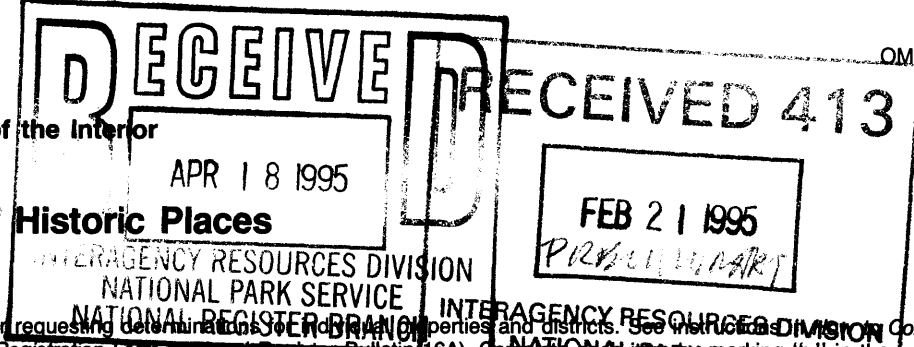


United States Department of the Interior  
National Park Service

### National Register of Historic Places Registration Form



This form is for use in nominating or requesting determinations for properties and districts. See instructions. Complete the National Register of Historic Places Registration Form (National Register Bulletin 15A) and the National Park Service Form 10-900a. 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 10-900a). Use a typewriter, word processor, or computer, to complete all items.

#### 1. Name of Property

historic name Spokane River Bridge at Long Lake Dam

other names/site number WSDOT 231/101

#### 2. Location

street & number State Route 231, spanning the Spokane River  not for publication

city or town Reardan  vicinity

state Washington code WA county Lincoln & Stevens code 043, zip code 99029  
065

#### 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.)

Mary M. Sampson 2/18/95  
Signature of certifying official/Title Date

State of 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:

- entered in the National Register.  See continuation sheet.
- determined eligible for the National Register.  See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain): \_\_\_\_\_

Signature of the Keeper Paul R. Ferguson Date of Action 5/24/95

Name of Property

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 in the count.)

Contributing	Noncontributing	
_____	_____	buildings
_____	_____	sites
_____ 1 _____	_____	structures
_____	_____	objects
_____ 1 _____	_____	Total

Name of related multiple property listing

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

"Bridges of Washington State, 1941-1950"  
 "Historic Bridges & Tunnels in Washington State"

Number of contributing resources previously listed in the National Register

\_\_\_\_\_ 0 \_\_\_\_\_

6. Function or Use

Historic Functions

(Enter categories from instructions)

Transportation/road-related/bridge

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Current Functions

(Enter categories from instructions)

Transportation/road-related/bridge

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7. Description

Architectural Classification

(Enter categories from instructions)

Other: concrete arch

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Materials

(Enter categories from instructions)

foundation \_\_\_\_\_

walls \_\_\_\_\_

roof \_\_\_\_\_

other concrete \_\_\_\_\_

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Narrative Description

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

Name of Property

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.

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.

Areas of Significance

(Enter categories from instructions)

Engineering

Period of Significance

1949

Significant Dates

1949

Significant Person

(Complete if Criterion B is marked above)

n/a

Cultural Affiliation

n/a

Architect/Builder

Washington State, Dept. of Highways

Henry Hagman, contractor

Narrative Statement of Significance

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

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 National Register
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 Bridge Condition Unit,
Federal agency WSDOT, Olympia, WA;
Local government
University Archaeological & Historical Services, Eastern Washington
Name of repository: University, Cheney, WA

Spokane River Bridge at Long Lake Dam  
Name of Property

Lincoln/Stevens, Washington  
County and State

**10. Geographical Data**

**Acreage of Property** less than one acre

**UTM References**

(Place additional UTM references on a continuation sheet.)

1 

1	1	4	3	6	2	7	0	5	2	9	8	5	3	0
Zone		Easting				Northing								

3 

Zone		Easting				Northing								

See continuation sheet

**Verbal Boundary Description** The property is a bridge, measuring 486 feet, spanning the Spokane River on State Route 231, connecting Lincoln and Stevens counties, Washington.  
(Describe the boundaries of the property on a continuation sheet.)

**Boundary Justification** The boundary of the property is the bridge itself.  
(Explain why the boundaries were selected on a continuation sheet.)

**11. Form Prepared By**

name/title Robert H. Krier, J. Byron Barber, Robin Bruce, Craig Holstine

organization AHS, Eastern Washington University date 5 December 1991

street & number MS-168 Monroe Hall telephone (509) 359-2284

city or town Cheney state WA zip code 99004

**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 \_\_\_\_\_

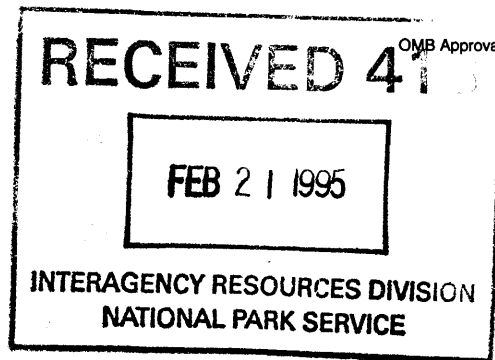
city or town \_\_\_\_\_ state \_\_\_\_\_ zip code \_\_\_\_\_

**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 this 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



Section number 7 Page 1

### 7. Physical Description

Built in 1949, the Spokane River Bridge at Long Lake Dam crosses its namesake downstream from the Washington Water Power Company's Long Lake Dam. This portion of the Spokane River, which forms the boundary between Lincoln County on the south and Stevens County on the north, is extremely rugged and remote. The river gorge is typified by imposing cliffs rising dramatically above the Long Lake Dam and powerhouse.

The bridge consists of two 40-foot-long concrete girder approach spans on the south end; a 211-foot-long open spandrel arch span; and four 40-foot-long and one 30-foot-long concrete girder approach spans on the north end, for a total length of 481 feet including overhangs and bridge seats. This is the longest concrete arch span constructed by the state in the 1941-1950 period.

The approach spans each consist of two reinforced concrete girders with parabolic soffits. Floor beams, located at approximately 10 to 12 feet on centers between the girders, support the roadway slab on both the approach and arch spans. The floor beams cantilever beyond the girder to support slab, curbs, sidewalk, and handrail.

The graceful concrete arch section consists of two reinforced concrete ribs spanning 200 feet between skewbacks, with a rise of 44 feet and an overall length of 211 feet. The ribs support columns spaced at 23-foot centers, which in turn support the roadway girders, floor beams, and roadway slab. The arch curvature is formed by double center circular curves.

United States Department of the Interior  
National Park Service

## National Register of Historic Places Continuation Sheet

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### 8. Statement of Significance

The Spokane River Bridge at Long Lake Dam is eligible for inclusion in the National Register of Historic Places under Criterion C. The structure is an outstanding example of a graceful concrete arch bridge, one of the few built during the decade of the 1940s. This structure is located in a remote part of eastern Washington, where rugged basalt cliffs present a pleasing contrast to the elegant lines of the bridge. Its use in this location enhances the natural beauty of the rugged environment in a particularly effective blend of a man-made structure with its natural surroundings. The structure is also significant as an example of innovative engineering technology in its use of the considere hinge.

Employment of a considere hinge at the skewbacks is featured in the arch design of the bridge. Under this system, the arch acts as a two-hinged arch to support the dead load of the structure. After all concrete in the superstructure is cast, the falsework is released and the arch ribs then support the total dead load of the structure. The arch rib steel is then welded together and the concreting of the hinge is completed, thus causing the arch to act as a fixed arch under live load conditions. The Spokane River Bridge at Long Lake Dam is the only concrete arch bridge built by Washington State in the 1940s using this system.

Clarence B. Shain was the Director of Highways at the time the Spokane River Bridge was built. George Stevens was the Bridge Engineer. Henry Hagman of Cashmere, Washington, builder of numerous bridges in the Pacific Northwest, was the contractor. The bridge was built for a cost of \$215,400.

### 9. Major Bibliographic References

Washington State Department of Highways. *Biennial Reports*, 1948–1950, 1950–1952.

Washington State Department of Transportation (WSDOT). Spokane River Bridge at Long Lake Dam plans (layout), revision dated 4 February 1949, on file in the Bridge Preservation Office, WSDOT, Olympia, Washington.

WSDOT. "Bridge Condition Card—Spokane River Bridge at Long Lake Dam," 28 March 1949, on file in the Bridge Preservation Office, WSDOT, Olympia, Washington.