



WATER-RIGHT DOCKET

Fire Island National Seashore

Docket No: 4

SMITH POINT WEST WELL

Other Supporting Information

00-00-0000: description of work done smith point west -- well s3636

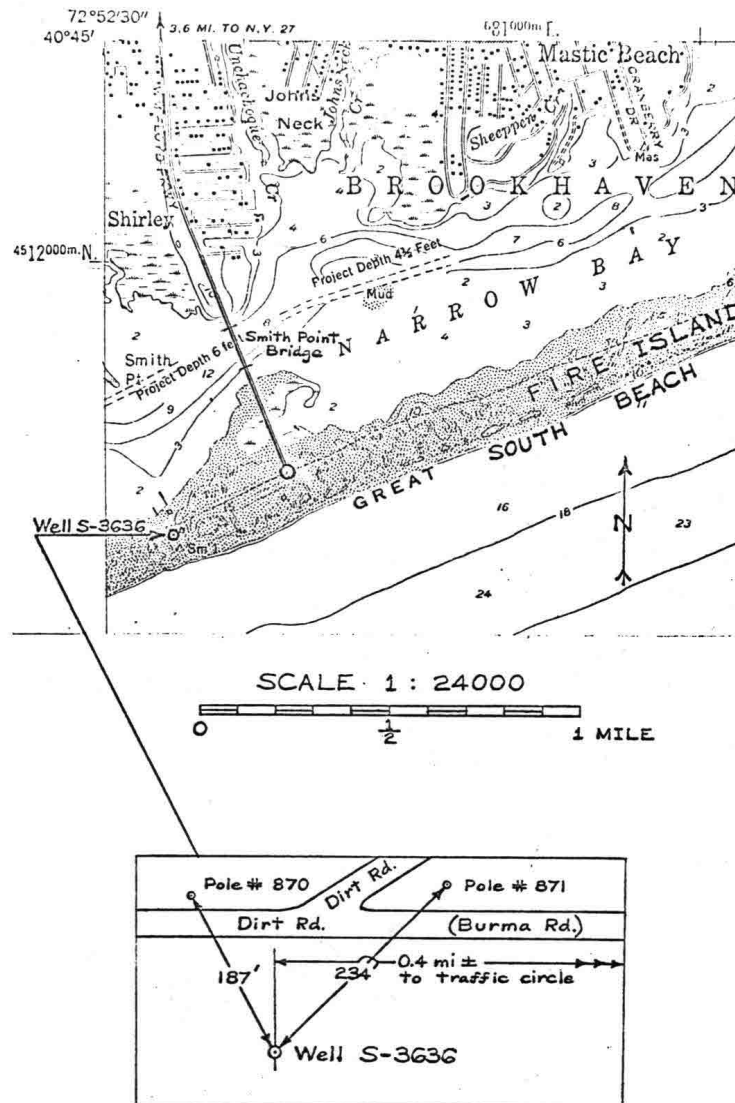
DESCRIPTION OF WORK DONE

Smith Point West -- Well S3636

The Smith Point West site is located near the eastern boundary of Fire Island National Seashore, about 1800 feet west of the William Floyd Parkway (enclosure 1). Well S3636, which is at the Smith Point West site, is situated on a relatively flat portion of the interdunal area, about 200 feet north of the crest of the high dunes that protect the interdunal area from gale winds and high tides. Land-surface altitude at the well site is about 6 feet above mean sea level (msl).

Well S3636 was drilled in 1943 by the cable-tool method. A driller's log of the formations encountered during drilling, and a diagram of the completed well are shown in enclosures 2 and 3, respectively. The analyses of water-quality samples collected in December 1966 and January 1967 (enclosure 4) plus the results of pumping tests made several years ago led to the decision to attempt to rehabilitate the present well rather than construct a new well at Smith Point West.

Rehabilitation of the well consisted of removing foreign material from the interior of the well-casing and screen by scraping and bailing, and redeveloping the water-bearing zone by surging. After rehabilitating the well, a pumping test was made to determine the well characteristics. This test indicated that the well has a specific capacity of 3.7 gpm per foot of drawdown at a pumping rate of 75 gpm. Accordingly, the well appears to adequately meet the specified water-supply requirements for this site.

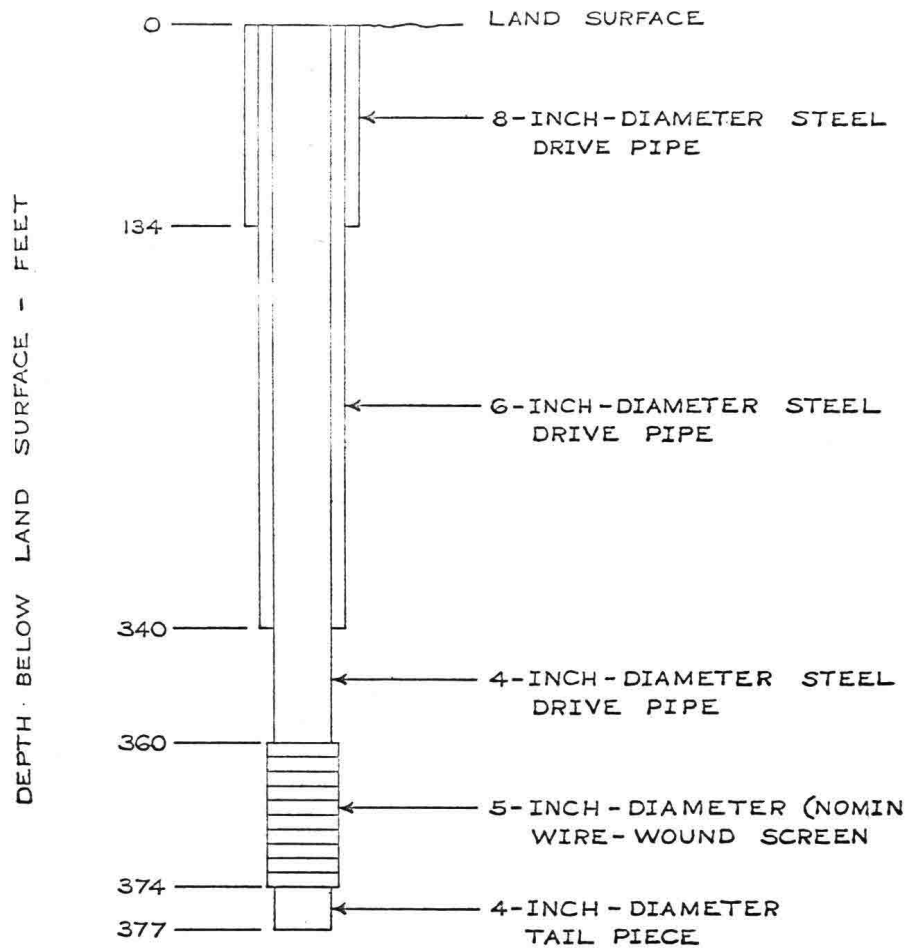


ENCLOSURE 1.-- LOCATION OF WELL S-3636

Enclosure 2.--Driller's log of well S3636 ^{1/}

<u>Lithologic Description</u>	<u>Thickness (feet)</u>	<u>Depth (feet)</u>
Sand, coarse.....	8	8
Sand, gravel, and shells.....	7	15
Sand, coarse.....	12	27
Sand and gravel.....	33	60
Sand, medium coarse.....	12	72
Sand, fine, red.....	18	90
Sand, fine.....	20	110
Sand, muddy, black.....	5	115
Sand, clay and shells.....	23	138
Clay, sticky, black.....	60	198
Clay, gray.....	16	214
Clay, tough, sticky, blue.....	41	255
Clay, tough, sticky, red.....	2	257
Clay, sticky, blue.....	15	272
Clay, sandy, black.....	6	278
Clay, sandy, gray.....	62	340
Sand, dirty, muddy.....	19	359
Sand, blue, clean.....	7	366
Sand, blue and white, clean.....	11	377

^{1/} Information from a log supplied by Karlson and Reed, Inc.



ENCLOSURE 3.-- DIAGRAM OF WELL S-3636

Enclosure 4.--Chemical analyses of ground water from wells S3636 and S30550.

(Results given in parts per million, except as indicated; analyses conducted by Suffolk County Water Author

	Well number and screen interval in feet below land surface				
	S3636 <i>(Acad. Pl. Co., N.Y.)</i>		S30550 <i>(Anton Hansen)</i>		
	Permanent screen (360-374)		Temporary screen (477-480)	Permanent screen (455-480)	
Date sampled	12-7-66	1-6-67	7-17-67	8-1-67	8-14-67
Yield of well, in gpm (pump or flow)	3 (flow)	60 (pump)	12 (pump)	100 (pump)	40 (pump)
Color	yellow	yellow	brown	gray	-
Odor	none	none	none	none	-
Turbidity (SiO_2)	3.9	8.5	3.1	20	10.5
pH	6.1	5.9	6.4	6.5	-
Iron (Fe)	1.6	2.1	0.3	0.3	-
Manganese (Mn)	<0.05	<0.05	<0.05	<0.05	-
Chloride (Cl)	12	7	8	12.5	6
Total hardness (CaCO_3)	24	18	0	2	-
Alkalinity (CaCO_3)	34	18	20	22	-
Carbon dioxide (CO_2)	41	36	12.6	-	-
Fluoride (F)	<0.1	<0.1	-	-	-
Nitrate (NO_3 as N)	<0.02	<0.02	0.32	-	-
Dissolved solids (residue on evaporation)	54	74	-	-	-
Specific conductance, in micromhos at 25°C	74	72	72	88	54

Because of the prevailing high water table.

care should be exercised in the siting, location and design of buildings and other facilities to provide for the installation of acceptable disposal systems. Factors which must be considered are the prevailing high ground water level on the island, the proximity to bathing, boating and shellfish areas. Comfort stations and change houses should be limited in size by the potential size of the disposal facilities which serve them.

Comfort stations should be constructed to allow for required slopes of the sewage disposal system and to keep the unit above the ground water level.

Major developed areas of the Seashore shall be provided with commercial electric power where it can be procured or existing lines can be extended at reasonable cost. Power lines shall be placed underground whenever possible.

Major and minor developed areas where power is required but cannot be procured shall have their requirements filled by the use of gasoline or diesel electric generating systems. These systems shall be furnished with sufficient spare parts, have adequate housing and be removed from the visitor use area.

POWER:

Electric power is furnished to the Seashore developed areas by the Long Island Lighting Company by means of submarine cables under the bay located at various points along the island with substations located on the island. Overhead transmission lines use company poles and poles of the U.S. Coast Guard where available.

Power is available in highly developed areas only; however, lines can be extended to serve most of the Seashore area.

COMMUNICATION:

Telephone:

The New York Telephone Company furnishes service to the highly developed areas of the Seashore by means of submarine cables under the bay which are located at various points along the island. Overhead transmission lines are then carried on company poles, Long Island Lighting Company poles or poles of the U.S. Coast Guard where available. Direct burial cables are used for a few short stretches where required by local conditions. At the present time, service is limited and most residences in the highly developed area are being served by eight party lines.

Telephone service may be extended by the installation of additional submarine cables and/or by extending existing facilities on the island.

The U.S. Coast Guard has a telephone line from their station near Captree Island to their Moriches station. This line is overhead except for three short stretches where it is buried and goes roughly down the center of the island. It leaves the island near the Coast Guard Forge River station and becomes a submarine cable to the Moriches station.

A rough sand road passable for four-wheel drive vehicles runs along the overhead transmission line. This road has been interrupted in certain developed areas and where the cables go underground. In these areas, vehicles must use the beach.

Telephone service shall be provided to all major developments within the present area of service and to points where it can be readily extended. Telephone lines in major development areas and heavy visitor use areas shall be placed underground when opportunity permits.

DEVELOPED AREAS	TYPES OF FACILITIES									
	MAINLAND POINT TERMINAL	SEASHORE POINT TERMINAL	REPAIR BOAT	BOAT BEACHING AREA	BOAT LAUNCHING RAMP	BOAT TRAILER & AUTO PARKING	VISITOR CONTACT STATION-RANGER OFFICE	INTERPRETIVE FACILITY	RESTROOM	COMFORT STATION
MORICHES INLET	EXIST.	PROP.								
EAST LEAD	EXIST.	PROP.								
PATTAQUASH	EXIST.	PROP.								
SMITH POINT EAST	EXIST.	PROP.								
SMITH POINT WEST	EXIST.	PROP.								
PELICAN	EXIST.	PROP.								
WHALEHOUSE POINT	EXIST.	PROP.								
LONG COVE	EXIST.	PROP.								
HATCH REEF	EXIST.	PROP.								
TALISMAN	EXIST.	PROP.								
SAILORS HARBOR	EXIST.	PROP.								
WEST BEACH	EXIST.	PROP.								

DISTRIBUTION OF DEVELOPMENT



UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
WASHINGTON PLANNING AND SERVICE CENTER
1730 NORTH LYNN STREET
ARLINGTON, VIRGINIA 22209

IN REPLY REFER TO
LS4 WSC-CLW

January 18, 1968

Memorandum

To: Chief, Branch of Water Resources, WASO

From: Chief, Office of Land and Water Rights, WSC

Subject: Trip report by Hydraulic Engineer Moore to Fire Island

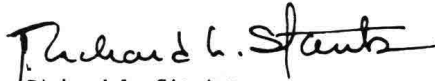
With reference to your memorandum dated December 11, 1967, regarding subject our comments are:

In paragraph 3 - The existing 6" well referred to is at Smith Point West and is the same well tested earlier for \$890. Both the Smith Point West and Talisman wells are located in pits and both presumably will be redesigned by Design and Construction to comply with U. S. Public Health Service regulations. Chief, Project Design Abbuehl's memorandum to Chief, Branch of Water Resources, WASO, on April 6, 1967, indicates that corrective action will be taken at Smith Point West. We presume that the same line of reasoning will prevail in regards to the Talisman well.

In paragraph 4 - The reference to Watch Hill is in error. It should read Talisman.

This office is presently preparing to contact the U. S. Geological Survey to undertake the task of inventoring of all deep wells on the island.

We will prepare the necessary water rights docket for all test wells drilled and have them distributed by January 31, 1968.


Richard L. Stanton

cc:
Regional Director, Northeast
Superintendent, Fire Island
Chief, D&C, PSC

875-11-25-67

L54 WSC-OLW

November 26, 1967

Memorandum Report

To: Chief, Office of Land and Water Rights, WSC
Through: Supervisory Hydraulic Engineer

From: Hydraulic Engineer, OLWR, WSC

Subject: Field trip to Fire Island National Seashore, October 24-26, 1967

The undersigned visited the Seashore to:

- Purpose 1.** Check on the progress of the well drilling contract at Whale House Point and Talisman.
- Purpose 2.** To make a reconnaissance of the entire island.
- Purpose 3.** Office reports on physical development and water demand for Fire Island National Seashore.

PURPOSE 1. Contract #14-10-8-615-83

The contractor, Mathies Well and Pump Company, Inc., of Lindenhurst, Long Island, New York, was drilling at Talisman. The driller had drilled to 508 feet and had screened depths 464 feet to 484 feet. At the time of the visit the contractor was grouting the well and was expecting to complete the well on or about the middle of November. Estimated yield of well is 180 gpm. Enclosed is a copy of well log for the test well drilled at Talisman Area.

FINANCES: In discussions with Mr. Greene, Administrative Assistant of the Seashore, and with Mr. Miller, Geologist, U.S. Geological Survey, it was brought out that Addendum #1, issued to all prospective bidders on May 19, 1967, had doubled the necessary quantities of core samples and drive-point sample settings for each construction site. As a result of this, it was estimated that the Government will realize a savings of about \$5,000 without sacrificing any technical information that may be obtained from the well.

During the course of the discussions, it was also noted that Geologist Miller has been communicating with Assistant Superintendent Morris and Administrative Assistant Greene every week on the progress or lack of progress of the test well drilling operation. Geologist Miller is scheduled to be transferred to Billings, Montana, by Thanksgiving and at the time of the meeting did not know who his replacement would be.

PURPOSE 2. RECONNAISSANCE

On October 26, Mr. Greene, Mr. Miller, and the undersigned drove down the island from Smith Point County Park to Robert Moses State Park to acquaint ourselves with and to get a rough idea on the number of wells existing on the Island. Because of lack of time on this trip to conduct a thorough investigation, only general information was noted.

It appears that from limited observation and from the knowledge of the Geologist and Mr. Greene all residences outside the communities of Atlantique, Cherry Grove, Cornville Estates, Davis Park west of Brookhaven Town Park, Danwood, Fair Harbor, Fire Island Pines, Fire Island Summer Club, Kismet (Lighthouse Shores) Kismet Park, Seaboy Beach, Lonsdaleville, Ocean Beach Park, Point O'Woods, Robbins Nest, Saltaire, Seaview and Water Island, receive their water supply from shallow depth drive points wells. The towns receive their water supplies from wells varying in depth between 400 feet to 600 feet. Enclosed are two plans which graphically illustrate the location of all wells on the Island in 1963. The plans were extracted from a Geological Survey Professional Paper 483-I titled "Correlation and Foraminifera of the Monmouth Group (Upper Cretaceous) Long Island, New York." No contact was made with the town officials for water supply information.

Some deeper wells on Government land are:

SMITH POINT: 6" well with a 2" suction pipe. Located in a circular pit 6 feet in diameter and about 3 feet deep. Depth 359-374 feet artesian flow of 21 gpm at grade. It has been estimated that 100-150 gpm could be pumped by Geologist Perinutter (letter to Richard Ketchum, dated January 17, 1967). Visible signs of high iron concentration from the ground stains in the immediate vicinity of the outlet was noted.

TALISMAN AREA: 6" well with 2" feed line. Water is pumped to a 3,000 gallon pressure tank and then distributed throughout Government facilities. This well is located about 500 feet west of where the present well is being drilled for the same area. Artesian flow - no flow measurements taken. The well is housed in a rectangular enclosure measuring about 3 x 5 feet, and 6 feet deep.

Other wells located on Government land which is reported in the master plan for the area but not visited on this trip are located at Moriches Inlet and at Watch Hill.

PURPOSE 3. DEVELOPMENT AND WATER DEMAND (OFFICE STUDY)

According to the master plan the following areas are planned for development. (See enclosure for type of facilities.) Construction, as reflected in the Long Range Program Schedule 1967-1977 - April 1967, Edition, is scheduled as follows:

<u>Area</u>	<u>R & T</u>	<u>B & U</u>
Watch Hill	1967	1969 & 1971
Sailors Haven	1967 & 1971	1968 & 1969; 1971
Smith Point West	1968, 1970 & 1971	1970 & 1971
Pattersquash	1971	1972
Whale House Point	1971 & 1973	1967 & 1973
East Lead	1971 & 1972	1974
Smith Point East	1973 & 1974	1975
Talisman Area	1972	1975
Palican	1972	1976
Long Cove	1972 & 1973	1973
Moriches Inlet	1973	1976
William Floyd Estate		1974

WATER DEMANDS: As reflected in the enclosed memorandum from Chief, Design and Construction, PSC, Reese Smith's memorandum of November 15, 1967, to Chief, Office of Land and Water Rights, WSC, the water demand estimated for the following areas are:

Watch Hill	40,000 gpd
Sailors Haven	40,000 gpd
Smith Point West	Minimum

As related by Mr. Greene the Watch Hill complex may possibly receive its water supply from the Davis Park complex. E-log and well data are enclosed for the well drilled at Davis Park.



IN REPLY REFER TO:
L54-DP

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
Philadelphia Planning and Service Center
Design and Construction
Philadelphia, Pa. 19106

Ketchum
PK

November 15, 1967

Memorandum

To: Chief, Land and Water Rights, WSC
From: Chief, Design and Construction, PSC
Subject: Fire Island National Seashore, Estimated potable
water requirements

We wish to confirm the information given verbally to your Mr. Garland Moore by our Engineer John Longworth during their telephone conversation of November 8th as follows:

We estimate the potential potable water demand at Watch Hill Developed Area at 40,000 gallons per day and at Sailors Haven Developed Area at 40,000 gallons per day.

30 gpm

The Smith Point West Developed Area requirements which were estimated at 75,000 gallons per day were based on the needs of a major development including campground, bathing and picnic facilities. The present Developed Area Plan which has not been approved as yet, but is based on an approved master plan indicates a small contact station and a residence which would require service and would therefore create a minimum demand.

53 gpm

We appreciate receiving the preliminary production estimate of 100 gallons per minute for the test wells at Sailors Haven and Watch Hill and would appreciate receiving more detailed information as it becomes available.

H. Reese Smith
H. Reese Smith

cc:
Deputy Assoc. Director Jensen
Ass't Director, D&C Krueger
Deputy Ass't Director, D&C Rosenberg
NERO
Superintendent, New York City Group

October 6, 1967

154-OLW

Memorandum

To: Chief, Office of Land and Water Rights, WSC
Attention: Mr. Ketcham

From: Chief, Branch of Water Resources

Subject: Application for permit from State for wells at Fire Island

Please refer to your letter of October 5 to the New York State Department of Conservation on the above subject.

To my knowledge, this is the first time the Park Service has applied for a permit in New York State. Although the Service has authority to make such application this action is permissive and not mandatory. Because this is a precedent, the matter should be discussed with the Solicitor's Office before any formal application is made.

When the forms are received, it is suggested that they be filled out and together with all other pertinent material, made into a package for the Solicitor's information. The matter can be discussed with the Associate Solicitor for Parks informally and, if desirable, a formal memorandum requesting his advice can be prepared later.

(signed)

E. W. Reed

cc:
Mr. Reed - OLWW

EWReed:ljc

700-10-3-27

L54 WSC-OLW

October 5, 1967

New York State Department of Conservation
Water Resources Commission
373 Maple Avenue
Westbury, New York 11590

Dear Sirs:

Our National Seashore Superintendent at Fire Island has advised us that use of a recently drilled well in his area is contingent upon application to your commission for a permit. We have in our files an information circular and one on rules and regulations as a guide, but it would appear from sample applications shown that you would provide pertinent forms for such an application upon request. This letter requests a nominal supply of 10 or 15 copies of these forms and any pertinent data that will serve to aid this agency to make a proper application to use groundwater from a successful test well in the aforementioned park area.

Sincerely yours,

Richard L. Stanton

Richard L. Stanton
Chief, Office of Land
and Water Rights, WSC

cc:
WASO, Mr. Reed
OLW
OLW (Water Rights) Corres.

RWZetcham:mf 10/5/67

Maps and Miscellaneous Information

Number of Documents in Docket	14		
Documents Dated from	10/5/1967	to	1/18/1968
Docket Compiled:	3/10/2011		