



WATER-RIGHT DOCKET

Olympic National Park

Docket No: 25

MORA CAMPGROUND WELL.

State Water Rights Documentation

12-23-1963: cash receipt: state of washington, department of conservation; no. 21248 and 23874

S. F. No. 1912-4-63-10M. 79416.

Cash Receipt

STATE OF WASHINGTON DEPARTMENT OF CONSERVATION

Nº 21248

Olympia, Wash., 12 - 23, 1963

RECEIVED FROM National States of America - Port Angeles
Twenty - 20.00 DOLLARS 20.00

CREDIT: General ✓ Recl. Rev. _____ Weather Mod. _____ S. G. Trust _____ Cash _____
WATER CODE FEES. ✓ MINES & GEO. PUBLICATIONS. _____ Check _____
W. R. PUBLICATIONS. _____ OIL & GAS PERMITS. _____ M. O. _____

1 - S.W. Exam Fee - 10.00
1 - H.W. Exam Fee - 10.00
20.00

DEPARTMENT OF CONSERVATION

By L. Carter
gm Fiscal Officer.

S. F. No. 1912-4-63-10M. 79416.

Cash Receipt

STATE OF WASHINGTON DEPARTMENT OF CONSERVATION

Nº 23874

Olympia, Wash., May 26, 1964

RECEIVED FROM U.S.A. Dept. of Interior - Port Angeles
Forty - 40.00 DOLLARS 40.00

CREDIT: General _____ Recl. Rev. _____ Weather Mod. _____ S. G. Trust _____ Cash _____
WATER CODE FEES. ✓ MINES & GEO. PUBLICATIONS. _____ Check _____
W. R. PUBLICATIONS. _____ OIL & GAS PERMITS. _____ M. O. _____

Permit Fees
S.W. app. 18973 - 20.00
H.W. app. 6974 - 20.00
40.00

DEPARTMENT OF CONSERVATION

By L. Carter
gm Fiscal Officer.

S. F. No. 7361-1-64-3M. 83360.

356713

CERTIFICATE RECORD No. 11 PAGE No. 5145-ASTATE OF WASHINGTON, COUNTY OF Clallam

Certificate of Ground Water Right

Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the State Supervisor of Water Resources thereunder.

THIS IS TO CERTIFY That OLYMPIC NATIONAL PARK (Mora Campground), U.S.D.I.of Port Angeles, Washington, has made proofto the satisfaction of the State Supervisor of Water Resources of Washington, of a right to the use of the ground waters of a welllocated within Government Lot 2Sec. 23, Twp. 28 N., R. 15 W.W.M.,for the purpose of domestic supply for campground

under and subject to provisions contained in Ground Water Permit No. 6598 issued by the State Supervisor of Water Resources and that said right to the use of said ground waters has been perfected in accordance with the laws of Washington, and is hereby confirmed by the State Supervisor of Water Resources of Washington and entered of record in Volume 11 at page 5145-A; that the right hereby confirmed dates from December 23, 1963; that the quantity of ground water under the right hereby confirmed for the purposes aforesaid, is limited to an amount actually beneficially used for said purposes, and shall not exceed 15 gallons per minute; 24 acre-feet per year for domestic supply for Mora Campground.

Special provisions required by the Supervisor of Water Resources: _____

A description of the lands to which such ground water right is appurtenant:

Mora Campground in Sec.23, T.28 N., R.15 W.W.M.

356713



The right to the use of the ground water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Sections 6 and 7, Chapter 122, Laws of 1929.

WITNESS the seal and signature of the State Supervisor of Water Resources affixed this

14th day of June, 19 65.

M. Walker
State Supervisor of Water Resources.

DEPT. OF CONSERVATION
JUN 14 1965
JUL 7 1965
MAIL ROOM
U.S.D.I. NAT'L PARK SERVICE
Mail to: John E. Doerr, Supt.
P.A.

CK *R*

VOL 12 PAGE 129

Ground Water Permit No. 6598

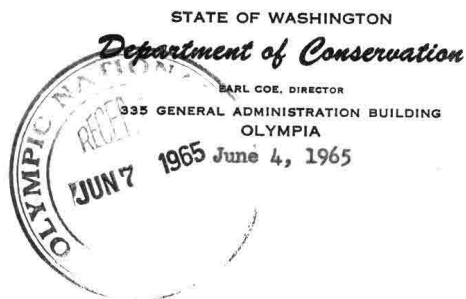
**CERTIFICATE OF GROUND
WATER RIGHT**

Recorded in the office of the State Super-
visor of Water Resources, Olympia, Wash-
ington, in Book No. 11 of Ground
Water Right Certificates, on page 5145-A,
on the 4th day of June
19 65.

STATE OF WASHINGTON, }
County of } ss.

I certify that the within was received and
duly recorded by me in Volume
of Book of Water Right Certificates, at
page, on the day of
, 19





DIVISIONS:

RECLAMATION
FLOOD CONTROL
WATER RESOURCES
MINES AND GEOLOGY
COLUMBIA BASIN PROJECT
POWER RESOURCES
WEATHER MODIFICATION

County Auditor
Clallam County
Port Angeles, Washington

Dear Sir:

Enclosed is Certificate of Water Right No. 5145-A
and a check or money order in the amount of
\$ 2.00 to cover the cost of recording in your
office.

When this has been done, please forward the cer-
tificate to:

John E. Doerr, Superintendent
U.S.D.I. National Park Service
Olympic National Park
Port Angeles, Washington

COPY ONLY

Very truly yours,

DEPARTMENT OF CONSERVATION

EARL COE, DIRECTOR

M. G. Walker

M. G. WALKER, Supervisor
Division of Water Resources

MGW:yw
Encls.

Supt.	☒
A. Supt.	☒
Ad. Off.	☒
Acct. Clk.	☐
Pers.	☐
Wise.	☐
Stat. Asst.	☒
Ch. Rgr.	☐
Asst. Ch. Rgr.	☐
Forester	☐
Staff Plk. Rgr.	☐
Naturalist	☐
Engrs.	☐
Elec. Techs.	☐
Tel. Opr.	☐
Files	☒

S. F. No. 1912-1-65-10M. 89427.

Cash Receipt

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION

Nº 31999

Olympia, Wash., June 1, 1965

RECEIVED FROM Olympic National Park - Port Angeles

Three - no DOLLARS 3.00

CREDIT: General ✓ Recl. Rev. _____ Weather Mod. _____ S. G. _____ Cash ✓

WATER CODE FEES ✓ MINES & GEO. PUBLICATIONS. _____ Check _____

W R. PUBLICATIONS _____ OIL & GAS PERMITS _____ M. O. _____

Ent. Fee

S. W. Per. 13422

DEPARTMENT OF CONSERVATION

By L. Luster

Fiscal Officer.



Proof of Appropriation of Water

T₂ No. 2Application No. 6974Permit No. 6598

1. Name of Permittee Olympic National Park, U. S. Department of the Interior
2. Postoffice address Port Angeles, Washington
3. Source of appropriation A 36" x 36" well in Lot 2, Sec. 23, T 28 N., R 15 W, W.M.
4. Name or number of works (if any) Mora Campground Water System
5. For what purpose or purposes is water used? Domestic supply for Mora Campground
6. Give date of beginning of construction December 1961
7. Give date of completion of construction work, including water distribution system December, 1961
8. Give date when water was completely applied to proposed use August 22, 1964
9. If used for irrigation:
 - Give number of acres described in permit --
 - Give number of acres actually irrigated --
10. If used for power: HP actually developed --

11. LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED:

Mora Campground in Sec. 23, T 28 N., R 15 W, W.M.

12. During what months is water used? Throughout 12 months
13. Does map filed with your application show correctly the location of well or point of diversion for withdrawal of water, and area of land where water is used? Yes
14. If the dimensions, location or type of structure do not correspond to those described in your permit, state what changes have been made, giving dimensions, etc. _____
15. Actual measured discharge or diversion of permanent system: 15 (gpm or cfs)

(Sign certification on reverse side)

STATE PRINTING PLANT  OLYMPIA, WASHINGTON

STATE OF WASHINGTON,
County of Chelan } ss.

I, Bennett T. Gale Superintendent, being first duly sworn, depose and say that I have read the above and foregoing proof of appropriation; that I know the contents thereof; and that the facts therein stated are true.

IN WITNESS WHEREOF, I have hereunto set my hand this 19th day of May, 1965

Bennett T. Gale

Subscribed and sworn to before me this 19th day of May, 1965

Harold W. Roberts
Notary Public.



STATE OF WASHINGTON

Department of Conservation
EARL COE, DIRECTOR
335 GENERAL ADMINISTRATION BUILDING
OLYMPIA

June 12, 1964

Item No. 4

Supt.		
A Supt.		DIVISIONS:
Ad Off.		RECLAMATION
Accts		FLOOD CONTROL
Pers		WATER RESOURCES
Mgt Asst.	CRB	MINES AND GEOLOGY
Ch Rgr.		COLEMAN BASIN PROJECT
Asst Ch Rgr.		RESOURCE
Forester		WEATHER MODIFICATION
Nat		
Engr.		
L Arch.		
Files		

John E. Doerr, Superintendent
U.S.D.I. National Park Service
Olympic National Park
Port Angeles, Washington

Dear Sir:

Mora Campground

Enclosed is Permit No. 6598 issued to you under
Application No. 6974. The examination report of
our inspector indicates that your system has been completed.

Also enclosed is Proof of Appropriation, which is to be
filed when the water granted in the permit has been put to
full beneficial use. This notice is not to be filed until
the water has been put to full use. Please note that it
requires your notarized signature.

The statutory filing and recording fees of \$3.00 payable to
the Department of Conservation and \$ 2.00
payable to the Clallam
County Auditor should accompany these forms. Kindly send
two separate checks or money orders.

Please read carefully the instruction sheet as well as both
sides of your copy of the permit.

Very truly yours,

DEPARTMENT OF CONSERVATION

EARL COE, DIRECTOR

M. G. Walker

M. G. WALKER, Supervisor
Division of Water Resources

MGW: yw
Enc.

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION
DIVISION OF WATER RESOURCES

Permit to Appropriate Public Ground Waters
of the State of Washington

Book No. 14 of Ground Water Permits, on page 6598 under Application No. 6974
OLYMPIC NATIONAL PARK (Mora Campground), U.S.D.I.
of Port Angeles, Washington

is hereby granted a permit to appropriate the following described public ground waters of the State of Washington, subject to existing rights, and to the limitations and provisions set out herein.

Priority date of this permit is December 23, 1963

Source of the proposed ground water appropriation is a well
within _____ area, _____ sub-area
_____ zone. Name or number of works is _____

Quantity of water appropriated shall be limited to the amount which can be beneficially applied and not to exceed 20 gallons per minute; 32 acre-feet per year, to be used for the following purposes: Domestic supply for campground

as more definitely set out below.

Location of the well, tunnel, or infiltration trench is 800 feet east and 500 feet south of center of Sec. 23,

being within Government Lot 2, Sec. 23, T. 28 N., R. 15 W. W.M.
county of Clallam

Use, or uses to which water is to be applied:

For municipal supply: _____ gallons per minute; _____ acre-feet per year,
to supply _____

For irrigation: _____ gallons per minute; _____ acre-feet per year,
for the irrigation of _____ acres.

For miscellaneous uses: 20 gallons per minute; 32 acre-feet per year,
for Domestic supply for campground.

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Mora Campground in Sec. 23, T. 28 N., R. 15 W. W.M.

DESCRIPTION OF WORKS FROM WHICH WATER IS TO BE WITHDRAWN

The well will be dug and have a diameter of 36 inches, and depth of 36 feet.
(Dug or drilled)

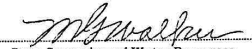
Description of tunnel or infiltration trench:

(Please read carefully provisions below)

Particular specifications required by the Supervisor of Water Resources for the purpose of preventing waste of public waters:

Construction work shall begin on or before Started
and shall thereafter be prosecuted with reasonable diligence and completed on or before _____
Complete
and complete application of water to proposed use shall be made on or before _____
June 1, 1965

Given under my hand and the seal of this office at Olympia, Washington, this 12th day of
June, 1964.


State Supervisor of Water Resources



STATE OF WASHINGTON
Department of Conservation

EARL COE, DIRECTOR
335 GENERAL ADMINISTRATION BUILDING
OLYMPIA

March 9, 1964

DIVISIONS:

RECLAMATION
FLOOD CONTROL
WATER RESOURCES
MINES AND GEOLOGY
COLUMBIA BASIN PROJECT
POWER RESOURCES
WEATHER MODIFICATION

	Supt.	
	A Supt.	
2	Ad Off.	P
	Accts	
	Pers	
1	Mgt Asst.	CB 3/12 Yes!
	Ch Rgr.	
	Asst Ch Rgr.	
	Forester	
	Nat	
	Engr.	
	L Arch.	
	Files	

John E. Doerr, Superintendent
U.S.D.I. National Park Service
Olympic National Park (Mora Campground)
Port Angeles, Washington

Dear Sir:

Re: Ground Water Application No. 6974

For your information we enclose a copy of our findings in connection with the above numbered application.

The application has been approved and a permit will be issued in accordance with this report, upon payment of the statutory fee of \$ 20.00. Please make all checks payable to the Department of Conservation.

Very truly yours,

DEPARTMENT OF CONSERVATION

EARL COE, DIRECTOR

MGW: yw
Enc.

M. G. Walker
M. G. WALKER, Supervisor
Division of Water Resources

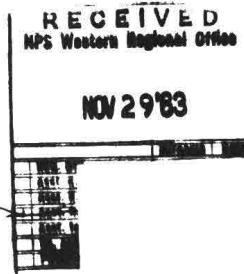
Western Region

Olympic National Park
Port Angeles, Washington 98362

November 27, 1963

L3031

L 54
Olyn



Mr. M. G. Walker, Supervisor
Division of Water Resources
Department of Conservation
335 General Administration Building
Olympia, Washington

Dear Mr. Walker:

Enclosed are two water right applications, one for 0.045 c.f.s. of public waters and the other for 20 G.P.M. of ground waters. Also enclosed is a completed Order-Invoice-Voucher covering these applications.

As to the application for public waters you will note under remarks reference to Application No. 2272, Certificate No. 266. Would it be possible to provide us a copy of this certificate?

As to the ground water application, it is pointed out here that ground water has been used from at least three wells in that immediate vicinity prior to June 7, 1945. One of these provided water for Moya Park Resort including a store and residence, 12 housekeeping cabins, gas station and other structures. None of these are being used now, and all the properties within three quarters of a mile are in Federal ownership.

Sincerely yours,

(Sd) JOHN E. DOERR

John E. Doerr
Superintendent

Enclosures



0.00 examination fee should
accompany each application.

STATE OF WASHINGTON
DEPARTMENT OF CONSERVATION AND DEVELOPMENT
Division of Water Resources

APPLICATION FOR A PERMIT

To Appropriate Public Ground Waters
OF THE STATE OF WASHINGTON

Application No. G. W. 6974

I, United States of America

(Name of applicant)

of Olympic National Park, Port Angeles, Washington

(Complete post office address)

do hereby make application for a permit to appropriate the following described public ground waters of the State of Washington, subject to existing rights. This application is made under the provisions of Chap. 263 of the Session Laws of 1945, and amendments thereto of the State of Washington and subject to the rules and regulations of the Department of Conservation and Development, Division of Water Resources.

1. The proposed appropriation will be from a well

(Well, tunnel, infiltration trench)

located Twelve miles west of Forks

(Give approximate distance and direction from nearest city or town)

Area

(Leave blank)

Sub-area

(Leave blank)

Zone

(Leave blank)

Applicant's name or number of well or other works, if any Mora Well

2. The quantity of water which applicant intends to withdraw for beneficial use is 20

gallons per minute; 33 acre feet per year.

3. The use or uses to which water is to be applied domestic supply

(Domestic supply, irrigation, municipal, manufacturing, industrial use, etc.)

4. The time during which water will be required each year 365 days

5. Location of well or other works for withdrawal of water: In county of Clallam

(a) 541' N and 2,014' E of W-1/4 Cor. Sec. 23

(Give distance and bearing from nearest corner of section or legal subdivision)

being within the SE-1/4, NW-1/4 of Sec. 23, Twp. 28 N., Rge. 15W

(Give smallest legal subdivision)

(E. or W.)

or (b) If within limits of recorded platted property, town or city: Lot _____, Block _____,

of _____

(Give name of plat or addition)

(If within town or city, give name)

(c) Show this location on accompanying section plat, in duplicate. Other adequate maps or drawings will be acceptable.

6. DESCRIPTION OF WORKS:

(a) Well will be dug and have a diameter of 36 inches and an estimated depth of 36 feet.
(Dug or drilled)

(b) Tunnels or trenches to be described: (Attach additional sheets if needed for full description.)

(c) Distribution system to be described: **Consists of 3,240 feet of 4" A.C. pipe, a 40,000 gallon steel reservoir a pump and pumphouse to serve a new campground.**

(d) If pumps are to be used, give size and type:

**Well Pump - Submersible, Pacific Mod DL 14-1S2, 1-HP Pressure Pump,
Pacific 1-1/2" BH, Type LHU, 5 HP**

(e) Give capacity and type of motor or engine to be used:

Well Pump - Franklin motor, water lub., 1 ϕ , 230v, 3,450 RPM

Pressure Pump - General Electric motor, 3 ϕ 220/440v, 3,600 RPM

(f) If the location of the well, tunnel, or other works is less than one-fourth mile from a natural stream or stream channel, give the distance to the nearest point on each of such channels and the difference in elevation between the stream bed and the ground surface at the source of development:

Quillayute River is 300' south

(g) Ownership of each existing well or other works from which ground water is withdrawn within a radius of one-quarter mile and the distance and direction from well or other works being reported herein:

None

(Name)	(Direction)	(Distance)
(Name)	(Direction)	(Distance)
(Name)	(Direction)	(Distance)

SUPPLY THE FOLLOWING INFORMATION ACCORDING TO USE PROPOSED:

7. For Municipal Supply: To supply the city, town, or community of Mora Campground, in the county of Clallam, having a present population of 400, and an estimated population of 800, in 1970.

8. For Irrigation: Number of acres to be irrigated acres.

9. *Legal Description of Property on which water is to be used for all purposes other than municipal supply:*

(Copy legal description from deed)
(If more space is required, attach separate sheet)

(On accompanying plat show location of the existing wells or works)

10. What interest do you have in the above described property? Owner

(Owner, lessee, contract buyer, etc.)

11. Do you have any other water rights appurtenant to the above described property?

If so, from what source? none

12. Construction work will begin on or before has begun

13. Construction work will be completed on or before January 1963

14. Water will be put to complete beneficial use on or before July 1963

/Sgd/ John E. Doerr

(Signature of applicant)

15. Name and address of owner of land on which well or works are located:

(Name)

(Address)

(Signature of legal landowner)

Signed in the presence of us as witnesses:

(Name)

(Address of witness)

(Name)

(Address of witness)

STATE OF WASHINGTON,
COUNTY OF THURSTON.

ss. **Nothing herein shall constitute a waiver of any other rights which the United States may have to the same water.**

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 returned to the State Supervisor of Water Resources, with corrections, on or before, 19.....

WITNESS my hand this..... day of, 19.....

State Supervisor of Water Resources.

DIRECTIONS FOR PREPARING APPLICATIONS

1. Initial examination fee of \$10.00 should accompany each application. If additional fee is required, you will be notified.
2. Write plainly in ink or use typewriter.
3. Read carefully all questions. Answer only those that apply to your project.
4. Under Question 2 estimate in gallons per minute and acre-feet per year the quantity of water that will be required for your proposed use.
5. Maps, showing the location of well or other works and place of use, must be made in duplicate on the enclosed section plats. If for irrigation, show the approximate area to be irrigated. Show also location of other existing wells or other works for withdrawing ground water within a radius of one-quarter mile.
6. In answering Question 5, give the distance and direction of location of well or other construction works for withdrawal of water from the nearest 40-acre corner or other legal subdivision, as
 "320 feet north and 1100 feet east from the southwest corner of Sec. 1, Twp. 13 N., Rge. 2 E.W.M.," or
 "North 36° 20' east 500 feet from the northeast corner of NW¼ of SW¼ of Sec. 33, Twp. 12 N., Rge. 3 E.W.M.," or
If within the limits of incorporated town or city:
 "Lot 4, Block 6 of Churchill's Addition to the City of Spokane, Washington."
7. Be sure to give on the map brief directions for driving to the location of the well or other works from some town or easily located point on a state highway. This is for our convenience in making the examination.
8. If you have been using ground water since **before** June 7, 1945, it will not be necessary to secure a permit from the state for this purpose.
9. Sign application on the line indicated under Section 14.

SCHEDULE OF FEES DUE IN CONNECTION WITH OBTAINING GROUND WATER RIGHTS

Examination Fees: There is a minimum fee of \$10.00 for each application received. This fee covers all withdrawals up to and including 2250 gallons per minute. There is an additional examination fee of \$2.00 for each 450 gallons per minute, or fraction thereof, over 2250 gallons per minute.

Fees for Filing and Recording Permits: There is a minimum fee of \$4.00 for filing and recording permit. This fee covers irrigation of up to and including 20 acres.

For irrigation of over 20 acres, there is an additional fee as follows:

- 20¢ per acre over 20 acres to 100 acres, inclusive;
- 10¢ per acre over 100 acres to 1000 acres, inclusive;
- 5¢ per acre over 1000 acres.

Permit fee for other uses: Twice the examination fee.

Fee for filing and recording certificate: There is a minimum fee of \$3.00.

L54 LWSSC - OLYM/USGS

9/23/68

X

X

*USGS
Report file*

X

*WRP
10/1/68*

X

X

GSWitucki, Actg Supv

Mr. Laird, USGS, Tacoma

Called Mr. Laird, USGS office in Tacoma, regarding the geological and hydrological situation at La Push. He described the aquifer into which the park well was drilled as being within river valley alluvium. This alluvium extends toward the Indian reservation. The geologist that had worked on park well was also involved in the test drilling of a well about 1/10th of a mile from the Indian Reservation toward the park well. This well was put down about 30 feet and the water was salty (probably due to sea water intrusion). The park well is located about 6/10th mile upstream from this well. We discussed the amount and time interval as regard the recharge of the aquifer into which the park well is located. Mr. Laird confirmed (particularly as evidenced by the recent pump test) that the aquifer recharges rapidly and it is a reasonable assumption that the use of water from this aquifer would not alter the regional water table to any extent, hence the water in place would be essentially of no dollar value *at this time*

cc:

→ Chief, Branch of Water Resources, WASO

(Sgd.):

GSWITUCKI



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Division
1305 Tacoma Avenue South
Tacoma, Washington 98402

June 12, 1968

RECEIVED	
San Francisco Planning and Service Center Office of Land and Water Rights NATIONAL PARK SERVICE	
JUN 13 1968	
ACT. INFO.	DATE
CHIEF	
ASST. CHIEF	
STAFF ASST.	
SUPV. APPR.	
PRE-ACQ'N.	
TITLE	
EXCHANGE	
SUPV. HYD. ENG.	
DOCKET	
FILE	

Mr. William E. Fields
Supervisory Hydraulic Engineer
National Park Service
San Francisco Planning and Service Center
450 Golden Gate Avenue, Box 36025
San Francisco, California 94102

*USGS
REPORT F.1e*

Dear Mr. Fields:

Reference is made to your telephone request for the water-level measurements taken as part of the pumping test at the new La Push well. Three lists and a graph are enclosed. The lists show the measurements taken in the test well during pumping and after cessation of pumping, together with those taken in two nearby auger holes. These last were taken to determine whether any drawdown could be detected at a distance from the pumped well. The graph represents a plot of the data obtained from the pumped well.

Sincerely yours,

L. B. Laird
District Chief

Enclosures

cc:
National Park Service, Port Angeles, Washington

*Sent in blue envelope
by Witrucki 9/20/68!*

Water level measurements in well 28/15W-23N1 (well is 115
feet west of pumped well 28/15W-23N3)

Date (1968)	Time	Water level in feet below land surface	Remarks
May 8	1604	14.21	
	9 0955	14.25	
	1636	14.26	
13	1123	14.09	
15	1334	14.20	
16	0820	14.27	
20	1105	14.54	
	1356	14.53	
	1433	--	Pump started in well 28/15W-23N3
	1450	14.96	
	1456	14.95	
	1514	14.96	
	1551	14.98	
	1641	14.99	
	1900	14.99	
	2106	14.98	
	2315	14.94	
21	0505	14.92	
	1006	14.92	
	1417	14.92	

Water-level measurements in well 28/15W-23N2 (well is 33
feet southwest of pumping well 28/15W-23N3)

Date (1968)	Time	Water level in feet below land surface	Remarks
May 8	1607	14.69	
	9 0940	14.67	
	1634	14.69	
13	1125	14.54	
	1510	14.56	
15	1331	14.64	
16	0823	14.72	
20	1102	15.00	
	1212	14.98	
	1353	14.99	
	1433	--	Pump started in well 28/15-23N3
	1448	15.06	
	1453	15.06	
	1512	15.07	
	1550	15.10	
	1727	15.12	
	1911	15.12	
	2312	15.12	
21	0509	15.08	
	1004	15.08	
	1426	15.08	

Drawdown of Water Level in Well 28/15W-23N3 During Pumping

Time	Elapsed pumping time (minutes)	Water level in feet below land surface	Drawdown (feet)	Remarks
May 20				
1059		14.75		
1208		14.74		
1351		14.72		
1433	0	--		Pump on
1433.5	0.5	16.84	2.12	
1434	1	17.02	2.30	
1435	2	17.10	2.38	
1436	3	17.13	2.41	
1437	4	17.14	2.42	
1438	5	17.17	2.45	
1440	7	17.20	2.48	
1443	10	17.21	2.49	
1447	14	17.20	2.48	
1452	19	17.20	2.48	
1458	25	17.20	2.48	Pumping rate, 436 gpm
1510	37	17.23	2.51	
1524	51	17.24	2.52	
1548	75	17.27	2.55	
1620	107	17.27	2.55	

Drawdown of Water Level in Well 28/15W-23N3 During Pumping--Con.

Time	Elapsed pumping time (minutes)	Water level in feet below land surface	Drawdown (feet)	Remarks
1623	110	17.28	2.56	Pumping rate, 429 gpm
1722	169	17.30	2.58	
1724	171	17.32	2.60	
1854	261	17.30	2.58	
1857	264	17.32	2.60	
2018	345	17.33	2.61	
2109	396	17.31	2.59	
2225	472	17.27	2.55	
2319	526	17.16	2.44	
May 21				
0102	629	17.14	2.42	
0337	784	17.05	2.33	
0424	831	17.09	2.37	
0455	862	17.27	2.55	
0706	993	17.14	2.42	
0845	1,092	17.29	2.57	Pumping 448 gpm
1000	1,167	17.33	2.61	
1102	1,229	17.30	2.58	
1103	1,230	17.30	2.58	
1208	1,295	17.32	2.60	

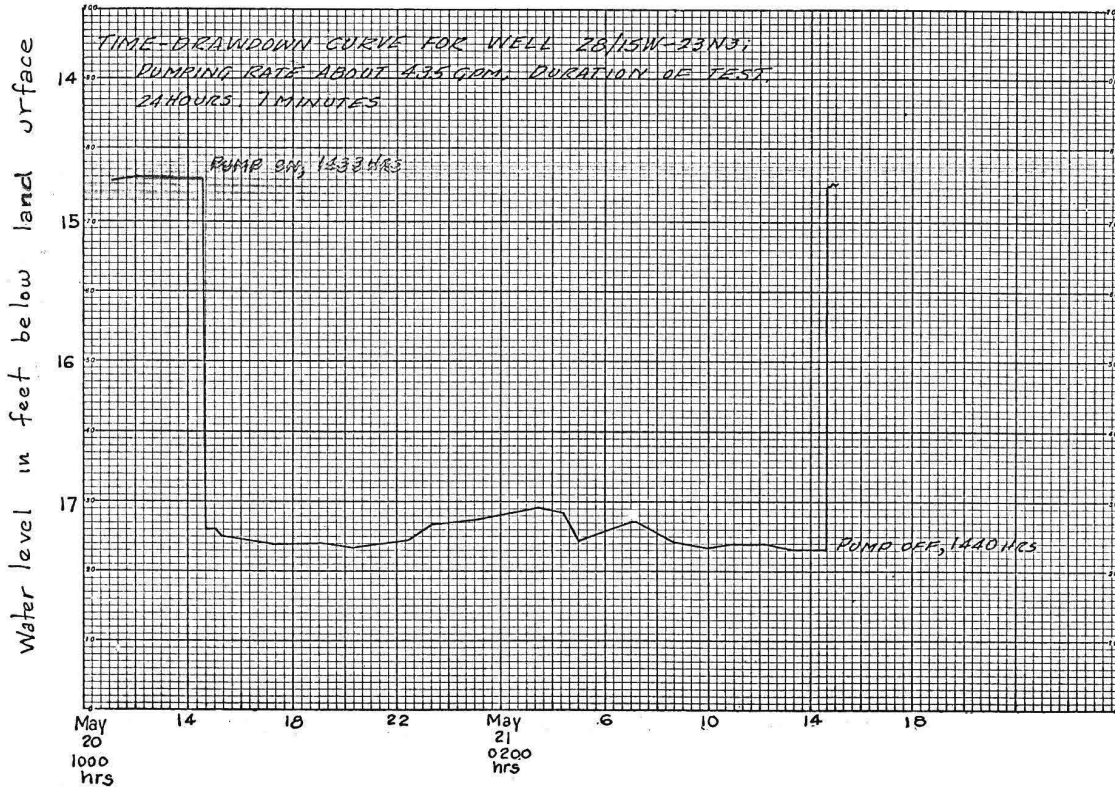
Drawdown of Water Level in Well 28/15W-23N3 During Pumping--Con.

Time	Elapsed pumping time (minutes)	Water level in feet below land surface	Drawdown (feet)	Remarks
1320	1,367	17.34	2.62	
1438	1,445	17.34	2.62	
1440	1,447	--	--	Pump off
1443	--	14.79	.03	
1444	--	14.74	.02	
1445	--	14.73	.01	
1447	--	14.73	.01	
1450	--	14.72	.00	
1453	--	14.73	.01	
1458	--	14.73	.01	
1505	--	14.72	.00	

NO. 31,164. 120 BY 100 DIVISIONS.



CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS.



GEOLOGICAL SURVEY
Water Resources Division
1305 Tacoma Avenue South
Tacoma, Washington 98402

San Francisco Planning and Service Center
Office of Land and Water Rights
NATIONAL PARK SERVICE

JUN 1 0 1968

ACT. INFO.	INITIALS	DATE
☒ CHIEF	<i>[Signature]</i>	
☒ ASST. CHIEF		
☐ STAFF ASST.		
☐ SUPV. APPR.		
☐ PRE-ACQ'N.		
☐ TITLE		
☐ EXCHANGE		
☒ Supv. Hyd. Eng.		

968

DOCKET
FILE

gpc 6/17

Enclosure

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
GROUND WATER ANALYSIS

Location About 1 mile east of LaPush State Washington County Clallam
 Latitude _____ Longitude _____ Seq.No. _____
 Date collected 5/21/68 Point of coll. test pump discharge
 Source _____ Local well No. 28/15-23N3
 Owner National Park Service Water use To be Public Supply
 Depth (ft) 91 Cased to (ft) 88 Diam. (in) 8 Date drilled May 8-21, 1968
 W.L. 15+ (static) Yield 440 gpm WBF gravel
 Treatment _____ Appear. when coll. clear and colorless
 Collected by D.R.Cline Remarks Pumping 24 hrs. collected at 1430
Very turbid in appearance at time of analysis

Specific conductance
(micromhos at 25° C) 182 pH 6.7 Temp. (°F) _____

	mg/l	me/l		mg/l	me/l
Silica (SiO ₂)	32		Bicarbonate (HCO ₃)	91	1.49
			Carbonate (CO ₃)	0	.00
Calcium (Ca)	18	0.90	Sulfate (SO ₄)	3.0	.06
Magnesium (Mg)	6.9	.57	Chloride (Cl)	11	.31
Sodium (Na)	8.8	.38	Fluoride (F)	.2	.01
Potassium (K)	.6	.02	Nitrate (NO ₃)	.1	.00
Total		1.87	Total		1.87

	mg/l	ppm		mg/l	ppm
Aluminum (Al)			Dissolved solids:		
			Residue on evap. at 180°C	128	
Iron (Fe) (total)	3.5		Calculated	126	
Manganese (Mn) (total)	.48		Hardness as CaCO ₃	74	
			Noncarbonate	0	
Iron (Fe) in solution at time of analysis	.60		Color (filtered)	10	
Manganese (Mn) of analysis	.48		Turbidity (unfiltered)	25	
			Turbidity (filtered)	10	
Lab. No. <u>3272</u>			Field No. _____		
			Project _____		

Lab. No. 3272

National Park Service
28/15-23N3

Trace Constituents

<u>Constituent</u>	<u>Concentration*</u>
Copper	<0.1
Zinc	<0.1
Lead	<0.04
Silver	<0.04
Cadmium	<0.005
Barium	<1
Chromium	<0.05
Cyanide	<0.01
Selenium	<0.01
Phenol	<0.01
ABS	<0.01
Arsenic	<0.01

*Milligrams per liter



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Water Resources Division
1305 Tacoma Avenue South
Tacoma, Washington 98402

RECEIVED	
San Francisco Planning and Service Center Office of Land and Water Rights NATIONAL PARK SERVICE	
JUN 6 - 1968	
ACT. INFO.	INITIALS/DATE
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☒ SUPPLY END.	
☐ DOCKET	
☐ FILE	

June 6, 1968

Mr. William E. Fields
Supervisory Hydraulic Engineer
National Park Service
San Francisco Planning and Service Center
450 Golden Gate Avenue, Box 36025
San Francisco, California 94102

Dear Mr. Fields:

Subject: Olympic National Park water supply--test well at La Push

The drilling of the test well in Olympic National Park at La Push, Washington was carried out from May 8-21, 1968 and the tests on the well have been completed. A geologist from our staff supervised the drilling and test pumping, inspected the drill cuttings, and provided advice concerning well construction.

The cost for drilling and pump testing the well was \$2,320, and our costs were slightly more than \$1,800; however, no adjustment of the original estimate of \$4,000 is requested.

The 8-inch well (USGS number 28/15W-23N3) was drilled to 91 feet, cased to 88 feet, and perforated from 45 to 73 feet at depth intervals of about 8 inches by a Mills knife making four cuts at each interval. The perforated zone is mostly sand and gravel (see log of well attached). After perforating the well, it was surged and bailed to clean out the sand.

When test pumped at 440 gallons per minute for 24 hours the water level was drawn down 2.6 feet, which gave a specific capacity of about 170 gallons per foot of drawdown. After the pump was turned off, the water level recovered to the static level, 15 feet below land surface, in 5 minutes.

Two 4-inch diameter auger holes had been constructed in the immediate area by the Geological Survey during the period January 12-17, 1967. These are described in correspondence to the National Park Service dated November 2, 1967. Auger hole 1 (USGS number 28/15W-23N1) is 38 feet deep, and 115 feet west of the 8-inch test well. Auger hole 2 (number 28/15W-23N2) is 23 feet deep, and 33 feet southwest of the 8-inch test well. Previous to the start of the test, the water level in all three wells was about 15 feet below land surface.

The water level in auger hole 1 was drawn down 0.4 foot during the test and the water recovered to static level in 9 minutes (see tabulation of water-level measurements attached). The level in auger hole 2, the shallower of the two, was affected only slightly, about 0.1 foot, by the pumping, probably because clay layers partly isolate the shallow water-yielding zones from the deeper ones.

After 24 hours of pumping, the 8-inch test well was still yielding a little very fine sand. Probably little or no sand will enter the well after it has been pumped for some time, especially at lower rates. If sand carry-over continues to be a problem, it probably can be resolved by pumping the water into a storage tank before distribution to users; any sand that is present can settle.

The water contains excessive iron, 3.8 mg/l (milligrams per liter), and manganese 0.48 mg/l; and an odor of hydrogen sulfide is present. The U.S. Public Health Service standards have upper limits of 0.3 mg/l of iron and 0.05 mg/l of manganese. The water is clear and colorless when pumped, but upon standing some of the iron comes out of solution to make the water slightly turbid and highly colored. Thus, treatment to reduce the iron and manganese would be desirable if this water is to be used as public supply. Any treatment for iron and manganese should remove the hydrogen sulfide odor. A chemical analysis of the water will be forwarded in the near future.

The chloride content of water samples collected from different depths during drilling and at various times during pumping of the completed well is low, between 11 and 14 mg/l. These low chloride values show that the water is not being contaminated by ocean water.

Water samples were collected at high tide from the bottom of the Quillayute River at a point nearest the well site--a distance of 1,300 feet--and at the mouth of the Dickey River, a downstream tributary. The sampling point on the Quillayute nearest the well site is about 1.6 miles inland from the coast. The samples contained 1.5 and 1.3 mg/l of chloride, respectively. Apparently the apex of a salt-water wedge, if a wedge exists, does not extend upstream any great distance during high stream flows, and probably does not occur during low summer flows. There appears to be only a small possibility of salt-water contamination from the Quillayute inasmuch as drawdown of water level only short distances from the pumped well are slight, and even were a gradient ultimately to be established from the river to the well--a condition favorable to the transfer of water from the river to the ground-water reservoir--no harm would occur because of the absence of a salt-water wedge this far upstream.

If we can furnish additional information, we will be happy to do so.

Sincerely yours,



L. B. Laird
District Chief

Enclosures

Log of test well, 28/15W-23N3, La Push, Washington. Drilled
May 8-16, 1968 by Stoican Drilling Company

	Thick- ness (Ft.)	Depth to bottom (Ft.)
Clay and fine sand, brown	15	15
Sand, gravel, and clay, brown	3	18
Gravel and sand, some small cobbles, brown Sample collected at 21 feet: about 70% very fine to very coarse gravel, much coarse and very coarse sand. Sample collected at 27 feet: about 75% very fine to very coarse sand, much medium and very fine to medium gravel.	10	28
Gravel and sand, dark gray-brown Sample collected at 34 feet: about 50% very fine to very coarse gravel, and 50% very fine to very coarse sand. Sample collected at 37 feet: very fine to coarse sand, about 15% very fine to medium gravel. Sample collected at 38 feet: about 60% very fine to very coarse gravel, much fine to very coarse sand, and a few cobbles. Sample collected at 42 feet: very fine to very coarse sand, about 45% very fine to coarse gravel and a few cobbles. Sample collected at 46 feet: very fine to very coarse sand; about 20% very fine to very coarse gravel, and some clay.	18	46
Sand, gravel, and clay. Sample collected at 47 feet: very fine to very coarse sand; about 25% very fine to medium gravel, and some silt and clay.	2	48
Gravel and sand, dark gray	3	51
Sand, gravel, and clay, dark gray, in layers	4	55
Gravel and sand, black. Sample collected at 57 feet: about 70% very fine to very coarse gravel, much coarse and very coarse sand. Sample collected at 68 feet: very fine to very coarse sand, about 15% very fine to medium gravel.	18	73

	<u>Thick-</u> <u>ness</u> (ft.)	<u>Depth</u> <u>to bottom</u> (ft.)
Clay and gravel, gray, contains less gravel and becoming harder with depth. Lower part is probably weathered bedrock.	17	90
Shale, gray	1	91

Water levels in wells near Ia Push, Washington, in feet below
land surface, May 1968 - Well 28/15W-23N1 (Auger hole 1)

<u>Date</u>	<u>Time (24-hour day)</u>	<u>Depth to Water</u>	<u>Remarks</u>
5/20	1105	14.54	
5/20	1356	14.53	
5/20	1433	--	Pump started in well 28/15W-23N3
5/20	1450	14.96	
5/20	1514	14.96	
5/20	1641	14.99	
5/20	1900	14.99	
5/20	2315	14.94	
5/21	0505	14.92	
5/21	1417	14.92	
5/21	1440	--	Pump stopped in well 28/15W-23N3
5/21	1442	14.91	
5/21	1443	14.90	
5/21	1448	14.90	
5/21	1450	14.51	
5/21	1453	14.49	
5/21	1455	14.50	
5/21	1500	14.49	
5/21	1505	14.51	

Well 28/15W-23N2 (Auger hole 2)

5/20	1102	15.00	
5/20	1212	14.98	
5/20	1353	14.99	
5/20	1433	--	Pump started in well 28/15W-23N3.

Well 28/15W-23N2 (Auger hole 2) Continued

<u>Date</u>	<u>Time (24-hour day)</u>	<u>Depth to Water</u>	<u>Remarks</u>
5/20	1448	15.05	
5/20	1512	15.07	
5/20	1550	15.10	
5/20	1727	15.12	
5/20	2312	15.12	
5/21	0509	15.08	
5/21	1426	15.08	

Well 28/15W-23N3 (8-inch testwell)

5/20	1059	15.75	
5/20	1206	15.72	
5/20	1208	15.74	
5/20	1348	15.71	
5/20	1351	15.72	
5/20	1433	--	Pump started.
5/20	1434	17.02	
5/20	1435	17.10	
5/20	1440	17.20	
5/20	1510	17.23	
5/20	1620	17.27	
5/20	2018	17.33	
5/20	2225	17.27	
5/20	2319	17.16	
5/21	0102	17.14	
5/21	0337	17.05	

Well 28/15W-23N3 (8-inch test well) Continued

<u>Date</u>	<u>Time (24-hour day)</u>	<u>Depth to Water</u>	<u>Remarks</u>
5/21	0424	17.09	
5/21	0455	17.27	
5/21	0706	17.14	
5/21	0845	17.29	
5/21	1000	17.33	
5/21	1102	17.30	
5/21	1208	17.32	
5/21	1320	17.34	
5/21	1438	17.34	
5/21	1440	--	Pumping stopped.
5/21	1443	14.75	
5/21	1453	14.73	
5/21	1505	14.72	

Report of Examination on Ground Water

Received date December 23, 1963 Date of exam. _____ Appli. No. 6974
 Name National Park Service, U.S.D.I. Address Olympic National Park, Port Angeles, Wn.
 Type of works a well Dimensions 36" x 36"
 Progress of works In use since July 1963.
 Quantity applied for 20 g.p.m. 32 acre-feet per year
 Legal sub.Govt. Lot 23 Sec. 23 Twp. 28 N. Rge. 15 W.W.M. County Clallam
 Use Domestic supply for campground
 Irrigation-acreage: Present _____ Planned _____ Feasible _____
 Municipal: Population _____ as of _____
 Industrial _____
 Time pump will be operated continuously
 Other water rights appurtenant to this land none (3 wells vested, used before 1945, not used now).
 Proximity to existing works, springs, wells, or streams Cullayute River, 300 feet south
 Area _____ Sub-area _____ Zone _____

RECOMMENDATIONS

Approved for 20 g.p.m. 32 acre-feet per year, subject to existing water rights. (1 acre-foot 325,850 gallons.)
 At a continuous pumping rate of 20 gpm, the withdrawal will total 32 acre-feet per year.
 The installation of an access port to well as described in attached Ground Water Bulletin No. 1 is recommended.
 Use of the waters to be appropriated under this application will be for a public water supply. State Board of Health rules require every owner of a public water supply to obtain written approval from the State Director of Health prior to any new construction or alterations of a public water supply. The applicant is advised to contact the Washington State Department of Health, Fourth Floor, Public Health Building, Olympia, with regard to the need for compliance.

Signed at Olympia, Washington
 on this 9th day of March, 1964.

J. Molenaar
JOE MOLENAAR, Geologist
Division of Water Resources

Other Supporting Information

LS4 LWSSC

OLYM - LA PUSH

TRIP REPORT - LW SSC

PORT ANGELES

By: William E. Fields
Supervisory Hydraulic Engr

Inclusive Dates
of Travel: March 7-9, 1968

On March 8, I was at Port Angeles to attend a meeting of Federal Agencies and private companies concerning the critical water shortage at La Push, both within and outside the Park. I was there at the request of Bennett T. Gale, who is National Park Service coordinator for the State of Washington. I have attached a list of names of those who attended, along with the minutes of the meeting which I think will suffice as a trip report.

Subsequent to this meeting, I called Ed Reed in Washington and he checked it out with the people in WASO, and he has given me verbal permission to obligate \$4000 and drill the test well. This will take the form of a memorandum of authority to USGS. USGS will prepare the specifications, supervise the drilling, and evaluate the test data and write a report to the Inter-Agency Committee. At the same time, Supt. Gale will provide the equipment and a man from this office will help Ken Walters from USGS (at no additional cost), evaluate the possibility of obtaining water from Lonesome Creek to fulfill the needs of this summer, and determine if this source is suitable for possible future use in the system.

Enclosure

^{Sgt.}
William E. Fields

cc: Chief, Branch of Water Resources, WASO
Regional Director, Western Region
Supt., Olympic
Chief, DCSSC

OLYMPIC NATIONAL PARK
Port Angeles, Washington 98362

An Inter-Agency Committee meeting on the La Push water system convened at 10:00 a.m., ~~February~~ ^{March} 8, 1968 at the Pioneer Memorial Museum, Olympic National Park, Port Angeles.

Representatives in attendance:

BUREAU OF INDIAN AFFAIRS:

Cecil R. Allbee, Hoquiam
George M. Felshaw, Everett
John F. Gordon, Hoquiam

BUREAU OF OUTDOOR RECREATION

Fred J. Overly, Seattle

COAST GUARD

Capt. L. G. Haverland, Seattle

DEPARTMENT OF THE INTERIOR

Joe Dwyer, Portland

COMMERCIAL

Butts & Pattison
Larry Fitzpatrick
Harley's Restaurant
Glenn A. Coman
Harold S. Smith
La Push Fish Company
M. R. Koroach
La Push Standard Marine
Joseph E. Faires

GEOLOGICAL SURVEY

L. B. Laird, Tacoma
Kenneth Walters, Tacoma

NATIONAL PARK SERVICE

S. T. Carlson, Port Angeles
William E. Fields, San Francisco
Bennett T. Gale, Port Angeles
Clifford B. Petersen, Port Angeles
S. J. Zachwieja, Port Angeles

OLYMPIC HEALTH DISTRICT

Donald A. Morrison, Port Angeles

PORT OF PORT ANGELES

John G. Belford, Port Angeles
D. G. Hendricks, Port Angeles

PUBLIC HEALTH SERVICE

Wm. E. Knestis, Seattle
E. C. Warkentin, Portland

QUILEUTE TRIBE

Roy Black, Sr., La Push
Ken Payne, La Push
Fred Woodruff, La Push

WASHINGTON STATE DEPARTMENT OF HEALTH

John R. Molsness, Seattle

Superintendent Bennett T. Gale welcomed the group to Olympic National Park. He stated he had received a call yesterday from Congressman Meeds' office. Mr. Meeds had hoped to be represented at this meeting, but other commitments precluded it. Mr. Meeds expressed his continuing interest in the water problem and that he will help in any way that he can.

Mr. Gale said that as instructed at the last meeting, Carl Warkentin and he had set up the meeting today and had asked Mr. Felshaw to preside.

Mr. Felshaw briefly reviewed the history of what has transpired on the domestic water supply situation at La Push, particularly the Cornell, Howland, Hayes and Merryfield study. Their report was prepared under a contract with the Bureau of Indian Affairs and others to analyze the present and probable future condition of the water system and also future needs in the area of possible supply sources and a distribution system.

The report states there are about 50 gpm of water available in the present system. It is estimated that to serve the present needs, at least during the summer months, there should be a minimum of 200 gpm. The five year projection of needs is 300-350 gpm. The problem then is how to find and get the additional 150 gpm now needed and to plan for future needs.

The background of the system is that quite a number of years ago the Coast Guard was given the privilege of locating on the Reservation to provide search and rescue operations and maintain navigation aids. One of the conditions of locating was that water be provided the Indian people. As time passed lessees have moved onto the Reservation with the concurrence of the tribe and the Bureau of Indian Affairs. This has put a greater strain on the system than was anticipated. A few years ago the Public Health Service in their responsibility to the Indian people of providing domestic water made some decided improvements to the system. This did not necessarily increase the volume of water.

The CH₂M report mentions three courses that might be pursued to get the volume of water required.

1. Drill wells and put the drilled water into the present system.
2. Go to the Quillayute River and put its water into the present system.
3. Capture some of the surface and near surface water not presently being utilized and put it into the present system.

The engineering firm concluded the drilled water supply method is probably the most practical one to pursue.

Mr. Laird of the U. S. Geological Survey said the auger hole about one mile back from La Push is the most promising location for a drilled well. The test hole ran 40-50 gpm and is capable of producing quite a bit more. A complete test would require a large hole, penetrating to the bottom of the water-bearing material, and pumping to determine maximum yield.

At various times iron content of various sources was discussed. Messrs. Laird and Walters said cost of treating was small in comparison to the overall cost of any water system and cited possible costs of \$10,000 or less. The amount of iron depended on the aquifer materials deposited in a particular area when the materials were put there by geologic action. Messrs. Laird, Walters, and Fields stated that, in general, treatment plants were unnecessary for drilled wells but necessary when surface water was the source.

Mr. Felshaw called upon Mr. Payne for an expression of the current attitudes and sentiments of the Tribe, as they are more involved and it is their home, their country, and their need.

Mr. Payne said the Tribe is interested in the excess surface water coming from Lonesome Creek without the well as in Plan A. The Tribe is not interested in wells and does not approve them at this time. They estimate Lonesome Creek would about double the present water capacity. They realize it would be pumped up the hill to the tank and the present chlorinator. Their people have been to Neah Bay where the water source is a well and they are concerned about the flavor, odor, and slime in the water.

Mr. Morrison of Olympic Health District said Lonesome Creek may have less water than anticipated. According to Park Engineer Petersen's notes, in August 1967 there was a minimal amount of water. It is also near the garbage dump. Health authorities consider a supply dangerous when it is being diverted from roadside drainage to an impoundment and he would ask that they consider going to the Quillayute River.

At this time Mr. Warkentin questioned whether this large group could arrive at a solution and suggested the appointment of a representative from each organization present to form a small working group. Mr. Payne invited them to meet with the Tribe at 7:30 p.m. on Thursday, March 14, at the new Community Hall.

Appointed were:

Coast Guard - Byron Clark, Assistant Chief Civil Engineer,
13th Coast Guard District

National Park Service - S. J. Zachwieja, Management Assistant,
Olympic National Park

Public Health Service - William E. Knestis, Seattle

Olympic Health District - Donald A. Morrison, Port Angeles

Port of Port Angeles - D. J. Hendricks, Port Angeles

Bureau of Indian Affairs - John Gordon, Hoquiam

Tribal Council - Ken Payne will serve temporarily until the
Tribe elects a member

Business - Larry Fitzpatrick, Butts and Pattison Fish Company

To assist the working group with more complete information on underground sources the Geological Survey was asked if another test well could be drilled immediately. Depending on arrangements that can be made with the driller, Mr. Laird thought it might be done late in April or the first part of May. Estimated costs were \$3,500 to \$4,000. Mr. Fields said that if the Park Service finances this cost the site must be drilled on Park land. Mr. Walters said based on test pumping last summer approximately 500 gpm could be developed from a single well one mile east of La Push and that the existing auger hole could possibly pump at 190 gpm.

Mr. Overly inquired if it would be possible to sink 3 or 4 tiles on Lonesome Creek on Park lands and test the quantities. He also asked consideration this summer of sinking a couple tiles in the gravel with a sump to pump from them into the present system. He thought it might be done for possibly \$5,000 and double the water supply and be less costly than hauling water.

Captain Haverland said the original water installation was for the Coast Guard and the Tribe and that it is now becoming a public utility. Time of the men stationed there is taken up with attempting to maintain a more and more complex installation and the Coast Guard is concerned that they are outside their legal responsibilities in furnishing water for commercial users.

Mr. Warkentin said he sincerely hoped all possibilities of getting the least costly water supply would be exhausted to develop a good, adequate, usable water supply for La Push. He added that chlorination at proper levels cannot be tasted and that iron removal is not a complicated treatment.

Mr. Fields said it is the wish of the National Park Service to work this matter out and come up with some solution to the overall problem and help as much as legally possible. If there is no objection the Service will proceed with the test well which will in no way obligate anyone else and the data will be available for anyone's use.

Mr. Dwyer agreed that for the long range solution a well should be drilled, but not at the expense of a temporary solution for this coming summer's problem. He also thought the existing system needs some renovation and new piping. He added he believed the Tribal Council should consider the long range solution, but the first priority is manpower and funds and what we are going to do this summer.

Mr. Fitzpatrick said possibly a lot more water is available than is presently being used and mentioned discrepancies in the CH₂M report. He had an engineer look into the possibilities of Lonesome Creek, where he believed quite a bit of water was available and said old timers could not remember seeing the creek completely dry. His suggestion was driving dry points about 150' from the road and pumping directly into the reservoir. The commercial users had gotten together and believed that for about \$750 each, or \$5,000 it could be done. Mr. Overly added there were a couple other springs and that pipe could be laid in the ditch and connected into the system.

Others added their recommendation that the working group look into both the coming summer operational problems and the long range solution.

Mr. Felshaw summed up as follows:

A well will be drilled and tested at the site recommended by Mr. Walters and testing will be carried on along Lonesome Creek. The National Park Service will assume test well drilling financing consistent with the availability of funds.

Assuming there is additional supply from Lonesome Creek that can be diverted through the existing system there will be additional expense to get it from the source into the system. Mr. Fitzpatrick will make a plea to the interested commercial operators for funds for a cash reserve. Mr. Felshaw said he will be looking to the Tribe and the commercial interests for financing to install the pump and piping.

The working group is charged with exploring data available and coming up with recommendations for both immediate and long range solutions and financing. Some of the items to be considered were outlined in the letter setting up this meeting. Captain Haverland added he believed the group should take up these matters and anything else that should arise in their study. Mr. Dwyer charged the subcommittee with staying in operation until they solve the problem.

Mr. Gale closed the meeting by expressing his appreciation for the attendance and the sharing of thoughts and ideas on the problems facing La Push.

Copies to:
Senator Henry M. Jackson
Congressman Lloyd Meeds

UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE		Order No. B-28-OLYM (2nd Rev.)																											
FACE SHEET FOR COMPLETION REPORT		Fund Symbol 14X1035																											
Sample National Park	Region Western	Year Programmed 1962																											
Location in Park	State(s) Washington	PCP No. U-91-1																											
Area Campground	County or Counties Clallam	Master Plan No. NP-01y-3148																											
Specific Coast Area		Master Plan Corrected By																											
☒ Contract and/or ☐ Day Labor		As Built Drawings By C. F. Anderson																											
Work Order Title		Date Started November 4, 1961																											
Water System		Date Completed October 23, 1962																											
DESCRIPTION OF FIXED ASSETS (For completion by employee in charge of project)		TOTAL COSTS (For completion by FFO)																											
Utilities, Water System		47,268.84																											
TOTAL		\$ 47,268.84																											
<table border="1"> <thead> <tr> <th>DISTRIBUTION</th> <th colspan="2">THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES</th> </tr> </thead> <tbody> <tr> <td>To</td> <td>Submitted</td> <td>Title:</td> </tr> <tr> <td>WASO</td> <td>By: E. G. Wilkinson</td> <td>Project Supervisor</td> </tr> <tr> <td>West. Reg.</td> <td>(Clifford B. Petersen)</td> <td>Park Engineer</td> </tr> <tr> <td>WDC</td> <td>Approved: <i>John E. Doerr</i></td> <td>Superintendent</td> </tr> <tr> <td>Oly FFO</td> <td>By: <i>John E. Doerr</i></td> <td></td> </tr> <tr> <td></td> <td>COSTS VERIFIED</td> <td>Title:</td> </tr> <tr> <td></td> <td>BY: <i>Edward S. Kaslin</i></td> <td>Supervisory Accountant</td> </tr> <tr> <td></td> <td>Edward S. Kaslin</td> <td></td> </tr> </tbody> </table>			DISTRIBUTION	THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES		To	Submitted	Title:	WASO	By: E. G. Wilkinson	Project Supervisor	West. Reg.	(Clifford B. Petersen)	Park Engineer	WDC	Approved: <i>John E. Doerr</i>	Superintendent	Oly FFO	By: <i>John E. Doerr</i>			COSTS VERIFIED	Title:		BY: <i>Edward S. Kaslin</i>	Supervisory Accountant		Edward S. Kaslin	
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NARRATIVE REPORT

Water System, Mora Campground, Pacific Coast Area, Olympic National Park.

Work Order No. B-28-OLYM (2nd Rev.)

Contract No. 14-10-0447-533

Contractor: DelGuzzi, Inc., Port Angeles, Washington

This project consisted of the construction of a complete water system to serve the Mora Campground Area including three proposed comfort stations, a campfire circle, a proposed campground ranger station and a proposed 4-unit apartment building. The project included both diversion and distribution systems. The diversion portion consisted of:

1. A 40,000-gallon steel reservoir.
2. A pumphouse containing a well pump, pressure pump and hydro-pneumatic tank.
3. A 36" x 37' deep well located under the pumphouse.
4. Necessary connections between the pumphouse and reservoir.

The distribution portion consisted of:

1. 3,350 LF of 4" asbestos-cement pipe.
2. 6 - 4" gate valves with valve boxes.
3. 2 - 1½" fire hydrants.
4. 3 concrete block water stations.
5. 2 concrete drinking fountains.

The well pump supplies about 15 gpm; the pressure pump about 60 gpm.

This project overran the estimate as follows:

Statement of Overages

1. Digging Bore	\$600	Extra depth required to find water
2. 36" dia. well casing	165	Same as for No. 1
3. 4" AC pipe	352	Extra pipe required to fit field conditions.
4. Plugging Abandoned Bore	~~340~~ RE	Deleted due to construction of a successful well
TOTAL Overage	\$787	

Bids for this project were opened at 2:00 p.m., August 29, 1961. Award was made, subject to approval by the Director, on September 14, 1961, to DelGuzzi, Inc., the low bidder. Contract No. 14-10-0447-533 was written covering the combined projects of Work Orders Nos. B-26-OLYM, B-27-OLYM, B-28-OLYM, B-29-OLYM and R-28-OLYM. Notice to proceed was issued October 31, 1961, and received by the Contractor on November 3, 1961. Therefore, November 4, 1961, was recorded as the first day of the contract.

The Contractor started bringing in equipment on November 14, 1961, and continued for about a week.

Actual work on this portion of the contract started on December 6, 1961, with the clearing of an access road to the reservoir and pumphouse site. Excavation for the well started December 7, 1961. Water was found at a depth of thirty-five feet on December 11. By December 16, the well had been developed and tested. The well pump delivers about 15 gpm and the well will supply more than this amount.

Tank construction started December 18. All erection was complete on December 27. The painting was accomplished during the period of January 4-10. The first concrete was poured for the pumphouse on January 12, 1962, and work progressed on this item until January 22.

On January 22, a Stop Work Order was issued covering all work due to inclement weather. It was modified to permit work on the pumphouse on January 30. A Change Order was written January 23 changing the wiring in the pumphouse to accommodate three-phase power.

Work on the pumphouse was resumed on January 30 and continued until February 6.

The laying of 4" AC pipe was started February 8, 1962, and continued until March 1, 1962.

A complete Stop Work Order due to inclement weather was issued on February 20, 1962. The work was shut down until June 1, when a partial Resume Work Order was issued covering this portion of the contract.

Actual work was resumed June 6, 1962, with the laying of 4" AC pipe.

An inspection revealed poor painting and cleaning on the reservoir. It was corrected, but it is recommended that this reservoir be inspected again within the guarantee period.

Work continued until October 18 when a successful test was run on all lines. On October 22, the water lines and reservoir were disinfected.

The work was accepted by final inspection on October 23, 1962. This project resulted in a complete and workable installation.

Construction photograph follows.

Also enclosed is a copy of the portion of the contractor's final estimate pertaining to R-28-OLYM and a copy of Change Order No. 1.

Form 10-194
(Rev. 9/60)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Check One:

Monthly
Estimate ☐Final
Estimate ☐

(Park)

UNIT PRICE CONTRACT

ESTIMATE NO.	FOR (Period)	DATE
CONTRACT NO.	COMPLETION DATE	EXTENDED DATE
CONTRACTOR	ORIGINAL CONTRACT \$	
PROJECT	CHANGE ORDERS* \$	
LOCATION	TOTAL CONTRACT \$	

ITEM NO.	CONTRACT QUANTITY	DESCRIPTION	QUANTITY TO DATE	UNIT PRICE	AMOUNT TO DATE
<u>Schedule III, Water System, Mora</u>					
W-1	3,240	LF 4" Asbestos Cement Pipe	3,350	3.20	10,720.00
W-2	6	Ea., 4" Gate Valve W/Valve Box	6	80.00	480.00
W-3	2	Ea., 1½" Fire Hydrant	2	480.00	960.00
W-4	3	Ea., Conc. Block Water Stations	3	800.00	2,400.00
W-5	2	Ea., Conc. Drinking Fountains	2	450.00	900.00
W-6	1	Ea., 40,000-Gal. Steel Reservoir	100%	9,600.00	9,600.00
W-7	1	LS, Pump House W/Equipment	100%	9,800.00	9,800.00
W-8	30	LF Drilling or Digging Bore	36	100.00	3,600.00
W-9	32	LF 36" Dia. BCAB CMP Well Casing	38	27.50	1,045.00
W-10	6	Hours Bailing Tests	6	18.00	108.00
W-11	10	Hours Developing Well	10	18.00	180.00
W-12	1	LS, Furnish and Set Test Pump	1	110.00	110.00
W-13	24	Hours Pumping Test	24	19.00	456.00
W-14	1	LS Ream and Grout Upper 10' of Well	1	275.00	275.00
W-15	30	LF Plugging Abandoned Bore	--	11.00	--
<u>Change Order No. One:</u> TOTAL, Schedule III					40,634.00
	1	LS, Pumphouse Control Panel corrected to 3-Phase	100%	115.00	115.00
TOTAL Contract Cost					40,749.00

RECOMMENDED (Project Supervisor)	SUMMARY
	TOTAL TO DATE..... \$
	LESS RETAINED AMOUNT.....
	NET.....
APPROVED (Contracting Officer)	LESS PREVIOUS PAYMENTS.....
DATE	LESS LIQUIDATED DAMAGES.....
	DUE THIS ESTIMATE.....
	% COMPLETED TO DATE:

*Show Breakdown on Reverse

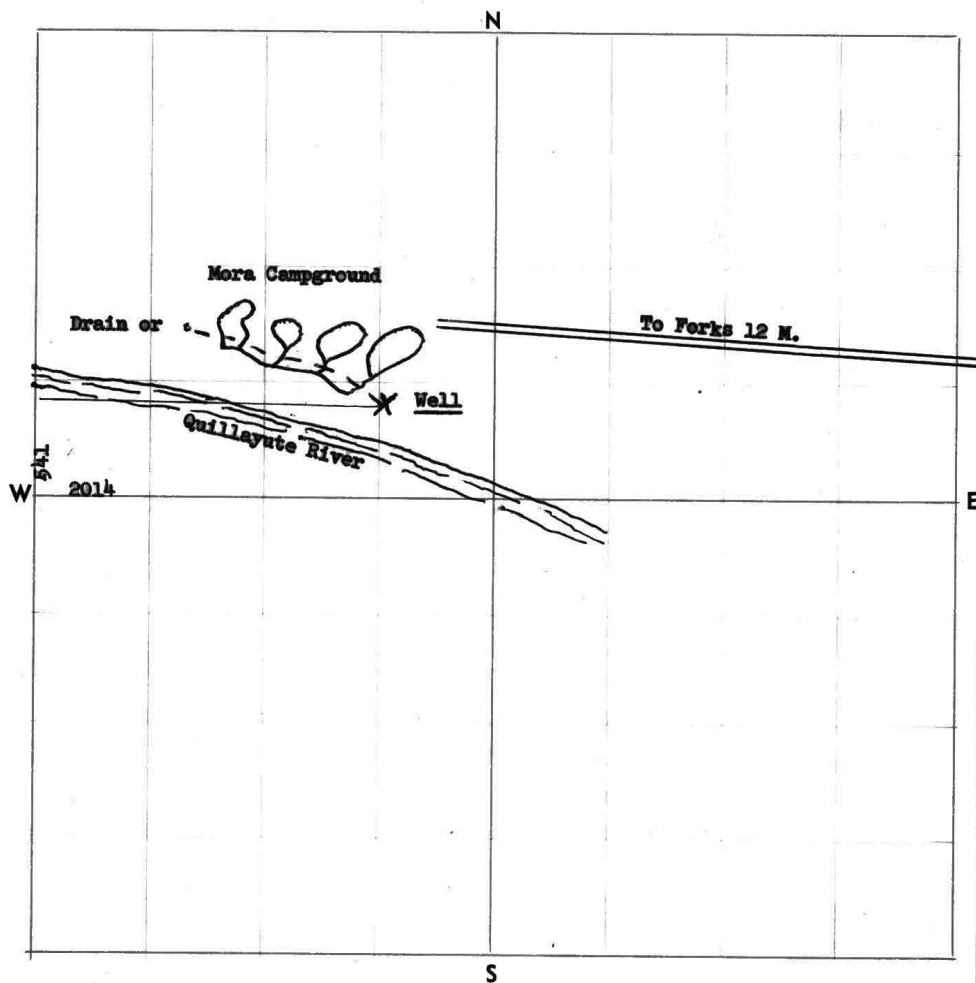
(See Reverse for Distribution)

Maps and Miscellaneous Information

S: F. No. 1854-B-3-56-10M. 44775.

SECTION PLAT

Sec. 23 Twp. 28 N. N. R. 15 W.



Show by a cross (X) the location of the well or other works covered by the application. Show by circle (O) the locations of other wells or works within a quarter of a mile. Also indicate traveling directions from nearest town on main highway.

Scale: 1 inch = 800 feet.

Docket Information

Number of Documents in Docket 49

Documents Dated from 12/15/1961 to 9/23/1968

Docket Compiled: 6/3/2011