F. A. KITTREDGE,
Superintendent.

Miss Hicks
Please note for follow up above

09-23-1940: memorandum to grca from nps regarding status of plans for the auxiliary south rim water supply

C O P Y

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

COAST LINES

ENGINEERING DEPARTMENT

October 9, 1940
File 1332

Mr. F. A. Kittredge,
Superintendent,
National Park Service,
Grand Canyon, Arizona.

Dear Sir:

Referring to your letter of October 2nd regarding water defelopment for Grand Canyon:

A suitable plan for this can certainly be developed by the Railway in much less time than two years.

We have been making a preliminary estimate for a gravity flow line from the headwaters of Phantom Creek which appears to be the most logical plan and should have this ready for discussion in the next few months.

Whether actual construction could start before November 27, 1942, I cannot say as that would depend; first, upon the actual need for an additional suppy and, second, on availability of money to carry on the work.

Yours truly,

/s/ M. C. Blanchard,
Chief Engineer.

C O P Y

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



Copy
Comments?
IC 9/26

September 23, 1940

Memorandum for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to your memorandum of September 9, 1940, regarding the status of plans for the auxiliary South Rim water supply at Grand Canyon, Water Right Application A-1880, Permit A-1194.

On further investigation of the files, preparatory to requesting an extension of time, we find that the extension of time granted in 1939 was until November 27, 1942, instead of the normal one year which would have been this fall. On this basis, we do not need to take further action at this time.

You advise that the Santa Fe does not anticipate constructing the system in the near future. We wonder, however, if it cannot work up a fairly suitable plan during the next two summers.

Having obtained one time extension, it is likely to be more difficult to obtain another. Construction started before November 27, 1942, would be the surest way to retain the priority of April 14, 1938. As an alternate, we might have greater justification for another extension if we can submit evidence of expenditures for surveys, and a complete change of plan for good reasons, at the time we request that extension.

Albert R. Johnson
Associate Attorney.

cc: Regional Director, Region III.

FILE COPY

601 Sheldon Building
August 15, 1940

Memorandum for Superintendent Kittredge,
Grand Canyon National Park:

Reference is made to the memorandum of Acting Superintendent Lloyd of July 9 regarding water right for auxiliary supply for the South Rim.

I enclose a copy of a memorandum by Hydraulic Engineer A. van V. Dunn bringing up certain points in connection with your proposed changes and their relation to the existing water right permit A-1194. We should like to know just how advanced your plans are to complete this water system. If the Santa Fe Railroad is now contemplating such construction within the next year we assume they must be ready to make some surveys, and if so we feel that it would be to their advantage, as well as ours, to obtain the data suggested by Mr. Dunn at the top of the second page of his memorandum during the remainder of this summer.

We have not yet fully determined the influence on priority resulting from changing the point of diversion. However, for the drainage of Bright Angel Creek alone which is involved in your proposed change, it would make very little difference whether we instituted an absolutely new application or relied on the older one. In the greater Colorado drainage of course priority is important, but the quantity of water involved in this case makes the question of less importance. For this reason, we should like to complete an amended water right for the auxiliary South Rim supply at the earliest opportunity, regardless of which point of diversion is accepted. We also see no reason why you should not select any point you wish for making a diversion which will give the greatest and most reliable source of supply.

Regional Attorney.

Enclosure 1943914.

cc: Director, with copy of Mr. Dunn's memorandum of Aug. 10.
Regional Director, Region III, with copy of Mr. Dunn's memorandum of Aug. 10.

AvVD:SH

601 Sheldon Building,
San Francisco, Calif.,
August 10, 1940.

Memorandum for Regional Attorney Taylor:

Re: Auxiliary Water Supply, South Rim,
Grand Canyon National Park.

Reference is made to Acting Superintendent Lloyd's memorandum to you of July 9, 1940, and your reply of July 11, 1940, relating to Application A-1880, permit A-1194, for an auxiliary municipal water supply from Bright Angel Creek for the South Rim at Grand Canyon.

By the terms of the permit, construction was to start by November 27, 1939, and the time was extended to November 27, 1940. It is necessary, therefore, to take some action within the next few months. Apparently the only possible action is to request another extension of time. I am not sure that a further extension will be granted without pressure from our office.

By the above correspondence it is also planned to change the proposed point of diversion. In California such a change can be made without loss of priority. In Utah a change will result in a new priority as the date of the change. The Arizona water code, as compiled by State Water Commissioner Edwin T. Stewart in 1935, does not seem to cover such procedure, and we know that the code is so worded many omissions constitute prohibitions. Hence, I feel that you or Mr. Johnson could profitably investigate possible cases of such changes when no construction has been done.

As a third point, the application is for "Municipal and/or Domestic" use. While Mr. Stewart was Water Commissioner he refused to honor the municipal status. His successor has been more liberal, but there is no assurance that the next Commissioner will not agree with Mr. Stewart, and a third Commissioner may be appointed before the water right is perfected.

Fourth, the permit A-1194 is to divert one second foot (646,000 g.p.d.) while the correspondence shows an available supply of about 1.7 second feet. Any diversion in excess of 646,000 g.p.d. will definitely require an additional permit with a priority of the date of such filing. However, any diversion from Phantom Creek will deplete the lower supply for Phantom Ranch so that it may be that the Park will not wish to increase the quantity for the South Rim beyond the present permit.

Copies sent Supt. Grand Canyon
Director
Region III
8/15/40

From this analysis, but subject to an investigation of legal precedent for changing point of diversion without loss of priority, I feel that we should make an amended application within the next few months. To do this, we should have the point of diversion tied into the park coordinate grid. Probably the easiest way is to triangulate to the South Rim if there is not to be an immediate traverse of the pipe line route. We should also have a general course of the proposed pipe line sketched on a large scale map in order that I can compute a theoretical traverse of the proper side of the stream. We should also have a description of proposed diversion, pipe size, and elevation of diversion and at least enough profile to establish the controlling gradient.

The map and data for application A-1880 was decidedly crude and probably the amended form would be accepted on the same standard. However, if construction is to be started within the next year it is really time for an actual survey and design.

A. van V. Dunn,
Hydraulic Engineer.

660-05.7

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
REGION FOUR
SAN FRANCISCO, CALIFORNIA
601 Sheldon Building
December 5, 1939



Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

Reference is made to your memorandum of December 2, relating to the extension of time upon certain water right permits within Grand Canyon National Park.

In view of the fact that Mr. Dunn's request with respect to the topography of the Phantom Ranch area was made before the extension had been granted, we should like to modify our request so as to allow for the gathering of this data at such subsequent time as the construction plans are prepared.

In this connection, we enclose for your consideration a copy of Mr. Dunn's memorandum of December 4.

Joseph E. Taylor
Regional Attorney.

Encl.

cc: Director, with enclosure.
Regional Director, Region III, with enclosure.

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	
FOR	Action	
	Comment: Verbal	
	Comment: Memorandum	
	Prepare Reply for Supt. Sign	
	Initial and Return	
	Initial and Return to Files	

Owed

December 4, 1939.

Memorandum for Regional Attorney Joseph E. Taylor:

Referring to Acting Superintendent Bryant's letter of December 2, regarding topography in connection with the auxiliary water supply for the South Rim of Grand Canyon, I made the request prior to advice that the permit had been extended three years.

Since the time has been provided for completing construction plans, this topography would be superfluous at the moment. Instead, we can wait for the construction plans for use in preparing an amended water right application. These in themselves, however, should show the tie to a section corner or to the Phantom Ranch coordinate grid, and the general course of Bright Angel Creek for approximately a mile above and below, and of the springs if the springs are used. The stream need not be traversed, however, as it can probably be sketched fairly accurately from the standard topographic map by some one familiar with the area.

A. van V. Dunn,
Hydraulic Engineer.

660-05.7

December 2, 1939.

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

Carl

Dear Mr. Taylor:

Reference is made to your memorandum of November 29. The Water Commissioner has renewed amended permits covering diversion of water from Bright Angel Creek. We are, therefore, being protected in two ways. First, the Commissioner has ruled that Grand Canyon is a town as referred to in the law, and therefore does not need to perform work, and second, revised permits have been issued us so that we may continue to secure proper engineering data. The permits will again cover a three-year period, which should give us sufficient time to investigate the suggested possibility of siphoning water across the Canyon.

We shall follow your suggestions relative to some sort of data which could be submitted and filed with the applications. Of course you are requesting rather a difficult thing when you ask for topography of this area, unless you are willing to accept the U. S. Topographic Map on which the points could be approximately located.

Mr. Johnson's memorandum meets my full concurrence, and again I wish to express appreciation for the fine help.

Very truly yours,

(SGD) M. C. BRYANT

M. C. Bryant,
Acting Superintendent.

CC: J. V. Lloyd at Washington.

FILE COPY

FILE COPY

601 Sheldon Building
November 1, 1939

Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

Reference is made to your memorandum of October 24, with which you enclosed an original letter to the Arizona State Water Commissioner, suggesting an abandonment of Applications A-1879, A-1880, and A-1881, upon the ground that there is no immediate hope that these developments can be undertaken at an early date because of lack of funds.

Rather than see these totally abandoned at this time, we feel it worth while to make an attempt to secure an extension, at least with respect to the Bright Angel Creek applications, Nos. A-1880 and A-1881, based upon possible recognition of municipal character of use. Accordingly, we are returning herewith your letter to Mr. Wanslee, with the recommendation that it be not sent at the present time.

In addition, we are enclosing a copy of our memorandum for the Director of October 31, requesting a travel order for Associate Attorney Albert L. Johnson, from which you will note that we have some hope of retaining these applications in good standing by interviews with the Water Commissioner and the State Attorney General.

We are now engaged in a research, designed to find authority for the State Water Commissioner to extend these permits, if any such authority can be found. We believe it is highly desirable, and we hope it will be profitable, to have Mr. Johnson interview the State officials as soon as a travel order can be secured for him.

We would welcome any suggestion you care to make as to the possibility of your accompanying Mr. Johnson, or whether you would like to see him at the park before he proceeds to Phoenix. We feel that this matter is important, not only from the standpoint of the particular future water uses involved, but also in the way of establishing a precedent for clear recognition of municipal status on both the South and the North Rims.

In lieu of the letter which you proposed to send, we suggest that you acknowledge Mr. Wanslee's letter of October 16, and state that it is probable that a representative of the Park Service will call upon him, and that the Service is attempting to work out certain propositions intending to substantiate the jurisdiction of the Commissioner to extend the time in these instances.

If, after consultation with the State Water Commissioner and the Attorney General, it is found that the jurisdiction for extension of time seems unlikely, it still seems possible to us to save these filings by some performance of actual work, either of a CCC character, or inexpensive work under regular funds. This matter will be further discussed with you by Mr. Johnson.

Joseph E. Taylor,
Regional Attorney.

Encl. 1645500.

JET:SH

cc: Director.
Regional Director, Region III.

601 Sheldon Building,
San Francisco, Calif.,
October 26, 1939.

Memorandum for Regional Attorney Taylor:

Re: Grand Canyon Water Rights,
Proposed Systems

It is unfortunate that Acting Superintendent Bryant did not send his letter of October 24, 1939, to us before replying to State Water Commissioner Wanslee. I feel that we have grounds for a court case if the United States wishes to press the matter.

The Commissioner has refused to extend the time for the construction of the following systems:

Application 1880 - Permit 1194 - Bright Angel Creek Diversion for South Rim Auxiliary Supply.

Application 1881 - Permit 1195 - Bright Angel Creek Diversion for Phantom Ranch Power.

Application 1879 - Permit 1193 - Clear Creek Diversion for Campground Use.

We tried to get municipal status for the South Rim Area, and the Commissioner (then Mr. Stewart) would not recognize it. I have always felt that we could establish that status if we took it to court.

Referring to Section 3288, page 10, of the Arizona Water Code, construction shall begin within one year "except under applications by a city or town for its municipal uses". The South Rim area is a town of 10,000 people. It is entitled to municipal status as much as other towns of the same size. It has permanent residents, a postoffice (Grand Canyon, Arizona), station, hotels, stores, restaurants, and shops. Its chief businesses are commerce and the resort industry. It is an all-year community of all-year business and residence.

Assuming that we request the municipal status and get the Commissioner's decision in writing, Section 3292, page 12, of the Code advises that the Superior Court then has authority.

Application 1880 for 1.00 sec. ft. is definitely an auxiliary municipal water supply. Application 1881 was primarily for power at Phantom Ranch, but I always tried to show additional use to pump water to the South Rim. Mr. Tillotson and the Fred Harvey Company objected to the latter on the ground of limited power capacity, but Mr. Bryant might now agree if it permitted an extension of time. Certainly the right under application 1880 cannot be perfected without power. Hence, I feel these two denials by the Commissioner should be protested if Mr. Bryant's letter of October 23, 1939, was not too injurious.

Application 1879 for Clear Creek does not fit into municipal status as a unit. Yet the federal government should have certain time limit waivers similar to a town because, like a town, its needs grow and its ability to construct is dependent on appropriation. Also, like a town, the federal government is not supposed to spend public funds until growth gives justification.

The Arizona Code is narrow and limited. Other problems have resulted which make it impossible to establish water rights for most of the national monuments in the state. Hence, I feel that now is the time to take legal action.

A. van V. Dunn,
Associate Engineer.

08-12-1938: letter to grca from nps regarding questions on a survey ties set forth in applications nos. 1878, 1879, 1880, and 1881

REC'D OCT 26 1939

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

October 24, 1939.

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

in dead file

Dear Taylor:

Enclosed find copy of a letter from Jesse C. Wanslee indicating impossibility of the Water Commission to extend the time for the beginning of construction work on App. No. A-1879, No. A-1880 and No. A-1881. Due to lack of appropriations we have been unable to begin construction, and there is little hope of funds being available in the near future. Therefore we have written State Water Commissioner Wanslee to allow the applications to lapse pending our ability to begin developments. We enclose the letter to Mr. Wanslee for your approval before mailing. Please post the letter unless you have suggestions as to some other course of action.

Very truly yours,

H. C. Bryant

H. C. Bryant,
Acting Superintendent.

Joe: I think Bryan was late in answering until [illegible]

FILE COPY

//////

August 12, 1938.

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

Dear Mr. Tillotson:

Reference is made to your letter of July 12, with which was enclosed a copy of the letter dated July 7, 1938, written by Edwin T. Stewart, Engineer for the State Water Commission. This letter of Mr. Stewart, as you may recall, questioned some of the survey ties set forth in applications Nos. 1878, 1879, 1880, and 1881.

A recheck of all filings made at Grand Canyon has been made by Mr. Dunn, and it is found that the application relating to the Clear Creek diversion -- that is, No. A-1879 -- is definitely in error, and it is requested that you seek to have the original application and tracing returned to us for correction.

Conjecture as to probable section subdivision, where projection is necessary under the present unsurveyed status, may give rise to some difference of opinion with respect to probable location, and consequently we will of course be guided by the wishes of the State Water Commissioner with respect to the North Rim applications, and if he desires we will make whatever amendments he considers necessary if and when they are returned to us.

For the purpose of explaining to you and to the Engineer for the State Water Commission, a report by Mr. Dunn containing an analysis of his method of procedure has been prepared, and it is felt that it contains an explanation sufficient to justify the method of procedure adopted in the preparation of the Grand Canyon applications and filing maps. Special attention is called to the new map which Mr. Dunn has just prepared as an independent check, entitled "Analysis of Water Right Ties", contained in his report.

This report is submitted to you in duplicate, the extra copy being for submission to the State Water Commission or its engineer, and we are doing it in this way for the reason that we feel

the Dunn report should be examined by you and the Park Engineer before being transmitted to the State Water Commission, in order that any changes you might desire to make may be considered, or any statements rephrased.

You may recall that when submitting to you on June 12, 1937, the proposed applications for Clear Creek, Bright Angel Creek for Cottonwood Camp, Bright Angel Creek for Proposed Enlargement South Rim, and Bright Angel Creek for Phantom Ranch Hydro Plant, we stated in our letter of that date that data upon which those applications had been prepared was quite meager, and we thought it possible that the procuring of more accurate data might be advisable. We offered to finance a field party for such work, but in your letter of July 15 you advised that it seemed unnecessary that additional field surveys be made. Due to Mr. Stewart's present attitude, it might now be advisable, as suggested in Mr. Dunn's report, to make at least a triangulation for a mathematical location of the points of diversion for Cottonwood and Clear Creek Camps from the South Rim coordinate grid, and use these figures in the pending applications.

If the report enclosed herewith meets with your approval, we should be delighted to have you submit it to the Engineer for the State Water Commission for his comments and further directions. It is also suggested, in accordance with Mr. Stewart's request contained in the final paragraph of his letter of July 7, that you furnish the State Water Commission with a print of the park base map with the projects filed upon indicated by spotting. Since the reorganization we are not able to supply this map. Mr. Dunn did start a copy with correspondence shortly after his visit of a year and a half ago, but it seems to have been mislaid somewhere.

Sincerely yours,

In duplicate.

Joseph E. Taylor,
Regional Attorney.

JET:SH

Encls.

CC: Director, with enclosures ~~(without report)~~ for attention of Chief Engineer
Acting Regional Director,
Region III - with enclosure.

REC'D JUL 13 1938

107 Tamalpais Road,
Berkeley, California.
July 15,1938.

Memo to Mr Joseph E Taylor,
Regional Attorney,
Region IV
National Park Service.

Re:Applications
A-1878;A-1880;
A-1879;A-1881.

I am enclosing Mr Stewart's letter of July 7 th, and Mr Tillotson's letter of July 12 th for safe keeping until I return to the office.

A check of the ties, or the land sub-division of the area involved in each case, will be too involved to attempt here at home. Some of the computations for Grand Canyon were made by me and some by Mr Wilkinson and , perhaps,by Mr Jackson.I believe they were all checked by another of the three who had not made the original computations.Hence, if there is an error, it is probably in multiples of a quarter section, which can be easily corrected - but, I shall wish to give it my personal attention.

There is another complication which may have been inadequately explained to Mr Steward in that there is an off-set in the range lines, and I believe also in the township lines, which makes it impossible to carry sections from the South to the North rim without a special guide.I am not sure whether this involves the Cottonwood Camp system or not, but it makes it more essential that I have all my notes from the office before attempting checks.It may also be necessary to prepare a sketch of these off-sets as an explanation for Mr Stewart if they are involved.

Mr Stewart has also called attention to the apparant degree of accuracy in the bearings and distances of ties.This was not great accuracy, but an attempt to keep the error down. The data we have had from the Park has been very megre.In fact, I have always considered the maps of Cottonwood and Clear Creek systems as little more than sketches.Since I made the maps from Mr Carrel's data for him to sign, the ties were intended to show the exact mathematical computation in order that he would be signing for no error other than that which he might have made in "spotting" the diversions.If the computations have been made incorrectly, my purpose was killed.On the other hand, now that the methods have been fairly well "aired", it may be well to round off the tie values to prevent confusion in the office of the State Water Commissioner.

Incidently, if the Commissioner wishes great accuracy, I feel that further field surveys should be made.Mr Carrel may be satisfied (after I check the mathematics), but I should hate to sign the Clear Creek and Cottonwood maps without tying them to the South Rim by triangulation.In the correspondence of a year or

more ago, you will find a letter to Mr Tillotson which transmitted preliminary prints of these maps, called attention to the megre data from which they were prepared, and requesting a check by Mr Carrel to be sure that they were satisfactory for him to sign.Then, early in June 1937, we offered funds with which to make further field surveys if desirable. The reply was that the maps seemed satisfactory.

A. van V. Dunn
Associate Engineer

Canal Fy-B 660-05.7

File

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



601 Sheldon Building
November 30, 1939

Memorandum for Acting Superintendent Bryant,
Grand Canyon National Park:

Reference is made to your letter to Associate Attorney Albert L. Johnson dated November 27, relating to permits Nos. A-1194 and A-1195, and reference is also made to my memorandum for you of November 29 upon this subject.

We wish to take this opportunity of thanking you for supplying us a copy of the order of the State Water Commissioner granting extension of time until November 27, 1942, within which to amend our applications and permits, and to commence construction under the original permits. We are most gratified at this result, and by furnishing a copy of the order you have answered the questions raised in the next to the last paragraph of my memorandum of November 29. In addition, your accompanying letter indicates that the engineering data requested in the final paragraph of my memorandum is being sought at the present time.

It is not indicated on the face of your letter to Mr. Johnson whether a copy of the order was furnished to Washington, and consequently we are having copies made for that purpose.

Joseph E. Taylor
Regional Attorney.

cc: Director.
Regional Director, Region III.

Canal

Re: App. No. A-1880, Permit No. A-1194;
App. No. A-1881, Permit No. A-1196,
Bright Angel Creek,

From studies we find that an adequate water supply of the Grand Canyon can only be secured from Bright Angel Creek. The original plan contemplated the construction of a hydro-electric power plant and a pumping station to furnish an adequate water supply for domestic and municipal use at Grand Canyon Village. Recently engineers have investigated the possibility of syphoning water from this source of supply. This seems feasable because the source on the north side of the canyon is much higher than Indian Gardens where the pumping plant is now located. Two possibilites are to be investigated. That of taking the flow of water from Phantom Springs at the head of Phantom Creek, a tributary of Bright Angel Creek, building a pipe line through the Colo. george to Indian Gardens. The other possibility would be to divert water from Bright Angel Creek above the box canyon and it acress the Tonto platform, and syphon across to Indian Gardens. In either case it would feasable to secure sufficient water and head from this pipe line to run a small hydro-electric plant to furnish power to the development at Phantom Ranch.

In view of this possible change in plan we believe that the permit should be extended 3 years in order to begin construction work.

Grand Canyon Village mentioned above is considered as a city or town under section 3288 of the water code for the reason that the present census of Grand Canyon shows a permanent resident status of 2076 plus a temporary transient population on Aug. 8, 1939, of 3,828 additional, making a total maximum population of 1939 as that of 5,094. Also Grand Canyon Village has all the essentials and elements of a town ad defined by court decisions and otherwise. And the purposes for which the applications above mentioned are made are for the municipal uses of such towns.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Branch of Land Acquisition and Regulation
~~Legal Division~~
110 Sutter Street
San Francisco, Cali

RECEIVED
JUN 1937
GRAND CANYON
NATIONAL PARK

June 21, 1937.

Mr. M. R. Tillotson,
Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Tillotson:

We enclose one print each of drawings Nos. GC-5113 and GC-5135, showing the proposed hydroelectric plant for Phantom Ranch and auxiliary municipal supply for the South Rim, diverting from Bright Angel Creek, together with a draft of the application to accompany each filing. We also enclose a copy of the latest data from Mr. Blanchard to you regarding water needs in these two systems.

The application forms seem entirely too detailed for proposed systems -- at least, as far as they pertain to our particular problems where we do not have an actual design at this time. At the same time, the preliminary maps which the State requires are not as detailed as that which I am submitting to you.

To conform to the application, I have prepared a very rough design and have endeavored to appropriate all of the remaining water of Bright Angel Creek over and above previous applications. I have suggested appropriating the full one second foot for municipal use at the South Rim, because this is more easily reduced later than increased, and because it is the quantity of water which will not return to the stream for use by others farther down the Colorado River. This is an increase of 30% over what the Santa Fe requested.

I have included an 8-inch pipe throughout to the South Rim, because the suggested 6-inch of the Santa Fe would give rather a high velocity for a pump line, especially if a full second foot is delivered in one stage from Indian Gardens to the top. I have also suggested that this line be independent of the existing Indian Gardens system. Actually, by the time construction is started, it may be desirable to replace the existing system from Indian Gardens to the Rim to handle the full quantity in one pipe line of larger size, and with a single battery of pumps and motors. I believe this detail can be easily corrected by incorporating such changes in the final plan at the time of appropriation.

With respect to the hydroelectric plant, I have suggested appropriating 20 second feet and developing 180 horse power. This necessitates a somewhat larger penstock, and, as Mr. Blanchard suggested, in all probability it will be cheaper actually not to attempt such a big power unit when final construction is made. At the same time, I find that I can justify the full quantity in this preliminary stage, and think it well to attempt it and plan on possibly making a change in the final appropriation when the construction is started.

The main problem in both applications is the date at which construction is to begin, which is limited ordinarily to one year, and to be completed within five years. Probably you will not start construction until nearly the end of the five-year period, but it occurs to me that they will probably accept preliminary surveys as a feature of construction within the first year to serve as the initial step. The construction itself might then be postponed until the end of the five-year period, and an extension of time requested for completion at that time.

Both of these applications are highly hypothetical at the present time, and we should all bear in mind that when actual designs and construction are undertaken the applications should be amended in accordance with the changes. For this reason, both the Santa Fe and Mr. Kittredge's office should be advised of these preliminary plans, in order that whichever makes the final construction will take care of the matter of amendments.

The present data is being submitted in the form of a rough draft, and not for final filing with the State. It is anticipated that you may wish to make certain changes and corrections before it is submitted to Mr. Stewart. It occurs to me, too, that we may prefer to use the township plat type of maps for the actual filing and retain the tracings as submitted to you at this time merely for reference at the time of working up a final design.

Sincerely yours,

Joseph E. Taylor,
Attorney.

By A. van V. Dunn
A. van V. Dunn,
Associate Engineer.

CC: Mr. Kittredge.

C O P Y

THE ATCHISON, TOPEKA AND SANTA FE RAILWAY COMPANY

COAST LINES

ENGINEERING DEPARTMENT

Los Angeles, Cal., April 12, 1937.

2435

Mr. M. R. Tillotson, Superintendent,
National Park Service,
Grand Canyon, Arizona.

Dear Sir:

Further in regard to your letter of March 8th and my reply of March 10th regarding a hydro-electric plant at Bright Angel Creek:

Before discussing the hydro-electric plant, the proposal for pumping water from Bright Angel Creek to Indian Gardens will be considered.

We have no plans now for pumping anything like four second feet, which would be 1800 gallons per minute.

A supply of 300 gallons per minute would be ample for a long time as it would only be used to supplement the Indian Gardens supply.

However, it was thought that the 4 second feet included domestic and irrigating use at Phantom Ranch, which might not be much out of line.

Our tentative plan for this line to Indian Gardens is to start with an 8" pipe line at some suitable diversion point about one fourth of a mile north of Phantom Ranch then continue as a gravity 8" line through the ranch, crossing Bright Angel Creek, them crossing the Colorado at the present wood hauling cableway location with a cable span, then parallel the river trail as you suggest up to a point on Pipe Creek about half a mile from the river where the pipe would discharge into a reservoir after filtering to remove sediment which would be picked up in Bright Angel Creek after a storm. A high pressure pumping plant would be constructed close to this reservoir and a 6" pipe line built from there to connect with the present 6" line at the Lower Indian Gardens. With a 1500 ft. head about 150 H.P. would be required to handle 300 gallons.

All the studies we have made for the last twenty years indicate that the least expensive way to furnish electricity for this plant would be to transmit it from the south rim powerhouse by a cable similar to the one built to Indian Gardens, or by an overhead transmission line, if the Park Service would permit this.

This would be true for any large amount of electricity needed at Phantom Ranch if a pumping plant were built there but is even more so for a plant on the south side of the river as outlined above.

The need for a hydro-electric plant at Phantom Ranch simmers down then to local needs for electricity.

We had planned on a 30 K.W. plant using the same intake as for the irrigation system though adding a sand trap and screen, then constructing a 30" redwood stave pipe line 1200 ft long to a point near the corral where a generator house with a 48 H.P. water turbine belted to a 30 K.W. direct current generator would be located. The present Kohler units of 7 H.P. combined capacity would be left in as a standby and would be interconnected with the hydroelectric plant to assist in carrying peak loads.

It is believed that the construction of such a plant, though possibly located further upstream to get away from bad flood conditions, would be justified by the saving to be made in operating cost compared with that of a 30 K.W. gasoline driven electric plant. To operate the 30 K.W. hydro-electric plant would require 15 second feet of the 20 second feet total stream flow.

Answering more especially Mr. Dunn's four questions:

1. Choice in the matter of hydro schemes

Limit application to a hydro-electric plant for Phantom Ranch only. It would be desirable to include the entire 20 second feet which would produce 40 K.W. with the same head. If the plant were built further north where the grade is lighter, a pipe line longer than 1200 feet would be required.

2. High line water supply route

Need for this would be eliminated in our plan using the gravity line across the river.

3. Justification for 20 second feet hydro plant

Not needed for pumping to Indian Gardens, but is needed for a 40 K.W. plant to supply Phantom Ranch with electricity for cooking, lighting, refrigeration, fans, etc.

4. Uses for 4 second feet to Indian Gardens

Need only figure on 300 g.p.m. or 2/3 second foot. The other 3-1/3 second feet was for irrigation and domestic use at Phantom Ranch.

I am enclosing both the print you sent me and a print from a tracing I have prepared, Drawing No. 181-21227, showing the railroad's plan for water supply for Indian Gardens from Bright Angel Creek. Copy of the latter drawing is also being sent to Mr. Dunn with copy of this letter.

Yours truly,

(Signed) M. C. Blanchard

cc Mr. A van V. Dunn,
Asst. Engr., Nat'l Park Service,
110 Sutter Street, San Francisco

Mr. E. Nelson

Mr. O. L. Gray.

GLD-p

March 8, 1937.

660-03
660-01

FILE COPY

Mr. E. C. Blanchard, Chief Engineer,
AT & SF Railway Coast Lines,
Los Angeles, Calif.

Dear Mr. Blanchard:

Please note the attached copy of letter from Associate Engineer Dunn, of our Branch of Land Acquisition and Regulation, which pertains to certain problems in connection with the filing for water rights in the Bright Angel Creek.

While the matter of use of these waters for power and supply to the South Rim is problematical and has only been a subject for discussion, I believe Mr. Davenport has given the project some thoughtful consideration and, no doubt, has formulated some scheme or plan of a tentative nature and is in the best position to answer Mr. Dunn's questions.

It has been my thought that the power plant location should be above Phantom Ranch about ¼ of a mile, near the junction of the Kaibab and Cleer Creek Trails, with the penstock extending up the Creek the required distance to secure sufficient head. This location is above known high water, and, in view of the recent flood which occurred last August, threatening the entire area below the intake of the irrigation ditch, it is my belief that the lower locations would not be best.

I am also attaching the blue print for your study and comments which I would appreciate your returning, when it has served your purpose. Route "B", for the pipe line, follows the new River Trail to Pipe Creek and then on up the Bright Angel Trail to Indian Gardens. This seems to me the logical location as the trail has a fairly uniform gradient and the pipe can be laid in the inside ditch line of the trail and covered.

We have asked for funds with which to reconstruct the Bright Angel Trail from the foot of the switchbacks where the trail enters Pipe Creek

to the junction with the River Trail; and, no doubt, by the time we have to give serious consideration to the water development, the trail project will have been constructed.

It is realized by all concerned that this project is in the embryo stage and, until surveys and careful studies have been made, nothing of definite character can be decided on. However, it is going to be necessary that Mr. Dunn get out and submit a map which will be relatively along the line of what we have in mind to satisfy the requirements of the Water Commission.

I am sending a copy of this letter to Mr. Dunn and I would appreciate it if you would send him a copy of your reply to this so that he may have your comments as soon as possible.

Sincerely yours,

M. R. TILLOTSON,
Superintendent.

By J. V. LLOYD,
Assistant Superintendent.

CMC/crd

cc Mr. van V. Dunn

March 6, 1937.

FILE COPY

Mr. Albert van V. Dunn,
Branch of Lands and Use,
110 Sutter Street,
San Francisco, Calif.

Dear Mr. Dunn:

Reference is made to yours of February 20, 1937 relative to the proposed hyrdo development at Phantom Ranch.

There is attached hereto a copy of a letter I have written Chief Engineer Blanchard in which you will note that I have asked him to furnish the information you have requested. As they are more vitally concerned in this development, I feel that they are in a better position to justify the requirement than we are.

It has never been our thought that the hydro development would be used solely for lighting pruposes at Phantom Ranch, but would be incidental. Power for pumping water to Indian Gardens, in case of failure of the springs to supply, is the basic need. As we are permitted to file on anticipated needs, it has been thought that we should filo on the normal flow of Bright Angel Creek which is around 20 second feet.

Of the two suggested routes for the pipeline, I prefer route "B". While friction loss will be greater due to the winding nature of the trail it is my belief that the line can be so constructed along the trail that it will be out of sight, the least expensive to build, and most economically maintained. Sufficient power can be developed to adequately handle the load.

After you have received a copy of Mr. Blanchard's reply if there are any further questions you care to make, please feel free to ask me. However, keep in mind that this project is purely an anticipated one, and that it is impossible at this time to give you more than a tentative scheme. Later, if the Santa Fe people feel the need of making this development, there will be made the necessary studies and

surveys to determine its feasibility and cost. It is, of course, realized that you must have something on which to base your assumptions, but it would be advisable to hold your commitments to a minimum and your requests to a maximum.

Sincerely yours,

M. R. TILLOTSON,
Superintendent.

By J. V. LLOYD,
Assistant Superintendent.

CMC/crd

NATIONAL PARK SERVICE

Branch of Land Acquisition and Regulation
Legal Division

Report
On
Investigation of Water Rights
For Grand Canyon and Southwestern Monuments

By

A. van V. Dunn
Associate Engineer

San Francisco, Calif.,
December 17, 1936.

Introduction

This report constitutes a review of my activities on a trip to Arizona in connection with National Park Service water rights in that State. The trip was made in the company of Associate Attorney Albert L. Johnson, on instructions from Attorney Joseph E. Taylor of the Branch of Land Acquisition and Regulation.

We left San Francisco November 29, and returned December 11. We visited Grand Canyon, Casa Grande, Phoenix, and Los Angeles.

Grand Canyon

At Grand Canyon we found that Superintendent Tillotson was away on leave, but outlined our program to Acting Superintendent Lloyd, and arranged for an interview with Mr. Tillotson in Phoenix. We also discussed the various water systems of the Park with Park Engineer Carrel.

The desirable water rights for the Park are as follows:

1. Indian Gardens supply for South Rim, 300,000 g.p.d., which is the full flow of the source of supply. We were able to file the application on this supply while in Phoenix, and arrange for the map, which will be submitted within thirty days, after incorporating data obtained from the Santa Fe Railway Company in Los Angeles.

2. Union Pacific Hydro-electric Development on Bright Angel Creek for North Rim, 5 second feet.

3. Roaring Spring Supply for North Rim, 30,000 g.p.d. during four summer months.

Only part of the necessary data for filing on these two systems was available in the Park, so Mr. Lloyd wrote to the Union Pacific for the additional information. When this is received, maps and applications will require two to three weeks of office work.

4. Fish Hatchery (proposed) on Roaring Spring, 1/2 second foot.

5. Fifteen Impounding Dams for Wild Life, 225 acre feet, of which twelve dams are now constructed. By specifications of the State Water Code, Wild Life and Fish are not recognized as beneficial use, so that these two items are not now subject to appropriation. However, the Park can lose the water through private filings below its boundary for recognized beneficial use, and the State is anxious to liberalize its code, so it would seem highly desirable to have as much correspondence on the matter with the State as possible. Mr. Tillotson has agreed to write one letter to place his problems on record.

6. Cottonwood Camp Supply, 300 g.p.d., and irrigation of five acres. The maps and application will require a part of a week of office work.

7. Clear Creek (proposed), 100 gallons per week, and irrigation of ten acres. A preliminary application and map were prepared in the field, for use as an illustration with the Water Commission, and can be completed and filed very quickly.

8. Phantom Ranch on Bright Angel Creek, 7000 g.p.d. present use and irrigation of twenty acres. It is also proposed to divert 1/2 second foot to augment the Indian Gardens supply for the South Rim, and the Fred Harvey interests are considering a hydro-electric plant which might require an additional five or six second feet. This combined system may be partially combined with items 2 and 3, and will require approximately a month of office work. The data is now on file in the office of the Chief Engineer, but will require considerable modification for use.

Except for the developments by the Union Pacific, data for filing can now be prepared from data obtained in the interview with Mr. Carrel, or from maps in the office of the Chief Engineer.

Southwestern Monuments

In our interview with Superintendent Pinkley at Casa Grande, we discussed all Southwestern Monuments, irrespective of State boundaries. The following tabulation of Mr. Pinkley's problems is clearly more of adjustments and legal interpretations than of actual filing on rights in the various states. Without doubt, Mr. Johnson will be able to adjust many of these problems during the next few months.

1. Montezuma National Monument, Arizona:

Domestic use is from wells which are not subject to appropriation.

Beaver Creek should be appropriated for much needed irrigation. (Water from the Coolidge Dam has been refused for some reason, though the ditches bound the monument on two sides.) There is a controversy over this water, however, as there is already a diversion for an unpatented homestead, and the homesteader wishes to use the diversion as proof in his patent. Either an adjustment between the United States and this homesteader, or haste in obtaining first priority for the Park Service, seems necessary if the monument is to be protected on the irrigation of 20 acres.

2. Pipe Springs National Monument, Arizona:

These springs were first developed and used by the Mormons about 1870. An interdepartmental agreement was reached in 1933, granting 5 g.p.m. to the neighboring stockmen, 75% of the remainder (approximately 30 g.p.m.) to the Indian Service, and the remainder to the monument. Neither Mr. Pinkley nor the stockmen seems satisfied with the agreement. Disregarding the allocation of the water, further investigation is needed to determine whether proper filings have been made for appropriation by the United States.

3. Chiricahua National Monument, Arizona:

The present supply is from a spring. Further study is needed to determine whether this spring is subject to appropriation. There is also a stream which Mr. Pinkley does not regard as a necessary supply at this time. It seems possible, however, that commingling the waters of the spring and stream to make both subject to appropriation, might provide greater protection.

4. Tonto National Monument, Arizona:

A small spring on this monument does not flow beyond boundary. It has been used as watering hole, and farmers would protest fencing the area. Further investigation should be made toward protecting the monument rights.

5. Tumacacori National Monument, Arizona:

An irrigation ditch crosses the monument, but does not supply water to, or concern the monument. The monument will obtain its water from a well or precipitation.

6. Walnut Canyon, Arizona:

Water is needed, but there is only an intermittent flow in the canyon. The Santa Fe Railway Company built an impounding dam below the monument, which does not hold water. The Park Service plans a metal catchment for precipitation, but it might be well to file on an impounding dam until further study of local conditions can be made.

7. Wupatki National Monument, Arizona:

A spring of 4 to 5 g.p.m. now flows off of the monument in pipe layed in 1927 by Babbitt Brothers Sheep Company. Babbitt Brothers wish to take up the pipe, but the Park Service questions title to the pipe. Mr. Pinkley does not wish water now, but wishes to protect rights for future. He prefers having stock watered off of monument. He wishes legal advice, which Mr. Johnson will doubtless provide.

8. Kofa and Organ Pipe National Monuments, Arizona:

These prospective monuments need water. Possible sources should be studied, and appropriation made if possible.

9. White Sands National Monument, New Mexico:

It is planned to try to sink a suitable well for domestic use. The "artesian well", at the Pool of Siloam, was created by man in drilling for oil, and as such is not technically subject to appropriation.

10. Bandelier National Monument, New Mexico:

The source of supply is Frijoles Creek, which is also used by the operator to irrigate her garden in the monument. The operator claims her right through an old filing by Judge Abbott, though neither the operator nor Judge Abbott owns the land. Since it is desirable to eliminate the operator's garden, Mr. Pinkley wishes to prove the Abbott filing inactive if possible. A Park Service filing should be made, and a thorough study of its relation to the one of Judge Abbott.

11. Arches National Monument, Utah:

A small spring is to be developed, but both filing and development are dependent on acquisition of the land on which the spring is located.

12. Hovenweep National Monument, Utah and Colorado:

There is no water on the portion of the monument in Colorado, and no plan to provide any. A small spring in Utah will be needed for domestic supply, and should be filed upon. Mr. Pinkley is not sure whether the spring has been used before or not, and the matter should be investigated.

13. Yucca House National Monument, Colorado:

A small spring now serves a watering hole outside the monument by pipe. Mr. Pinkley favors maintaining the watering hole to keep stock off of the monument, but wishes to retain or establish a monument right. He has requested legal advice, which Mr. Johnson will doubtless supply.

Arizona Water Code

Portions of three days were spent in conferences with the Arizona State Water Commissioner, Mr. Stewart, and his Deputy, Mrs. Harrison, to obtain a more complete knowledge of the Code, its interpretation, and adaptation to Park Service problems.

The specific wording of the Code restricts the waters which can be appropriated to those for six uses. In the case of the parks, water for fish hatcheries and wild life watering holes cannot be recognized as beneficial use at this time. At the same time, the Commissioner wishes to liberalize the Code, and requested letters explaining the need for these uses. Superintendent Tillotson agreed to write such a letter, and it seems desirable for others to do the same if possible. Unfortunately, the number of parks and monuments with wild life problems, in Arizona, are limited.

Another complication in filing on Park Service water is the complicated system so often needed in a park, and the inadequacy of the State application form. This form was prepared previously for irrigation applications, and does not provide the mechanical flexibility for dealing with pump systems from several sources. However, Mr. Stewart approved of the use of riders until the forms can be modified.

Arizona does not recognize percolating water as subject to appropriation, but does recognize stream flow in a well defined channel, even though this water may all flow underground during much of the year. Further, springs in the bed of a stream are regarded as part of the stream, while those on a stream bank are separate springs and need separate filings unless their waters are commingled with those of the stream. Further, a spring on the stream bank which did not flow, but merely dampened the ground before development by man, is regarded as percolating water, and no more subject to appropriation than the water from a well. Precipitation or flood water, before it reaches a natural channel, belongs to the land, and is not subject to appropriation. Yet appropriation is necessary for storage, even though only in a tank or small reservoir. These interpretations make it difficult to treat many of the proposed park filings, but the Commission is anxious to liberalize its Code, and glad to accept questionable cases for submission to the State Supreme Court.

Water used prior to 1919, prior to the adoption of the Water Code, has valid rights when the use can be proved. Even though the Park Service did not make active use before that date, many of its rights are going to be influenced by earlier private use. The situation at Pipe Springs is a good example, though it cannot be fully understood until the interdepartmental agreement is studied by Mr. Johnson.

Municipal use has not been fully settled in Arizona. The Commissioner agreed that many parks have use more nearly like that of a municipality than is considered under domestic use. He has also allowed a small summer colony to file an application for municipal use, even though the 500 inhabitants are only there three months out of the year. On this basis, we have been advised to file on "Municipal and Domestic Use" for the North and South Rim Systems at Grand Canyon, in order to permit anticipating future increased demands. The acceptance of the application will then be up to the State Supreme Court, but in any case, priority will date from the date of the application by the Park Service.

Applications

On December 9, while Superintendent Tillotson was in Phoenix, an application was filed on the Indian Gardens water supply for the South Rim of Grand Canyon. The map to accompany this application will be filed within the next thirty days. It needed certain additions, the data for which was obtained from the Santa Fe Railway Company in Los Angeles on the return trip to San Francisco.

Conclusions

From the data obtained, two types of problems are involved in the water right filings for Arizona. Grand Canyon requires a great deal of routine work to be done in compiling the necessary maps. There is full justification for a draftsman to prepare the complicated tracings. There are between two and three months steady work for a draftsmen and myself. Although the Southwestern Monuments will also require maps, they will be relatively simple in comparison with the legal investigations with which Mr. Johnson is more familiar.

CC: Director.
Mr. Tillotson.
Mr. Pinkley.
Mr. Kittredge.
Mr. Dunn.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Branch of Land Acquisition and Regulation
Legal Division
110 Sutter Street
San Francisco, Calif.

December 5, 1936.

Mr. A. van V. Dunn,
Associate Engineer, National Park Service,
C/o Adams Hotel,
Phoenix, Arizona.

Dear Mr. Dunn:

Your letter of December 2, 1936, written at Grand Canyon, has been received, together with the enclosed copy of your notes and the memo to Acting Superintendent Lloyd. In accordance with your suggestion a copy will be made fro Mr. Kittredge and will be sent to him when completed.

Taking up the matters contained in your letter in order, it seems to me, first: That we should file on only those small retaining ponds or lakes for wild life use on the North Rim which are constructed and are proposed by the Park administration. Consequently, if they propose only those dams with the maximum of 10 acre feet each, we had better limit our filing to 60 acre feet plus the storage necessary on the South Rim.

Second, regarding the irrigation use on small tracts, I believe it is provided that this may be considered incidental to domestic use, and where the amount of water involved is at all substantial and the point of diversion is different from other points of diversion, a filing should be made. However, with respect to such small uses for domestic purposes as 500 to 2000 gallons per week, I feel that you may disregard them entirely unless they happen to be from the same diversion point or very close to the diversion point of a larger system.

It seems that you are correct in your statement that our first concern should be over the developments on Roaring Springs and Bright Angel Creek, together with the Indian Gardens development. Likewise, I feel you are right in recommending separate filings on the Roaring Spring and Bright Angel developments. I am not even sure that it would cost more to file separately, because we would probably have to file separately anyway, inasmuch as the points of diversion are different and the nature of the uses is likewise different. Consequently, it seems to me that one filing should be made for the power development and a separate filing for the North Rim water system from Roaring Spring.

However, I am wondering if it might not be possible to make a joint filing for the North Rim water system and the proposed fish hatchery, inasmuch as our chief concern over the fish hatchery is not a matter of the use of any quantity of water or appreciable pollution, but rather is to see that the supply is not cut off. The points of diversion for these two would seem to be very close together, and an incidental use for the fish hatchery purpose might very possibly be allowed with the amount set for the necessity of the combined uses. You speak of some irrigation, but I don't recall without having the file here the extent of the call upon the water from these systems for that purpose, but if it is small it, too, can probably be combined as an incidental use.

Your notes indicate a substantial irrigation use at Phantom Ranch and a proposed system costing a very substantial amount of money. Consequently, care should be taken to protect the supply for that system and the irrigation that is carried on.

If the small developments along Bright Angel Creek are those which you mention, as needing only 500 to 2000 gallons per week, and if there are several of them, existing or proposed, it might be well to see if a combination filing can't be made for the group. If they cannot be so combined or if they are not located in the same drainage, we can ignore any such small uses, as I have previously indicated.

With relation to the question of filing fees, I have talked to Earl Brown, and he sees no reason for San Francisco to pay the fees and then bill the park. In fact, he states quite definitely that they much prefer not to do it in this manner and feels that if the park is going to pay it anyway they should pay it first. He also states that there is no way to pay from this office if the Water Commissioner requires cash before accepting the filing. Brown will have to have certified bills from the Park or a voucher from the Water Commissioner before he can make a payment. In this regard I trust you will remember to discuss with the Water Commissioner the possibility of acceptance of our filings without cash payment, and the issuance of vouchers by him for payment by the Park.

I seem to recall that quite a while back we received a letter from the Director indicating that it would be the general practice in all parks to have filing fees paid by the Parks out of their general administration fund, but I am unable at this time to locate that letter. However, there are enclosed for your use, and to furnish the Park with a copy if you so desire, two copies of Mr. Moskey's letter of January 28, 1936, referring to the matter of filing fees at Lassen Volcanic National Park.

Of course we will be guided by the wishes of the Park administration in the matter of requesting the operators to furnish the filing fees, but it should be determined before we pay any whether there have been previous filings made with the Water Commissioner by the operators, covering the same uses upon which we contemplate making our filing. Perhaps this information cannot be furnished by Superintendent Tillotson, but if not you can probably get it from Chief Engineer Blanchard of the Santa Fe, or some one at that office in Los Angeles.

Please see if you cannot so arrange it that all additional matters to be taken care of in connection with our filings can be handled by correspondence and will not require further trips to Phoenix. It might be possible to so familiarize the Water Commissioner with the facts and to procure from him all the forms necessary that the matter can be handled from San Francisco between this office, the Park, and the Water Commissioner.

If difficulties arise or further information is required from this office, kindly advise me, and in the event you anticipate being out over a week more I should appreciate an additional report from you.

Yours very truly,

Joseph E. Taylor

Joseph E. Taylor,
Attorney.

In duplicate.

Encls.

CC: Director

Mr. Dunn: You can furnish Supt. Tillotson with the attached copy if you desire.

11-21-1936: letter to grca from nps regarding additional instructions from washington to file on water rights at grand canyon as so

FILE COPY

November 21, 1936.

Mr. M. R. Tillotson,
Superintendent,
Grand Canyon National Park,
Grand Canyon, Arizona.

Dear Mr. Tillotson:

We have just had additional instructions from Washington to file on water rights at Grand Canyon as soon as possible, and Mr. Dunn is now preparing certain plans in accordance with the State requirements for such filings. We find, however, that certain additional data and explanation will be necessary before completing the necessary papers for these filings, and should appreciate your check of quantities.

We propose to file on 323,000 gallons a day at Indian Gardens for the South Rim water system, and we have the data necessary for the map for such filings except that the line should be tied to a section corner. We find that you have located the corner common to Sections 23, 24, 25, and 26 on the topography of the golf course area south of the administration area. We should appreciate the coordinates which Mr. Carrell used for plotting this section corner and those for the center of the large storage reservoir or of Station 0+00 of the Harvey pipe line on the valve box on this reservoir in order that we may compute a tie to the section corner. We must also know the type of pump and motor and their capacities at each the main pump station and the rehandling station in Indian Gardens.

On the North Rim we should like to combine several of the water rights if possible, but are somewhat uncertain as to the practicability. As we understand it, the Union Pacific hydro plant and Phantom Ranch areas both derive their water from Bright Angel Creek, and it might be possible to cover them with one filing even though there would be two points of diversion. The quantity of water would be 5 second feet for the hydro electric power and 1-1/3 second feet for Phantom Ranch. Of this latter, 1/2 second foot or 323,000 gallons a day to be for domestic use, and the balance for irrigation, with the idea that some of the irrigation water might later be converted to domestic use to augment the supply from Indian Gardens and the South Rim.

In order to file on any of this water for irrigation we will have to show an adequate acreage to justify the quantity, and should appreciate an estimate of the land that can be so irrigated.

In preparing the maps for the Bright Angel rights we will have to obtain maps showing the actual alignment and points of diversion as they have been constructed, and find no such data in the office of the Chief Engineer. Probably a print of the Union Pacific maps for the hydro plant and the Harvey map at Phantom Ranch would supply this data.

In addition we should know the size of penstock, theoretical horse power of the generator unit and types of wheel and generator used the size and description of the pumps and motors and size of pipe at Phantom Ranch, also the size of ditch, grade, and type of diversion works used on the irrigation system.

We are not quite clear on the use of Roaring Springs, but gather that it is used for all domestic water on the North Rim, and is to be used in the near future for a fish hatchery besides, and that you recommended a half second foot as the quantity. We find, though, that the flow is approximately 7½ second feet, and wonder if it would not be better to file on 1 or 2 second feet in order to have ample supply in the future. In order to prepare the necessary papers for this filing, we shall need a plan or map of the existing water system and descriptions of pumps and motors as described for the other systems above mentioned.

At Clear Creek Canyon we propose to file on 1/4 second foot for domestic and irrigation purposes if you think that is ample for all future needs, but we will need a map giving pipe lines and diversion works to complete our filings on this system.

We are planning to file on all impounding reservoirs for wild life as one filing to include twelve such dams or reservoirs on the South Rim and four on the North, with 165 acre feet on the South Rim and 6 acre feet on the North. To complete these filings we should have an approximate storage capacity for each individual reservoir, and the dimensions of the dam in each case.

We notice, too, in your descriptions of those on the South Rim including those at Ermanita Mesa, Horse Thief, Pasture Wash, etc., you have given their location in quarter sections. The State requires locations by 40-acre subdivisions where possible, and we wonder if you could supply this additional data. In any case we will need some means of locating those you contemplate on the North Rim and the name for each.

We notice you also wish to file on 50 gallons a minute from various springs on the North Rim for wild life purposes, and we should have specific locations and descriptions of the proposed diversions in these cases. In this connection we also have a record of the possible source of supply at Neal Spring, but no data as to what this use was to be or the quantity of water contemplated.

Mr. Dunn and I are planning to be in Arizona shortly after Thanksgiving to discuss some matters with the State Water Commissioner, and can probably have some of the questionable matters listed above explained at that time if we stop at Grand Canyon, but we should like to have as much explained by letter as possible in order that we can have our filings in rough form when we come south.

Inasmuch as the hydro plant and domestic water supply for the North Rim belong to the Union Pacific Railroad, and those at the South Rim and Phantom Ranch belong to the Fred Harvey Company, we wonder if it will not be possible for you to get them to pay the filing fees necessary for these systems.

Sincerely yours,

Albert L. Johnson,
Associate Attorney.

A.van V.D:SH

CC: C. M. Carrel, Park Engr.
A. van V. Dunn, Assoc. Engr.

FILE COPY

November 7, 1936.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

As suggested by Mr. Tolson while in San Francisco and as authorized by you, Mr. Johnson was specially assigned to search land titles in the Land Registry Office at Los Angeles for the determination of possible land exchanges at Joshua Tree National Monument. Mr. Johnson has filed his report in duplicate with the Branch of Engineering here in San Francisco, and I assume you will receive a copy through that office.

It was deemed more economical to have Mr. Johnson proceed from Los Angeles to Grand Canyon to prepare the ground work for proper filings for that park, and the result of his short stay there is outlined in his memorandum to me of November 6, a copy of which is herewith enclosed.

It occurs to me that now is an opportune time to make proper filings for Grand Canyon National Park for the reason that the State of Arizona should welcome all appropriative filings and beneficial use of water within its boundaries as an aid to adding greater merit to its position in its contest with the six signatory States to the Colorado River Compact. This fact presents an opportunity for generous filings wherever necessary in Arizona, which I feel should not be allowed to pass.

As stated in the last paragraph of Mr. Johnson's memorandum, we will proceed with filings for Grand Canyon, and at the same time make a determination as to any other necessary Arizona filin .

Yours very truly,

Encl.
[illegible]

Joseph E. Taylor,
Attorney.

CC: Supt. Tillotson.
Mr. Kittredge.

11-06-1936: memorandum to mr. joseph e. taylor from nps regarding inspection trip to grca for the purpose of learning the latest d

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
BRANCH OF LANDS AND USE
110 SUTTER STREET
SAN FRANCISCO, CALIF.

November 6, 1936.

MEMORANDUM TO MR. JOSEPH E. TAYLOR:

Pursuant to advice from you I made an inspection trip last week to Grand Canyon National Park for the purpose of learning the latest developments on their water rights. It was thought it would be more economical to make this trip from Los Angeles at the conclusion of my special assignment on searching land titles in the Land Registry Office at Los Angeles pertaining to the Joshua Tree National Monument.

Being advised by you and also by the Acting Superintendent of Grand Canyon that Superintendent Tillotson was away from the Park during the first part of my fifteen-day stay in Los Angeles, I wrote the Park asking them to keep me advised as to the date of his expected return. I received word from the Assistant Superintendent about October 21 that Mr. Tillotson would probably be in the Park the last week in October, and asking me to wire when I could come; so I telegraphed on October 26 stating that I would be through with the work in the Land Office on the 27th of October. The Assistant Superintendent telegraphed me to wire them time of arrival. On Tuesday, October 27, I wired that I would leave the next day and be there Thursday morning.

Immediately upon my arrival at Grand Canyon National Park I went to the Superintendent's office and called on Mr. Tillotson in person. He seemed surprised at my arrival, and had no suggestions to offer. However, I learned from him and from the Park Engineer the following day that the status of water rights was the same as when you were in the park in 1935. You and the Park Engineer had then agreed upon a number of filings -- at least six -- which would be required for laying the foundation and perfecting the rights to water now used by the National Park Service at Grand Canyon. I agree that these filings should be made, although there has been no disturbance of the Government water rights nor protest by any private interest. The Superintendent seemed well satisfied that there was no possibility, either physical or legal, of interference with the Government's water rights, although he stated he was not familiar with Arizona law. There are only three or four private owners on the South Rim within the boundary of the national park, but I understood from my short investigation there that those private owners were very jealous of the Government's rights and chary of the National Park Service.

Since the status of affairs at Grand Canyon National Park is largely the same as in 1935 when you made a preliminary investigation, and it is agreed by the attorneys and the Park Engineer that it would be better for the Service to make these filings with the constituted water authority of the State of Arizona, we are about to prepare the necessary applications for the Superintendent to sign, and will then file in person at Phoenix, Arizona. It will be necessary to make a further investigation at the Park and at Phoenix to complete the engineering data for the applications to appropriate water.

Albert L. Johnson,
Associate Attorney.

CC: Director.

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

June 3, 1935

Joseph E. Taylor, Attorney
Yellowstone National Park
Wyoming

Dear Mr. Taylor:

With reference to our recent conversation and discussions relative to the securing from the State of Arizona water rights for Grand Canyon National Park and Grand Canyon National Monument, I wish to make the following recommendations:

1. That a complete survey of the records be made to determine what, if any, prior filings for water rights in this Park and the Monument are recorded;

2. That necessary filings for water rights for both this Park and the Monument be made at the earliest possible date;

3. That, to insure an adequate water supply for the South Rim from the springs at Indian Gardens, filing should be made for 200,000 gallons per day. To provide for the possibility of failure of the Indian Gardens springs and the necessity of procuring this supply from Bright Angel Creek, filing should be made for one and one-third second feet. This will provide water not only for the South Rim but also all use at Phantom Ranch;

4. That filing should be made for 150 acre feet of run-off water on the South Rim from various tributaries of the Colorado River, which is and will be impounded for the purpose of caring for wildlife, and domestic use at outlying stations where direct precipitation is caught on galvanized catchment areas and stored in reservoirs;

5. That filing should be made for one-half second feet of water from Roaring Springs to provide an adequate supply for use at the North Rim Headquarters Area and for a proposed fish hatchery in Roaring Springs Canyon. It will also be necessary to file for five second feet from Bright Angel Creek for hydroelectric power development at mounth of Manzanita Creek. A

portion of this will again be utilized for domestic and irrigation purposes at Cottonwood camp, one mile below the power plant;

6. That filing should be made for one-quarter second feet of flow from Clear Creek for domestic and irrigation purposes at camp ground to be established in Clear Creek Canyon on the north side of the Colorado River;

11-7. That filing should be made for fifty gallons per minute from various springs on the North Rim for preservation and propagate wildlife. Also, filing should be made for six acre feet per year of precipitation and run-off for domestic and wildlife purposes. (9) - ⇆

Referring to item (3), providing for an additional water supply for the South Rim Headquarters Area from Bright Angel Creek, would advise that in my answer of February 20, 1935, to a letter from the Director of February 7, 1935, I made mention of the feasibility of this project, estimated to cost some $100,000.00. As stated in my letter, this would be a very expensive piece of construction and would require, probably, two years to install.

In this same letter, I touched upon the necessity of renewing the present two inch line now serving Phantom Ranch from Bright Angel Creek with a three inch line and, also, the advisability of relocating the two inch line serving the C. C. C. camp from the Creek bed to connect with the Phantom Ranch line at the existing reservoir.

Item (4) provides for run-off or flood waters carried by various draws lying to the southwest, south, and southeast of the South Rim Headquarters, in which twelve dirt and log dams have been constructed to impound these waters in dirt tanks for wildlife use. Three more dams and tanks are proposed for construction but not programmed. This item also provides for impounding direct precipitation for domestic use at Pasture Wash and Desert View.

Item (5) provides for water necessary for domestic use and fire protection of the North Rim Headquarters Area, jointly occupied by the Union Pacific Railroad and the National Park Service. Provision is also made for the use of water for a proposed fish hatchery as mentioned in my letter to the Director of February 20, 1935. In addition to these, it is necessary to provide water from Bright Angel Creek for hydroelectric power, diversion occurring one-half mile above the power plant by means of a 26" wood stave penstock and returning to the Creek at the plant. This electric energy is transmitted to the North Rim Headquarters Area and jointly used

by the Union Pacific Railroad and National Park Service.

Diversion of this water again occurs one mile below the power plant at Cottonwood by means of irrigation ditches and pipe.

Item (6) makes provision for the use of water flowing in Clear Creek to be utilized for domestic and irrigation purposes. A new trail has just been completed from Phantom Ranch to Clear Creek, and it is proposed to establish a fishermen's camp in the Clear Creek Canyon, providing the usual camp facilities.

Item (7) embraces certain live springs on the North Rim, some of which have been developed, and others in their natural state. Little or no new development is contemplated but the flow in these springs should be protected for wildlife.

Filing for 920 acre feet has been made for run-off and flood waters from Toroweep Valley in Grand Canyon National Monument. It is estimated that this will be sufficient for present and future needs for domestic use at the Headquarters Area, and wildlife purposes.

Two corrected copies of your tabulations are herewith returned.

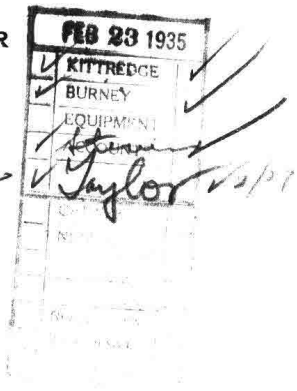
Very truly yours,

M. R. Tillotson,
Superintendent.

cc-Mr. Taylor
The Director

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

February 20, 1935.



The Director
National Park Service
Washington, D. C.

Dear Mr. Director:

Reference is made to your letter of February 7, in regard to present and future water supply in the parks.

As you know domestic water at headquarters on both rims is furnished through facilities installed, owned, operated, and maintained by the Park Operators. With this in mind the following information is given in reply to your specific inquiry.

1. The water for use at South Rim headquarters is developed from springs located at Indian Gardens, approximately feet below the rim. Two main springs are piped into an 80,000 gallon concrete reservoir from which it is pumped, in one lift, to storage tanks with a reservoir capacity of 1,175,000 gallons on the South Rim. Thence, it is distributed by gravity with booster pumps to give additional pressure in case of fire. All facilities are in excellent condition, having been installed late in 1932 by the A. T. and S. F. Railway Company.

The North Rim supply is obtained from Roaring Springs, which has an average flow of 7½ cubic feet per second. Electrically operated pumps are located at the springs, by which the water is lifted approximately 3,800 feet to storage tanks of 550,000 gallons capacity on the North Rim and thence distributed by gravity. All facilities are ample and in excellent condition; they were installed by the Union Pacific in the winter of 1927-28.

The water supply for Phantom Ranch is taken directly from Bright Angel Creek, which has an average flow of approximately 22 cubic feet per second. A 2-inch line takes this by gravity directly from the stream to a concrete reservoir located on the hillside, giving a gravity flow to the various buildings. This line is in very poor shape and in need of replacement. Another 2-inch line takes a gravity flow to two 5000g gallon redwood tanks serving the CCC camp, the public camp ground, the caretaker's cabin and the U.S. Geological Survey. The tanks and distribution system are in good condition. The supply line, while in good condition is improperly located. It was originally installed by

the Army and in order to save expenses was laid directly in the bottom of the creek, where it is subject to washout by every flood. It is my plan to replace the badly deteriorated 2-inch line leading to the Fred Harvey concrete reservoir with a 3-inch line which would more than double the flow. Extension and connection could then be made with the reservoir to the two redwood tanks serving the Government facilities and doing away with the temporary line now laid in the bed of the creek. This would make a permanent installation and would make the entire Phantom Ranch water system Government property. Necessary surveys for this proposed new system have been made and plans and estimates are now being prepared.

2. The following figures give, by months, the actual water consumption on the South Rim during 1934. I do not have such detailed figures available for the North Rim; however, the combined delivery of the two pumps used there is approximately sixty gallons per minute.

WATER CONSUMPTION, SOUTH RIM: - 1934

			Sec ft.				Sec ft.
January	2,376,908	Gallons	.122	July	2,411,017	Gallons	.124
February	1,879,317	"	.097	August	2,706,113	"	.140
March	2,195,325	"	.113	September	2,258,452	"	.116
April	2,355,714	"	.121	October	2,597,989	"	.134
May	2,491,551	"	.128	November	2,714,356	"	.140
June	2,592,744	"	.134	December	2,888,922	"	.149

3. The priority rights of the Government have never been adjudicated in the courts in connection with the sources of water supply either for the North or the South rim. However, since the streams or springs from which this water is obtained rise within the park boundary and empty into the Colorado River before the waters leave the park, it does not seem that there should be any question as to this. I should be very glad indeed to have Attorney Joseph E. Taylor go into this and other matters pertaining to water rights when he visits this park.

makes no difference in Ariz.

In this general connection it should be noted that the springs from which the South Rim supply is obtained, were originally on the Cameron mining claims. Following the cancellation of these claims, Mr. Harold Baster, Assistant to the Attorney General, wired the Attorney General on this matter. I do not have the date of the telegram, a copy of which is in my files, but reference is made to it in your letter or September 30, 1934 to former Superintendent Eakin. You state that the wire in question was received "yesterday" (September 29, 1934) and it states among other things that, "the Lily Jay Cox case in Jacobs court will also be subject to dismissal because the Government is now in possession and control of all water and springs involved in E-67."

what is this

4. It is believed that the present sources are sufficient to supply fully all future needs of any kind. This is certainly true of the North Rim and the Phantom Ranch supply. The Indian Gardens springs, from which the South Rim supply is pumped, are capable of furnishing more than 6,000,000 gallons per month.

5 and 6. If the flow at Indian Gardens should unexpectedly decrease, of if future demands for water on the South Rim should be in excess of the full capacity of the springs, an additional and inexhaustible supply could be obtained from Bright Angel Creek, the waters of which could be pumped to Indian Gardens and connected with the present system there. This would involve approximately four miles of pipe line, together with necessary pumps to lift the water from the vicinity of Phantom Ranch to Indian Gardens. This would be a costly line to install and maintain. An approximate estimate of installation complete, including pumps, pipe line, intake, transmission lines, etc., is $100,000.00.

7. Flood waters in the park are not utilized for any purposes other than for watering stock and game. Because of the insufficient quantity and intermittent character of rainfall, it would not be practical or feasible to use such flood waters for domestic purposes. A number of small reservoirs, locally known as "tanks", have recently been constructed within the park to store such flood waters for watering wildlife. Other similar tanks have been built by stockmen outside the park for watering cattle. In at least one instance that I know of this run off from certain watersheds within the park, has been filed on for use outside the park. If there are any other such filings of record I do not know of them, but this would be a matter for Mr. Taylor to investigate through the records of the State Water Commission.

8. Other than as aobve given, I have no information or record concerning the Government's title to water now being used. I have made no filings, except in one instance, that being in Grand Canyon National Monument, in which case I hold Permit No. R-235, issued by the State Water Commission on July 10, 1934. This covers the construction of a reservoir in Toroweap Valley for the storage of approximately 920 acre feet of water from the flood drainage of Toroweap Valley.

I am sending a copy of this letter to Mr. Kittredge where it will serve as a reply to his letter of January 28 to me.

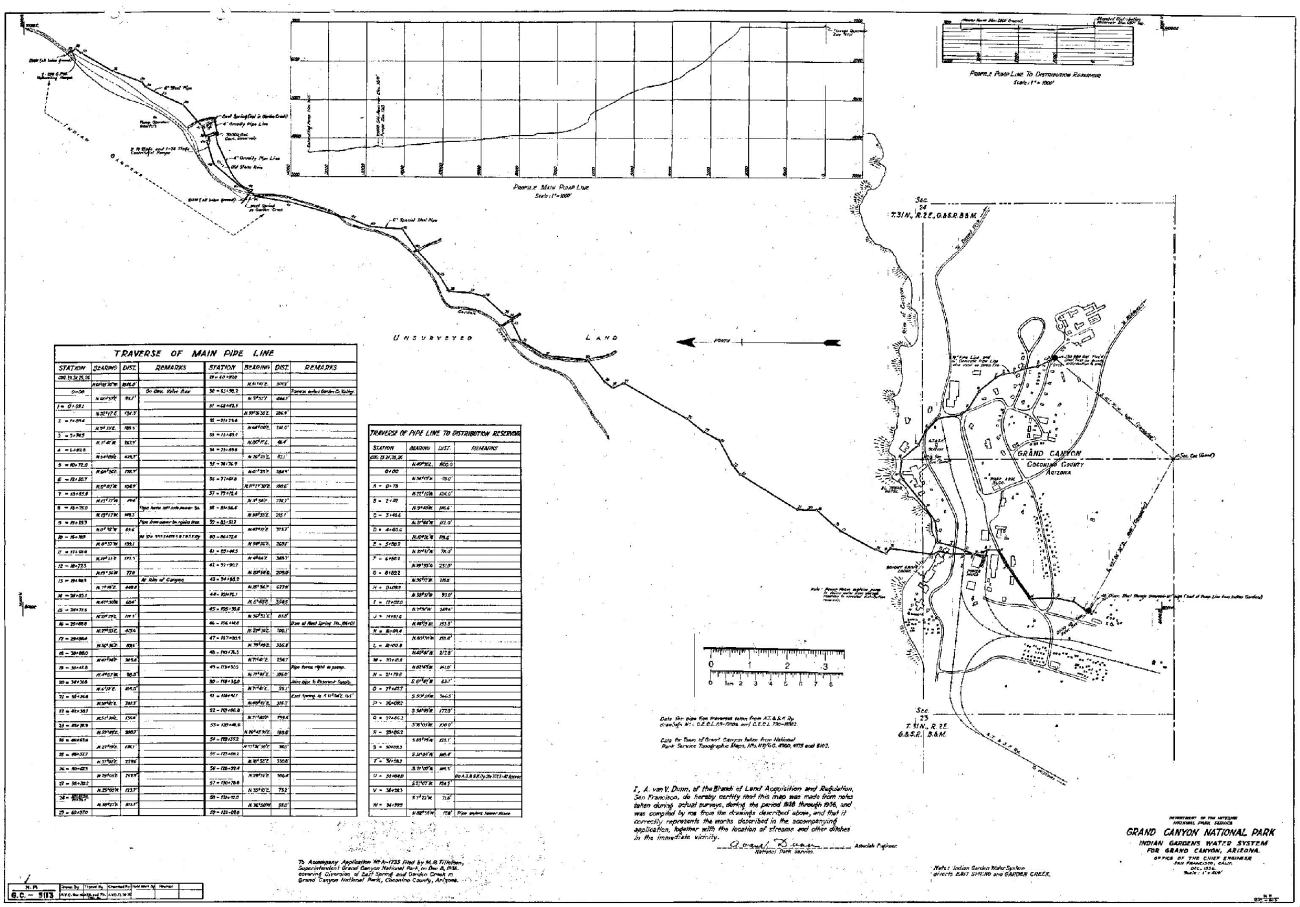
The matter of the feasibility of installing a fish hatchery is being taken up in a separate letter of even date.

Very truly yours,

M. R. Tillotson,
Superintendent

CC - Mr. Kittredge
MRT:SRT

04-00-1937: bright angel creek diversion for proposed enlargement, municipal supply



TRAVERSE OF MAIN PIPE LINE

STATION	BEARING	DIST.	REMARKS
COR. 13,24,25,26			
	N.84°00'30"W	1646.0'	
0+00			On Conc. Valve Box
	N.60°57'E	95.1'	
1 = 0+58.1			
	N.52°17'E	134.5'	
2 = 1+89.4			
	N.5°35'E	185.5'	
3 = 3+74.9			
	N.1°41'W	167.9'	
4 = 5+42.8			
	N.54°09'E	429.7'	
5 = 10+72.0			
	N.64°36'E	178.7'	
6 = 12+50.7			
	N.0°07'W	104.9'	
7 = 13+55.6			
	N.15°17'W	19.4'	
8 = 13+75.0			Pipe turns left into power Sta.
	N.13°17'W	149.3'	
9 = 15+23.3			Pipe from corner [illegible] rejoins line.
	N.0°10'W	65.6'	
10 = 15+88.9			At Sta. [illegible] A.T.&S.F. Ry.
	N.0°37'W	135.1'	
11 = 17+24.0			
	N.72°23'E	177.5'	
12 = 18+72.3			
	N.19°34'W	72.0'	
13 = 19+44.3			At Rim of Canyon
	N.7°15'E	448.8'	
14 = 23+93.1			
	N.47°30'W	68.4'	
15 = 24+71.5			
	N.21°29'E	117.5'	
16 = 25+88.8			
	N.27°33'E	415.6'	
17 = 29+98.4			
	N.36°16'E	80.6'	
18 = 30+80.0			
	N.47°38'E	285.8'	
19 = 33+65.8			
	N.4°07'W	98.8'	
20 = 34+36.8			
	N.6°12'E	105.0'	
21 = 35+36.8			
	N.30°41'E	761.3'	
22 = 42+38.1			
	N.51°30'E	156.8'	
23 = 43+78.9			
	N.39°49'E	288.7'	
24 = 46+61.6			
	N.21°19'E	174.1'	
25 = 48+32.7			
	N.37°02'E	229.6'	
26 = 50+62.3			
	N.29°05'E	758.9'	
27 = 58+20.2			
	N.15°00'W	133.7'	
28 = [illegible]			
	N.38°27'E	103.5'	
29 = 60+97.0			

STATION	BEARING	DIST.	REMARKS
29 = 60+97.0			
	N.51°41'E	301.2'	
30 = 63+98.2			Traverse enters Garden Cr. Valley.
	N.5°57'E	444.3'	
31 = 68+42.5			
	N.30°36'30"E	286.9'	
32 = 71+29.4			
	N.68°00'E	210.0'	
33 = 73+39.4			
	N.80°11'E	46.4'	
34 = 73+85.8			
	N.76°25'E	83.1'	
35 = 74+76.9			
	N.41°23'E	284.9'	
36 = 77+67.8			
	N.11°27'30"E	150.6'	
37 = 79+18.4			
	N.3°58'E	718.2'	
38 = 81+36.6			
	N.58°33'E	215.1'	
39 = 83+51.7			
	N.47°17'E	373.7'	
40 = 86+73.4			
	N.54°36'E	269.1'	
41 = 89+44.5			
	N.46°44'E	345.7'	
42 = 92+90.2			
	N.23°38'E	208.0'	
43 = 94+98.2			
	N.15°54'E	677.9'	
44 = 101+76.1			
	N.6°48'E	354.5'	
45 = 105+30.6			
	N.50°51'E	65.8'	
46 = 106+14.8			Dam at West Spring Sta. 106+03
	N.27°36'E	106.1'	
47 = 107+20.9			
	N.39°49'E	355.8'	
48 = 110+76.5			
	N.71°41'E	254.7'	
49 = 113+31.0			Pipe turns right to pump.
	N.71°41'E	105.0'	
50 = 114+36.0			Joins pipe to Reservoir Supply.
	N.71°41'E	55.1'	
51 = 114+91.1			East Spring is S.17°04'E. 155'
	N.49°41'E	315.7'	
52 = 118+06.8			
	N.71°40'E	739.8'	
53 = 120+46.6			
	N.86°45'30"E	188.6'	
54 = 122+35.2			
	N.71°36'30"E	140.0'	
55 = 123+08.2			
	N.16°56'E	330.8'	
56 = 126+39.4			
	N.29°32'E	366.4'	
57 = 130+78.8			
	N.35°10'E	73.2'	
58 = 131+52.0			
	N.36°50'W	55.0'	
59 = 132+07.0			

TRAVERSE OF PIPE LINE TO DISTRIBUTION RESERVOIR

STATION	BEARING	DIST.	REMARKS
COR. 23,24,25,26			
	N.40°30'E.	1500.0	
0+00			
	N.34°15'W	78.0'	
A = 0+78			
	N.22°10'W	124.0'	
B = 2+02			
	N.9°40'W	146.6'	
C = 3+48.6			
	N.21°44'W	112.0'	
D = 4+60.6			
	N.10°26'W	119.6'	
E = 5+80.2			
	N.27°31'W	78.0'	
F = 6+58.2			
	N.39°53'W	231.0'	
G = 8+89.2			
	N.56°12'W	119.8'	
H = 10+09.0			
	N.38°51'W	93.0'	
I = 11+02.0			
	N.7°51'W	249.6'	
J = 13+51.6			
	N.46°15'W	153.8'	
K = 15+05.4			
	N.60°30'W	195.4'	
L = 17+00.8			
	N.40°41'W	217.8'	
M = 19+18.6			
	N.62°45'W	261.0'	
N = 21+79.6			
	S.61°42'W	63.1'	
O = 22+42.7			
	S.50°58'W	346.5'	
P = 25+89.2			
	S.54°49'W	177.0'	
Q = 27+66.2			
	S.78°05'W	100.0'	
R = 28+66.2			
	S.83°15'W	125.1'	
S = 30+05.3			
	S.14°05'W	148.4'	
T = 31+58.7			
	S.21°07'W	149.3'	
U = 33+04.0			On A.T.&S.F. Ry. Sta. 3323+40 Approx.
	S.21°07'W	124.5'	
V = 34+28.3			
	S.7°22'W	71.6'	
W = 34+99.9			
	N.82°56'W	17.8'	Pipe enters Power House

Data for pipe line traverse taken from A.T.&S.F. Ry. drawings Nos. C.E.C.L. 69-17806 and C.E.C.L. 730-18582.

Data for Town of Grand Canyon taken from National Park Service Topographic Maps, Nos. NP/GC 4960, 4973 and 5102.

I, A. van V. Dunn, of the Branch of Land Acquisition and Regulation, San Francisco, do hereby certify that this map was made from notes taken during actual surveys, during the period 1928 through 1936, and was compiled by me from the drawings described above, and that it correctly represents the works described in the accompanying application, together with the location of streams and other ditches in the immediate vicinity.

A. van V. Dunn, Associate Engineer
National Park Service.

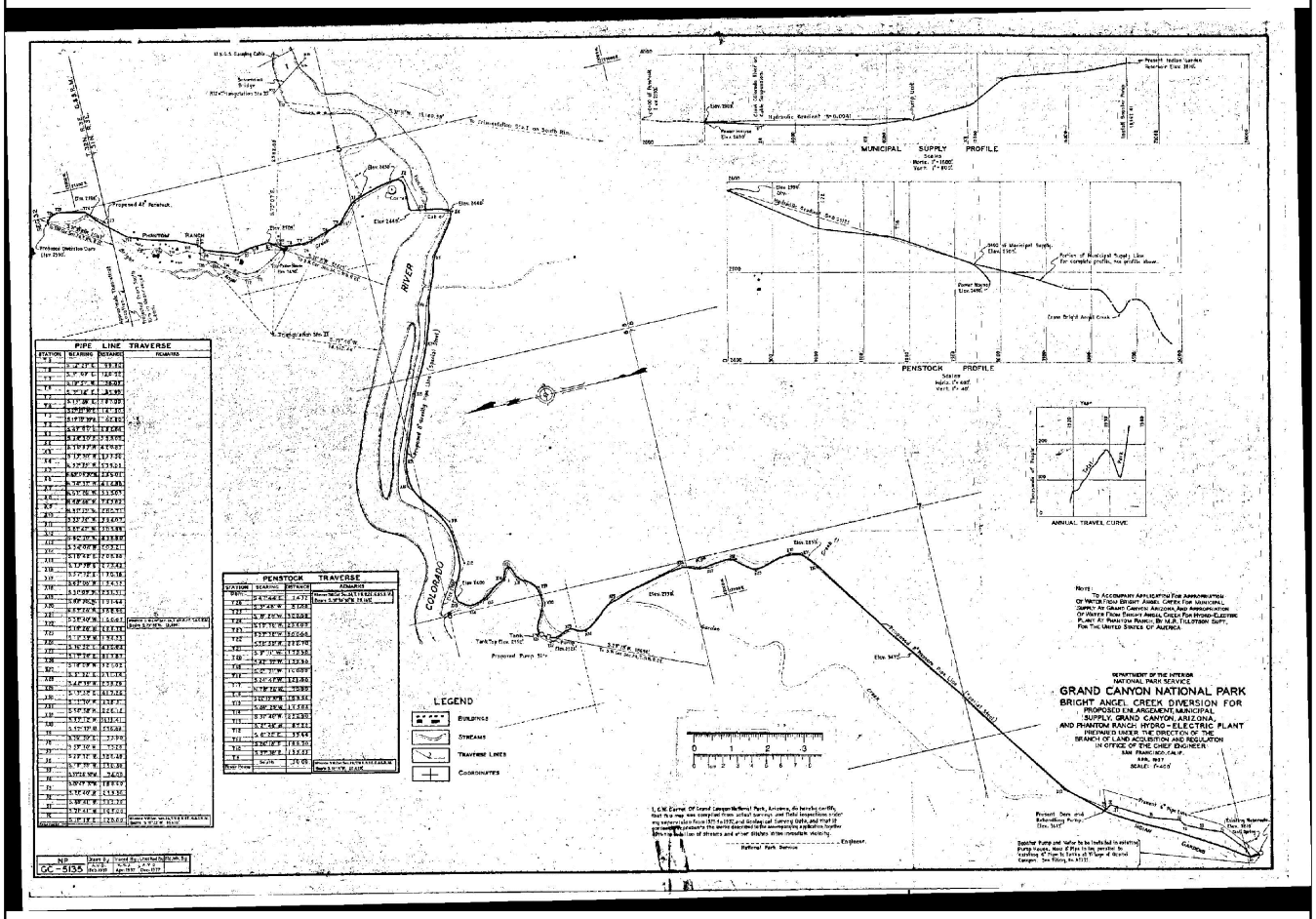
To Accompany Application No A-1735 filed by M.R. Tillotson, Superintendent Grand Canyon National Park, on Dec. 8, 1936, covering Diversion of East Spring and Garden Creek in Grand Canyon National Park, Coconino County, Arizona.

Note: Indian Garden Water System diverts EAST SPRING and GARDEN CREEK.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
GRAND CANYON NATIONAL PARK
INDIAN GARDENS WATER SYSTEM FOR GRAND CANYON, ARIZONA.
OFFICE OF THE CHIEF ENGINEER
SAN FRANCISCO, CALIF.
DEC. 1936.
Scale: 1" = 400'

N.P. G.C. – 5113

Drawn By	Traced By	Checked By	Field Work By	Revised
A.V.D.				



Docket Information

Number of Documents in Docket 139

Documents Dated from 2/20/1935 to 9/9/1979

Docket Compiled: 6/2/2016