



1701 Dunlap Avenue, Suite B Marinette, WI 54143
715-732-4188 • 866-682-8418 • Fax: 715-732-4189

November 14, 2024

Brandon Martzke
Vice President
IEI General Contractors, Inc.
1725 Midway Road
De Pere, WI 54115
brandon@ieigc.com

**RE: INDIANFORD DAM INSPECTION, DNR FIELD FILE #53.04 PERFORMED ON
NOVEMBER 4, 2024**

Dear Mr. Martzke,

Attached is a final report for the inspection of the Indianford Dam located on the Rock River just west of Edgerton, Wisconsin, adjacent and down river from the County Road M Bridge. The report contains the following items for your review and comment:

- Certification dam inspection form
- Photos of dam
- Items requiring action
- Inspection process summary
- Inspection process form check sheet
- Suggested DNR timeframe
- DNR staff contact for Rock County

If you have any questions, please call.

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. Allen Walker', is written over a horizontal line.

W. Allen Walker, P.E.
Project Manager
U.P. Engineers & Architects, Inc.

AW:mb

Attachments

Certification Dam Inspection Form

Certification for Dam Inspection

Local Dam Name (PRINT): Indianford

DNR Field File #: 53.04

I certify that I have completed the checklist truthfully and factually:

Certifier's Name (print): Al Walker

Company Name: U.P. Engineers & Architects, Inc.

Signature: W. Allen Walker

Date: 11/4/2024

Multidisciplinary: I am experienced in the technical disciplines or I am working with other professionals experienced in the technical disciplines to properly inspect this dam and appurtenant works. Technical disciplines, in addition to general civil engineering, may include geotechnical, geological, hydrologic, structural, and mechanical:

☒ Yes ☐ No

Engineer's Wisconsin Registration Number: E-23604

Expiration Date: 12/31/2024

Engineer's Seal (optional):



Name of Dam: Indianford	Date: 11/4/2024
Inspectors: Al Walker	F.F #: 53.04
Owner's Name: Rock-Koshkonong Lake District	Key Seq #: 608
Street: 3893 County Road M	
City, State, Zip Code: Edgerton, Wisconsin 53534	
County: Rock	Phone:
Weather and Site conditions: 60° F, Cloudy	
Email: markmeyer39660@gmail.com	

GENERAL				Action		
Item	N	P	Notes/ Observations	M	I	R
1 Monuments/Benchmarks		X				
Location:			Located on concrete deck next to power house			
Elevation:			778.99			
Datum:			Latitude 42.80, Longitude -89.09 NGVD 29			
2 Pool Level		X			2	
Normal/Operating:			776.2 MSI			
Maximum:			776.33 MSL			
Minimum:			775.76 MSL			
Staff Gage			Need new gage up river and down river			
3 Access Road		X				
			Acceptable, no rutting or washout observed			
4 Signage/ Security						1
Portage/route:		X	West side around power house			
Dam Warning:	X					
Downstream Hazard:	X					
Fencing/Railings/Catwalks:		X	No upstream warning sign			

Additional Comments:

No downstream warning sign, portage sign, thin ice sign noted

N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream	Action Suggestion	1. Requires immediate action 2. Plan to do soon 3. Do when convenient
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GENERAL (Cont.)

5 Hazard Section																																																																													
A. D/S Development	☒	Residential/commercial U/S, residential D/S																																																																											
Density:																																																																													
Distance:																																																																													
Type (Residential, Commercial, Industrial):																																																																													
B. Channel Crossing	☒																																																																												
Type:		Bridge, Ford, Culvert, Trestle, Other (Explain) (Circle One)																																																																											
Dimensions:																																																																													
D/S distance:																																																																													
Traffic Level (Local, CTH, Rail Road, STH, Interstate, etc):		CTH M U/S																																																																											
C. Distance to nearest D/S community/impoundment:	☒																																																																												
Name:		Janesville, 11 miles																																																																											
D. Anticipated Hazard (based on landuse and zoning):	☒	Low hazard per DNR																																																																											
E. Dam Failure Analysis	☐																																																																												
Date Completed/Approved		By others																																																																											
Is map available?		Should be on file with the DNR																																																																											
Are map & profile adopted?																																																																													
List adoption date:																																																																													
Verify validity of failure mode:																																																																													
Verify validity of DFA conclusions:																																																																													
F. Emergency Action Plan	☒	☒	☒	☒	☒																																																																								
1. Current plan posted?		☒	Comments, Explanation, and Description Need Emergency Action Plan in power house Should be on file with the DNR																																																																										
2. Understood by Operator?		☒																																																																											
3. Warning systems?		☒																																																																											
4. Certification of last test?		☒																																																																											
5. Remote operation?		☒																																																																											
6. Revision Date?		☒																																																																											
7. Habitable structures?		☒																																																																											
8. Recreation areas?	☒	☒																																																																											
9. Changed hazard potential?		☒																																																																											
10. New development?		☒																																																																											
11. Other comments?		☒																																																																											
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	M	I	R																																																																										
		1																																																																											

Additional Comments:

N= Noted; P= Photo; M= Monitor
 I= Investigate; R= Repair
 F.F.= Field File; RT = Right; LT = Left
 U/S = Upstream; D/S = Downstream

Action Suggestion

1. Requires immediate action
2. Plan to do soon
3. Do when convenient

Dam Inspection Checklist

Dam Name: Indianford

F.F. #: 53.04

Date: 11/4/2024

Page 3 **of** 13

EMBANKMENTS

Description:				Action		
Item	N	P	Location on Embankment and Deficiency	M	I	R
1 Vegetation:			No problem			
A. Trees		☒				2
Quantity (<5, sparse, dense):						
Diameter:						
Location:			Six trees and several shrubs, remove per DNR limitations			
B. Brush		☒				2
Quantity (sparse, dense):						
Location:			Remove several shrubs, remove per DNR limitations			
C. Ground cover		☒				2
Type (grass, crown vetch, other):						
Quantity (bare, sparse, adequate, dense):						
Appearance (too tall, too short, good):			Remove shrubs, consult DNR first			
2 Erosion	☒	☒	No problem			
A. Wave erosion (Beaching):		☒				
Scarp: Length/ Width:						
Location:						
B. Runoff Erosion (Gullies)		☒				
Quantity:						
Length/ Width/ Depth:						
Location:						
3 Instabilities	☒	☒	No problem			
A. Slides		☒				
Transverse:						
Longitudinal:						
Scarp: Length/ Width:						
Crack Length/ Width:						
B. Cracks:		☒				
Transverse:						
Longitudinal:						
Length/ Width/ Depth:						
Location:						
Other:						
C. Bulges/ Depressions		☒				3
Size:						
Height/ Depth:						
D. Slope (Too Steep)		☒				
U/S, D/S						

N= Noted; P= Photo; M= Monitor Action Suggestion 1. Requires immediate action
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Additional Comments:

EMBANKMENTS (Cont.)									
Item		N	P	Notes/ Observations			Action		
							M	I	R
4 Slope Protection		X	No problem		Not applicable	Could not inspect			
A. Type (none, riprap, wave berm, concrete slabs, loose formed concrete/asphalt):			X	Riprap					
B. Condition:			X						
5 Other		X	No problem		Not applicable	Could not inspect			
A. Rodent burrows (few, many) Location:			X	Monitor					
B. Ruts Length/ Width/ Depth: Location:			X	None					
C. Other			X	N/A					
6 Alignment			No problem		Not applicable	Could not inspect			
A. Vertical Low area: Elevation Difference: Location:			X						
B. Horizontal			X						
C. Width Too narrow: Location:			X						
7 Toe			No problem		Not applicable	Could not inspect			
Cracks/Slumps: Embankment drains: Type/Flow: Location: Seepage/ Wetness: Hummocky:									
8 Seepage			No problem		Not applicable	Could not inspect			
Wet area: Boil: Sinkhole: Aquatic vegetation: Rust colored deposits: Other: Sediment in Flow: Flowrate: Location:				X	Remove vegetation				2
N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream Action Suggestion 1. Requires immediate action 2. Plan to do soon 3. Do when convenient Additional Comments:									
Dam Inspection Checklist Dam Name: Indianford F.F. #: 53.04 Date: 11/4/2024 Page 5 of 13									

SPILLWAY--PRINCIPAL - FIXED CREST										Action		
Item		N	P	Notes/ Observations						M	I	R
1	Fixed Crest			No problem		Not applicable		Could not inspect				
	A. Dimensions		X									
	Top Width:	70" wide crest 277 feet long per DNR records										
	B. Materials	X		Concrete								
	C. Shape (sharp-crested, broad-crested, ogee, chute, gated, overflow, morning glory, dropbox, labyrinth)		X	Sharp crested DS with a 15' wide apron								
	D. Debris		X									
	Prevention (racks, booms, etc.):	Crest gate supports										
	E. Concrete Condition *		X							3		
		Apron good, some minor spalls										
	F. Flashboards (none, number):											
	Type (Metal, wood):											
	Dimensions:	N/A										
	Operability:											
	G. Abutments		X									
	Condition: *											
	Seepage/wetness:	No seepage noted										
	H. Drains			No problem	X	Not applicable		Could not inspect				
	Type: Weep holes, Relief drains, Other:											
	Flow Rate:											
	I. Other											
		N/A										
N= Noted; P= Photo; M= Monitor		Action Suggestion		1. Requires immediate action								
I= Investigate; R= Repair				2. Plan to do soon								
F.F.= Field File; RT = Right; LT = Left				3. Do when convenient								
U/S = Upstream; D/S = Downstream		Controlled = Gated		Uncontrolled = Overflow								
Additional Comments:												
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints, bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other												
Dam Inspection Checklist Dam Name: Indianford F.F.#: 53.04 Date: 11/4/2024 6 of 13												

SPILLWAY-PRINCIPAL - GATES					Action		
Item	N	P	Notes/ Observations		M	I	R
1 Gates		☒	No problem	Not applicable	Could not inspect		
A. Types (lift/slide, tainter(radial), stoplogs, leaf, roller, flashboards, needles, other): Number and Size:		☒	(6) slide gates with two screws and actuator				
B. Stoplogs Dimensions: Condition:			N/A				
C. Abutments Condition: * Seepage/wetness:			U/S D/S light scaling		3		
D. Piers (number, shape) Condition: *			5 U/S D/S light scaling				
E. Operability Type of Operator: Condition(chain, cables,hoists): Security(locked?): Backup Operator:		☒	Ball screws operate O.K.				
F. Access		☒	OK				
G. Condition Rust: Seals (leakage):		☒	6 gates 2,3,4,5 small leak, not designed to seal, minor rust		3		
H. Ice protection Type (Heaters, Bubblers, Barriers, Other)		☒	N/A				
I. Debris Prevention (Rack, boom, etc.)		☒	N/A, no protection or debris removal				
J. Condition of Flowway			D/S undermining apron toe (minor)		3		
K. Drains Type (Weep holes/ Relief drains/ Other): Flow rate: Location:			N/A				
L. Other			N/A				
N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream Action Suggestion 1. Requires immediate action 2. Plan to do soon 3. Do when convenient Controlled = Gated Uncontrolled = Overflow Additional Comments and/or Sketch: Support for ball screw 4,5 bent							
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints, bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other							

Dam Inspection Checklist

Dam Name: Indianford

F.F.#: 53.04

Date:11/4/2024 Page 7 of 13

SPILLWAY--PRINCIPAL - WHISTLE TUBES							Action		
Item		N	P	Notes/ Observations			M	I	R
1	Whistle Tubes			Full circle/Whistle tube	Half circle riser	Glory hole (Drop Inlet)			
	A. Inlet Riser Diameter			N/A					
	B. Outlet pipe *			N/A					
	Dia: Type:			N/A					
	C. Low level draw /Inlet Pipe			N/A					
	What kind & Size:			N/A					
	D. Debris/Trash Rack			N/A					
	E. Antivortex			N/A					
	F. Material			N/A					
	G. Alignment			N/A					
N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream									
Action Suggestion 1. Requires immediate action 2. Plan to do soon 3. Do when convenient				Controlled = Gated Uncontrolled = Overflow					
Additional Comments and/or Sketch:									
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints, bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other									

Dam Inspection Checklist

Dam Name: Indianford

F.F.#: 53.04

Date: 11/4/2024

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SPILLWAY--PRINCIPAL - OUTLET EROSION CONTROL & UNDERMINING										
								Action		
Item		N	P	Notes/ Observations				M	I	R
1	Outlet Erosion Control			No problem		Not applicable		Could not inspect		
	A. Type (none, endwall, plunge pool, energy dissipation structure rock lined channel, apron)			Apron						
	B. Scour			N/A						
	C. Material		X							
	a. Riprap: Avg Diameter: Condition (adequate, sparse, displaced, weathered): Bedding fabric- (Yes/ No):			Rock 18" to 36"						
	b. Concrete * Dimensions/Location:									
	D. Sidewall/Headwall		X							
	Misalignment: Location: Description:			Acceptable						
	E. Separated Joint / Loss of Joint Material:									
	Location: Description:			Top crest cold joints						
	F. Natural	X		Acceptable with riprap						
2	Undermining			No problem		Not applicable		Could not inspect		
	Location: Description:							3		
				Toe (minor)						
N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream Action Suggestion Controlled = Gated 1. Requires immediate action 2. Plan to do soon 3. Do when convenient Uncontrolled = Overflow										
Additional Comments:										
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints, bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other										
Dam Inspection Checklist										
Dam Name: Indianford				F.F.#: 53.04		Date: 11/4/2024 Page 9 of 13				

SPILLWAY--AUXILIARY

Description:				Action		
Item	N	P	Notes/ Observations	M	I	R
1 Dimensions		X				
Length/ Width:						
Outfall Slope:						
2 Type (turf, reinforced turf, riprap, block, concrete):						
3 Signs of usage (debris, bent grass, etc.):						
4 Vegetation:			No problem			
A. Trees		X			2	
Quantity (<5, sparse, dense):						
Diameter:			Remove, consult with the DNR			
Location:						
B. Brush		X			2	
Quantity (sparse, dense):						
Diameter:			Remove, consult with the DNR			
Location:						
C. Ground cover:		X				
Type (grass, crown vetch, other)						
Quantity (bare, sparse, adequate dense):			Acceptable			
Appearance (tall, short, good):						
5 Slope protection			Not applicable			
A. Type (none, riprap, wave berm, concrete slabs, other):						
Condition:			Acceptable			
6 Erosion			No problem			
A. Wave erosion (beaching):						
Scarp: Length/ Width:						
Location:						
B. Runoff erosion (Gullies)						
Quantity:						
Length/ Width/ Depth:						
Location:						
7 Instabilities			No problem			
A. Slides						
Transverse Length:						
Longitudinal Length:						
Scarp: Length/ Width:						
Location:						
Crack Length/ Width:						
Location:						

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I= Investigate; R= Repair
F.F.= Field File; RT = Right; LT = Left
U/S = Upstream; D/S = Downstream

Action Suggestion

1. Requires immediate action
2. Plan to do soon
3. Do when convenient

Additional Comments:

* **Type of Concrete Problems:** Spalling, cracks, exposed rebar, misalignment, joints bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other

Dam Inspection Checklist

Dam Name: Indianford

F.F.#:

53.04

Date: 11/4/2024

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SPILLWAY--AUXILIARY (Cont.)					Action		
Item	N	P	Notes/ Observations		M	I	R
B. Bulges: (Depressions, Hummocky): Size: Height/ Depth:		X	No bulges identified				
8 Other		No problem	Not applicable	Could not inspect			
A. Rodent burrows (few, many) Location:							
B. Ruts Location: Length/ Width/ Depth:							
C. Other (debris):							
9 Outlet erosion control		No problem	Not applicable	Could not inspect thoroughly			
A. Type (none, endwall, plunge pool, energy, dissipation structure rock-lined channel, apron): Condition (Scour?):							
B. Material Riprap: Avg. diameter: Condition (adequate, sparse, displaced, weathered): Bedding fabric (Yes/No):							
C. Concrete *			Not applicable				
a. Condition *		X	Some spalling		3		
b. Cracking * Dimensions/Location:							
c. Sidewall/ Headwall* Misalignment: Location: Description:							
d. Joints Separated: Loss of material: Location: Description:							
D. Natural							
10 Undermining		No problem	Could not inspect thoroughly				
Location: Description:							
N= Noted; P= Photo; M= Monitor I= Investigate; R= Repair F.F.= Field File; RT = Right; LT = Left U/S = Upstream; D/S = Downstream Action Suggestion 1. Requires immediate action 2. Plan to do soon 3. Do when convenient Additional Comments:							
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other							
Dam Inspection Checklist Dam Name: Indianford F.F.#: 53.04 Date: 11/4/2024 Page: 11 of 13							

LAKE DRAINS									
(Low level outlet, not a principle or aux. spillway)									
Item		N	P	Notes/ Observations		Action			
						M	I	R	
1	General			None found	Does not have one				
	A. Type of lake drain (isolated control/intake tower, valve vault with outlet conduit valve in riser/drop inlet siphon); Size:			N/A					
	B. Operated (Yes/ No)								
2	Lake drain components			N/A					
	A. Concrete structure Location: Description:* Condition:*								
	B. Valve control (operating device): No operating device; No stem Bent/Broken Stem; Access Other: Operability:								
	C. Valve/Sluice gate Quantity: a. Metal deterioration (surface rust, minor, moderate, extensive, other): Location: Flow rate: b. Misalignment c. Leakage - Flow rate								
	D. Outlet conduit Size: Material: Condition:								
	E. Energy dissipater Type (endwall, plunge pool impact basin, stilling basin, rock-lined channel, none): Condition:*								
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Additional Comments: 									
* Type of Concrete Problems: Spalling, cracks, exposed rebar, misalignment, joints bug holes, efflorescence, popouts, honeycombing, scaling, craze/map cracks, isolated crack, disintegration, other									
Dam Inspection Checklist									
Dam Name: Indianford		F.F.#: 53.04		Date: 11/4/2024		Page: 12 of 13			

Photos of Dam

Inspection of Dam (Key Seq #00608)**November 4, 2024**

File Name	Description
0060811042401	Google Map of location
0060811042402	East shore line (looking south)
0060811042403	Auxiliary slide gate area (looking south)
0060811042404	Spillway (looking south)
0060811042405	Power house building slide gates (looking south)
0060811042406	Auxiliary slide gates (up river)
0060811042407	Auxiliary slide gates (down river)
0060811042408	Center spillway looking east
0060811042409	Spillway auxiliary slide gate west abutment
0060811042410	Auxiliary side gate up river
0060811042411	Auxiliary slide gate up river
0060811042412	Diver inspection of spillway apron slab
0060811042413	Diver inspection of spillway apron slab (looking west)
0060811042414	Diver inspection of auxiliary gate abutments
0060811042415	Diver inspection of auxiliary gate abutments
0060811042416	Diver inspection of auxiliary gate abutments
0060811042417	Monitor concrete spalling at third gate abutment (looking east)
0060811042418	Auxiliary abutment
0060811042419	Auxiliary gate and adjacent riprap
0060811042420	Auxiliary gate riprap (looking east)
0060811042421	Auxiliary gate riprap looking east. No signs of seepage. Above ground scope stable with 2-3 foot wide riprap
0060811042422	Riprap of auxiliary gate between gates and (County Road M) bridge
0060811042423	County Road M looking east at abutment
0060811042424	Up river from auxiliary slide gates after draw down
0060811042425	Boat barrier anchor behind brush on east shore
0060811042426	Boat barrier and County Road M bridge (looking west)
0060811042427	West shore above dam (stable)
0060811042428	East shore above dam (looking south) (stable)
0060811042429	East shore up river reservoir (river drain down)
0060811042430	West shore, up river reservoir (river drawn down)
0060811042431	Scour at primary slide gate abutment
0060811042432	Scour at primary slide gate abutment
0060811042433	Abutment scour at draw down
0060811042434	Abutment scour at draw down
0060811042435	Primary building slide gate intake (up river)
0060811042436	Power house up stream wall (close up)
0060811042437	Power house up stream wall
0060811042438	West bank up stream of power house
0060811042439	West bank upstream of power house
0060811042440	Dive team tenders during inspection up stream of power house slide gates
0060811042441	Dive team trailer
0060811042442	Power house (looking east)

Inspection of Dam (Key Seq #00608)**November 4, 2024**

File Name	Description
0060811042443	Dive team members during inspection of east retaining wall repair
0060811042444	East retaining wall inspection (no void found)
0060811042445	Power house inspection (floor shows no spalling)
0060811042446	Power house west gate bay number 6
0060811042447	Area where sink hold is filled (no signs of additional settlement)
0060811042448	Inspection of east gates bays 1 and 2
0060811042449	Down stream gage
0060811042450	Down stream riprap east of power house abutment (west of spillway)
0060811042451	West spillway abutment and riprap
0060811042452	Main spillway and apron (looking east)
0060811042453	Spillway apron (looking east)
0060811042454	Down river debris boom anchor
0060811042455	Power house east wall
0060811042456	Power house east concrete slab
0060811042457	Power house slide gate (bay number 6)
0060811042458	Power house north wall (looking west)
0060811042459	Power house north wall (looking east)
0060811042460	Power house south wall (looking east)
0060811042461	Power house south wall (looking west)
0060811042462	Slide gate bay number 6
0060811042463	Slide gate bay number 5
0060811042464	Slide gate bay number 4
0060811042465	Slide gate bay number 3
0060811042466	Slide gate bay number 2
0060811042467	Slide gate bay number 1
0060811042468	Slide gate platform (looking west)
0060811042469	Slide gate platform beams
0060811042470	Slide gate platform with anchor to power house masonry wall
0060811042471	Slide gate walkway
0060811042472	Access road way at power house
0060811042473	Bench mark on spillway abutment

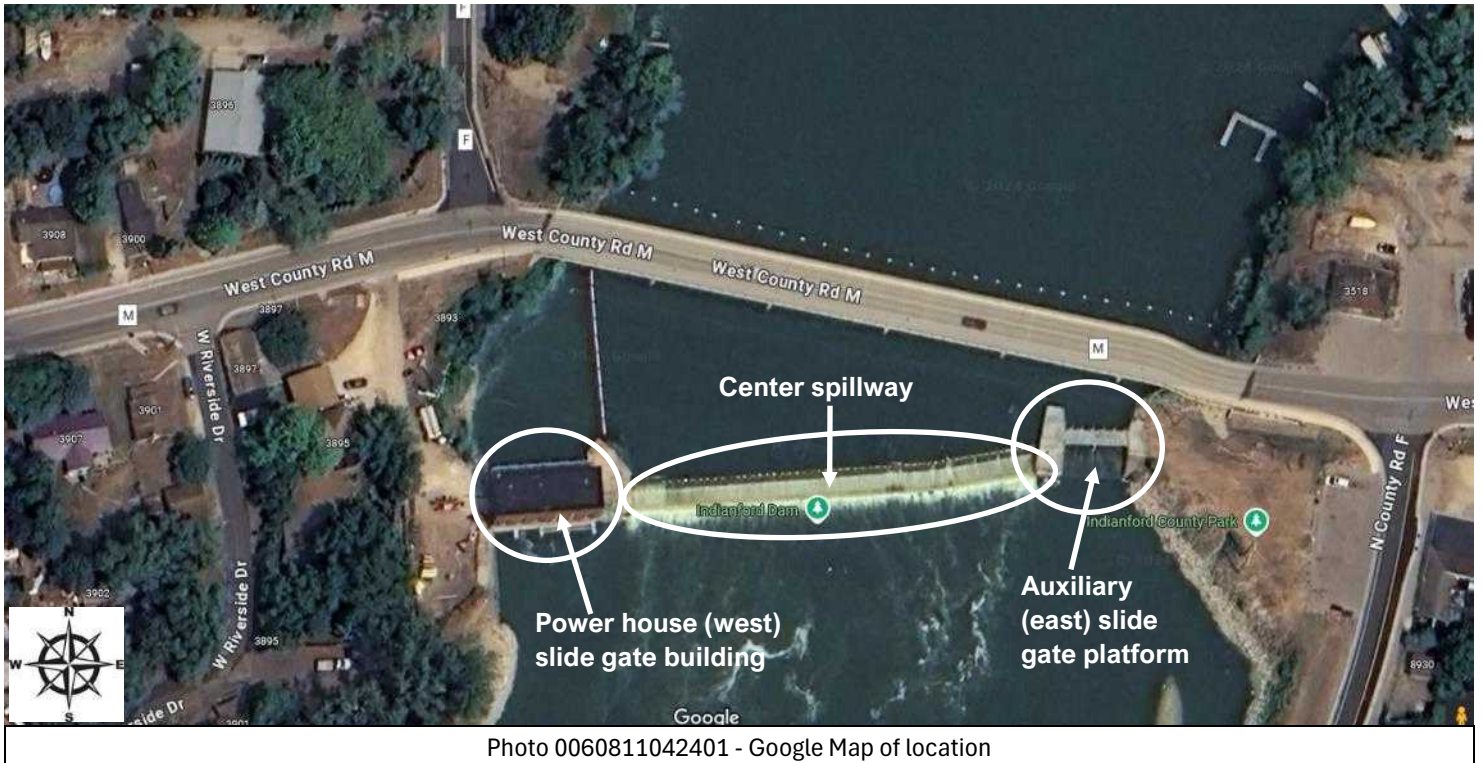


Photo 0060811042401 - Google Map of location



Photo 0060811042402 - East shore line (looking south)



Photo 0060811042403 - Auxiliary slide gate area (looking south)



Photo 0060811042404 - Spillway (looking south)



Photo 0060811042405 - Power house building slide gates



Photo 0060811042406 - Auxiliary slide gates (up river)



Photo 0060811042407 - Auxiliary slide gates (down river)



Photo 0060811042408 - Center spillway looking east



Photo 0060811042409 - Spillway auxiliary slide gate west



Photo 00608110424010 - Auxiliary side gate up river

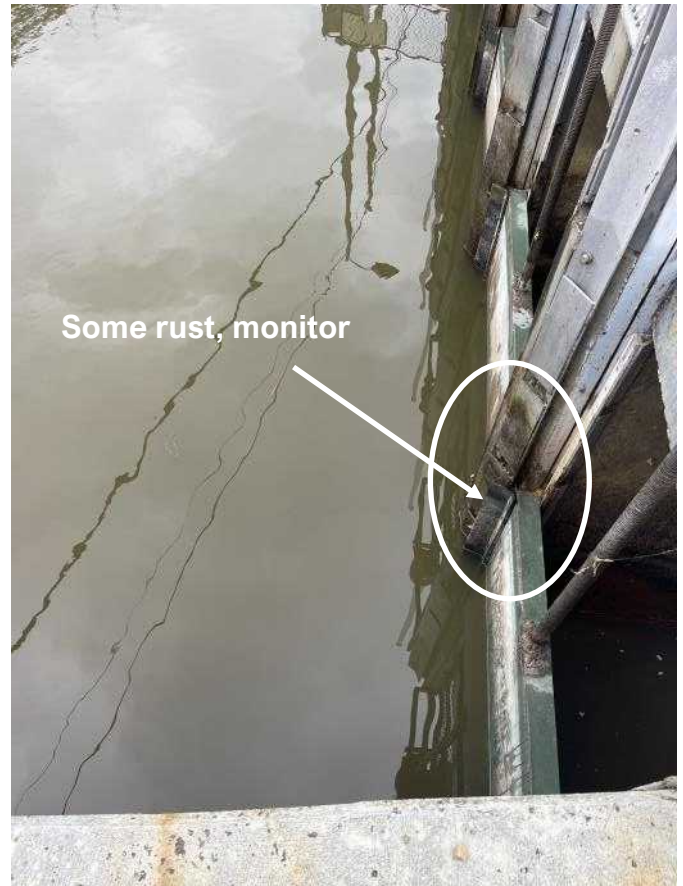


Photo 0060811042411 - Auxiliary side gate up river



Photo 0060811042412 - Diver inspection of spillway apron

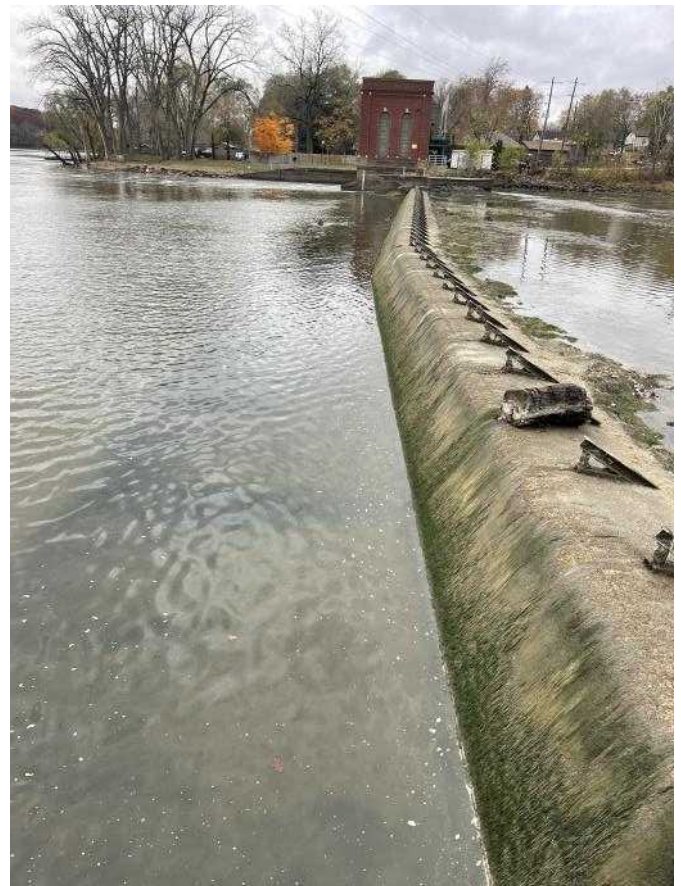


Photo 0060811042413 - Diver inspection of spillway apron



Photo 0060811042414 - Diver inspection of auxiliary gate



Photo 0060811042415 - Diver inspection of auxiliary gate abutments



Photo 0060811042416 - Diver inspection of auxiliary gate abutments



Photo 0060811042417 - Monitor concrete spalling at third



Photo 0060811042418 - Auxiliary abutment



Photo 0060811042419 - Auxiliary gate and adjacent riprap



Photo 0060811042420 - Auxiliary gate riprap (looking east)



Photo 0060811042421 - Auxiliary gate riprap looking east. No signs of seepage. Above ground scope stable with 2-3 foot wide riprap



Photo 0060811042422 - Riprap of auxiliary gate between



Photo 0060811042423 - County Road M looking east at



Photo 0060811042424 - Up river from auxiliary slide gates



Photo 0060811042425 - Boat barrier anchor behind brush on



Photo 0060811042426 - Boat barrier and County Road M bridge



Photo 0060811042427 - West shore above dam (stable)



Photo 0060811042428 - East shore above dam (looking



Photo 0060811042429 - East shore up river reservoir (river drain



Photo 0060811042430 - West shore, up river reservoir



Photo 0060811042431 - Scour at primary slide gate



Photo 0060811042432 - Scour at primary slide gate abutment



Photo 0060811042433 - Abutment scour at draw down

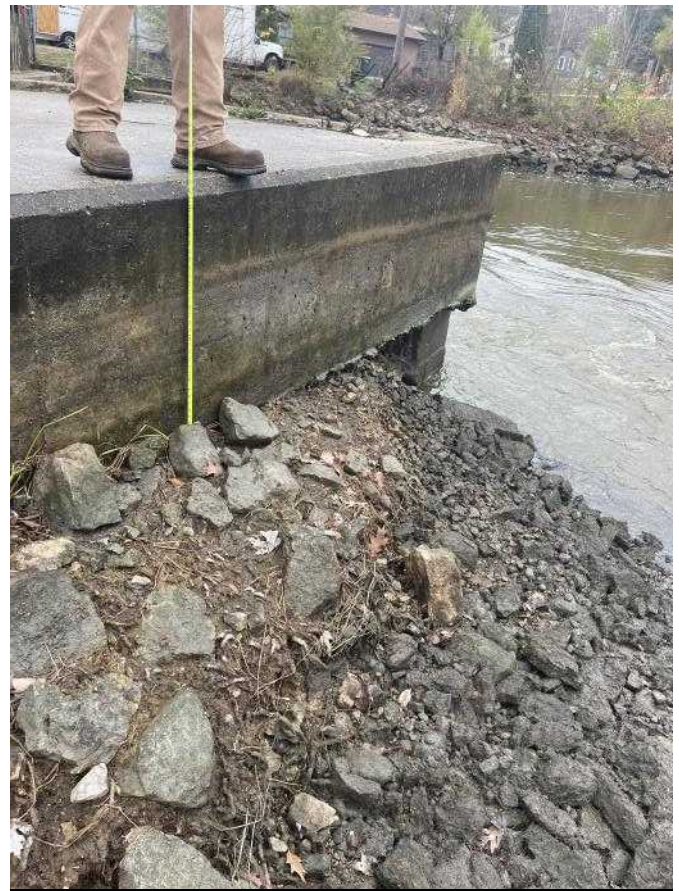


Photo 0060811042434 - Abutment scour at draw down



Photo 0060811042435 - Primary building slide gate intake

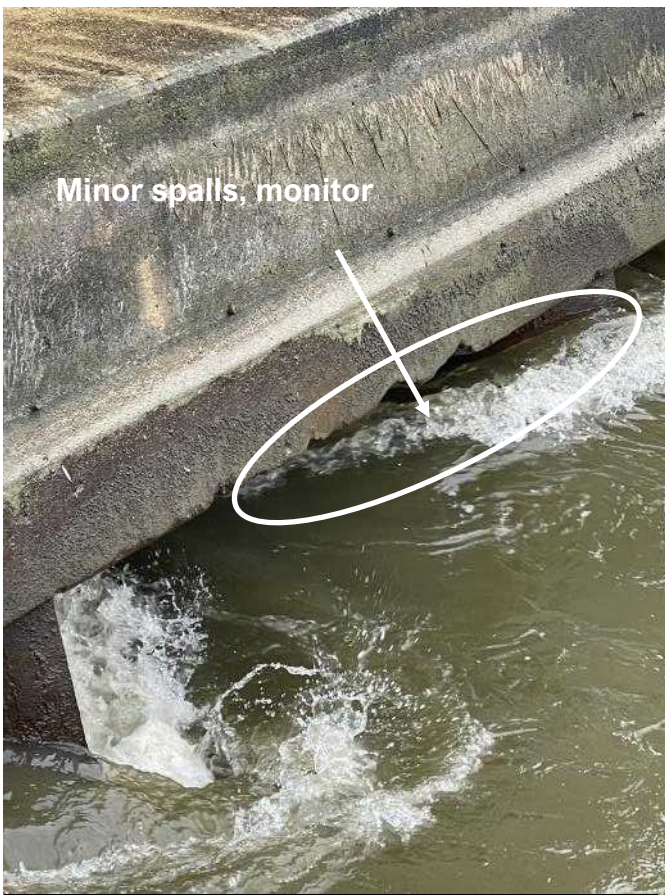


Photo 0060811042436 - Power house up stream wall



Photo 0060811042437 - Power house up stream wall



Photo 0060811042438 - West bank up stream of power house



Photo 0060811042439 - West bank upstream of power house



Photo 0060811042440 - Dive team tenders during inspection



Photo 0060811042441 - Dive team trailer



Photo 0060811042442 - Power house (looking east)



Photo 0060811042443 - Dive team members during inspection of



Photo 0060811042444 - East retaining wall inspection



Photo 0060811042445 - Power house inspection

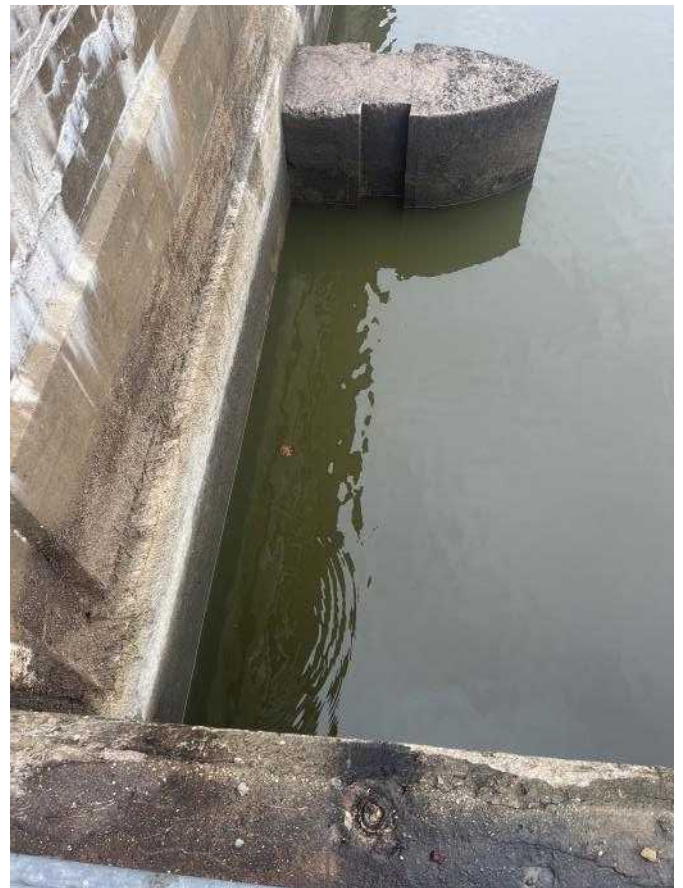


Photo 0060811042446 - Power house west gate bay number 6



Photo 0060811042447 - Area where sink hold is filled



Photo 0060811042448 - Inspection of east gates bays 1 and 2



Photo 0060811042449 - Down stream gage



Photo 0060811042450 - Down stream riprap east of power



Photo 0060811042451 - West spillway abutment and riprap



Photo 0060811042452 - Main spillway and apron

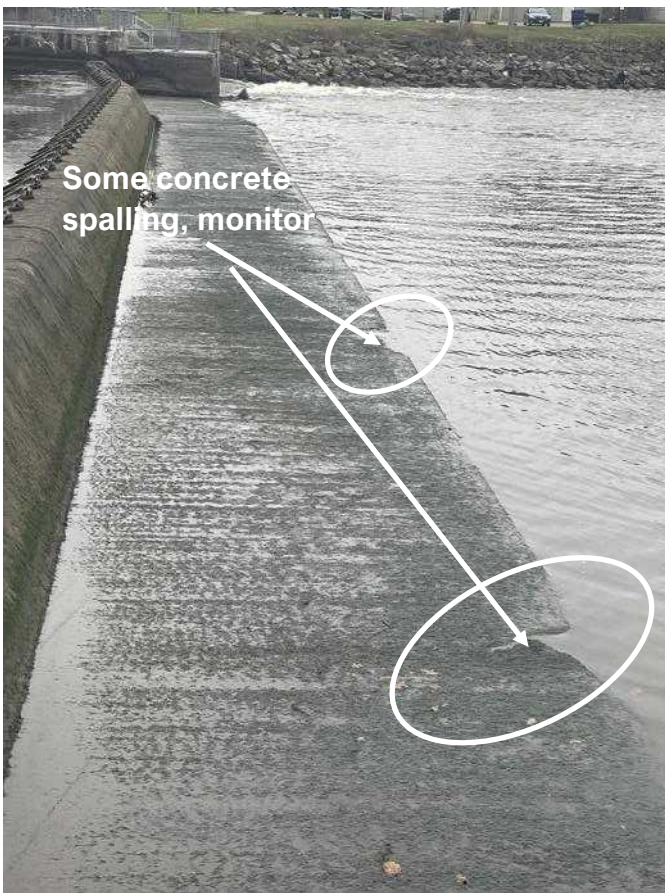


Photo 0060811042453 - Spillway apron (looking east)



Photo 0060811042454 - Down river debris boom anchor



Photo 0060811042455 - Power house east wall



Debris removal recommended

Photo 0060811042456 - Power house east concrete slab



Photo 0060811042457 - Power house slide gate (bay number 6)

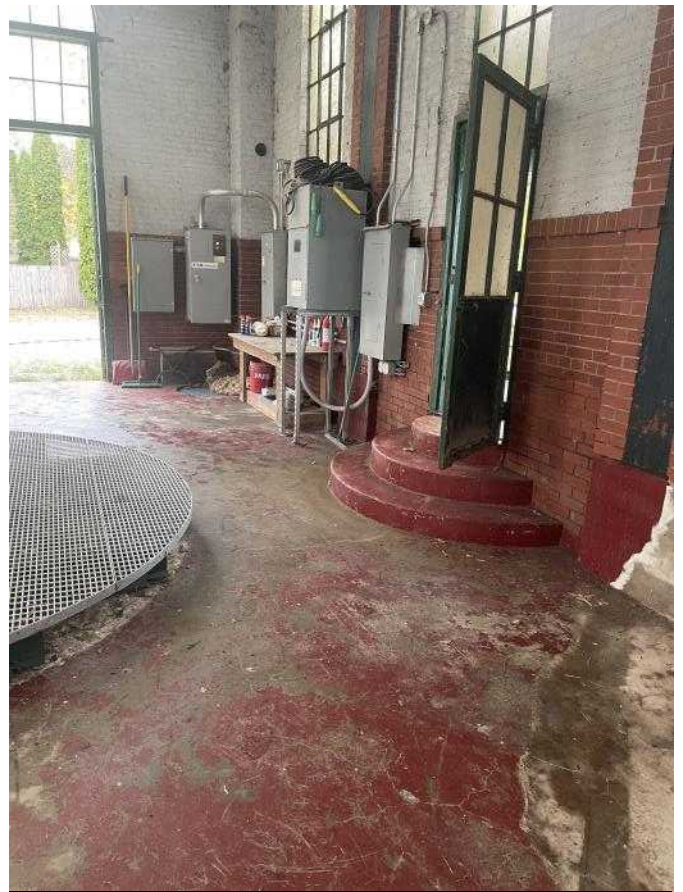


Photo 0060811042458 - Power house north wall



Photo 0060811042459 - Power house north wall (looking east)



Photo 0060811042460 - Power house south wall



Photo 0060811042461 - Power house south wall



Photo 0060811042462 - Slide gate bay number 6



Photo 0060811042463 - Slide gate bay number 5



Photo 0060811042464 - Slide gate bay number 4



Photo 0060811042465 - Slide gate bay number 3



Photo 0060811042466 - Slide gate bay number 2



Photo 0060811042467 - Slide gate bay number 1



Photo 0060811042468 - Slide gate platform (looking west)



Photo 0060811042469 - Slide gate platform beams



Photo 0060811042470 - Slide gate platform with anchor to



Photo 0060811042471 - Slide gate walkway



Photo 0060811042472- Access road way at power house

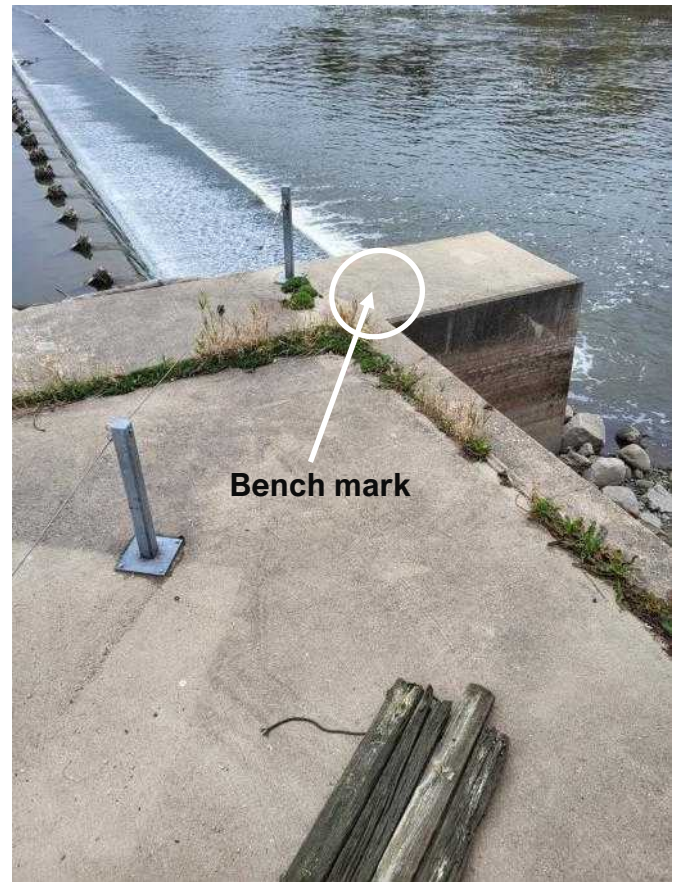


Photo 0060811042473 - Bench mark on spillway abutment

Items Requiring Action

Inspection of Dam (Key Seq #608)

November 4, 2024

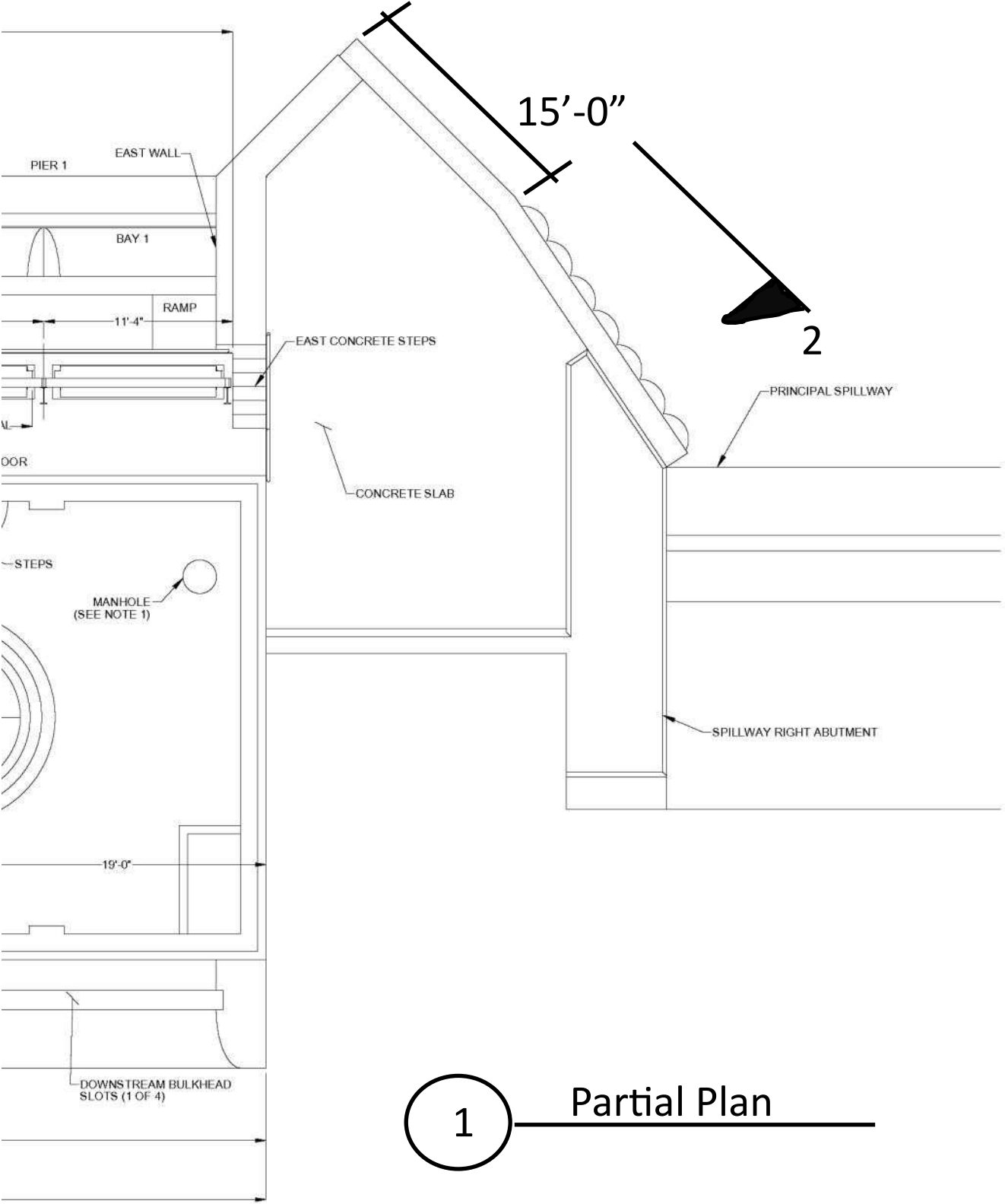
Items Requiring Action

1. Remove vegetation around east boat anchor
2. Remove east shore vegetation
3. Cleanup and/or repair gage
4. Complete dam barrier installation
5. Repair abutment wall
6. Add dam warning signs up and down river
7. Remove west shore vegetation
8. Owner Emergency Response Plan



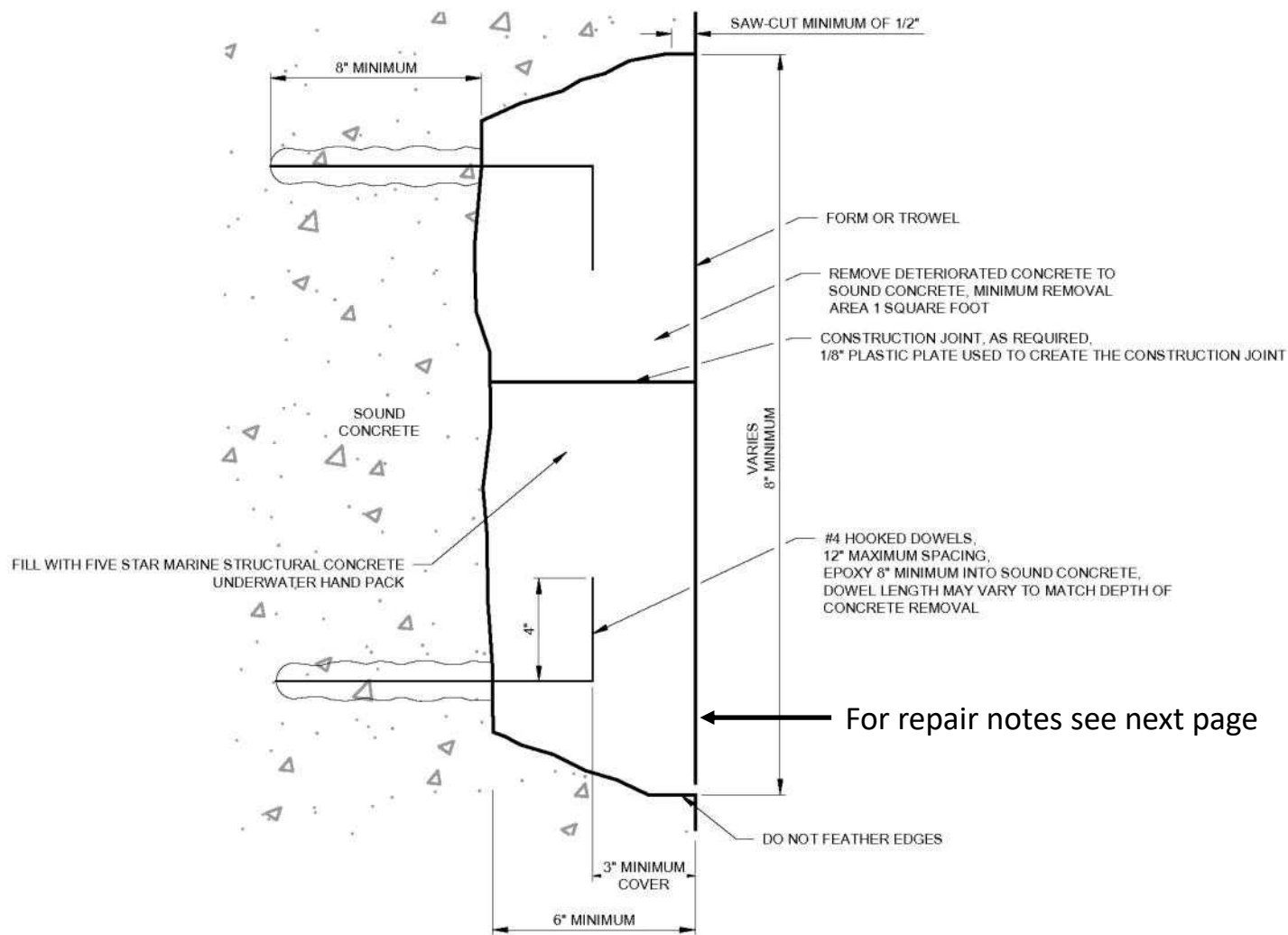
Power House Abutment Repair

(Item No. 5)





2 Section (NTS)



3

Typical Repair Procedure

CONCRETE SURFACE REPAIR NOTES:

1. THE EXACT LIMITS OF CONCRETE PATCHING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. CONCRETE SURFACE REPAIR SHALL CONSIST OF REMOVAL OF ALL LOOSE SPALLED AND DETERIORATED MATERIALS IN DAMAGED AREAS.
3. ALL LOOSE SCALE, RUST, CORROSION BYPRODUCTS, PREVIOUSLY PLACED PROTECTIVE COATINGS, AND CONCRETE SHALL BE REMOVED FROM EXPOSED REINFORCING STEEL.
4. REINFORCING STEEL EXPOSED FOR MORE THAN ONE THIRD OF ITS PERIMETER CIRCUMFERENCE SHALL BE COMPLETELY EXPOSED TO PROVIDE 1-INCH MINIMUM CLEARANCE.
5. SURFACES OF OLD CONCRETE TO WHICH NEW CONCRETE IS TO BE BONDED MUST BE CLEAN AND ROUGH.
6. PLACE AND CURE PATCHED AREAS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. MEASUREMENT AND PAYMENT: UNIT OF MEASURE FOR CONCRETE SURFACE REPAIRS SHALL BE LUMP SUM. CONTRACTOR'S BID SHALL BE BASED ON DIMENSIONS OF REPAIR AREAS IDENTIFIED ON S-401. CONTRACTOR SHALL ALSO PROVIDE WITH THEIR BID A UNIT COST PER SQUARE FOOT FOR UNDERWATER CONCRETE SURFACE REPAIRS BEYOND THAT IDENTIFIED ON S-401. PAYMENT WILL BE MADE FOR COSTS ASSOCIATED WITH ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO COMPLETE WORK, INCLUDING BUT NOT LIMITED TO SAWCUTTING, REMOVAL OF DETERIORATED CONCRETE, SURFACE PREPARATION, PLACEMENT OF CEMENTITIOUS PATCHING MATERIALS, FORMWORK, AND ANY NECESSARY SPECIALTY SUBCONSULTANTS OR EQUIPMENT.

Inspection Process Summary



OWNER RESPONSIBLE PROFESSIONAL INSPECTIONS

Dam inspection by consultants: Dam safety inspections that consulting engineers perform on behalf of dam owners will include file research, a visual inspection of the dam and documentation of the inspection.

Consulting engineers will need to complete the tasks indicated on the [Consultant inspection process form](#) ^[PDF] which should be submitted with every owner inspection.

- **File research** – The owner or consultant can view the department's historic file by contacting the water management engineer for the county in which the dam is located [Staff directory](#).
- **Visual inspection** - The visual inspection consists of four major tasks:
 - an inventory of the dam components;
 - a check for defects at the dam that affect the safety of the dam;
 - an evaluation of the land uses downstream of the dam; and
 - completing the [Dam inspection checklist](#) ^[PDF].
 - Use of the checklist will provide consistency for inspections and a more efficient and accessible review process. The checklist was designed to take into consideration the wide variety of dams in use in Wisconsin and covers all aspects of a dam inspection for which the department needs documentation.
- **Documentation** - A dam safety inspection report and supporting documentation will be prepared and sent to the department for review.

PREPARATION OF INSPECTION REPORTS

- **What is it:** The inspection report provides a summary of the inspection findings. It lists the defects identified for all parts of the dam. The consulting engineer includes recommendations for maintenance and repairs and provides a timeline for repairs or further investigation.
- **Timeline:** Within 90 days of completing the inspection the consulting engineer, on behalf of the dam owner, shall submit an inspection report to the department for review and concurrence.
- **Narrative:** As part of the inspection report, the consulting engineer shall submit a narrative that explains the findings of the inspection, in addition to the completed inspection checklist. The narrative will need to include a description of deficiencies and should also note the severity of the deficiency. For example, if seepage is noted, it is important to note whether this is new seepage, a change in seepage or seepage that has existed for a long time and doesn't pose an immediate threat to the integrity of the dam.

- **Repair guidelines:** When preparing the timeline for repairs, the consulting engineer should utilize the DNR's guidelines on [Timeframes \[PDF\]](#). The consulting engineer must provide an actual due date. Note that every dam is unique and timelines will differ depending on its condition. The DNR may alter the due dates if it is deemed appropriate.
- **Documentation in report: Two hard copies and one electronic (PDF) copy shall be submitted.** The following documents shall also be included with the report:
 - [Consultant inspection process form \[PDF\]](#);
 - [Inspection forms \[PDF\]](#);
 - Printed and digital copies of photographs. The [Photo instructions \[PDF\]](#) sheet provides details on how to submit photographs; and
 - Survey data and logs.

The inspection report and related documentation shall be submitted to the department's water management engineer who covers the county where the dam is located [Staff directory](#).

Contact information

DNR Dam Safety

DNR Dam Safety Program, WT/3

101 S Webster St

PO Box 7921

Madison WI 53707–7921

Inspection Process Form Check Sheet

Consultant Inspection Process Form – for dam inspected by outside consultant

			Responsible Party	
Task		Date Completed	Owner/ Consultant	DNR
Inspection Notification *Notify dam owner of DNR inspection date/time		11/6/2024	X	
File Research *Review last inspection report, photos, database, aerial photos, ownership information, etc.		11/12/2024	X	
Field Inspection *Physically inspect dam, conduct survey if required		11/4/2024	X	
Inspection Checklist *Fill out form documenting observations during inspection		11/4/2024	X	
Photo Documentation *Print and label photos, back up digital copies		11/4/2024	X	
Review Sufficiency Rating *Complete Sufficiency Rating questionnaire based on current condition of the dam.				X
Review Hazard Rating *Review downstream development for changes, check if downstream zoning is adopted		11/12/2024	X	
Review EAP *Review and update EAP, submit to DNR			X	
Review IOM *Review and update IOM, submit to DNR			X	
Inspection Report Submitted to DNR Regional Engineer			X	
Inspection Report Submitted to DNR Central Office				X
Response Letter *DNR letter which outlines work needed to be completed on the dam based on consultant inspection				X
Update database *Update owner contact information, follow-up dates, inspection dates, etc. on DNR database				X
Notify DNR of planned work * Determine if plans and specs are needed for the proposed dam work, issue proper permits or plan approvals			X	
Complete Required Elements *Owner completes required items listed in inspection report			X	
Enforcement *Pursue enforcement action against the dam owner if the required elements are not completed by the appropriate deadlines				X

Dam Name: Indianford

Engineer Completing Form: Al Walker

Field File #: 53.04

Key Sequence #: 608

Suggested DNR Timeframe

Suggested Time Frames for Follow-up to Dam Inspection Directives

<u>Activity</u>	<u>Time Range</u>
Signing	30-90 days
Benchmark	6-12 months
Embankments	
Trees/brush removal	6-12 months
Erosion (investigate)	0-3 months
(repair)	3-6 months
Seepage (investigate)	0-3 months
(repair)	6-24 months
Rodents	3-6 months
Mowing	within current season
Gates (investigate)	up to 18 months
(repair)	0-36 months
Concrete (investigate)	up to 18 months
(repair)	3-36 months
Dam Failure Analysis	1-2 years (high and significant hazard) 5 years (low hazard)
EAP (interim)	6 months-1 year (high and significant hazard) 2 years (low hazard)
(based on DFA)	6 months after DFA
IOM	12 months
Safety Features	0-3 months
Inspection Report	1-3 months

DNR Staff Contact for Rock County



DNR Staff Directory

Name: William Disser

Email Address: william.disser@wisconsin.gov

Working Title: WATER REG ZONING ENGR-SEN

Supervisor: [Schroeder, Travis L](#)

Org. Chart: Division of External Services >
Waterways > Waterways Field
Operations > Waterways South East
Field Operations

Secretary's Director: [Allness, Shelly](#)

Work Phone:

**Work Mobile
Phone:**
[\(608\) 622-6780](tel:(608)622-6780)

FAX:

Work Station:

FITCHBURG SERVICE
CENTER

Work Address:

NATURAL
RESOURCES, DEPT
OF
FITCHBURG, WI 53711

**Work Mailing
Address:**

3911 Fish
Hatchery Rd
Fitchburg, WI
53711-5367

ASSIGNED SUBJECTS

Subject	Counties Served
Dam Failure, Emergency Response	Columbia, Dane, Dodge, Green Lake, Jefferson, Juneau, Marquette, Rock, Sauk
Dam Safety Engineering	Columbia, Dane, Dodge, Green Lake, Jefferson, Juneau, Marquette, Rock, Sauk
Floodplain Engineering	Columbia, Dane, Dodge, Green Lake, Jefferson, Juneau, Marquette, Rock, Sauk
Floodplain Zoning and Community Assistance	Columbia, Dane, Dodge, Green Lake, Jackson, Juneau, Marquette, Rock, Sauk
Water Management Engineer	Columbia, Dane, Dodge, Green Lake, Jefferson, Juneau, Marquette, Rock, Sauk