



WATER-RIGHT DOCKET

Shenandoah National Park

Docket No: 28

UNNAMED SPRING BYRD'S NEST #4

Other Supporting Information

08-03-1972: memorandum to director, northeast region from hydrologist, water resources regarding completion report



IN REPLY REFER TO:

L54-PN

United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

August 3, 1972

Memorandum

To: Director, Northeast Region
Attention: Dr. Nicholas J. Chura

From: Hydrologist, Water Resources, PN

Subject: Completion Report - Shenandoah National Park

Enclosed is a copy of the subject completion report which should be filed in Water Right Docket #28 - Byrd's Nest #4.

A copy of the subject completion report should be furnished to the Superintendent of Shenandoah National Park for inclusion into his docket.

SIGNED

Victor A. Berte'

Enclosure



National Parks Centennial 1872-1972

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SHENANDOAH NATIONAL PARK
Luray, Virginia 22835

COMPLETION REPORT

Day Labor

Work Order No.: 113420005

Title : Byrd's Nest #4, Water System

Prepared by : Thomas R. Lowe
Project Supervisor

Date : December 1, 1971

Form 10-174
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FACE SHEET FOR COMPLETION REPORT

Park Shenandoah National Park	Region Southeast	Work Order No. 113420005
Location in Park Byrd's Nest #4, North District	State(s) Virginia	Fund Symbol 14X1035
☐ Contract and/or ☒ Day Labor	County or Counties	Year Programmed 1969
Work Order Title Byrd's Nest #4, Water System	Page	PCP No. U-166-1
		Master Plan No. 134-41004
		Master Plan Corrected By -
		As Built Drawings By None
		Date Started May 1969
		Date Completed May 1971

DESCRIPTION OF FIXED ASSETS
(For completion by employee in charge of project)

220.7 Utility Systems

1. Water Systems: Develop two small springs, install collection box, Hydraulic Ram, 4,010 feet of water line, 1,000-gallon reservoir, water fountain, and related valves and fittings

\$ 7,126.38

~~XXXXXXXXXX~~

TOTAL \$ 7,126.38

DISTRIBUTION		THE FIXED ASSET DESCRIBED ABOVE HAS BEEN COMPLETED IN ACCORDANCE WITH APPROVED DRAWINGS, SPECIFICATIONS, AND AUTHORIZED CHANGES		
No.	To	Submitted	Title	Date
1	WASO	By: <i>Thomas R. Lowe</i>	Chief of Park Maintenance	12/1/71
1	ESC	Approved		
1	SERO	By: <i>R. Taylor Hoskins</i>	Superintendent	12/1/71
1	SERO FO			
1	Shenandoah			
COSTS VERIFIED				
1	DSC	By: <i>Ed C. Yearty</i>	Superintendent	7-7-72

Form 10-174A
(June 1962)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

COMPOSITION OF COST FOR COMPLETION REPORT

Work Order Number

113420005

Fund Symbol

14X1035

Year Programmed

1969

Park

Shenandoah National Park

Region

SE

Location in Park

Byrd's Nest #4, North District

Work Order Title

Byrd's Nest #4, Water System

COMPOSITION OF COST

COSTS CHARGED TO FUNDS ALLOTTED TO FIELD FINANCE OFFICE

(1) Personal Services.....	\$ 3,860.10	
(2) Travel.....		
(3) Contract Work.....		
(4) Supplies and Materials.....	1,797.83	
(5) Other Direct Expenses.....		
(6) Operation of Equipment.....	485.50	
(7) Depreciation of Equipment.....		
(8) Purchase of Construction Equipment.....		
(9) Purchase of Other Accountable Equipment.....		
(10) Other Costs:		
(11) TOTAL COST CHARGED TO FFO FUNDS.....	XXXXXXXXXX	\$ 6,143.43

OTHER COSTS:

(12) PS&S, AP, and/or Facilitating Services @ 16 %.....	\$ 982.95	~~982.95~~
(13) Inventory and Other Non-Fund Costs		982.95
(14) GROSS WORK ORDER COSTS.....	XXXXXXXXXX	\$ 7,126.38
LESS:		
(15) Residual Value of Construction Equipment on Line 8.....	\$	
(16) Other Credits		
(17) NET COST OF FIXED ASSETS.....	XXXXXXXXXX	\$ 7,126.33

Identify other costs and other credits by line item entry, on an attached schedule, or explain in narrative.

NARRATIVE TO ACCOMPANY PROJECT COMPLETION REPORT

WORK ORDER NO. 113420005

Byrd's Nest #4, Water System

Shenandoah National Park

Work under this Work Order consisted of installing a complete water system for Byrd's Nest #4 Shelter located on Neighbor Mountain. The system is of low capacity since the only demand on the system is from campers using the shelter.

Two small springs below Beahms Gap Overlook, with a combined flow of approximately 5 g.p.m., were developed using wing wall type interceptors. The flow is piped to a 960-gallon concrete surge-collection chamber and thence through a drive pipe to a #10HD Rife Hydraulic Ram. A metal housing was constructed to protect the Ram. Delivery pipe to the reservoir above the shelter is 1-inch galvanized steel. An old truck water tank was converted for use as the underground 1,000-gallon reservoir.

During the summer of 1970, a temporary fountain was hooked up near the shelter so the campers would have the benefits of the system. With the closing of Swift Run Area, in the fall of 1970, a stone fountain was moved from Swift Run to the Byrd's Nest site and installed.

Final work on the job was accomplished in May 1971 with the topsoiling and seeding of the disturbed areas.

The system, as operational, will deliver approximately one pint of water per minute to the reservoir with the Hydraulic Ram working under a head of 460 feet. Cost on this job was held to a minimum by using salvaged materials to the extent possible.

As time and manpower permit, a completed set of drawings and history will be prepared for inclusion in Water Docket #28. (Byrd's Nest #4 Docket).


Thomas R. Lowe
Project Supervisor

Form 10-411
(July 1965)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

PROJECT CONSTRUCTION PROPOSAL

DISTRIBUTION OF COPIES

NO.	TO
6	Southeast Region

1. STATEMENT OF MANAGEMENT'S REQUIREMENTS, PROPOSED WORK, AND ITS RELATIONSHIP TO OTHER FACETS OF THE PARK PROGRAM. (Provide detail data for "Management Information" on Form 10-411a, Supplemental Sheet and attach.)

Potable drinking water is needed at the Byrd's Nest No. 4 Shelter for the hundreds of campers that will be using the shelter each year.

It is proposed to provide the service through the installation of a hydraulic ram to pump water from a spring located approximately 2,000 feet distant. A stone-masonry drinking fountain is to be provided at the shelter site.

NOTE: This proposal supersedes PCP U-166 which was submitted on January 26, 1965, in the amount of \$6,000.

2. ADVANCE REQUIREMENTS DATA

LAND STATUS Government-owned (NPS)	MASTER PLAN NO. NP-SHE 3202	APPROVAL DATE Package Master Plan
PCP NUMBERS OF PREVIOUSLY COMPLETE PORTIONS (Shelter constructed with donated funds)	INTERRELATED & DEPENDENT PROJECT PCP NUMBERS None	
INTERPRETIVE PROSPECTUS APPROVAL DATA None		DATE N/A

WATER RIGHT NEEDS & STATUS

None

RESEARCH NEEDS & STATUS

None

OTHER

3. RECOMMENDED BY SUPERINTENDENT (Signature & Date)

R. Taylor Hoskins
R. Taylor Hoskins APR 18 1966

4. APPROVED BY REGIONAL DIRECTOR (Signature & Date)

W. C. ...
APR 27 1966

5. LOCATION WITHIN AREA OR TERMINI

North District, Neighbor Mountain Ridge

6. BLDG. OR RT.# AND SEC.

Building No. 9-22

7. REGION
Southeast8. PARK
Shenandoah National Park

9. PROJECT

Water System, Byrd's Nest No. 4 Shelter

Rappahannock
(County)

Virginia
(State)

10. PCP INDEX NO.

U-166-1

ESTIMATE		QUANTITY	COST
CLASS ☐ (A) - Estimate based on working Drawings CLASS ☐ (B) - Estimate based on preliminary plans CLASS ☒ (C) - Estimate based on similar facilities in other parks		S. & S. by _____ BPR ☐ NPS ☒	
Spring development and collection system including catchment basin and ram regulator.		Lump Sum	\$ 700.00
Hydraulic ram and accessories including housing unit.		Lump Sum	650.00
1" steel water line		2000 feet	2,500.00
3/4" steel water line		250 feet	250.00
Steel storage tank, 1000-gallon capacity		2 each	600.00
Stone masonry drinking fountain		1 each	275.00
Total			\$ 4,975.00
RESEARCH ESTIMATE APPROVED:		ESTIMATE TOTALS	
(Asst. Director, Resource Studies) (Date)		RESEARCH	
ON CONSTRUCTION OF THIS PROJECT, THE FOLLOWING COSTS WILL BE INCURRED:		Construction.....7.5% \$ ~~4,975.00~~ 4,975	
PLANS, SURVEYS, AND SUPERVISION.....15% 746.25 965		Contingencies 10% 497.50 660	
CONSTRUCTION ESTIMATE APPROVED:		CONSTRUCTION	
H. Reese Smith 5/11/66 (Design Office Chief) (Date)		SUB TOTAL 6,600	
INTERPRETIVE ESTIMATE APPROVED:		INTERPRETIVE	
(Asst. Regional Director, for) (Date)		SUB TOTAL (100%) 0	
GSA DC: 66-2827		AND TOTAL 6,600	

Form 10-411a
(July 1965)UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Page 1 of 1 pages

SUPPLEMENTAL INFORMATION FOR PROJECT CONSTRUCTION PROPOSAL

PARK Shenandoah National Park	FACILITY Water System, Byrd's Nest No. 4 Shelter	P.C.P. NO. U-166-1
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1. MANAGEMENT INFORMATION

Storage tank should be placed underground because of trails in the immediate area.

2. TECHNICAL INFORMATION

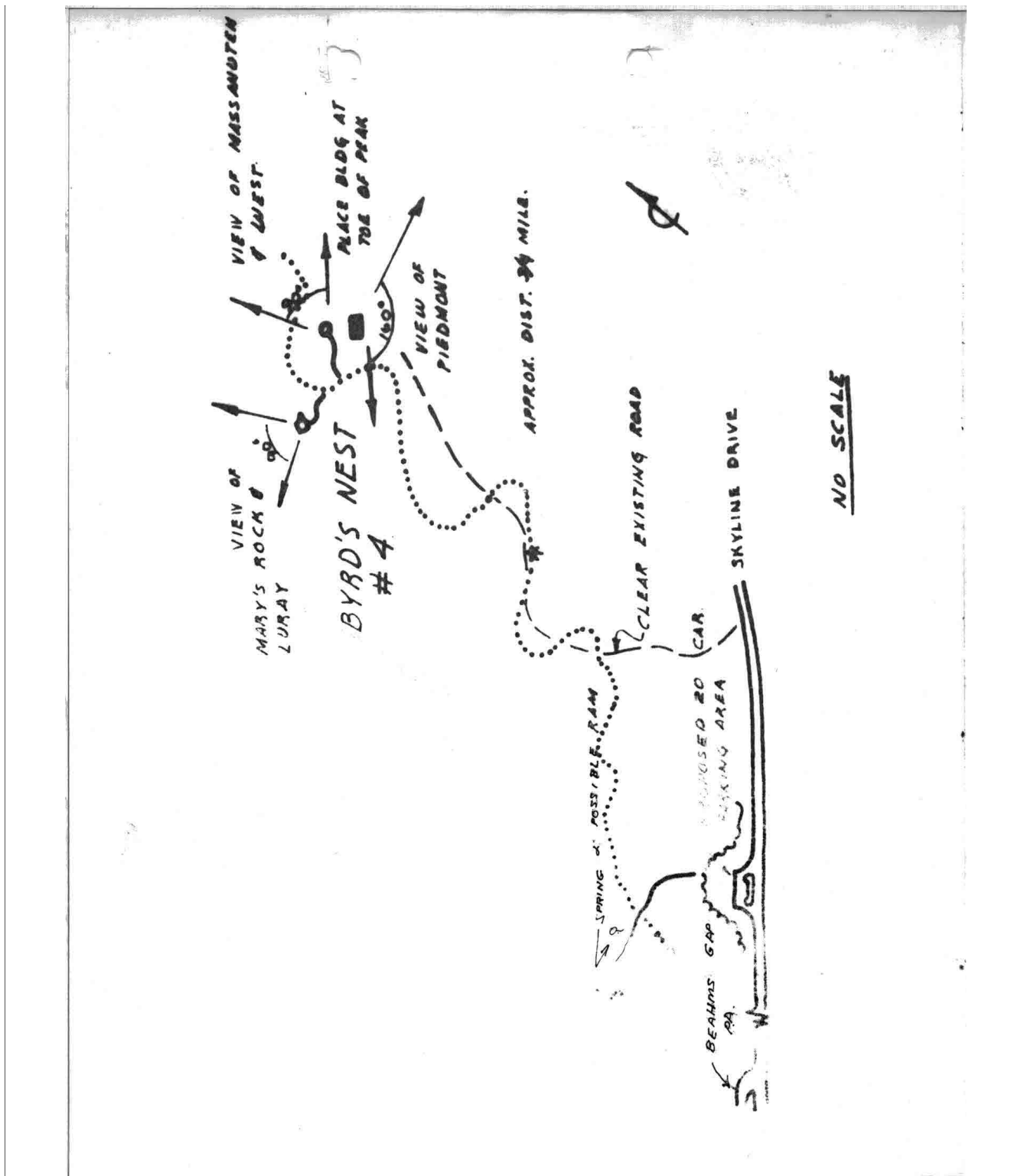
There are three springs in the area that could be used to furnish water to the shelter. The three locations along with differential leveling data are shown on Drawing No. NP-SHE 2498, Stadia Traverse Survey for Byrd's Nest No. 4 Water System.

Water flow measurements from the three springs are being recorded monthly. The estimate is based on installing ram at the spring closest to the shelter but it might be desirable to use one of the other springs, depending upon a study of the flow data obtained in the intervening period.

GSA DC 66-2828

(CONTINUE ON REVERSE)

Maps and Miscellaneous Information



Docket Information

Number of Documents in Docket 9

Documents Dated from 12/1/1971 to 8/3/1972

Docket Compiled: 6/17/2011