WATER-RIGHT DOCKET

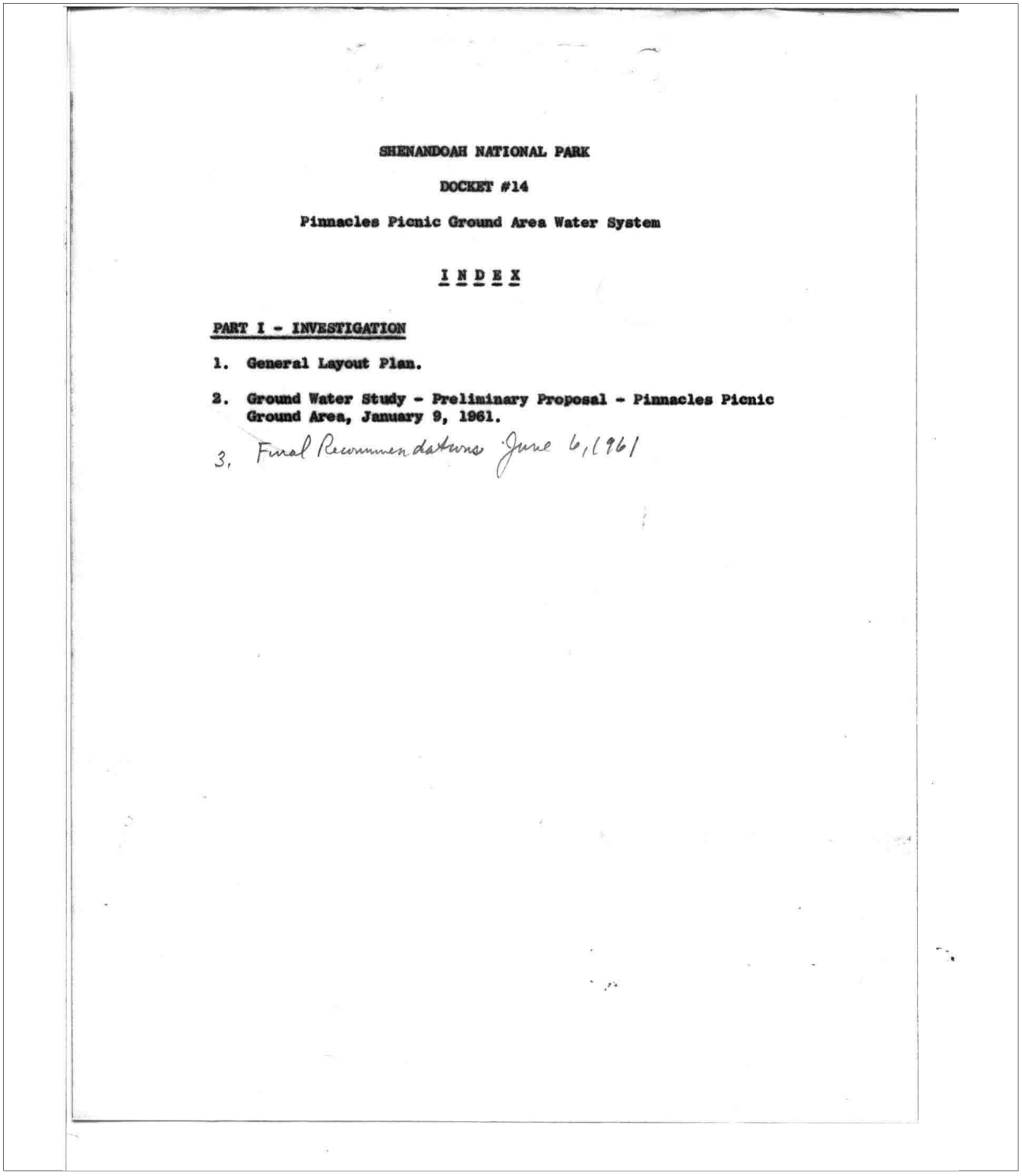
Shenandoah National Park

Docket No: 14

PINNACLE SPRING. PINNACLE'S PICNIC GROUND AREA

Preliminary Docket Information

00-00-0000: docket #14: pinnacles picnic ground area water system index



SHENANDOAH NATIONAL PARK

DOCKET #14

Pinnacles Picnic Ground Area Water System

I N D E X

PART I - INVESTIGATION

1. General Layout Plan.

2. Ground Water Study - Preliminary Proposal - Pinnacles Picnic Ground Area, January 9, 1961.

3. Final Recommendations June 6, 1961

Land History

11-00-1958: fixed property record

Form 10-550
(Nov. 1958)

FIXED PROPERTY RECORD

DESCRIPTION OF PROPERTY (*Include reference to the location within the Park, how the asset was acquired, name of contractor, etc.*

Location: Pinnacles Area - Central District

Three Springs
One 20,000 Gallon Concrete Reservoir
One 5,000 Gallon Concrete Reservoir
One 8' x 10' Concrete Pump House
10,800 Linear Feet of Pipe
Five Stone Masonry Drinking Fountains
One Fire Hydrant
JV 31-79 Standard Aerofeeder (Chlorinator)
Gravity and Pumping System

Constructed by CCC in 1938, Force Acct.

Line	DATE	REFERENCE		QUANTITY			COST		
		Journal Vou.	Other	Unit	No. of Units	Accumulated Total	Direct Costs	Indirect Costs	Accumulated Costs
1	8/27/59	37-10	System		1				15,900.00
2	10/14/66	31-79					327.78		16,227.78
3									
4									
5									

G.L. Acct. No.	General Classification	Sub-Classification	Region	State	Park or Office
100.8	Utility	Water System	One	Va.	SNP

Other Supporting Information

RECEIVED
SHEN. NAT'L. PARK
JUN 16 '61
Superintendent
Asst. Supt.
Chief Ranger

Final Recommendations

Pinnacles Auxiliary Water Supply

Sexton Shelter Area

Preliminary recommendations for the Sexton Shelter area called for digging up the collecting galleries and receptacles. The work was completed on May 26, and as suggested in the original recommendations the galleries and receptacles were generally filled with sand and silt, and much of the water available in the area was by-passing the installations.

The following recommendations are made to improve and recondition the water collecting system in the Sexton Shelter area:

1. All collecting galleries and lead-in tiles should be dug up, cleaned out and replaced in a proper base of fine crushed rock.
2. The receptacles should be cleaned out and a two-foot long cut-off wall extending about 4" above the top of the receptacle should be constructed on each side of the receptacle to prevent excess water from flowing beside the receptacles during times of high discharge.
3. Some type of overflow pipe should be laid on top of the receptacles so that excess water will have to flow over the receptacles, instead of around or under them.
4. The outlet pipe of the receptacles is too small (1½ and 2" galvanized iron pipe). This pipe cannot carry the maximum flow during times of high discharge and should probably be replaced if time and money permit. The present pipe is approximately 28 years old and probably will need replacing within the next few years.

June 6, 1961
H. R. Hopkins

Virginia Division of Mineral Resources
Charlottesville, Virginia

DESCRIPTION OF COMPLETED WATER SUPPLY PROJECTS

SEXTON SHELTER PROJECT

One of the first projects to be developed is known as the "Sexton Shelter Project", general layout plan for which is presented on PLATE I. The large drainage area back of this development has a gentle slope prepared by the deposit of talus between 3,200 and 3,50?-foot contours as indicated on the plate. Below the 3,200-foot contour is a marshy flat saturated with water, breaking off into a small draw at about the 3,160-foot contour. Preliminary investigations showed only 3 small springs or outcrops of the underground flow, producing a total flow of only about 5 gallons per minute. It was evident from investigations carried on below the ?,150-foot contour, that a large percentage of the water did not show at the surface above this contour. Trenches were dug at each spring, or outcrop, and at other likely places with the result that water was found flowing about 3 to 4 feet below the ground surface at 4 different points as indicated by the location of the one-foot square underground receptacles on the layout plan. It would appear from the character of the soil and the contours of the area, that water should seep through the entire area of talus formation, but this was not the case as the water was found to have made small channels and come out, as shown on the sketch, at definite places. The flow is collected in the 4-inch tile, which is covered with crushed stone and then clay, and directed to the small receptacles, thence through steel pipe to the tank or collecting reservoir.

Studies indicate that the talus formation in this drainage area is fairly deep, because, even with this partial development, the flow held up well in the critical period during the summer of 1936. However, should the demand for water in this section increase to exceed the present supply, this entire project would be revised on the basis of the additional experience acquired since its installation. One plan would be to install a cut-off wall with attached collecting chamber below the ?,150 foot

Theoretically, this method would collect the entire flow, but it would increase the pumping head possibly 30 feet and increase the storage area which would result in the increase of the withdrawal of water from the underground reservoir through transpiration by the marsh plants and probably by the forest trees. The better plan would be to dig deeper and longer trenches at the present locations in order to intercept the flow before it enters the marsh and possibly only increase the pumping head a few feet.

Justification:

This installation was for the purpose of supplying the Sexton Knoll Picnic Grounds with water from a spring located 250 feet lower and 1000 feet away from the development. It is necessary to pump this water into a 20,000-gallon reservoir from where it flows by gravity into the distribution lines. A temporary pump installation was set up with an old pump and was used during the summer of 1936. In 1937 a gravity line was laid from springs on Pinnacle Mountain - 5,500 feet away and these springs are sufficient to take care of the demand during a normal weather season. During a dry summer it will be necessary to augment these springs from the supply developed as a part of this job and a pump house will be built to accommodate the pump and equipment needed to make this system function properly. This pump house job will be submitted at a later date.

Form No. 10-352
(May 1937)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EMERGENCY ACTIVITIES

Symbol No. EP-10

JOB APPLICATION AND COMPLETION RECORD

Region One State Virginia Area Shenandoah National Park

Name of job Water System Form 7 No. 143 Job No. 53

Location of job Sexton Knoll Picnic Grounds Master plan No. _____ Working plan No. SHE-6014-A

BLOCK A—PROPOSED WORK

NUMBER OF PERIODS REQUIRED TO COMPLETE JOB ( )	WORK CONTEMPLATED			ESTIMATED COSTS			TOTAL
	UNIT	NUMBER UNITS	MAN-DAYS MAN-HOURS	LABOR	MATERIALS	EQUIPMENT	
Previously approved	Lin ft	4,500	600		300.00		300.00
Original or additional request							
TOTAL	x x x x	4,500	600		300.00		300.00

BLOCK B—LABOR SUMMARY

TYPE OF LABOR	UNSKILLED	INTERMEDIATE	SKILLED	PROFESSIONAL AND TECHNICAL	TOTAL
Number of man-hours					
Cost of labor					

Submitted by James K. Lassiter Title Superintendent Date NOV 15 1938

BLOCK C—CLEARANCE

PARK AUTHORITY	DATE	PROCUREMENT OFFICER	DATE	INSPECTOR	DATE

BLOCK D—COMPLETION RECORD

WORK ACCOMPLISHED				TOTAL ENCUMBRANCES COMPLETED JOB				
DATE OF COMPLETION	UNIT	NUMBER UNITS	MAN-DAYS MAN-HOURS	LABOR	MATERIALS	EQUIPMENT	TOTAL	BALANCE
Sept., 1936	Lin ft	4,500	653		290.56		290.56	9.44

Approved by _____ Title _____ Date _____ Release date _____

(JUSTIFICATION ON BACK OF SHEET)

U. S. GOVERNMENT PRINTING OFFICE 6—9221

00-00-0000: job application and completion record for sexton knoll picnic area

This water line which supplies the Sexton Knoll picnic ground with water was completed during the summer of 1938, but some repairs were necessary during the winter of 1938-1939.

These are now completed and the system is now operating properly. The work was installed as shown on drawing NP-SKK-4004 without any changes being made in the field.

Form No. 10-352
(May 1937)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
EMERGENCY ACTIVITIES

Symbol No. NP-12

JOB APPLICATION AND COMPLETION RECORD

Region One State Virginia Area Shenandoah National Park

Name of job Water System Form 7 No. 143 Job No. 117

Location of job Sexton Knoll (Pinnacle to Jewell Hollow) Master plan No. _____ Working plan No. NP-SHE-40(

BLOCK A—PROPOSED WORK

NUMBER OF PERIODS REQUIRED TO COMPLETE JOB	WORK CONTEMPLATED: UNIT	NUMBER UNITS	MAN-DAYS MAN-HOURS	ESTIMATED COSTS: LABOR	MATERIALS	EQUIPMENT	TOTAL
Previously approved	Lin.ft	5,500	1,500		$1,500.00		$1,500.00
Original or additional request							
TOTAL	XXXX	5,500	1,500		$1,500.00		$1,500.00

BLOCK B—LABOR SUMMARY

TYPE OF LABOR	UNSKILLED	INTERMEDIATE	SKILLED	PROFESSIONAL AND TECHNICAL	TOTAL
Number of man hours					
Cost of labor					

Submitted by James R. Lassiter Title Superintendent Date July 27, 1938

BLOCK C—CLEARANCE

PARK AUTHORITY	DATE	PROCUREMENT OFFICER	DATE	INSPECTOR	DATE

BLOCK D—COMPLETION RECORD

WORK ACCOMPLISHED: DATE OF COMPLETION	UNIT	NUMBER UNITS	MAN-DAYS MAN-HOURS	TOTAL ENCUMBRANCES COMPLETED JOB: LABOR	MATERIALS	EQUIPMENT	TOTAL	BALANCE
See opp. side	L ft.	5,500	[illegible]		$1,238.76		$1,238.76	$261.24

Approved by _____ Title _____ Date _____ Release date _____

(JUSTIFICATION ON BACK OF SHEET)

U. S. GOVERNMENT PRINTING OFFICE 6—0821

00-00-0000: job application and completion record for sexton knoll

05-07-1935: letter to deputy chief engineer from acting superintendent regarding proposed water supply system for the sexton shel

May 7, 1935

Mr. Oliver G. Taylor
Deputy Chief Engineer
Eastern Division
Branch of Engineering
National Park Service
Washington, D. C.

Dear Mr. Taylor:

I am transmitting herewith drawing No. SHE 6014 showing the proposed water supply system for the Sexton Shelter Picnic Ground and Jewel Hollow View parking area.

This system will derive its source from four springs located just below Sexton Shelter which have been piped into a 5000 gallon sump and from which Camp NP-10 is now pumping its supply.

It is proposed to build a 20,000 gallon concrete tank hexagonal in plan, located on the top of the knoll just to the southwest of the picnic ground. This tank will be placed one half in the ground and one half out with the excavated material banked around the portion projecting above the existing ground surface. This is necessary as the proposed pumping station will be located only 30 feet more or less below the top of the hill and it is necessary to hold the tank as high as possible in order to have sufficient head on the comfort station.

Six drinking fountains are shown on the plan which will be built according to plans prepared by the Branch of Plans and Design so that the structures extending above the ground will have the approval of all concerned.

If this plan is approved it is requested that you purchase for us a gasoline motor driven pump capable of delivering 30 to 40 gallons per minute against a static head of 321 feet pumped through 1300 feet of 2½ inch pipe.

It is also requested that the Branch of Plans and Design furnish us with a plan for the pump house approximately 12 feet square.

Sincerely yours,

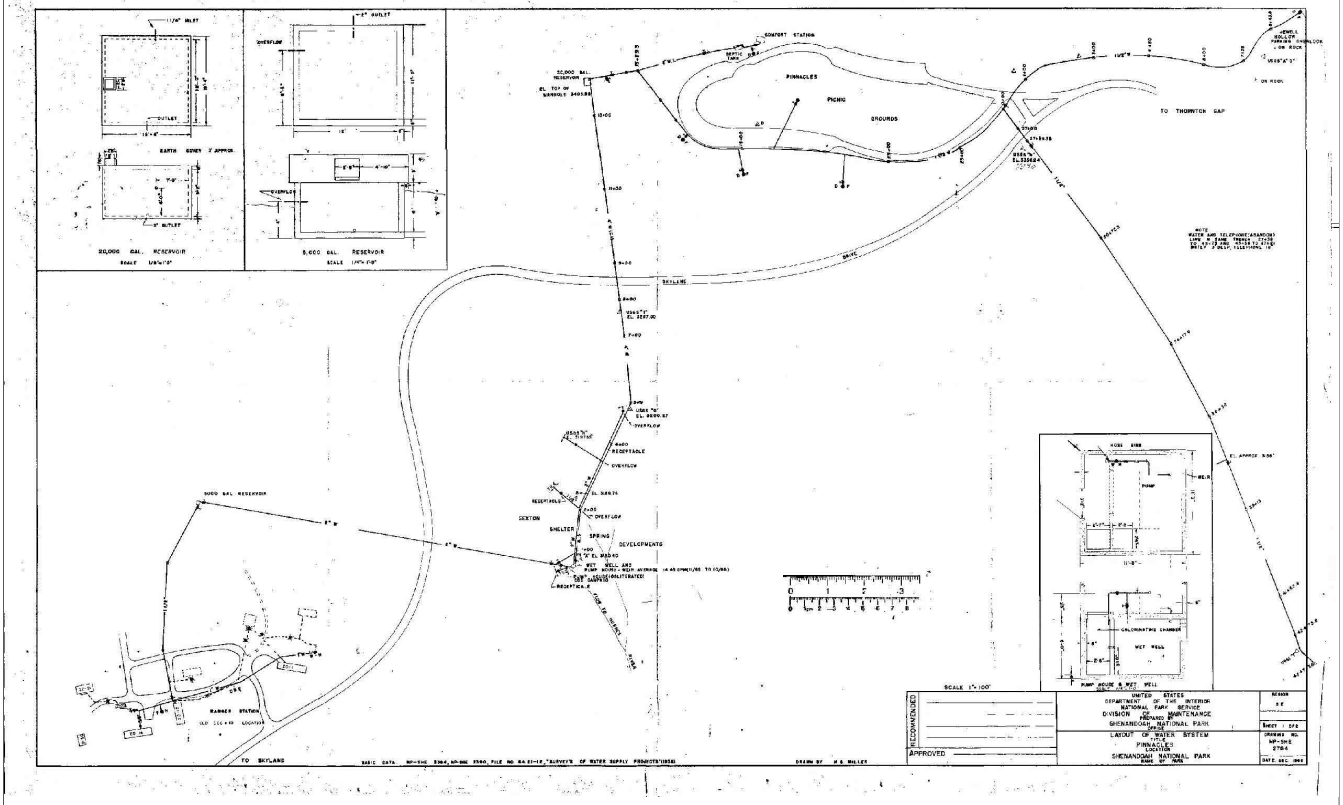
Acting Superintendent
Shenandoah National Park

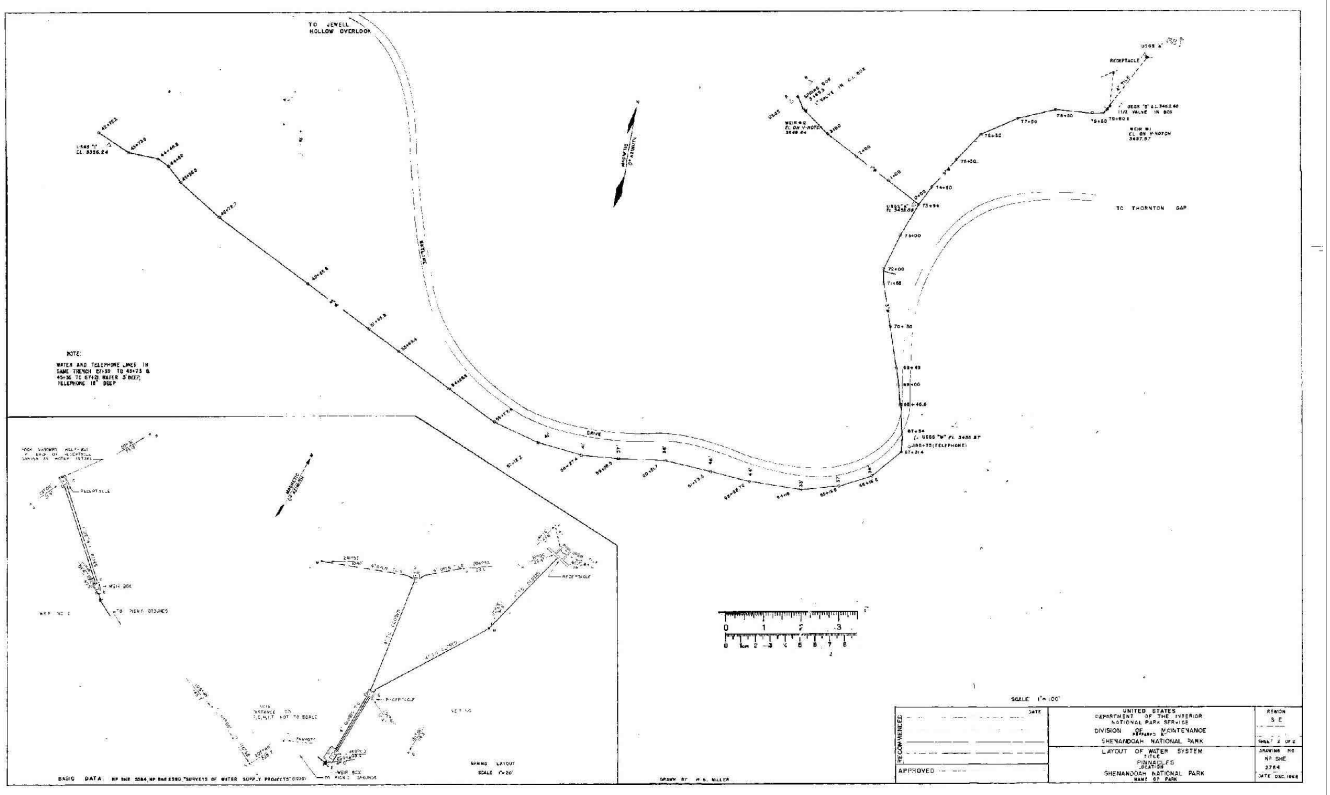
cc Mr. Peterson
JRL:VW Enclosure 621920

Maps and Miscellaneous Information

12-00-1966: layout of water system - pinnacles

SHEN MAPCOD - 0014 Mapping Book Required





Docket Information

Number of Documents in Docket 12

Documents Dated from 5/7/1935 to 12/15/1966

Docket Compiled: 6/17/2011