Dams Preliminary Inspection Form





nspection Informat	tion	
1. Date of Inspection		09/27/2018
2. Inspectors Present		Ryan Sullivan
3. Other Persons Attendi	ing Inspection	
Name	Phone	Owner/Engineer/Other Owner
Jaime Welch		Driver
4. Is this a follow-up insp	pection?	Yes No NA
Observation/Instrui	mentation	
1. Estimate the current le	evel of the water in the reser	voir: Breached
2. Describe the current v	veather & conditions:	Cloudy
3. Recent rainfall quantit	'y:	None
4a. Are Piezometers or Observation Wells present?		☐ Yes ✓ No
4b. (If Present:) Condition	on of Piezometers/Observation	n Wells
5a. Is a Staff Gauge or R	Recorder present?	☐ Yes ✓ No
5b. (If Present:) Condition	on of Staff Gauge or Recorde	-
6a. Are Measurement We	eirs Present?	☐ Yes ✓ No
6b. (If Present:) Condition	on of Weirs:	
7a. Number of Spillways	Present	1
7b. Type of Spillways Pre	esent	Other (Specify In Comments)
Metal Pipe by Left Abutr	ment.	
8. Other:		
9. Additional Comments	(Refer to item number if app	licable)

Dams Preliminary Inspection Form





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Inspector: Ryan Sullivan



Embankment: Crest	
1. Grass Cover	No Deficiency
2. Deleterious Vegetation	No Deficiency
3. Trees	No Deficiency
4. Animal Activity	No Deficiency
5. Surface Cracking	Action Required

Longitudinal cracking at left side of breach.



Photo Taken: 9/27/2018 12:59:03 PM GPS Orientation: 270 degrees

6. Horizontal Alignment

No Deficiency

7. Settlement

Investigate

Depressed section of the crest on the right side of the breach. Picture is difficult to tell. About the area of an inflatable kiddie pool, about 4" deep. Area on downstream slope right there is very steep and heavily vegetated, but appeared less stable than other areas.



Photo Taken: 9/27/2018 12:48:24 PM

Dams Preliminary Inspection Form

Inspector: Ryan Sullivan Start Date: 09/28/2018 Completed Date: 09/28/2018



Embankment: Crest	
8. Sinkhole	No Deficiency
9. Erosion	Action Required
Large breach in center of the dam.	Photo Taken: 9/27/2018 12:53:21 PM
10a. Are Alterations/Repairs Present?	Yes V No
10b. (If Present:) Alterations/Repairs Condition	
11. Other:	
12. Embankment: Crest Condition	Needs Permitted Repair(s)
Violation Determined: 9/28/2018 DAMMAINTREP	
13. Additional Comments (Refer to item number i	f applicable)
Concrete/Masonry Dams: Crest	
Is this section applicable for this dam?	☐ Yes ✓ No
1. Surface Conditions	
2. Horizontal Alignment	
3. Vertical Alignment	
4. Condition of Joints	
5. Unusual Movement	
6a. Are Alterations/Repairs Present?	Yes No
6b. (If Present:) Alterations/Repairs Condition	

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Concrete/Masonry Dams: Crest

- 7. Other:
- 8. Concrete/Masonry Dam Crest Condition
- 9. Additional Comments (Refer to item number if applicable)

Embankment: Upstream Slope

Is this section applicable for this dam?



Photo Taken: 9/27/2018 12:47:28 PM GPS Orientation: 270 degrees

Yes No



Photo Taken: 9/27/2018 12:52:26 PM GPS Orientation: 270 degrees

1. Grass Cover Investigate

No grass cover observed on upstream slope.

2. Deleterious Vegetation Investigate

Brush and woody vegetation observed on the upstream slope.

3. Trees

Dams Preliminary Inspection Form



bankment: Upstream Slope	
. Animal Activity	No Deficiency
. Surface Cracking	No Deficiency
. Subsidence, Sinkhole	No Deficiency
. Slide, Slough, Scarp	Action Required

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Inspector: Ryan Sullivan Start Date: 09/28/2018



Embankment: Upstream Slope

Large slide on left side, near breach. More cracking near slide may indicate another possible slide in the future.



Photo Taken: 9/27/2018 12:55:01 PM



Photo Taken: 9/27/2018 12:58:40 PM



Photo Taken: 9/27/2018 12:59:03 PM GPS Orientation: 270 degrees

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Embankment: Upstream Slope	
8. Groins	Monitor
Brush and woody vegetation observed in the upstream groins.	
9. Erosion	Action Required
Large Breach through center of the dam.	
10a. Slope Protection/Armoring Present?	Yes Vo
10b. (If Present:) Slope Protection/Armoring	
11a. Alterations/Repairs Present?	Yes Vo
11b. (If Present:) Alterations/Repairs Condition	
12. Other:	
13. Embankment: Upstream Slope Condition	Needs Permitted Repair(s)
Violation Determined: 9/28/2018 DAMMAINTREP Large breach and large slide.	
14. Additional Comments (Refer to item number if applicable)	
Concrete/Masonry Dams: Upstream Face	
Is this section applicable for this dam?	Yes V No
1. Surface Conditions	
2. Condition of Joints	
3. Unusual Movement	
4. Abutments	
5a. Alterations/Repairs Present?	Yes No
5b. (If Present:) Alterations/Repairs Condition	
6. Other:	
7. Concrete/Masonry Dams: Upstream Face Condition	
8. Additional Comments (Refer to item number if applicable)	

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Inspector: Ryan Sullivan





Dams Preliminary Inspection Form

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Photo Taken: 9/27/2018 12:57:54 PM

Embankment: Downstream Slope

3. Trees Investigate

Several trees greater than 4" in diameter present along the toe of the dam.



4. Animal Activity

Heavy vegetation prevented full inspection.

5. Surface Cracking

Monitor

Heavy vegetation prevented full inspection.

6. Subsidence, Sinkhole

Heavy vegetation prevented full inspection.

7. Slide, Slough, Scarp

Monitor

Heavy vegetation prevented full inspection.

8. Groins

Monitor

Heavy vegetation prevented full inspection.

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Embankment: Downstream Slope	
9. Erosion	Action Required
Large breach through center of the dam. Ar	rea at the spillway also eroded. Photo Taken: 9/27/2018 12:57:31 PM
10a. Slope Protection/Armoring Present?	☐ Yes ☑ No
10b. (If Present:) Slope Protection Condition	
11. Wet Areas	Monitor
Heavy vegetation prevented full inspection.	
12a. Seepage	☐ Yes ☐ No
12b. (If Present): Seepage Flow	
13a. Drainage System Present?	☐ Yes ✓ No
13b. (If Present:) Drainage System Condition	
14a. Alterations/Repairs Present?	☐ Yes ✓ No
14b. (If Present:) Alterations/Repairs Condition	on
15. Other:	Investigate
Downstream slope was very steep throughout	ut. Steeper than 1:1, approaching 1:2.
16. Embankment: Downstream Slope Condition	Needs Permitted Repair(s), Condition Prevented Full Inspection
Violation Determined: 9/28/2018 DAMMAINTREP	
17. Additional Comments (Refer to item numb	ber if applicable)

Dams Preliminary Inspection Form



Inspector: Ryan Sullivan Start Date: 09/28/2018 Completed Date: 09/28/2018



Concrete/Masonry Dams: Downstream Face	
Is this section applicable for this dam?	Yes Vo
1. Surface Conditions	
2. Condition of Joints	
3. Unusual Movement	
4. Drains	
5. Leakage	
6. Abutments	
7a. Alterations/Repairs Present?	Yes No
7b. (If Present:) Alterations/Repairs Condition	
8. Other:	
9. Concrete/Masonry Dam: Downstream Face Condition	
10. Additional Comments (Refer to item number if applicable)	
Downstream Area	
Is this section applicable for this dam?	✓ Yes ☐ No

Dams Preliminary Inspection Form





Downstream Area Yes V No Is Downstream Area clear? Heavily vegetated with brush and trees greater than 4" in diameter. Photo Taken: 9/27/2018 12:53:21 PM Photo Taken: 9/27/2018 12:53:36 PM 1. Trees Investigate Trees greater than 4" in diameter observed in the downstream area. 2. Deleterious Vegetation Investigate Brush and woody vegetation observed in downstream area. 3. Wet Areas Monitor Heavy vegetation prevented full inspection. Yes No NA 4a. Seepage Heavy vegetation prevented full inspection. 4b. (If Present): Seepage Flow

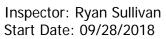
Dams Preliminary Inspection Form

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Downstream Area	
5a. Boils	Yes No NA
Heavy vegetation prevented full inspection.	
5b. (If Present): Boil Flow	
6a. Alterations/Repairs Present	Yes V No NA
6b. (If Present:) Alterations/Repairs Condition	
7. Other:	
8. Downstream Area Condition	Needs Maintenance, Condition Prevented Full Inspection
Violation Determined: 9/28/2018 DAMMAINTREP	
9. Additional Comments (Refer to item number if applicable)	
Spillways: Erodible Channel	
Is this section applicable for this dam?	Yes V No
1. Location	
2. Grass Cover	
3. Deleterious Vegetation	
4. Trees	
5. Animal Activity	
6. Subsidence, Sinkhole	
7. Slide, Slough, Scarp	
8. Erosion	
9. Debris	
10. Flowing?	Yes No NA
11a. Alterations/Repairs Present	Yes No NA
11b. (If Present:) Alterations/Repairs Condition	
12. Other:	
13. Spillway: Erodible Channel Condition	
14. Additional Comments (Refer to item number if applicable)	

Dams Preliminary Inspection Form



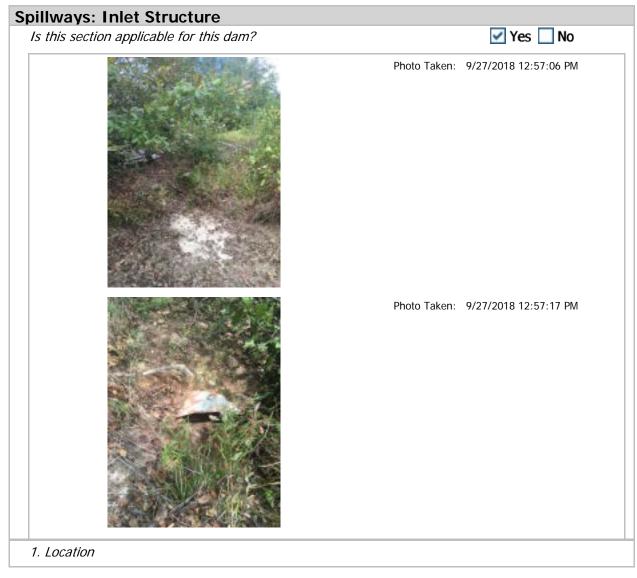


Spillways: Non-Erodible Channel	
Is this section applicable for this dam?	Yes V No
1. Location	
2. Approach Area	
3. Weir/Control	
4. Sidewalls	
5. Channel Floor	
6. Condition of Joints	
7. Surface Condition	
8. Unusual Movement	
9. Discharge Channel	
10. Debris	
11. Flowing?	Yes No NA
12a. Boils	Yes No NA
12b. (If Present): Boils	
13a. Alterations/Repairs Present	Yes No NA
13b. (If Present:) Alterations/Repairs Condition	
14. Other:	
15. Spillway: Non-Erodible Channel Condition	
16. Additional Comments (Refer to item number if applicable)	

Dams Preliminary Inspection Form

Inspector: Ryan Sullivan Start Date: 09/28/2018 Completed Date: 09/28/2018





Dams Preliminary Inspection Form

Inspector: Ryan Sullivan Start Date: 09/28/2018 Completed Date: 09/28/2018



Spillways: Inlet Structure	
2a. Intake Structure	Action Required
Intake pipe bent and damaged.	Photo Taken: 9/27/2018 12:57:17 PM
2b. Intake Structure Types	Other (Explain In Comments)
Metal Pipe at Left Abutment.	
3. Trashrack	Not Present
4a. Low-Level Valve Present?	Yes V No NA
4b. (If Present:) Low-Level Valve Condition	
5. Debris	No Deficiency
6a. Repairs/Alterations Present	Yes No NA
6b. (If Present:) Alterations/Repairs Condition	
7. Other:	
8. Spillway: Inlet Structure Condition	Needs Permitted Repair(s)
Violation Determined: 9/28/2018 DAMMAINTREP	
9. Additional Comments (Refer to item number if a	applicable)
Spillways: Outlet Works	
Is this section applicable for this dam?	✓ Yes No
1. Location	

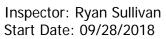
Dams Preliminary Inspection Form

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Spillways: Outlet Works	
2a. Outlet Structure	Action Required
Section of dam above outlet has eroded and collapsed over it	9/27/2018 12:57:31 PM
2b. Outlet Structure Type	Pipe
3. Outlet Pipe	Action Required
4. Primary Closure/Control	No Deficiency
5. Secondary Closure/Control (If Applicable)	
6. Unusual Movement	Action Required
Covered by eroded and collapsed section of the dam.	
7a. Seepage	Yes No NA
7b. (If Present): Seepage	
8. Stilling Basin	
9. Normal Flow Quantity	
10. Low-Level Flow Quantity	
11a. Alterations/Repairs Present	Yes V No NA
11b. (If Present:) Alterations/Repairs	
12. Other:	
13. Outlet Works Condition	Needs Permitted Repair(s)
Violation Determined: 9/28/2018 DAMMAINTREP	

Dams Preliminary Inspection Form



Start Date: 09/28/2018 Completed Date: 09/28/2018

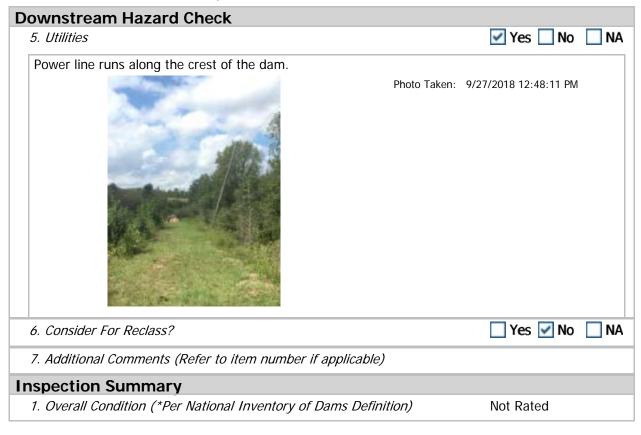


Spillways: Outlet Works		
14. Additional Comments (Refer to item number if applicable)		
Emergency Action Plan		
Is this section applicable for this dam?	Yes Vo	
1. Date of last update of emergency plan:		
2a. EAP provided by owner?	Yes No	■ NA
2b. (If EAP was not provided, was a copy of the EAP form left with the owner?)	Yes No	■ NA
3. Does EAP contain emergency alert plan?	Yes No	■ NA
4. Does EAP contain specific actions to take if the dam has failed or is failing?	Yes No	■ NA
5. Additional Comments (Refer to item number if applicable)		
Downstream Hazard Check		
1. Satellite Imagery	Yes No	NA
Photo Taken:	9/28/2018 9:52:35 AM	
2. Inundation Map	Yes V No	□ NA
3. Structures/Developments	Yes Vo	■ NA
4. Roads/Railways	Yes V No	NA NA

Dams Preliminary Inspection Form

Inspector: Ryan Sullivan





9/28/2018 7:02 AM ²⁰

Dams Preliminary Inspection Form

Inspector: Ryan Sullivan



Inspection Summary

-----NID Definitions-----

(SATISFACTORY) No existing or potential dam safety deficiencies are recognized.

Acceptable performance is expected under all loading conditions in accordance with

state engineer's rules and regulations for dams or tolerable risk guidelines.

(FAIR) No existing dam safety deficiencies are recognized for normal loading

conditions. Rare or extreme hydrologic and/or seismic events may result in a dam

safety deficiency. Risk may be in the range to take further action.

(POOR) A dam safety deficiency is recognized for loading conditions, which may

realistically occur. Remedial action is necessary. A POOR condition is used when

uncertainties exist as to critical analysis parameters, which identify a potential dam

safety deficiency. Further investigations and studies are necessary.

(UNSATISFACTORY) A dam safety deficiency is recognized that requires immediate

or emergency remedial action for problem resolution.

(NOT RATED) This should only be used if it is not possible to assess to dam's

condition due to site constraints on visibility on the day of inspection. If vegetation is a

problem the owner should be ordered perform maintenance to remove it before the next visit.

3. Final Comments

Fully Breached.

Dams Preliminary Inspection Form

Inspector: Ryan Sullivan



Inspection Summary

Preliminary Dam Inspection Disclaimer:

The information contained in the preliminary inspection report is intended as an aid to identify those dams that require maintenance and/or repair actions to reduce their danger to human life or property only. It is not intended as professional engineering or consulting advice for conditions or situations present at individual dams. It is not a substitute for a detailed inspection, nor does it replace the need for services provided by registered professional engineers. If your dam is experiencing an unusual situation consult with engineering professionals to find an appropriate remedy. Preliminary inspections conducted by South Carolina Department of Health and Environmental Control (the Department) are provided "AS IS" and "as available", without warranties of any kind, either express or implied. Preliminary inspections consist only of a visual but technical examination of the dam and its appurtenant works. All findings are based solely on visual observations of the inspector at the time of the inspection. Common law holds that the storage of water is a hazardous activity and the Department does not assume any responsibility or risk for your actions or inactions. Dam owners are responsible for the safe operations and maintenance of their impoundment structures.

CRAWFORD POND DAM (D1824)



Violation List

Form	Determined	Description	Sec. #
Dams Preliminary Inspection Form	9/28/2018	Reference: DAMMAINTREP	
Dams Preliminary Inspection Form	9/28/2018	Reference: DAMMAINTREP Large breach and large slide.	
Dams Preliminary Inspection Form	9/28/2018	Reference: DAMMAINTREP	
Dams Preliminary Inspection Form	9/28/2018	Reference: DAMMAINTREP	
Dams Preliminary Inspection Form	9/28/2018	Reference: DAMMAINTREP	
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