

United States Department of the Interior
National Park Service
**National Register of Historic Places
Registration Form**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking an "X" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900-a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Allegheny River Lock and Dam No. 9
other names/site number N/A

2. Location

street & number P.O. Box 161 (at terminus of SR 1004, 0.2 N of T488) [N/A] not for publication
city or town Widnoon [N/A] vicinity
state Pennsylvania code PA county Armstrong code 005 zip code 16261-0161

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Signature of certifying official/Title _____ Date _____

State or Federal agency and bureau _____

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title _____ Date _____

State or Federal agency and bureau _____

4. National Park Service Certification

I hereby certify that the property is	Signature of the Keeper	Date of Action
<input type="checkbox"/> entered in the National Register <input type="checkbox"/> See continuation sheet	_____	_____
<input type="checkbox"/> determined eligible for the National Register <input type="checkbox"/> See continuation sheet	_____	_____
<input type="checkbox"/> determined not eligible for the National Register	_____	_____
<input type="checkbox"/> removed from the National Register	_____	_____
<input type="checkbox"/> other, (explain) _____	_____	_____

Allegheny River Lock and Dam No. 9
Name of Property

Armstrong County, PA
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply)

- private
 public-local
 public-State
 public-Federal

Category of Property
(Check only one box)

- building(s)
 district
 site
 structure
 object

Number of Resources within Property
(Do not include previously listed resources)

Contributing	Noncontributing	
<u>0</u>	<u>0</u>	buildings
<u>0</u>	<u>0</u>	sites
<u>4</u>	<u>0</u>	structures
<u>0</u>	<u>0</u>	objects
<u>4</u>	<u>0</u>	Total

Name of related multiple property listing
(Enter "N/A" if a property is not part of a multiple property listing)

REVISE
Allegheny River Locks and Dams Nos. 2-9

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

Transportation: water-related: lock and dam

Current Functions
(Enter categories from instructions)

Transportation: water-related: lock and dam

7. Description

Architectural Classification
(Enter categories from instructions)

~~Beaux Arts~~ Art Deco

Materials

(Enter categories from instructions)

foundation concrete

walls reinforced concrete

roof flat tar asphalt

other _____

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets)

PLEASE SEE CONTINUATION SHEET: 7 - 1 ON DOCUMENT PAGE 5

Allegheny River Lock and Dam No. 9
Name of Property

Armstrong County, PA
County and State

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Areas of Significance

(Enter categories from instructions)

Transportation

~~Commerce~~

~~Industry~~

Maritime History

Architecture

Engineering

Period of Significance

~~1920-1938~~ 1935-1948

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Significant Dates

N/A

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

N/A list engineer, building firm

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

PLEASE SEE CONTINUATION SHEET: 8-1

9. Major Bibliographical References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the NR
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository:

U.S. Army Corps of Engineers, Pittsburgh District

Allegheny River Lock and Dam No. 9
Name of Property

Armstrong County, PA
County and State

10. Geographical Data

Acreage of Property approximately 21.21 acres (does not include the hydro-electric power station on west bank of the river, but includes road and bridge south just beyond Mast Run)

UTM References

(Place additional UTM references on a continuation sheet.) East Brady, PA

1 1 7	6 2 2 3 6 7	4 5 3 4 1 7 4	3																									
Zone	Easting	Northing	Zone	Easting	Northing																							
2																												
											4																	
											[] See continuation sheet																	

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Douglas Dinsmore, Ph.D., Principal Investigator
organization Heberling Associates, Inc. date October 28, 1997
street & number 415 Church Street telephone (814) 643-1795
city or town Huntingdon state PA zip code 16652

Additional Documentation

Submit the following items with the completed form.

Continuation Sheets

Maps

- A **USGS map** (7.5 or 15 minute series) indicating the property's location.
- A **Sketch map** for historic districts and properties having large acreage or numerous resources.

Photographs

Representative **black and white photographs** of the property.

Additional Items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name _____
street & number _____ telephone _____
city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).
Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of the form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Final Version: 31 May 1994
Page #5

Section number 7 Page 1

Allegheny River Lock and Dam No. 9

Description

Lock and Dam No. 9 consists of a fixed-crest concrete dam, concrete land and river walls, steel miter gates, and a reinforced-concrete powerhouse, built 1935-1938. The lock walls and the 918-foot-long, nearly 60-foot-high dam rest on bedrock. Because of the mass of the dam, it was not keyed to the bedrock. Sloped at 2:1, the dam has a short apron with a baffle to prevent scour below the dam. A hydroelectric plant was added to the opposite end of the dam in 1990.

The lock, 56 by 360 feet, has a lift of 22.0 feet, from 800.2 to 822.2 feet. The sidewalls are steel-armored concrete, and mooring pins for securing watercraft are set along the walls. Large hydraulic pistons operate the gates and valves. The operating levers are duplicated on both the land and river walls. The river walls contain gate pockets and machinery pits on the river side of the river wall, evidence of the potential to add a second lock, if necessary. A gauging station stands at the upstream end of the land wall.

Water enters and exits the lock through eight-by-eight foot culverts in both the land and river walls. The intakes for the culverts are upstream of the upper gates, and water exits downstream of the lower ones. Openings in the lock walls fill and empty the lock from the culverts. Each culvert has two large horizontally-mounted butterfly valves to regulate the flow of water.

The horizontally-framed steel miter gates close against a concrete miter sill. Ion anode plates diminish the effects of rust, and bubblers in the corners prevent the accumulation of debris and ice in the gate pockets.

The two-story flat tar-roofed powerhouse is approximately 25 by 65 feet. In a vernacular style, the structure has a simple strip cornice. The window and door apertures are set in horizontal panels. A beam for hoisting equipment to the second floor projects from just underneath the cornice on both the river and land sides of the powerhouse. Some of the original windows have been replaced.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Final Version: 31 May 1994

Page #6

Section number 7 Page 2

Allegheny River Lock and Dam No. 9

The plain interior exemplifies the utilitarian nature of the powerhouse. The stair treads are open-grate metal with metal railings. An office is on the second story, with a modern air compressor and modern back-up diesel generator.

On the first floor, two large vertically-mounted three-cylinder hydraulic pumps are each powered by a 26-inch water turbine. An oil pressure relief valve regulates the oil pressure in the system, which contains approximately 1200 gallons of oil. The turbines also operate a vertically-mounted two-cylinder air compressor and a vertically-mounted three-cylinder water pump.

The third turbine and its electric generator have been removed, as have the capstans. The local power company now supplies electricity to the lock. A two-cylinder back-up hydraulic pump operates on compressed air, generated from the modern, electric-powered air compressor. An overhead crane provides lift for the large mechanical components.

Two locktenders' houses stand off-site, and are no longer owned by the Corps.

The road to Lock and Dam No. 9 crosses Mast Creek, and then proceeds north to the site. The road from the Mast Creek bridge to the lock was constructed on a large terrace made of fill, dredged from the river channel, completed in 1941. The addition of three feet to Dam 8, dredging the channel, and the high lift of Lock 9, 22 feet, provided slackwater for 72 miles. Originally, two additional locks above Lock 8 had been planned. The additional height to Dam 8, the dredging, and the high lift of Lock 9 eliminated the need for an additional lock. The large terrace of dredged gravel and stone provided a stable area for the road to Lock 9.

The design and operation of Lock and Dam No. 9 remain much as it was constructed in 1935-1938. Some minor changes have occurred, including, remodeling of the office inside the powerhouse, and pargeting of the exterior. Some modern equipment, including video cameras and two-way radios, has been added. The continuity of the original design and construction remains.

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Final Version: 31 May 1994
Page #7

Section number 8 Page 1

Allegheny River Lock and Dam No. 9

Statement of Significance

Allegheny River Lock and Dam No. 9 should be considered to be eligible for the National Register of Historic Places as part of the Allegheny River Locks and Dams Nos. 2-9 Multiple Property Listing. Constructed in 1935-1938, Lock 9 became the last part of an integral slackwater system built to permit commercial barges and tugboats access to 72 miles of the Allegheny River.

Lock and Dam No. 9 should be considered to be eligible under Criterion A, for its contribution to the long-term industrial, commercial, and residential development of the region. Lock 9 completed the connection to the upper Allegheny from the Ohio and Monongahela Rivers.

Allegheny River Lock and Dam No. 9 should also be considered to be eligible under Criterion C, as a representative example of lock and dam construction of the period 1935-1938. The lock and dam retains its design and function. The lock retains most of its original machinery, and continues to function as originally designed. Lock and Dam No. 9 retains integrity of location, design, setting, materials, workmanship, feeling, and association.

Historical background and significance

The Multiple Property Documentation Form (MPDF) for *Allegheny River Locks and Dams Nos. 2-9* detailed the history of improvements on the lower Allegheny. As noted in the MPDF, Lock and Dam No. 9 completed the 1898 plan of slackwater navigation for 72 miles up the Allegheny River from its mouth at Pittsburgh. The construction of Lock and Dam No. 9 provided slackwater to the mines and quarries near East Brady. Like Locks 6-8, Lock 9 was constructed with the potential to add a second lock, if traffic would increase.

The form and function of Lock and Dam No. 9 remain largely as constructed. The lock continues to operate with its water-powered hydraulic pumps. It continues to perform as an

United States Department of the Interior
National Park Service
National Register of Historic Places
Continuation Sheet

Final Version: 31 May 1994

Page #8

Section number 8 Page 2

Allegheny River Lock and Dam No. 9

integral unit of the slackwater system on the Allegheny River. Presently, the traffic at Lock 9 is almost entirely recreational watercraft, and the lock operates only on weekends.

Bibliography

The information for this individual form came from a survey of the lock and dam, conducted in June, 1997. Additional information came from the files and library of the Pittsburgh District, U.S. Army Corps of Engineers, and the National Archives.

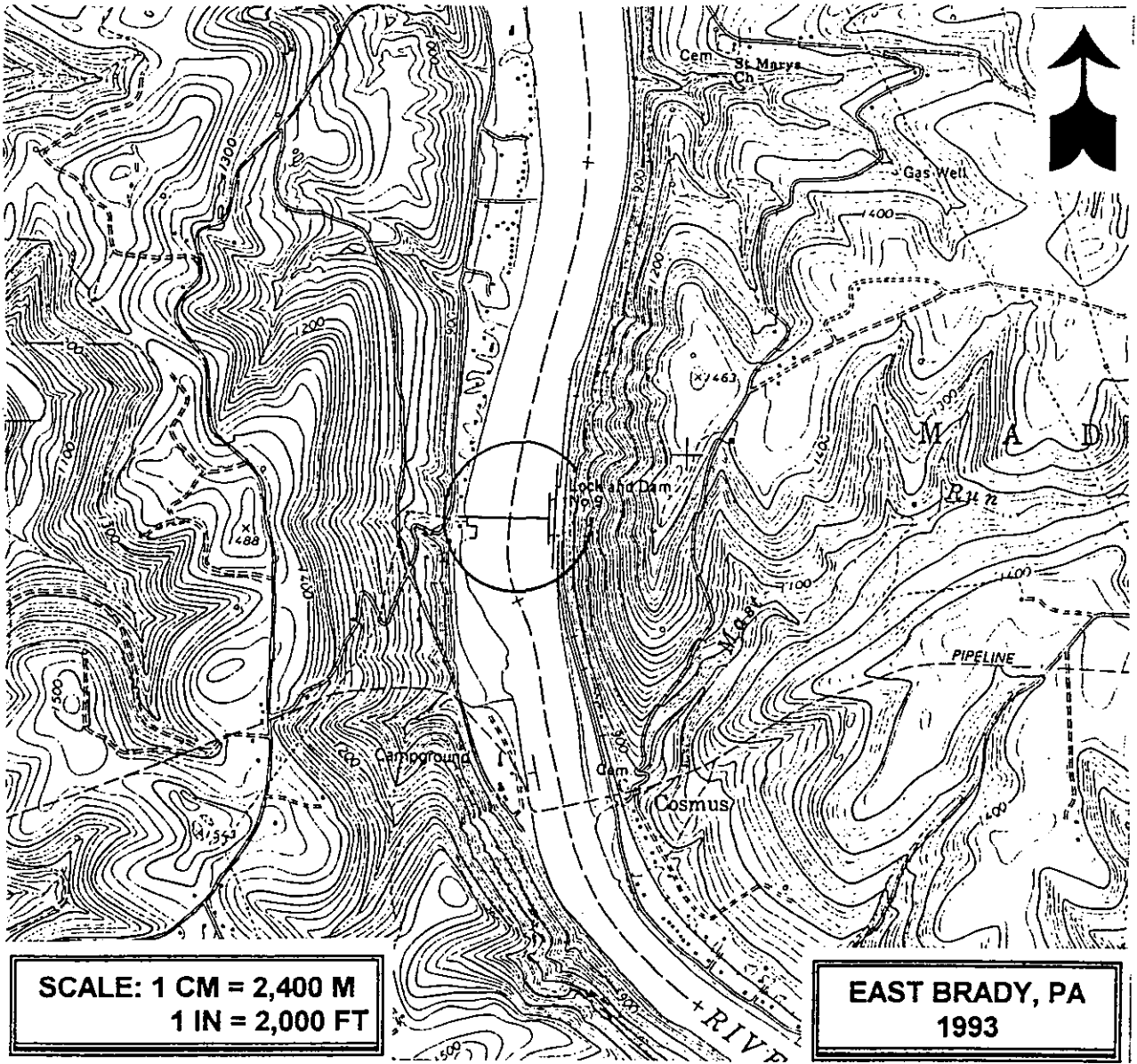
Verbal Boundary Description

The boundary includes the property of the United States of America, administered by the U.S. Army Corps of Engineers. The property consists of a roughly rectangular tract that includes the lock and powerhouse. The hydro-electric power station on the east side of the river was built in 1990, and is not included in the property boundary.

Verbal Boundary Justification

The boundary includes the land on which the lock and powerhouse are located. The east abutment of the dam was removed in 1990 to add a hydro-electric power station. It is not included in the historic property boundary. The locktender's houses were built off-site, and are now longer owned by the Corps.

LOCK AND DAM NO. 9



SCALE: 1 CM = 2,400 M
1 IN = 2,000 FT

EAST BRADY, PA
1993