

SUGGESTED DAM INSPECTION REPORT (Refer to pages 5 and 6 for instructions.)

Name of Professional Conducting Inspection	Professional License No. (Indiana)
Business Address	Phone: (day) _____ - _____ - _____ (evening) _____ - _____ - _____

Company Name _____

INSPECTION PREPARATION: Reviewed all pertinent technical documentation related to this dam and site in the State's and the Owner's files:
Yes No Comment _____

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 the general civil engineering, may include geotechnical, geological, hydrologic, structural, and mechanical. Yes No Comment _____

Dam Name			Quad.		Date of Inspection / /	
State Dam ID	Permit (if unapproved see pg. 6)	County	Sec.	T.	R.	Last Inspection / /
Owners Name					Owner's Phone ()	
Address/Zip Code						
Contact's Name			Contact's Phone (day) _____ - _____ - _____ (evening) _____ - _____ - _____		Spillway Width Top Bot.	
Ft. FBD.						
Hazard	Drainage Area MI ²	Surface Area AC	Height FT	Crest Length FT	Crest Width FT	Inlet Below Crest FT
Slope: Up Down						

FIELD CONDITIONS OBSERVED	DRAWDOWN STRUCTURE
Water Level - Below Dam Crest _____ Ft.	<input type="checkbox"/> Yes <input type="checkbox"/> None
Ground Moisture Condition: Dry <input type="checkbox"/> Wet <input type="checkbox"/> Snowcover <input type="checkbox"/> Other _____	Comment _____

MONITORING Yes None [Gage Rod Piezometers Seepage Weirs Survey Monuments Other]

Comments _____

A	UPSTREAM SLOPE	PROBLEMS NOTED: <input type="checkbox"/> (A-1) None <input type="checkbox"/> (A-2) Riprap - Missing, Sparse, Displaced, Weathered <input type="checkbox"/> (A-3) Wave Erosion-with Scarp <input type="checkbox"/> (A-4) Cracks-with Displacement <input type="checkbox"/> (A-5) Sinkhole <input type="checkbox"/> (A-6) Appears Too Steep <input type="checkbox"/> (A-7) Depressions or Bulges <input type="checkbox"/> (A-8) Slides <input type="checkbox"/> (A-9) Animal Burrows <input type="checkbox"/> (A-10) Trees, Brush, Briars <input type="checkbox"/> (A-11) Other _____ Comments: _____
GOOD		
ACCEPTABLE		
DEFICIENT		
POOR		

B	CREST	PROBLEMS NOTED: <input type="checkbox"/> (B-1) None <input type="checkbox"/> (B-2) Ruts or Puddles <input type="checkbox"/> (B-3) Erosion <input type="checkbox"/> (B-4) Cracks with Displacement <input type="checkbox"/> (B-5) Sinkholes <input type="checkbox"/> (B-6) Not Wide Enough <input type="checkbox"/> (B-7) Low Area <input type="checkbox"/> (B-8) Misalignment <input type="checkbox"/> (B-9) Inadequate Surface Drainage <input type="checkbox"/> (B-10) Trees, Brush, Briars <input type="checkbox"/> (B-11) Other _____ Comments: _____
GOOD		
ACCEPTABLE		
DEFICIENT		
POOR		

Spillway Width refers to the open channel (typically the emergency or auxiliary spillway) at the control section.
Ft. FBD. refers to the vertical distance from the emergency (auxiliary) spillway control section to the lowest point of the crest of the dam.
Inlet Below Crest refers to the vertical distance from the inlet of the principal spillway to the crest of the dam.

C DOWNSTREAM SLOPE

GOOD	
ACCEPTABLE	
DEFICIENT	
POOR	

PROBLEMS NOTED: (C-1) None (C-2) Livestock Damage (C-3) Erosion or Gullies (C-4) Cracks with Displacement (C-5) Sinkholes (C-6) Appears too Steep (C-7) Depression or Bulges (C-8) Slide (C-9) Soft Areas (C-10) Trees, Brush, Briars (C-11) Animal Burrows (C-12) Other _____

Comments:

D SEEPAGE

GOOD (NONE)	
ACCEPTABLE	
DEFICIENT	
POOR	

PROBLEMS NOTED: (D-1) None (D-2) Saturated Embankment Area (D-3) Seepage Exits on Embankment (D-4) Seepage Exits at Point Source (D-5) Seepage Area at Toe (D-6) Flow Adjacent to Outlet (D-7) Seepage Clear/Muddy (D-8) Flow Clear/Muddy (D-9) Dry/Obstructed] (D-10) Other _____ Describe location of drains and indicate amount and quality of discharge.

Comments:

E PRINCIPAL SPILLWAY

GOOD	
ACCEPTABLE	
DEFICIENT	
POOR	

DESCRIPTION:

PROBLEMS NOTED: (E-1) None (E-2) Deterioration (E-3) Separation (E-4) Cracking (E-5) Inlet, Outlet Deficiency (E-6) Stilling Basin Inadequacies (E-7) Trash Rack (E-8) Other _____

Comments:

F AUXILIARY SPILLWAY

GOOD	
ACCEPTABLE	
DEFICIENT	
POOR	

DESCRIPTION:

PROBLEMS NOTED: (F-1) None (F-2) No Auxiliary Spillway Found (F-3) Erosion-with Backcutting (F-4) Crack with Displacement (F-5) Appears to be Structurally Inadequate (F-6) Appears too Small (F-7) Inadequate Freeboard (F-8) Flow Obstructed (F-9) Concrete Deteriorated/Undermined (F-10) Other _____

Comments:

G MAINTENANCE AND REPAIRS

GOOD	
ACCEPTABLE	
DEFICIENT	
POOR	

PROBLEMS NOTED: (G-1) None (G-2) Access Road Needs Maintenance (G-3) Cattle Damage (G-4) Spillway Obstruction (G-5) Brush, Weeds, Tall Grass, on Upstream Slope, Crest, Downstream Slope, Toe (G-6) Trees on Upstream Slope, Crest, Downstream Slope (G-7) Rodent Activity on Upstream Slope, Crest, Downstream Slope, Toe (G-8) Deteriorated Concrete-Facing, Outlet, Spillway (G-9) Gate and/or Drawdown Need Repair (G-10) Other _____

Comments:

H OVERALL CONDITIONS

Based on this inspection and recent file review, the overall surficial condition is determined to be: (H-1) Satisfactory (H-2) Fair (H-3) Conditionally Poor (H-4) Poor (H-5) Unsatisfactory

IMPORTANT: IF THIS RATING IS DIFFERENT THAN PREVIOUS IDNR RATING, PLEASE ATTACH EXPLANATION AND REASONS FOR CHANGE ON PAGE 4.

EXPLANATION FOR CHANGE IN RATINGS (Describe all repairs, upgrades or improvements made if dam conditions and rating have improved since the last inspection. Describe deteriorating conditions if ratings have worsened.)

REASONS FOR RATING CHANGE:

PREVIOUS RECOMMENDATIONS FOR MAINTENANCE, REPAIRS, AND UPGRADES:

HAVE THEY BEEN PERFORMED YES NO (If no, please explain:)

Supporting Documentation

Photographs Attachments Calculations Drawings Other

Comments:

INSTRUCTIONS FOR COMPLETING DAM VISUAL INSPECTION REPORT

1. Complete all items that are applicable; if not applicable, write in "N/A". For concrete dams, complete all applicable items and use "comments" section to cover items not included in the check boxes. Also indicate that the dam is concrete in the comments section.
2. Use page 6 to determine ratings of each dam component (items A through G) and for Overall Conditions (Item H).
3. Please write legibly and concisely.
4. Inspector must be knowledgeable with the type of dam, materials, and components being inspected. If not, qualified assistance shall be engaged.
5. The inspector shall review the dam owner's and IDNR project files prior to the inspection. Previous inspection reports shall be closely reviewed for previous problems and deficiencies.
6. If the ratings of the components (items A through G) or the Overall Conditions (item H) of the dam have changed since the last inspection, please complete page 4. If a rating has improved, dam repairs, improvements, analyses, or maintenance must have been performed and documented on page 4.
7. For a dam to have a satisfactory "Overall Conditions" rating, it must have no existing or potential dam safety deficiencies recognized. Safe performance is expected under all anticipated loading conditions, including infrequent hydrologic events (PMP for high hazard dams) and seismic events. The dam owner's project files must contain hydrologic and hydraulic analyses of the dam and its spillways to verify performance. The files must also contain slope stability analyses to verify embankment stability under full reservoir conditions and rapid-draw down conditions. The dam and all of its components must meet current IDNR and design standards. "Normal" deficiencies such as minor erosion, minor seepage, or normal concrete aging may not make a dam unsatisfactory or unacceptable. For a satisfactory "Overall Conditions" rating to be assigned, items A through G generally should all have a "good" rating; however, in some cases an "acceptable" rating may be satisfactory if the "Problems Noted" are minor, or "normal" conditions, such as minor erosion rills, small puddles on crest, or if grass needs mowed, but is in good condition.
8. An inspection report form must be submitted to IDNR along with a formal technical inspection report as described in Chapter 4.0 of Part 3 of the Indiana Dam Safety Inspection Manual.
9. Please sign and date this page in the space below to verify that you have read and understand these instructions.

Inspector's Signature: _____

Date: _____

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, PRINCIPAL SPILLWAY, AUXILIARY SPILLWAY

GOOD	ACCEPTABLE	DEFICIENT	POOR
In general, this part of the structure has a good appearance, and conditions observed in this area do not appear to threaten the safety of the dam.	Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.	Continued deterioration and/or unusual loading may threaten the safety of the dam.	Conditions observed in this area appear to threaten the safety of the dam. Conditions observed in this area are unacceptable.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD (NONE)	ACCEPTABLE	DEFICIENT	POOR
No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.	Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam.	Excessive seepage exists at areas other than drain outfalls and other designed drains. Seepage needs to be evaluated. Increased flow and/or continued deterioration in seepage conditions may threaten the safety of the dam.	Excessive seepage conditions observed appear to threaten the safety of the dam and is unacceptable. Examples: 1) Designed drain or seepage flows have increased without increase in reservoir level. 2) Drain or seepage flows contain sediment. i.e., muddy water or particles in jar samples. 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD	ACCEPTABLE	DEFICIENT	POOR
Dam appears to receive effective on-going maintenance and repair, and only a few minor items may need to be addressed.	Dam appears to receive maintenance, but some maintenance items need to be addressed. No major repairs are required.	Level of maintenance of the dam needs significant improvement. Major repairs may be required. Continued neglect of maintenance may threaten the safety of the dam.	Dam does not receive adequate maintenance. One or more items needing maintenance or repair has begun to threaten the safety of the dam. Level of maintenance is unacceptable.

OVERALL CONDITIONS

<p>SATISFACTORY - No existing or potential dam safety deficiencies recognized. Safe performance is expected under all anticipated loading conditions, including such events as infrequent hydrologic and/or seismic events. Project Files contain necessary hydrologic, and other engineering calculations to verify dam safety and performance.</p> <p>FAIR - No existing dam safety deficiencies are recognized for normal loading conditions. Infrequent hydrologic and/or</p>	<p>seismic events would probably result in a dam safety deficiency.</p> <p>CONDITIONALLY POOR - A potential safety deficiency is recognized for unusual loading conditions which may realistically occur during the expected life of the structure. CONDITIONALLY POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency; further investigations and studies are necessary.</p>	<p>POOR - A potential dam safety deficiency is clearly recognized for normal loading conditions. Immediate actions to resolve the deficiency are recommended; reservoir restrictions may be necessary until problem resolution.</p> <p>UNSATISFACTORY - A dam safety deficiency exists for normal conditions. Immediate remedial action is required for problem resolution.</p>
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HAZARD CLASSIFICATIONS OF DAMS (STRUCTURE)

<p>LOW HAZARD- A structure the failure of which may damage farm buildings, agricultural land, or local roads</p>	<p>SIGNIFICANT HAZARD- A structure the failure of which may damage isolated homes and highways, or cause the temporary interruption of public utility services.</p>	<p>HIGH HAZARD-A structure the failure of which may cause the loss of life and serious damage to homes, industrial and commercial buildings, public utilities, major highways, or railroads.</p>
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UNAPPROVED STATUS OF DAM

A dam that has been given an unapproved status (see entry for permit) means that plans, construction specifications, hydraulic analyses, and/or a geotechnical investigation on your dam, proving the safety of the structure, have not been received and approved by the Indiana Department of Natural Resources (IDNR). IDNR records indicate that no progress has been made to secure this approval. The fact that the dam is inspected under the Regulation of Dams Act (IC 14-27-7.5) in no way alters the illegal status of the structures.

If your dam is indicated to be unapproved, it is requested that your engineer contact the Indiana Department of Natural Resources,