

to feeds 1332

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

OMB No. 1024-0018

United States Department of the Interior
National Park Service

RECEIVED
OCT 25 1993
NATIONAL REGISTER

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 Little Kaukauna Lock & Dam Historic District

other names/site number N/A

2. Location

street & number Fox River at Mill Road N/A not for publication

city, town Rockland X vicinity DePere

state Wisconsin code WI county Brown code 009 zip code N/A

3. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	contributing	noncontributing
<input type="checkbox"/> public-local	<input checked="" type="checkbox"/> district	<u>1</u>	<u>4</u> buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u> </u>	<u> </u> sites
<input checked="" type="checkbox"/> public-Federal	<input type="checkbox"/> structure	<u>3</u>	<u> </u> structures
	<input type="checkbox"/> object	<u> </u>	<u> </u> objects
		<u>4</u>	<u>4</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 J. Kaut
Signature of certifying official
Corps of Engineers
State or Federal agency and bureau
Date 19 Oct '93

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

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

5. National Park Service Certification

I, hereby, certify that this 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:)

Beth Boland
Signature of the Keeper
12/7/93
Date

6. Functions or Use

Historic Functions
(enter categories from instructions)

Transportation/water related
Domestic/single dwelling

Current Functions
(enter categories from instructions)

Transportation/water related
Domestic/single dwelling (vacant)

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 Little Kaukauna Lock and Dam Historic District is located on Mill Road at the Fox River, immediately downriver from that point where Apple Creek joins the Fox. The area around the district is largely rural, although at one time a pulping mill operated just west of the district (although unused and abandoned, a portion of that mill stands today). The district, which is located on the northwest side of the river, consists of three structures, the lock, dam and canal, all of which are contributing elements. It also includes five buildings, four of which are non-contributing (lockshack, sanitary facility, storage shed, garage). The lockkeeper's house is the only building that is a contributing element within the district.

Little Kaukauna Lock (Contributing):

The present lock, which is oriented on an SW/NE axis was completed in 1939. It replaced one of composite construction.¹ 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 7.2 feet of lift as it moves crafts from the 592.8 feet above sea

¹ Annual Report Upon the Improvement of the Harbors on Lake Superior East of Keweenaw Point, and Harbors on the West and South Shores of Lake Michigan, Improvement of the Fox and Wisconsin Rivers, in charge of D.C. Houston, Major of Engineers, Bvt. Colonel, U.S.A.; Being Appendix B of the Annual Report of the Chief of Engineers for 1873 (Washington, D.C.; Government Printing Office, 1873), 48.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 1 Little Kaukauna Lock and Dam Historic District
Brown County, WI

level upper pool to the 586.66 foot above sea level lower pool. It can be filled in two minutes and twenty-seven seconds, while it can be discharged in two minutes and fifty-six seconds.

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

- 1935 Corps report noted "the composite rubblestone timber-lined lock at Little Kaukauna is in such poor condition that it is a serious hazard to the important navigation of the lower river." It must be rebuilt soon.²
- 1936 Reconstruction of lock in concrete continued.³
- 1937 "The entire lock chamber floor and the left lock wall, with the exception of the upper left gate wall section were constructed at a cost of \$140,862.60."⁴
- 1938 Lock construction continued at an additional cost of \$169,813.74.⁵
- 1939 Construction of lock completed. All labor hired. Additional expenses

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), 1185.

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), 1190.

⁴ Annual Report of the Chief of Engineers, 1937: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1938), 1192.

⁵ Annual Report of the Chief of Engineers, 1938: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1938), 1438.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 2 Little Kaukauna Lock and Dam Historic District
Brown County, WI

totaled \$51,750.47.⁶

Dam (Contributing):

This dam is a concrete structure with an overall length of 587.7 feet. Completed in 1927, it is located immediately to the south of the very west end of the short canal segment associated with the site. The dam creates the pool that floods the canal in which the Little Kaukauna lock is located. It is generally oriented on an NNW/SSE axis.

Anchored to pilings driven into the river's bottom, the dam consists of three sections. The northern section, which is 167 feet, and the southern section, which is 215.7 feet, are concrete spillways. The spillways are forty-seven feet wide, and fix the maximum level of the pool the dam creates at 592.8 feet above sea level (it maintains about a seven foot head). The middle portion of the dam is 205 feet, and contains eight concrete sluiceways, each of which contains a fourteen 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 northern most Tainter gate, the lift house is reached by a metal catwalk that then passes it on the upstream side. 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.

⁶ Annual Report of the Chief of Engineers, 1939: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1940), 1582.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 3 Little Kaukauna Lock and Dam Historic District
Brown County, WI

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

- 1924 The Corps report stated "pile and timber dam at Little Kaukauna, 588 feet long, is in an advanced state of decay and the upper portion should be entirely rebuilt to prevent failure and resultant interruption of navigation."⁷
- 1927 Dam reconstruction completed at cost of \$48,299.83.⁸
- 1950 All sluice gates repainted.⁹

Canal (Contributing): circa 1850s

Approximately 1,000 feet of the Lower Fox navigation canal are located within this district. Generally running southwest to northeast at this point, the canal's depth does not exceed six feet, and its width varies between 100 to 150 feet across the top. There are no special embankment features along the canal, which has been periodically dredged throughout its history.

Lockkeeper's House (Contributing):

This building is a two story Colonial Revival house of the type most common to keeper's houses on the waterway. A gambrel-roofed rectangle, it has rectangular frame porches projecting at the front (downstream) and rear. The front porch is flat-roofed, the rear hipped. Built on a level portion of a peninsula between the lock and

⁷ Annual Report of the Chief of Engineers, 1924: Extract - Report Upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1925), 1342.

⁸ 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), 1299.

⁹ Annual Report of the Chief of Engineers, 1950: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1951), 2013.

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 4 Little Kaukauna Lock and Dam Historic District
Brown County, WI

an industrial power channel, the house has a brick first story with windows with stone sills. The upper-story gable is clad with wooden shingles and has two windows surmounted by a louvered attic vent. The two upper-story windows in the lockside gable are separated by a horizontal window at floor level that presumably lighted a staircase. The roof has a molded cornice with endwall returns. Its upper 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 ridge. Windows and doors throughout are covered with wooden panels.

Details about the house's construction are as follows:

1910 Lockkeeper's House: Albert Luckow and John Copps, of Kaukauna, contracted to build new lockkeeper's house similar to that at Little Chute. Rooms to be slightly rearranged, however. 50% done at end of fiscal year.¹⁰

1911 Lockkeeper's House: New house completed.¹¹

Lockshack (Non-contributing):

This is a small, modern metal shed with a shed roof that gently slopes to the rear.

Storage Shed (Non-contributing);

This is a small, modern metal shed with a shed roof that gently slopes to the rear.

Sanitary Facility (Non-contributing):

This is a small, modern structure.

¹⁰ Annual Report of the Chief of Engineers, U.S. Army, 1910 Part II (Washington, D.C.: Government Printing Office, 1910), 2139.

¹¹ Annual Report of the Chief of Engineers, 1911 - Appendix JJ: Report Upon the Improvement of Rivers & Harbors in the Milwaukee, Wisconsin, District (Washington, D.C.: Government Printing Office, 1911), 2342.

NPS Form 10-900a
(Rev. 8-86)
Wisconsin Word Processor Format
Approved 2/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 7 Page 5 Little Kaukauna Lock and Dam Historic District
Brown County, WI

Garage (Non-contributing):

A recent, frame structure, this building has a hipped roof.

 See continuation sheet

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties: nationally X statewide locally

Applicable National Register Criteria X A B X C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance

(enter categories from instructions)

 Transportation

 Engineering

Period of Significance

 1927-1941

Significant Dates

 1939¹

 1927²

Cultural Affiliation

 N/A

Significant Person

 N/A

Architect/Builder

 N/A

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Statement of Significance:

The Little Kaukauna Lock and Dam are significant components in the Lower Fox River Waterway System, a system which, as discussed in Cultural Resource Management in Wisconsin, was initially envisioned as part of the larger Fox-Wisconsin Waterway.³ Originally constructed by private interests between 1850 and about 1860, and rebuilt by the US Army Corps of Engineers between 1872 and 1941, the Lower Fox River system operated between Lake Winnebago and Green Bay. It is historically significant as a complete and operable mid-nineteenth century example of a river/canal, slack water transportation system, the technology of which was so well suited that it works effectively today. It is the only such system extant in Wisconsin. The system is also significant for its role in the evolution of Wisconsin's nineteenth century political and constitutional history. Further, it is an interesting chapter in the transportation history of the state.

¹Annual Report of the Chief of Engineers, 1939: Extract - Report upon the Improvement of Rivers and Harbors in the Milwaukee, Wis., District (Washington, D.C.: Government Printing Office, 1940), 1582.

²Annual 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), 1299.

³Barbara Wyatt, ed., Cultural Resource Management in Wisconsin (Madison: State Historical Society, Historic Preservation Division, 1986), Transportation 2/2.

NPS Form 10-900a
(Rev. 8-86)
Wisconsin Word Processor Format
Approved 2/87

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 8 Page 1 Little Kaukauna Lock and Dam Historic District
Brown County, WI

History:

The Little Kaukauna Dam was responsible for creating the pool that flooded the canal in which the Little Kaukauna Lock was located. It is that combination of lock and dam that enabled water craft to navigate the rapids at that point as they navigated between Kaukauna and Green Bay.

The Little Kaukauna Lock and Dam Historic District consists of an historic lock, dam, canal, lockkeeper's house, built between 1927-1941 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 property types 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): See continuation sheet

 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:
 X State Historic Preservation Office
 Other State agency
 Federal agency
 Local government
 University
 Other
Specify repository:

10. Geographical Data

Acreage of Property 4.18

UTM References:

A	<u> 1/6 </u>	<u> 4/1/0/5/4/0 </u>	<u> 4/9/1/4/3/0/0 </u>	B	<u> / </u>	<u> / / / / / </u>	<u> / / / / / </u>
	Zone	Easting	Northing		Zone	Easting	Northing

C	<u> / </u>	<u> / / / / / </u>	<u> / / / / / </u>	D	<u> / </u>	<u> / / / / / </u>	<u> / / / / / </u>
---	--------------	----------------------	----------------------	---	--------------	----------------------	----------------------

 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

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 10 Page 1 Little Kaukauna Lock and Dam Historic District
Brown County, WI

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

A parcel of land in the Southerly part of the Williams Grant, in Brown County, Wisconsin, being more particularly described as follows:

Overall Description: Beginning at an aluminum monument with the Corps of Engineers (C.O.E.) cap, said point bearing South 16 degrees 43 minutes 45 seconds East 1245.55 feet from a brass disc established by the Brown County Surveyor at the intersection of the centerlines of the original Village of Lawrence Highway and Country Highway; thence North 38 degrees 05 minutes 29 seconds West and extending into the water power canal 46.00 feet; thence North 60 degrees 46 minutes 00 seconds East 668.57 feet, (the preceding line lying entirely within the said power canal); thence South 29 degrees 14 minutes 00 seconds East 32.00 feet; thence North 36 degrees 37 minutes 58 seconds East 49.21 feet; thence North 59 degrees 24 minutes 01 second East 111.88 feet; thence North 49 degrees 14 minutes 00 seconds East 214.00 feet; thence North 55 degrees 06 minutes 00 seconds East 146.77 feet to Monument "A", an aluminum monument with (C.O.E.) cap, said monument bearing South 68 degrees 05 minutes 21 seconds East 1441.43 feet from the aforesaid brass disc by the Brown County Surveyor at the intersection of the centerlines of Country Highway and Village of Lawrence Hwy.; thence continuing North 55 degrees 06 minutes 00 seconds East 22 feet to the left shore line of the Fox River; thence Southwesterly along said shore line and across the United States Canal to the Easterly tip of the island on the South side of the Little Kaukauna Lock, said point bearing North 62 degrees 30 minutes East 445 feet from a cut cross in the left abutment of the United States Dam, said cut cross bearing South 42 degrees 08 minutes 04 seconds West 916.22 feet from said Monument "A" and South 86 degrees 09 minutes 01 second East 364.94 feet from the Point of Beginning; thence Southwesterly along the left shore line of the Fox River to the Westerly tip of the said island, said point bearing South 63 degrees West 180 feet from the aforesaid cut cross; thence across the United States Canal and along the shore line of said canal to a point that bears North 38 degrees 05 minutes 29 seconds West from the Point of Beginning; thence South 38 degrees 05 minutes 29 seconds East 15 feet to the Point of Beginning. The above described real estate contains 2.2 acres \pm of land North of the United States Canal and 1.1 acre \pm South of the canal.

ALSO: a part of Government Lot 4, Section 18, Township 22 North, Range 20 East described as follows:

X See continuation sheet

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET

Section number 10 Page 2 Little Kaukauna Lock and Dam Historic District
Brown County, WI

Beginning at a stone monument bearing North 27 degrees 35 minutes 33 seconds West 1609.84 feet from the South Quarter corner of said Section 18; thence South 74 degrees 30 minutes 00 seconds West 75.00 to a stone monument; thence North 15 degrees 30 minutes 00 seconds West 48.1 feet to the right shore line of the Fox River; thence down the right shore line of Fox River and along the Northerly face of the right abutment of the United States Dam to the intersection of said shore line with a line bearing North 15 degrees 30 minutes 00 seconds West from the Point of Beginning; thence South 15 degrees 30 minutes 00 seconds East 48.3 feet to the Point of Beginning, containing 0.08 acres, more or less.

PARCEL "A": a parcel of land in the Southerly part of the Williams Grant, in Brown County, Wisconsin, being more particularly described as follows:

Beginning at an aluminum monument with the Corps of Engineers (C.O.E.) cap, said point bearing South 68 degrees 05 minutes 21 seconds East 1441.43 feet from brass disc by the Brown County Surveyor at the intersection of the centerlines of the original Village of Lawrence Highway and Country Highway; thence North 55 degrees 06 minutes 00 seconds East 22 feet to the left shore line of the Fox River; thence Southwesterly 490 feet more or less along said shore line to the point of intersection of said shore line with a line bearing South 33 degrees 43 minutes 27 seconds East from an aluminum monument with (C.O.E.) cap; thence North 33 degrees 43 minutes 27 seconds West 3.5 feet to said monument, which monument bears South 42 degrees 58 minutes 32 seconds West 457.40 feet from the Point of Beginning; thence North 33 degrees 43 minutes 27 seconds West 80.67 feet to an aluminum monument with (C.O.E.) cap on the Northwesterly line of the United States of America property, the next three courses being along said Northwesterly line; thence North 59 degrees 24 minutes 01 second East 86.13 feet; thence North 49 degrees 14 minutes 00 seconds East 214.00 feet; thence North 55 degrees 06 minutes 00 seconds East 146.77 feet to the Point of Beginning, containing 0.8 acre more or less.

* 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

NPS Form 10-900a
(Rev. 8-86)
Wisconsin Word Processor Format
Approved 2/87

United States Department of the Interior
National Park Service

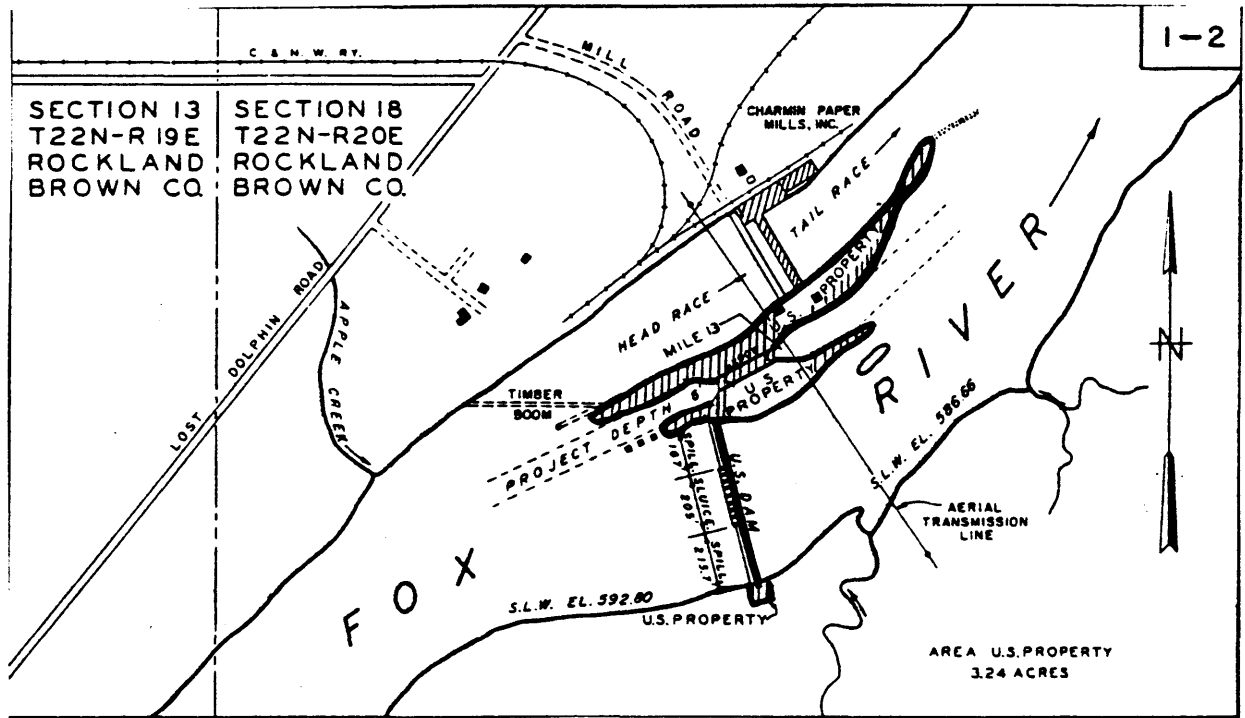
NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET


Section number Photographs Page 1 Little Kaukauna Lock & Dam Historic District
Brown County, WI

LITTLE KAUKAUNA LOCK & DAM HISTORIC DISTRICT (Dam)
Fox River at Mill Road
Town of Rockland, Brown County
Photo by Bill O'Brien
October 1988
View to South Southeast
Photo #1 of 3

LITTLE KAUKAUNA LOCK & DAM HISTORIC DISTRICT (Lock)
Fox River at Mill Road
Town of Rockland, Brown County
Photo by Bill O'Brien
October 1988
View to Northeast
Photo #2 of 3

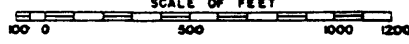
LITTLE KAUKAUNA LOCK & DAM HISTORIC DISTRICT (Lockkeeper's house)
Fox River at Mill Road
Town of Rockland, Brown County
Photo by Bill O'Brien
October 1988
View to Northeast
Photo #3 of 3



 U.S. Gov't Property/
 Historic District

LITTLE KAUKAUNA LOCK AND DAM
FOX RIVER
WISCONSIN

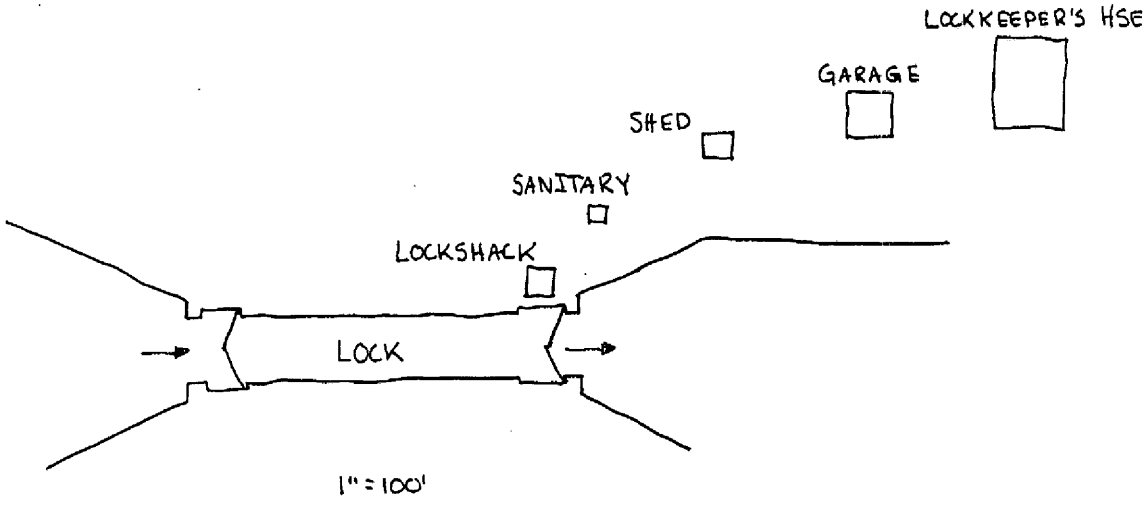
IN 1 SHEET SHEET NO. 1

SCALE OF FEET


CORPUS OF ENGINEERS CHICAGO, ILLINOIS

30 JUNE 1964

SKETCH MAP



LOCK
LITTLE KAUKAUNA LOCK AND DAM HISTORIC DISTRICT
Waterway Resources of the Lower Fox River