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NPS Form 10-900
(Rev. 8/86)
Wisconsin Word Processor Format (1331D)
(Approved 3/87)

OMB No. 1024-0018

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NATIONAL REGISTER

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 of eligibility for individual properties or districts. See instructions in Guidelines for Completing National Register Forms (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries. Use letter quality printer in 12 pitch, using an 85 space line and a 10 space left margin. Use only archival paper (20 pound, acid free paper with a 2% alkaline reserve).

1. Name of Property

historic name De Pere Lock & Dam Historic District

other names/site number N/A

2. Location

street & number Fox River at James Street N/A not for publication

city, town De Pere N/A vicinity

state Wisconsin code WI county Brown code 009 zip code 54115

3. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
		contributing	noncontributing
<input type="checkbox"/> private	<input type="checkbox"/> building(s)		
<input type="checkbox"/> public-local	<input checked="" type="checkbox"/> district	<u>2</u>	<u>2</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site		<input type="checkbox"/> sites
<input checked="" type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>3</u>	<input type="checkbox"/> structures
	<input type="checkbox"/> object		<input type="checkbox"/> objects
		<u>5</u>	<u>2</u> Total

Name of related multiple property listing:

Waterway Resources of the Lower Fox River

No. of contributing resources previously listed in the National Register N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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. ___ See continuation sheet.

Dr. William S. Knecht 14 Oct '93
Signature of certifying official Date
Corps of Engineers
State or Federal agency and bureau

In my opinion, the property meets ___ does not meet the National Register criteria. ___ See continuation sheet.

[Signature] 8/21/92
Signature of commenting or other official Date
State Historic Preservation Officer-WI
State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

entered in the National Register ___ See continuation sheet Beth Boland 10/7/93
___ 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 Date

6. Functions or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
<u>Transportation/water related</u>	<u>Transportation/water related</u>
<u>Domestic/single dwelling</u>	<u>Domestic/single dwelling (vacant)</u>
_____	_____
_____	_____

7. Description

Architectural Classification
(enter categories from instructions)

Materials
(enter categories from instructions)

Other: Lock

foundation Concrete

Other: Concrete Dam

walls Concrete

Colonial Revival

Brick

roof Asphalt

other Wood

Steel

Describe present and historic physical appearance.

The De Pere Lock Historic District is located on the northeast shore of the Fox River, at that point in De Pere where the Main Avenue bridge crosses the river. Although the area immediately north of the lock once contained several industrial buildings, it is generally clear now -- a small water power mill being the District's lone neighbor to the north. Across the river is the large industrial complex of the Nicolet Paper Company. The District contains three structures, the lock, dam and canal segment, all of which are contributing. It also contains four buildings, the lockkeeper's house, lockshack, storage shed and garage, the first two of which are contributing elements.

De Pere Lock (Contributing):

The present lock, which is oriented on an NW/SE axis was completed in 1936. It replaced one of composite construction. The 146 by 36 foot lock chamber and wing walls are comprised of concrete, the sides of which contain a pipe railing. Each of the lock's four miter gates is constructed of steel. Adjacent to each gate is a concrete platform that contains a tripod. A vertical shaft extends the height of the tripod. A handle is fixed to the top of the shaft, while the bottom of the shaft contains a gear that drives a horizontally placed spar, the end of which is attached to a lock gate. (It is a horizontal rack and pinion system.) Depending on which way the handle is turned, the spar is either taken in, thus opening the lock gate, or it is pushed out, in which case the gate closes. The chamber is flooded by six butterfly valves that are set in the floor of the lock, immediately upstream from the structure. As the valves are opened, water passes down into a culvert with a 90 degree turn, which then directs it under the upstream sill and straight into the chamber. Each valve is adjusted by a geared mechanism that sits on the lock's coping. A metal shaft connects the valve to the adjusting mechanism, three of which are placed adjacent to each of the upstream corners of the lock. The chamber is discharged through six small butterfly valves found at the bottom of the two downstream gates. There are three valves per gate. These valves are operated by the levers atop each gate. The gates contain a cat-walk that facilitates moving from one side of the lock to the other. The lock provides 8.9 feet of lift as it moves crafts from the 586.66 feet above sea level upper pool to the 577.3 foot above sea level lower pool. It can be filled in two minutes and forty-five seconds, while it can be discharged in two minutes and eight seconds.

Details about the lock's construction, as well as about subsequent changes and major maintenance activities prior to 1953, are as follows:

1934 Lock reconstruction scheduled in three phases. First to be from December

X See continuation sheet

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1934 to March 1935, and second from December 1935 to March 1936. Budgeted at \$80,000.00 and \$85,000.00 respectively.¹

1935 Work began: "The upper half of the old composite lock was removed and rebuilt last winter in concrete, including the upper wing walls, valve platform, miter sill, installation of gates, etc., at a cost of \$116,659.99."²

1936 Lock construction completed at additional cost of \$114,193.17.³

1945 All below water steel painted.⁴

Dam (Contributing):

This dam is a concrete structure with an overall length of 981.6 feet. Completed in 1930, it is located at the south end of the short canal segment associated with the site. The dam creates the pool that floods the canal in which the De Pere lock is located. It is generally oriented on an SSW/NNE axis.

Anchored to the river's rock bottom, the dam consists of three sections. The eastern section, which is 296.5 feet, and the western section, which is 334.6 feet, are concrete spillways. The spillways are twenty-one feet wide, and fix the maximum level

¹ Annual Report of the Chief of Engineers, 1932: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1932), 1042.

² Annual Report of the Chief of Engineers, 1935: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1936), 1184.

³ Annual Report of the Chief of Engineers, 1936: Extract - Report Upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1937), 1189.

⁴ Annual Report of the Chief of Engineers, 1945: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1946).

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of the pool the dam creates at 586.66 feet above sea level (it maintains about a nine foot head). The middle portion of the dam is 355 feet, and contains fourteen concrete sluiceways, each of which contains a thirteen by twenty foot, steel Tainter gate. The gates are operated by a "crab," a small electrically operated mechanism that moves from gate to gate on a track. The "crab" contains a wench, to which the chain on each end of the gate is attached. As the wench is activated, the chain is taken in or let out, and the height of the gate is adjusted accordingly. A steel catwalk, which facilitates inspections and maintenance, extends the length of the dam.

Placed atop the dam is a single story front gabled shed that was erected to shelter the electric "crab." Spanning the abutments adjacent to the eastern most Tainter gate, the lift house is reached by a metal catwalk that then passes it and continues the entire length of the dam. It is clad with drop siding, roofed with asphalt singles, and has walls bounded with pilaster strips. The single window in each side wall and the panelled door at the right of the lockside endwall have simple surrounds. A pair of heavy wooden doors in the opposite endwall swing out to allow passage of the "crab" to whatever gate must be adjusted. This small building has a remarkably heavy frame. The side-wall sills are the bottom chord of a triangular, internal truss, above and below which the studs are pieced.

Details about the need for the new dam, as well as its construction, are as follows:

- | | |
|------|---|
| 1927 | Dam deteriorated and needed to be rebuilt in concrete as soon as possible, according to Corps. ⁵ |
| 1929 | Sluiceway portion of dam rebuilt at a cost of \$77,027.61. Spillway construction still in progress, with incurred costs of \$10,583.84 to that time. ⁶ |

⁵ Annual Report of the Chief of Engineers, 1927: Extract - Report Upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1927), 1301.

⁶ Annual Report of the Chief of Engineers, 1929: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1929), 1364.

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1930 Dam construction completed at total cost of \$100,484.29.⁷

Canal (Contributing): circa 1850s

Approximately 1,500 feet of the Lower Fox navigation canal are located within this district. Approaching the lock from the south, the canal makes a forty-five degree turn to the northwest. It is in that latter portion of the canal in which the lock is located. The canal's depth does not exceed six feet and its width is generally 100 feet across the top, although there is a 300 foot wide basin in the canal, south of the lock. Embankments are built of flat stones laid several courses high and concrete coping. This particular feature is deteriorating, indeed it is gone in several places around the canal.

Lockshack (Contributing):

This is a 1.5 story front gabled building that is used as the locktender's station. Clad with drop siding and roofed with asphalt shingles, it has walls bounded by pilaster strips, and plain window and door surrounds. The building rests on a more recent cement foundation built into the landward lock embankment. This foundation, entered by a (downstream) side door, serves as a storage basement. The front, left-side entry and right, front window are shielded by a full-width, shed-roofed canopy supported by triangular brackets with kingposts. There are two windows in each side wall, and one window centered in the rear wall. The main floor has two rooms; a front, plainly panelled office, and a rear storeroom and stair hall. An enclosed staircase leads to a short attic lighted by multipaned horizontal windows in front and rear gables.

This building is thought to have been the lockkeeper's house in the late nineteenth and early twentieth century. Its date of construction, therefore, is presumed to be

⁷ Annual Report of the Chief of Engineers, 1930: Extract - Report Upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1930), 1451.

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1879, the year in which a new lockkeeper's house was built.⁸

Lockkeeper's House (Contributing):

This structure is a two story colonial Revival house of the type most common to keepers' houses on the system. A gambrel-roofed rectangle, it has rectangular frame porches projecting at the front (downstream) and rear. Built into the riverside lock embankment, it has an exposed, windowless foundation. The brick first story has windows with stone sills. The upper-story gable is clad with wooden shingles and has two windows (all windows are covered with plywood) surmounted by a louvered attic vent. The roof has a molded cornice with endwall returns. The upper roof slope extends front and rear as pairs of shed-roofed dormers with molded cornices with sidewall returns. A brick chimney projects at the middle of the roof. Windows and doors throughout are covered with wooden panels.

The house was built in 1912, at a cost of \$3,052.00.⁹

Storage Shed (Non-contributing):

This is a small modern, metal structure with a gently sloping, single plane roof.

Garage (Non-contributing):

This modern frame structure has a hipped roof.

⁸ Annual Report Upon the Improvement of the Harbors of Milwaukee, Racine, and Kenosha, Lake Michigan, and Improvement of the Fox and Wisconsin Rivers, in charge of D.C. Houston, Major of Engineers, Bvt. Colonel, U.S.A.; Being Appendix AA of the Annual Report of the Chief of Engineers for 1879 (Washington, D.C.; Government Printing Office, 1879), 1544.

⁹ Annual Report of the Chief of Engineers, 1912: Appendix JJ - Report Upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1912), 2531; Annual Report of the chief of engineers, 1913: Appendix JJ - Report Upon the Improvement of Rivers & Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1913), 2798.

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Section number 8 Page 1

De Pere Lock and Dam Historic District
Brown County, WI

History:

The De Pere Dam was responsible for creating the pool that flooded the canal in which the De Pere Lock was located. It is that combination of lock and dam that enabled water craft to navigate the rapids at that point as they began the trip upriver or completed their trip downriver.

The De Pere Lock and Dam Historic District consists of an historic lock, dam, canal, and lockshack, built between 1930-1941 that meet the registration requirements set forth in Waterway Resources of the Lower Fox River multiple property form. The resources possess integrity of location, design and materials and are properties significant to the operation of the waterway.

___ See continuation sheet

9. Major Bibliographical References

United States Army Corps of Engineers. Annual Reports. Washington, D.C.: Government Printing Office, 1872-1951.

Previous documentation of 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 # _____

___ See continuation sheet
Primary location of additional data:
X State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
___ Other
Specify repository: _____

10. Geographical Data

Acreage of Property 2.8

UTM References:

A 1/6 4/1/5/4/1/0 4/9/2/2/1/2/0 B / / / / / / / / / / /
Zone Easting Northing Zone Easting Northing

C / / / / / / / / / / / D / / / / / / / / / / /

___ See Continuation Sheet

Verbal Boundary Description

See continuation sheet

X See Continuation Sheet

Boundary Justification

This boundary encompasses an appropriate setting, and includes that area immediately adjacent to, and historically associated with the subject property.

___ See Continuation Sheet

11. Form Prepared By

name/title John N. Vogel
organization J.N. Vogel, Ph.D. Consulting Hist. date 01 October 1991
street & number 301 North 73rd Street telephone (414) 258-6598
city or town Milwaukee state Wisconsin zip code 53213

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Section number 10 Page 1

De Pere Lock and Dam Historic District
Brown County, WI

Verbal Boundary Description: **see note Section 10, page 2

Those parts of the private claims in Brown County, Wisconsin, described as beginning at a stone monument at the intersection of the North line of James Street with the West line of River Street in the City of DePere according to the plat of DePere recorded November 2, 1835, in deed book D, page 199 and redrawn and re-recorded April 2, 1870 in said Brown County, from which stone the Northeast corner of the Northeast Quarter of Section 29, Township 23 North, Range 20 East of the Fourth Principal Meridian (Recorded as Corner R-9 in Brown County Surveyors' Office) bears South 74 degrees 45 minutes 42 seconds West, 7084.33 feet; thence North 00 degrees 57 minutes 49 seconds East 76.30 feet, along the West line of said River Street to a stone monument; thence continuing North 00 degrees 57 minutes 49 seconds East, 2 feet, more or less, to the Southwesterly shore line of the tail race; thence Northwesterly, along the said Southwesterly shore line, a total distance of 265 feet, more or less, to the intersection of the Northeasterly shore line of the United States Canal; thence Northwesterly, across said canal, a total distance of 495 feet, more or less, to the intersection of the Northeasterly shore line of the Fox River; thence Southeasterly, a total distance of 600 feet, more or less, upstream along said Northeasterly shore to a rebar with an allied cap stamped "USAED DETROIT BOUNDARY MARK" which bears North 78 degrees 44 minutes 51 seconds West 242.08 feet from the Point of Beginning; thence South 49 degrees 57 minutes 57 seconds East 182.32 feet, to a rebar with an allied cap stamped as before; thence South 14 degrees 22 minutes 27 seconds East 80.20 feet to a rebar with an allied cap stamped as before; thence continuing South 14 degrees 22 minutes 27 seconds East, 39.52 feet, to a rebar with an allied cap stamped as before; thence South 39 degrees 44 minutes 27 seconds East 282.18 feet to a rebar with an allied cap stamped as before; thence South 23 degrees 16 minutes 40 seconds East, 75.05 feet (measured - South 23 degrees 46 minutes 30 seconds East, 75 feet recorded), to a one inch square bolt set in concrete; thence Southeasterly, 11.4 feet, more or less, to the intersection of a limestone abutment with the limestone wingwall; thence South 23 degrees 05 minutes East, 35.3 feet along said limestone abutment to the Westerly face of concrete wingwall of the United States Dam; thence South 53 degrees 51 minutes East 15.3 feet along said wingwall; thence South 20 degrees 24 minutes 41 seconds East, 41.5 feet along the Westerly face of the concrete abutment of the United States Dam; thence along the riverside face of the concrete abutment, being a curve concave Northerly, a distance of 20 feet, more or less, to the intersection with the Westerly line of the United States Canal; thence Northerly and Northwesterly a total distance of 488 feet, more or less, along the Westerly shore line of the United States

X See continuation sheet

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Canal to the intersection of the Westerly line of said River Street extended Southerly; thence North 00 degrees 57 minutes 49 seconds East, 156.75 feet more or less, along said Westerly line extended, and across the canal basin to the stone at the Point of Beginning, in the City of DePere, Brown County, Wisconsin, and containing 2.83 acres, more or less. All bearings are true.

*The property boundary descriptions given have not been audited or verified. They are not, at any time, to be used for any legal boundary descriptions. They are used here only for the purpose of describing the approximate property location.

___ See continuation sheet

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DE PERE LOCK AND DAM HISTORIC DISTRICT (Dam)
Fox River at James Street
De Pere, Brown County
Photo by Bill O'Brien
October 1988
View to Southwest
Photo #1 of 5

DE PERE LOCK AND DAM HISTORIC DISTRICT (Dam lift-house)
Fox River at James Street
De Pere, Brown County
Photo by Bill O'Brien
October 1988
View to West Southwest
Photo #2 of 5

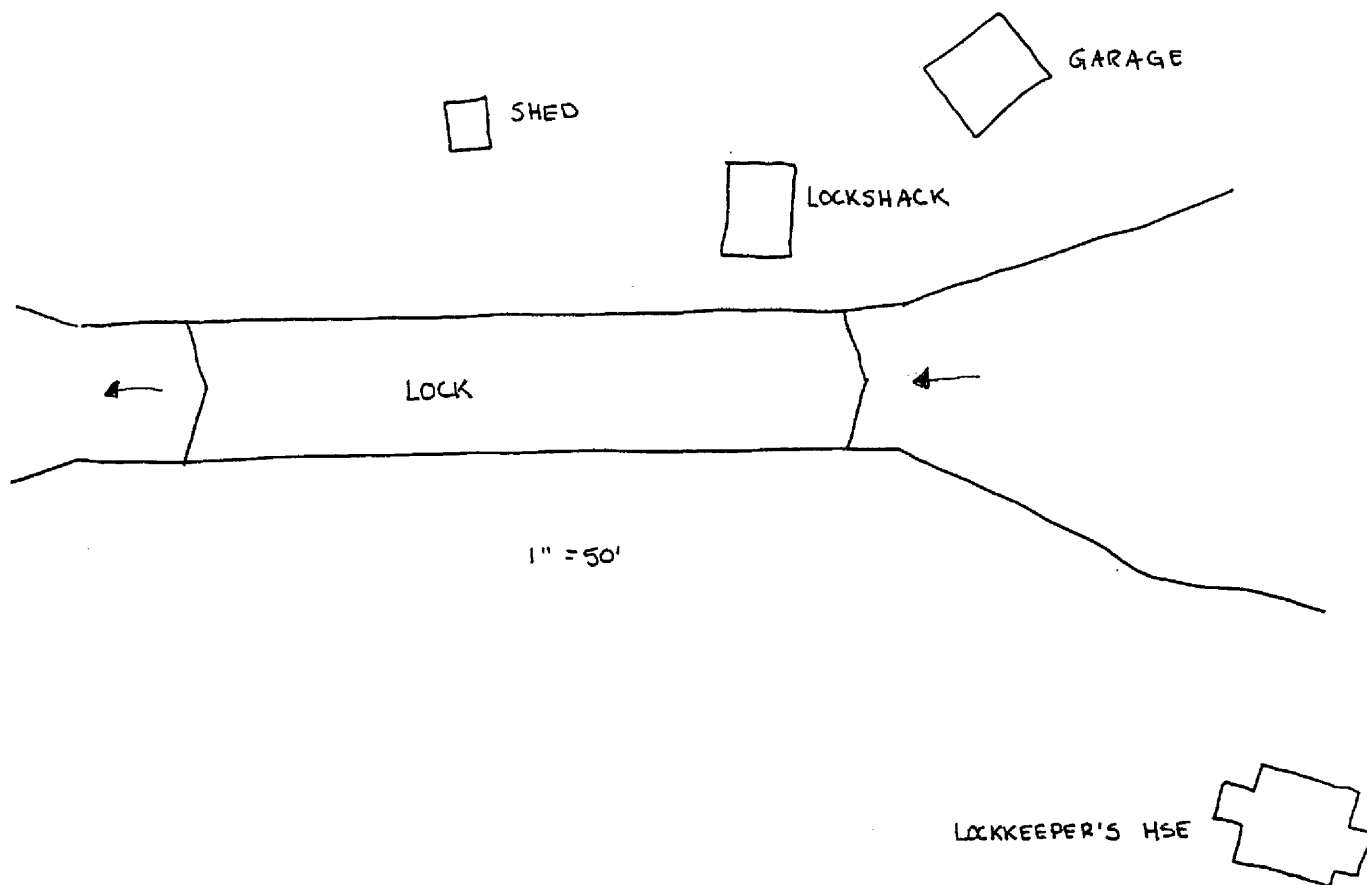
DE PERE LOCK AND DAM HISTORIC DISTRICT (Lockkeeper's house)
Fox River at James Street
De Pere, Brown County
Photo by Bill O'Brien
October 1988
View to North Northeast
Photo #3 of 5

DE PERE LOCK AND DAM HISTORIC DISTRICT (Lockshack)
Fox River at James Street
De Pere, Brown County
Photo by Bill O'Brien
October 1988
View to Northeast
Photo #4 of 5

DE PERE LOCK AND DAM HISTORIC DISTRICT (Lock)
Fox River at James Street
De Pere, Brown County
Photo by Bill O'Brien
October 1988
View to West Northwest
Photo #5 of 5

____ See continuation sheet

SKETCH MAP



LOCK

DE PERE LOCK AND DAM HISTORIC DISTRICT
Waterway Resources of the Lower Fox River