

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

April 13, 2015

Mrs. Kim Fortner, P.E. Gaffney Board of Public Works Post Office Box 64 Gaffney, South Carolina 29340

Re: Reinspection of Dam D-0008, Lake Whelchel Dam, Cherokee County

Dear Kim:

On April 6, 2015, I conducted a routine reinspection of the Lake Whelchel Dam.

I am enclosing a copy of my inspection report on the dam. Overall, the dam appears in good condition. You should continue your current maintenance program.

A copy of the Emergency Notification Plan is in our file. Should the dam experience difficulty, the appropriate emergency officials should be notified. The agencies listed on the plan can provide assistance in determining what actions to take for protection of the public health and downstream property.

You will be notified when the next reinspection of this dam is scheduled.

Sincerely,

Mark Cann, Sr., P.E.
Spartanburg EQC

cc: John Poole - Facilities Compliance Section, BW, winspection report



R.72-1 through R.72-9

A. Dam Number: Doool & Hazard Class 1	B. Name of Dam: Lake Whelchel Oan
C. Inspection Date (24/06/20 / 5) & Time: //:30	D. Date of Last Inspection: (/_/)
E. Location-County/City: Cherokeel Caffrey	F. EQC Regional Office: Spant.
G. Inspector's Name: Mark Lann	
H. Owner's Name: Gaffney BPW	8 F
I. Contact Person (if different from above):	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office (<u>\$64)</u> 488-8801
*	Other ()
K. Dam Owner's or Contact Person's mailing address:	Other ()
Address 1 P.J. Box 64	
Address 2 (optional)	· · · · · · · · · · · · · · · · · · ·
City Gaffney , Star	te <u> </u>
()	
Section II (Dam Condition)	5.5 · 4
General Condition Assessment (Select one of the following	lowing):
a) Satisfactory X b) Fair c) Poor	d) Unsatisfactory e) Not Rated
Section III (Dam Inspection Checklist)	
A. Dam Crest	* · · · · · · · · · · · · · · · · · · ·
A. Dam Crest i. Vegetation (grass, trees weeds)?	· · · · · · · · · · · · · · · · · · ·
i. Vegetation (grass, trees weeds)? Animal activity observed?	
i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alteration or repairs made?	
i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alteration or repairs made? iv. Erosion noticed on crest?	

II. Anima	al activity observed? No
iii. Any o	obvious alterations or repairs made? **Documents** **Documents
iv. Erosio	on observed on upstream slope?
v. Settlei	ment or cracks visible in slope?
i. Vegeta	Stream Slope ation (grass, trees weeds)?
ii. Anima	al activity observed?
iii. Any c	bvious alterations or repairs made?
iv. Erosic	on observed on down stream slope?
v. Settler	nent or cracks visible in slope?
vi. Toe di	rains flowing?
-	
ii. Is there	e an obvious need to repair or replace trash rack?
	sticeable problems with debris?
iii. Any no	oticeable problems with debris?
iii. Any no	sticeable problems with debris?
iii. Any no iv. Is valv	e or gate present? 4.5
iii. Any no iv. Is valv i. Outlet I i. Any wat	e or gate present? Pipe The rest visibly flowing or leaking outside of the discharge pipe?
iii. Any no iv. Is valv E. Outlet I i. Any wat ii. Describ	e or gate present? Pipe ter visibly flowing or leaking outside of the discharge pipe?
iii. Any no iv. Is valv i. Outlet I i. Any wat ii. Describ ii. Visible	e or gate present? Pipe ter visibly flowing or leaking outside of the discharge pipe? te any deflection or damage observed to the pipe:
iii. Any no iv. Is valv i. Outlet I i. Any wat ii. Describ ii. Visible Auxiliary Noticeat	e or gate present? Pipe ter visibly flowing or leaking outside of the discharge pipe? te any deflection or damage observed to the pipe: condition of outlet channel: OK (Emergency) Spillway
iii. Any no iv. Is valv iv. Is valv iv. Outlet I i. Any wat ii. Describ iii. Visible Auxiliar ii. Noticeat	e or gate present? Pipe ter visibly flowing or leaking outside of the discharge pipe? The any deflection or damage observed to the pipe: Condition of outlet channel: OCC V (Emergency) Spillway Die obstructions to flow? NO NO NO NO NO NO NO NO NO N

v. If applicable						
/i. If applicable	, any visible le	akage below co	oncrete spillwa	y? NO		
	/Hazard Class le changes imi	s Issues mediately dowr	nstream of the o	lam that affect	cts the hazard	classification?
		17	No		E:	
	ction Plan (E/	AP) vided by owner	r?	2		
Does EAP c	ontains emerge	ency alert notifi	cation plan? If	so, when was	it last update	d?
. Does EAP o	ontain specific	actions to take	if the dam has	failed or is n	ear failure?	
eneral comn		ommendations		and w	ell-ma	intrine
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations		rnd w	ell-ma	intained
eneral comn	ents and rec	ommendations		rad w	ell-ma	intained
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations		and w	ell-ma	intained
eneral comn	ents and rec	ommendations	i tron			intained

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.



Catherine E. Heigel, Director Promoting and protecting the health of the public and the environment

October 5, 2015

Alvin A. Taylor, Director South Carolina Department of Natural Resources PO Box 167 Columbia SC 29202

Re:

Reinspection of Dam D-2162,

John D. Long Lake Dam, Union County

Dear Mr. Taylor:

On September 1, 2015 a routine reinspection of the John D Long Lake Dam was performed. I am enclosing a copy of the inspection report. The following deficiencies were noted:

- -The enclosed Emergency Action Plan form should be completed and submitted to this office for our file.
- Brush should be cleared from the water line on the upstream face of the dam.
- Kudzu in the emergency spillway should be cleared.

This dam is given an overall Satisfactory assessment. Please complete the requested items and submit to this office within 90 days of date of this letter. Please feel free to call (864-596-3800) if I can be of any assistance.

Sincerely,

Mark Cann, Sr., P.E.

Spartanburg EQC Office

Cc: David Graves – Dams and Reservoir Safety, BW



Section I (Owner's Information)	
A. Dam Number: D 2162 & Hazard Class C1	3. Name of Dam: John D Long Lake Dam
C. Inspection Date (09/01/20 15) & Time: 14:30	D. Date of Last Inspection: (04 / 25 / 2011 _)
E. Location-County/City: Union / Lockhart	EQC Regional Office: Spartanburg
G. Inspector's Name: Mark Cann	
H. Owner's Name: SC Dept of Natural Resources	
I. Contact Person (if different from above):	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office ()
I/ Dan Oumada as Contact Bernada mailing address:	Other ()
K. Dam Owner's or Contact Person's mailing address:	
Address 1 PO Box 167	
Address 2 (optional)	-
	Zip Code _29202
City Columbia , State SC	-
, , , , , , , , , , , , , , , , , , ,	-
City Columbia, State SC	Zip Code _29202
City Columbia , State SC Section II (Dam Condition) General Condition Assessment (Select one of the following	Zip Code _29202
City Columbia , State SC Section II (Dam Condition) General Condition Assessment (Select one of the following	Zip Code _29202
City Columbia, State SC Section II (Dam Condition) General Condition Assessment (Select one of the following a) Satisfactory	Zip Code _29202
City Columbia, State SC Section II (Dam Condition) General Condition Assessment (Select one of the following a) Satisfactory ✓ b) Fair c) Poor d Section III (Dam Inspection Checklist)	Zip Code _29202
City Columbia, State SC Section II (Dam Condition) General Condition Assessment (Select one of the following a) Satisfactory ✓ b) Fair c) Poor d Section III (Dam Inspection Checklist) A. Dam Crest	Zip Code _29202
City Columbia, State SC Section II (Dam Condition) General Condition Assessment (Select one of the following a) Satisfactory ✓ b) Fair c) Poor d Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Grass	Zip Code _29202
City Columbia, State SQ	Zip Code _29202

Section III (Dam Inspection Checklist) continued **B. Upstream Slope** i. Vegetation (grass, trees weeds)? Grass, brush and rip-rap at water line. Brush and mimosa tree at water line need to be cleared. ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on upstream slope? No v. Settlement or cracks visible in slope? No C. Down Stream Slope i. Vegetation (grass, trees weeds)? Grass ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on down stream slope? v. Settlement or cracks visible in slope? No vi. Toe drains flowing? vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: D. Primary Spillway i. Any visible deterioration of structure? ii. Is there an obvious need to repair or replace trash rack? iii. Any noticeable problems with debris? iv. Is valve or gate present? Yes E. Outlet Pipe i. Any water visibly flowing or leaking outside of the discharge pipe? ii. Describe any deflection or damage observed to the pipe: None iii. Visible condition of outlet channel: F. Auxiliary (Emergency) Spillway i. Noticeable obstructions to flow? Need to clear kudzu from spillway. ii. Animal activity observed? iii. Any noticeable deterioration in the approach or discharge channel? No iv. Any visible deterioration of structure's crest?

v. If applicable, any observed exposur				
vi. If applicable, any visible leakage below concrete spillway?				
H. Downstream/Hazard Class Issues i. Any noticeable changes immediately	y downstream of the dam that affects the hazard classification?			
. Emergency Action Plan (EAP) i. Emergency Action Plan provided by	owner? Needs to be updated.			
ii. Does EAP contains emergency aler	rt notification plan? If so, when was it last updated?			
iii. Does EAP contain specific actions	to take if the dam has failed or is near failure?			
General comments and recommend				
General comments and recommend				
General comments and recommend	spillway needs to be cleared of kudzu.			
General comments and recommend	spillway needs to be cleared of kudzu.			
General comments and recommend	spillway needs to be cleared of kudzu.			
General comments and recommend	spillway needs to be cleared of kudzu.			
General comments and recommend	spillway needs to be cleared of kudzu.			
Dam is in good condition but the emergency	spillway needs to be cleared of kudzu.			

<u>Preliminary Dam Inspection Disclaimer:</u>
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.



Section I (Owner's Information)

A. Dam Number: D & Hazard Class	B. Name of Dam:
C. Inspection Date (//20) & Time:	D. Date of Last Inspection: (//)
E. Location-County/City:/	F. EQC Regional Office:
G. Inspector's Name:	
H. Owner's Name:	
I. Contact Person (if different from above):	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office ()
K David Oranda va Oranda da Dirigida da Maria	Other ()
K. Dam Owner's or Contact Person's mailing address:	
Address 1	
Address 1	
Address 2 (optional)	
Address 2 (optional), S	
Address 2 (optional)	tate Zip Code
Address 2 (optional), S Section II (Dam Condition)	tate Zip Code ollowing):
Address 2 (optional)	tate Zip Code ollowing):
Address 2 (optional) City	tate Zip Code ollowing):
Address 2 (optional) City	tate Zip Code ollowing):
Address 2 (optional) City	tate Zip Code ollowing): d) Unsatisfactory e) Not Rated
Address 2 (optional) City	ollowing): d) Unsatisfactory e) Not Rated
Address 2 (optional) City	ollowing): d) Unsatisfactory e) Not Rated

Section III (Dam Inspection Checklist) continued **B. Upstream Slope** i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on upstream slope? v. Settlement or cracks visible in slope? C. Down Stream Slope i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on down stream slope? v. Settlement or cracks visible in slope? vi. Toe drains flowing? vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: D. Primary Spillway i. Any visible deterioration of structure? ii. Is there an obvious need to repair or replace trash rack? iii. Any noticeable problems with debris? iv. Is valve or gate present? E. Outlet Pipe i. Any water visibly flowing or leaking outside of the discharge pipe? ii. Describe any deflection or damage observed to the pipe: iii. Visible condition of outlet channel: F. Auxiliary (Emergency) Spillway i. Noticeable obstructions to flow? ii. Animal activity observed? iii. Any noticeable deterioration in the approach or discharge channel? iv. Any visible deterioration of structure's crest? DHEC 2604 (Rev 11/2011)

z. ii applicable, a	ny observed exposure of rebar reinforcement?
vi. If applicable, a	any visible leakage below concrete spillway?
	lazard Class Issues
. Any noticeable	changes immediately downstream of the dam that affects the hazard classification?
Emergency Act	· ·
i. Emergency Act	tion Plan provided by owner?
ii. Does EAP con	tains emergency alert notification plan? If so, when was it last updated?
iii. Does EAP cor	ntain specific actions to take if the dam has failed or is near failure?
	nclusions) ents and recommendations:
Gection IV (Co	

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.

INSTRUCTIONS

Purpose: To satisfy the inspection requirements for high and significant hazard dams regulated by South Carolina Department of Health and Environmental Control. See R.72-1 through R. 72-9.

Who will complete the form: Regional engineers and inspectors engaged in the dams and reservoir safety program performing dam inspections.

Section I (Owner's Information):

- A) Dam Number; Enter the Dam's inventory number.
- B) Name of Dam; Enter the common name of dam found within EFIS.
- C) Inspection Month & Time; Enter the day, month, year, and time in which the inspections was performed.
- D) Date of Last Inspection; Enter the day, month, and year, in which the last inspection was performed.
- E) Location-County/City; Enter the county and city, if applicable, where the dam is located.
- F) EQC Regional Office; Enter the DHEC EQC Regional office that covers the area in which the dam is located.
- G) Inspector's Name: Enter the name of the person performing the inspection.
- H) Owner's Name: Enter the name of the person owning the dam. If there is multiple owners list them and their contact information in the "General comments and recommendations are in section IV.
- I) Contact Person; Enter the name of the person that represents the dam owner during the inspection. This person should be authorized to remedy any deficiencies found by the inspector.
- J) Dam Owner's or Contact Person's Phone Numbers; Enter the home, office, and other available numbers for the Dam owner or Contact person.
- K) Dam Owner's or Contact Person's mailing address; Enter the dam owner's or contact person's mailing address including city state and zip code.

Section II (Dam Condition):

Once the inspection is completed indicate the general condition of the dam. The assessment can be one of the following four categories:

a) 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.

- b) 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.
- c) 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.
- d) UNSATISFACTORY- A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- e) 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.

Section III (Dam Inspection Checklist):

This section is self-explanatory and guides the inspector though the inspection process. Follow the dam inspection checklist to complete the inspection. Mark any deficiencies observed during the inspection. If there were the deficiencies reported during the last inspection cycle check to see if they were corrected. If items are not applicable to the inspection of the dam, mark not applicable. If the dams has issues that are not covered in this section of the form make note of them in section IV.

Section IV(Conclusions):

Use the space to list additional responsible parties (dam owners) and issues found during the inspection that are not addressed in section III, as well as any general comments and recommendations generated during the inspection.

Office Mechanisms and filing: The form must be sent to the Dam's owner(s) and filed with the Bureau of Water, Dams and Reservoir Safety Program, before the end of the following month after which the inspections were performed. The report will be filed in the Bureau of Water's file room and will be retained for at least three years after the Department certifies the removal of the inspected dam.



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

April 2, 2013

Mr. Mitchell Turner SJWD Water District P.O. Box 607 Lyman, SC 29365

RE: Inspection of:

Dam D-3340, Lyman Lake Dam

Dam D-3338, Apalache Mill Pond Dam

Dam D-3398, Lake Cooley Dam Dam D-4493, SJWD RCC Dam

Dear Mr. Turner,

On March 08, 2013, I conducted a routine inspection of the dams referenced above. Your cooperation during the inspection was greatly appreciated. I am enclosing a copy of my inspection reports of each dam. Overall, the dams appear in good condition and the emergency notification plans have been properly updated. All the dams received a **Satisfactory** rating with the exception of the Apalache Mill Pond Dam that received a **Fair** rating. SJWD personnel demonstrated that the Apalache Mill Pond Dam is structurally sound, but the water level cannot be lowered in the lake in the event of an emergency.

SJWD is in the process of updating the EAP so that each dam will have it's own comprehensive plan. The schedule for each plan is based on priority. The EAP for the Apalache Mill Pond Dam is complete and is updated annually. The plan is very detailed and includes many different scenarios and related protocols for each type of incident that could occur. This will serve as a model for the remaining dams. All plans are expected for completion by 2014/2015.

If you have any questions, please call me at 864-596-3800.

Sincerely

Florence Hall

Regional Engineer Associate

Region 2 BEHS Spartanburg Office

Cc: John Poole, Bureau of Water - Dam Safety Program

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Region 2

Serving Cherokee, Greenville, Pickens, Spartanburg and Union Counties

Spartanburg EQC Office · 151 East Wood Street · Spartanburg, SC 29303 · PO Box 4217 · Spartanburg, SC 29305 · Phone: (864) 596-3800 · Fax (864) 596-2136 · www.scdhec.gov



Section I (Owner's Information)	
A. Dam Number: D 3338 & Hazard Class C1	B. Name of Dam: Apalache Mill Pond
C. Inspection Date (03/08/20 13) & Time: 1050	D. Date of Last Inspection: (03/31/2011_)
E. Location-County/City: Spartanburg / Green	F. EQC Regional Office: Region 2 BEHS Spartanburg
G. Inspector's Name: Florence B. Hall	
H. Owner's Name: SJWD	
I. Contact Person (if different from above): Mitch Turner	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office (864) 949 - 2830
K. Dam Owner's or Contact Person's mailing address:	Other (864_) 303 7690_
Address 1 PO Box 607	
Address 1 PO Box 607 Address 2 (optional)	
Address 1 PO Box 607 Address 2 (optional)	
Address 1 PO Box 607 Address 2 (optional) City Lyman State Section II (Dam Condition) General Condition Assessment (Select one of the folio	e SC Zip Code 29365
Address 1 PO Box 607 Address 2 (optional) City Lyman State Section II (Dam Condition) General Condition Assessment (Select one of the followally a) Satisfactory b) Fair (c) Poor Section III (Dam Inspection Checklist) A. Dam Crest	e SC Zip Code 29365
Address 1 PO Box 607 Address 2 (optional) City Lyman State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? None	e SC Zip Code 29365
Address 1 PO Box 607 Address 2 (optional) City Lyman State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair ✓ c) Poor Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? None ii. Animal activity observed? None	e SC Zip Code 29365

1. V	egetation (grass, trees weeds)? None	
ii. A	nimal activity observed? None	
iii. /	Any obvious alterations or repairs made? No	
iv. E	rosion observed on upstream slope? No	
v. S	ettlement or cracks visible in slope? No	
	wn Stream Slope egetation (grass, trees weeds)? None	
ii. A	nimal activity observed? None	
iii. A	Any obvious alterations or repairs made? No	
iv. E	rosion observed on down stream slope? No	
v. S	ettlement or cracks visible in slope? No	
vi. T	oe drains flowing?	
flow	Any seepage observed? If so, describe location, rate, and any turbidity or color within the flow: Yes, along the left side wall. This seepage is unchanged from previous inspections. No turbidity observed.	
	mary Spillway by visible deterioration of structure? No	
i. Ar		
i. Ar ii. Is	y visible deterioration of structure? No	
i. Ar ii. Is iii. A	there an obvious need to repair or replace trash rack?	
i. Ar ii. Is iii. A iv. Is	there an obvious need to repair or replace trash rack? ny noticeable problems with debris? No	
i. Ar ii. Is iii. A iv. Is i. Ar	there an obvious need to repair or replace trash rack? ny noticeable problems with debris? valve or gate present? Not operable utlet Pipe	
i. Ar ii. Is iii. A iii. A	there an obvious need to repair or replace trash rack? ny noticeable problems with debris? valve or gate present? Not operable sylvater visibly flowing or leaking outside of the discharge pipe?	
i. Ar ii. Is iii. A iii. A iii. Ar iii. Do	there an obvious need to repair or replace trash rack? ny noticeable problems with debris? valve or gate present? Not operable Itlet Pipe by water visibly flowing or leaking outside of the discharge pipe? escribe any deflection or damage observed to the pipe:	
i. Ar ii. Is iii. A iii. A iii. D iii. D iii. V	there an obvious need to repair or replace trash rack? In ny noticeable problems with debris? In a valve or gate present? Not operable In a valve or gate present? In a valve or gate pre	
i. Ar ii. Is iii. A iv. Is ii. Ar iii. Do iii. V	there an obvious need to repair or replace trash rack? In y noticeable problems with debris? In y water or gate present? In y water visibly flowing or leaking outside of the discharge pipe? In y water visibly flowing or leaking outside of the discharge pipe? In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe: In y water visibly flowing or leaking outside of the pipe:	

vi. If applicable, any	visible leakage below concrete spillway?
H. Downstream/Haza	ard Class Issues
i. Any noticeable cha	inges immediately downstream of the dam that affects the hazard classification?
Dam is Highest Dam Cla	ssification.
. Emergency Action	Plan (EAP)
	Plan provided by owner? Yes
ii. Does EAP contain February 20, 2012.	s emergency alert notification plan? If so, when was it last updated? Yes. Latest update was
iii Doos EAD contair	n specific actions to take if the dam has failed or is near failure? Yes. Actions are very
Section IV (Conc.) General comments	ous types of incidents as it relates to the dam.
Section IV (Conc.) General comments SJWD have been performing	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have
Section IV (Concident of the Concident o	lusions) and recommendations:
Section IV (Concident of the section IV (Conc	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate
Section IV (Conc.) General comments SJWD have been performing been observed. This monit that the dam is structural of an upstream emergency	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event
Section IV (Conciliant	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event by. The EAP is very detailed and includes many different scenarios and related protocols for each type of
Section IV (Conciliant	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event by. The EAP is very detailed and includes many different scenarios and related protocols for each type of SJWD has taken extra measures to safeguard the downstream area as much as possible. Overall, the dam
Section IV (Conciliant	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event by. The EAP is very detailed and includes many different scenarios and related protocols for each type of SJWD has taken extra measures to safeguard the downstream area as much as possible. Overall, the dam
Section IV (Conciliant	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event by. The EAP is very detailed and includes many different scenarios and related protocols for each type of SJWD has taken extra measures to safeguard the downstream area as much as possible. Overall, the dam
Section IV (Conciliant	and recommendations: g quarterly monitoring for movement. A survey is also taken after heavy rain events. To date, no changes have bring creates a history of the dam structure for future reference. These quantitative measurements indicate by sound, but the dam was rated as "Fair" because the lake level can not be lowered in the event by. The EAP is very detailed and includes many different scenarios and related protocols for each type of SJWD has taken extra measures to safeguard the downstream area as much as possible. Overall, the dam

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.



Section I (Owner's Information)	
A. Dam Number: D 3340 & Hazard Classc1	B. Name of Dam: Lyman Lake Dam
C. Inspection Date (03/08/20 13) & Time: 1115	D. Date of Last Inspection: (03 / 31 / 2011 _)
E. Location-County/City: Spartanburg / Lyman	F. EQC Regional Office: 2 Spartanburg
G. Inspector's Name: Florence Hall	
H. Owner's Name: SJWD	
I. Contact Person (if different from above): Mitch Turner	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office (864) 949 - 2830
K. Dam Owner's or Contact Person's mailing address:	Other (864_) 303 _ 7690
Address 1 PO Box 607	
Address 2 (optional)	
Address 2 (optional)	
Address 2 (optional)	
Address 2 (optional), State	SC Zip Code 29365
Address 2 (optional), State Section II (Dam Condition)	SC Zip Code 29365
Address 2 (optional), State Section II (Dam Condition) General Condition Assessment (Select one of the follow	SC Zip Code 29365
Address 2 (optional)	SC Zip Code 29365
Address 2 (optional) City Lyman , State Section II (Dam Condition) General Condition Assessment (Select one of the follow a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest	SC Zip Code 29365
Address 2 (optional)	SC Zip Code 29365
Address 2 (optional)	SC Zip Code 29365

	ope (grass, trees weeds)? Maintained
ii. Animal acti	vity observed? None observable
iii. Any obviou	us alterations or repairs made? No
iv. Erosion obs	served on upstream slope? No
v. Settlement	or cracks visible in slope? No
i. Vegetation	m Slope (grass, trees weeds)? Maintained
ii. Animal acti	vity observed? None observable
iii. Any obviou	is alterations or repairs made? No
iv. Erosion obs	served on down stream slope? No
v. Settlement	or cracks visible in slope? No
vi. Toe drains	flowing?
 Primary Spil Any visible of 	
	bbvious need to repair or replace trash rack?
ii. Is there an o	
ii. Is there an o	obvious need to repair or replace trash rack? sble problems with debris? None
ii. Is there and iii. Any noticea iv. Is valve or g	obvious need to repair or replace trash rack? able problems with debris? None
ii. Is there and iii. Any noticea iv. Is valve or g E. Outlet Pipe i. Any water vi	obvious need to repair or replace trash rack? able problems with debris? None Gate is submerged. Water is flowing freely through pipe.
ii. Is there and iii. Any noticea iv. Is valve or g E. Outlet Pipe i. Any water vi ii. Describe an	obvious need to repair or replace trash rack? able problems with debris? None gate present? Gate is submerged. Water is flowing freely through pipe. sibly flowing or leaking outside of the discharge pipe? No
ii. Is there and iii. Any noticea iv. Is valve or g E. Outlet Pipe i. Any water vi ii. Describe and iii. Visible cond	bbvious need to repair or replace trash rack? bble problems with debris? None Gate is submerged. Water is flowing freely through pipe. Sibly flowing or leaking outside of the discharge pipe? No y deflection or damage observed to the pipe: None
ii. Is there and iii. Any noticea iv. Is valve or g E. Outlet Pipe i. Any water vi ii. Describe and iii. Visible cond Auxiliary (Er	biblious need to repair or replace trash rack? bible problems with debris? None gate present? Gate is submerged. Water is flowing freely through pipe. sibly flowing or leaking outside of the discharge pipe? No y deflection or damage observed to the pipe: None dition of outlet channel: Satisfactory mergency) Spillway ostructions to flow? No
ii. Is there and iii. Any noticea iv. Is valve or g E. Outlet Pipe i. Any water vi ii. Describe and iii. Visible cond iii. Visible cond iii. Noticeable ol ii. Animal activi	biblious need to repair or replace trash rack? None

	vi. If applicable, any visible leakage below concrete spillway? A siphon was installed such that it flows into the
	billway, but does not effect the capacity or free flow into the structure. This was installed for water quality purposes.
1	Downstream/Hazard Class Issues Any noticeable changes immediately downstream of the dam that affects the hazard classification?
)	am is Highest Dam Classification
	Emergency Action Plan (EAP) Emergency Action Plan provided by owner? Yes
	ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes, Contact list
i	ii. Does EAP contain specific actions to take if the dam has failed or is near failure? Yes
S	
S	General comments and recommendations:
S	General comments and recommendations: JWD had scheduled this dam for a comprehensive EAP update that will include procedures based on the level of emergency.
S	General comments and recommendations: JWD had scheduled this dam for a comprehensive EAP update that will include procedures based on the level of emergency. will be very similar to the EAP that was developed for the Apalache dam. Update may be completed by mid-2013.
S	General comments and recommendations: JWD had scheduled this dam for a comprehensive EAP update that will include procedures based on the level of emergency. will be very similar to the EAP that was developed for the Apalache dam. Update may be completed by mid-2013.
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P 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 inspection. Common law holds that the storage of 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.



Dam Number: D 3398 & Hazard Class C1	B. Name of Dam: Lake Cooley Dam
2. Inspection Date (03/08/20 13) & Time: 1200	D. Date of Last Inspection: (03 / 31 / 2011
Location-County/City: Spartanburg / Inman	F. EQC Regional Office: Region 2 BEHS Spartanburg
G. Inspector's Name: Florence Hall	
H. Owner's Name:sJWD	
Contact Person (if different from above): Mitch Tumer	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office (864) 949 - 2830
C. Dam Owner's or Contact Person's mailing address:	Other (864_) 303 7690_
Address 1 PO Box 607	
Address 2 (optional)	
Address 2 (optional)	
Address 2 (optional) City Lyman Sta	ate_SC Zip Code_29365
Address 2 (optional) City Lyman Sta Section II (Dam Condition) General Condition Assessment (Select one of the fo a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest	Illowing):
Address 2 (optional) City Lyman Sta Section II (Dam Condition) General Condition Assessment (Select one of the fo a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Maintained	Illowing):
Address 2 (optional) City Lyman Sta Section II (Dam Condition) General Condition Assessment (Select one of the fo a) Satisfactory b) Fair c) Poor Gection III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Maintained ii. Animal activity observed? None observable	Illowing):

. Upstream Slope i. Vegetation (grass, trees weeds)? Slope was reseeded in winter and grass in	is scheduled for cutting this spring.
ii. Animal activity observed? None observable	
iii. Any obvious alterations or repairs made? No	
iv. Erosion observed on upstream slope? None	
v. Settlement or cracks visible in slope? No	
Down Stream Slope i. Vegetation (grass, trees weeds)? Slope was reseeded in winter and grass	is scheduled for cutting this spring.
ii. Animal activity observed? None observable	
iii. Any obvious alterations or repairs made? No	
iv. Erosion observed on down stream slope? No	
v. Settlement or cracks visible in slope? No	
vi. Toe drains flowing? Yes	
. Primary Spillway i. Any visible deterioration of structure? No	
ii. Is there an obvious need to repair or replace trash rack? No	
ii. Is there an obvious need to repair or replace trash rack? No	
ii. Is there an obvious need to repair or replace trash rack? No No No	⊋? _{No}
ii. Is there an obvious need to repair or replace trash rack? No No No No No No No No No N	e? No
iii. Is there an obvious need to repair or replace trash rack? No No No No No No No No No N	
iii. Is there an obvious need to repair or replace trash rack? No No No No No No No No No N	
ii. Is there an obvious need to repair or replace trash rack? No No No No No No No No No N	
iii. Is there an obvious need to repair or replace trash rack? No No No No No No No No No N	None

vi If anniceble and visible legices below assessed without 2			
vi. If applicable, any visible leakage below concrete spillway?			
Downstream/Hazard Class Issues Any noticeable changes immediately downst	tream of the dam that affects the hazard classification?		
Dam is Highest Dam Classification.			
Emergency Action Plan (EAP) i. Emergency Action Plan provided by owner?	Yes		
ii. Does EAP contains emergency alert notifica	ation plan? If so, when was it last updated? Yes, Contact list		
iii. Does EAP contain specific actions to take it	f the dam has failed or is near failure? Yes		
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EA			
SJWD has scheduled this dam for a comprehensive EA			
SJWD has scheduled this dam for a comprehensive EA	AP update that will include procedures based on the level of emergen or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergen or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergeners the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergeners the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergen or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergeners the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergen- or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emergen or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emerger or the Apalache dam. Update may be completed in the 2013/2014		
SJWD has scheduled this dam for a comprehensive EA it will be very similar to the EAP that was developed for	AP update that will include procedures based on the level of emerger or the Apalache dam. Update may be completed in the 2013/2014		

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ection I (Owner's Information)	
Dam Number: D 4493 & Hazard Class C1	B. Name of Dam: SJWD RCC Dam
. Inspection Date (03/08/20 13) & Time: 1230	D. Date of Last Inspection: (03/31/2011_)
. Location-County/City: Spartanburg / Wellford	F. EQC Regional Office: 2 Spartanburg
. Inspector's Name: Florence Hall	
. Owner's Name: SJWD	
Contact Person (if different from above): Mitch Turner	
Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office (864) 949 - 2830
. Dam Owner's or Contact Person's mailing address:	Other (864_) 3037690_
4.11 4.20.2 200	
Address 1 PO Box 607	
Address 1 PO Box 607 Address 2 (optional)	
Address 2 (optional)	
Address 2 (optional)	SC Zip Code 29365
Address 2 (optional) City Lyman , State ection II (Dam Condition) eneral Condition Assessment (Select one of the followally a) Satisfactory b) Fair c) Poor ection III (Dam Inspection Checklist) . Dam Crest	SC Zip Code 29365
Address 2 (optional) City Lyman , State ection II (Dam Condition) eneral Condition Assessment (Select one of the follog a) Satisfactory b) Fair c) Poor ection III (Dam Inspection Checklist) Dam Crest i. Vegetation (grass, trees weeds)? None	SC Zip Code 29365
Address 2 (optional) City Lyman , State ection II (Dam Condition) eneral Condition Assessment (Select one of the follog a) Satisfactory b) Fair c) Poor ection III (Dam Inspection Checklist) Dam Crest i. Vegetation (grass, trees weeds)? None ii. Animal activity observed? None	SC Zip Code 29365

i. V	stream Slope egetation (grass, trees weeds)? N/A
ii. A	nimal activity observed? None
iii. <i>F</i>	Any obvious alterations or repairs made? None
iv. E	rosion observed on upstream slope? None
v. Se	ettlement or cracks visible in slope? None
	wn Stream Slope egetation (grass, trees weeds)? N/A
ii. A	nimal activity observed? None
iii. <i>F</i>	Any obvious alterations or repairs made? No
iv. E	rosion observed on down stream slope? No
v. S	ettlement or cracks visible in slope? None
vi. T	oe drains flowing? N/A
	mary Spillway
	y visible deterioration of structure? No there an obvious need to repair or replace trash rack?
ii. Is	y visible deterioration of structure? No
ii. Is iii. A	there an obvious need to repair or replace trash rack? NA
ii. Is iii. A iv. Is	there an obvious need to repair or replace trash rack? No No No No No No No No No N
ii. Is iii. A iv. Is i. Ou	there an obvious need to repair or replace trash rack? No ny noticeable problems with debris? valve or gate present? Yes Itlet Pipe
ii. Is iii. A iv. Is i. Ou ii. Do	there an obvious need to repair or replace trash rack? No ny noticeable problems with debris? Ves Itlet Pipe Ny water visibly flowing or leaking outside of the discharge pipe? No
ii. Is iii. A iv. Is ii. O ii. An	there an obvious need to repair or replace trash rack? No ny noticeable problems with debris? Ves valve or gate present? Yes utlet Pipe by water visibly flowing or leaking outside of the discharge pipe? No No No escribe any deflection or damage observed to the pipe:
ii. Is iii. A iiv. Is ii. An iii. Do	there an obvious need to repair or replace trash rack? In ny noticeable problems with debris? In ny noticeable problems with
ii. Is iii. A iiv. Is ii. An iii. Do iii. V	there an obvious need to repair or replace trash rack? No ny noticeable problems with debris? Ves valve or gate present? Yes valtet Pipe Ny water visibly flowing or leaking outside of the discharge pipe? No escribe any deflection or damage observed to the pipe: isible condition of outlet channel: xiliary (Emergency) Spillway ticeable obstructions to flow? None

vi. If applicable, any visible leakage below concrete spillway?		
H. Downstream/Hazard Class Issues i. Any noticeable changes immediately downstream of the	dam that affects the hazard classification?	
Dam is Highest Hazard Classification	-	
i. Emergency Action Plan (EAP) i. Emergency Action Plan provided by owner? Yes		
ii. Does EAP contains emergency alert notification plan? I last updated November 2011.	f so, when was it last updated? Yes, Contact list	
iii. Does EAP contain specific actions to take if the dam ha	as failed or is near failure? Yes	
General comments and recommendations:	will include procedures based on the level of emergenc	
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that	e Dam. Update may be completed in the 2014/2015	
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	
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General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	
General comments and recommendations: SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	
SJWD has scheduled this dam for a comprehensive EAP update that It will be very similar to the EAP that was developed for the Apalach	e Dam. Update may be completed in the 2014/2015	

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Catherine B. Templeton, Director Promoting and protecting the health of the public and the environment

November 20, 2014

Ms. Alice Henderson Hillbrook Forest Lake, Inc. 211 Brian Court Spartanburg, SC 29307

RE: Inspection of Dam D-3360, Hillbrook Forest Lake Dam, Spartanburg County

Dear Ms. Henderson:

On November 12, 2014, I conducted a routine inspection of the Hillbrook Forest Lake Dam. Your assistance during the inspection was greatly appreciated. A copy of the report is enclosed. The dam was given a rating of "Fair" based on these findings:

- 1) The downstream and upstream slopes have several trees, but the slopes are accessible for visual inspections. A wet area on the right downstream slope needs to be routinely monitored for any changes and the tree bases should be monitored for any seepage that could occur.
- 2) The auxiliary spillway (emergency) is in good condition. Some erosion was observed at the very end of the structure, but this should not hinder or adversely divert flow toward the dam.

It is advised that the Home Owners Association budget for an engineer's assessment of the dam within the next three (3) years. A partial list of engineers is enclosed with this report.

During the inspection, a DHEC Emergency Action Plan template (DHEC Form 2606) was provided to you. Please submit a completed copy to the Regional office within sixty (60) days from the receipt of this report. The plan should include contact information for homes/churches/businesses located downstream that would be inundated by a failure of the dam.

It is being noted that the dam has an operable gate valve for lowering the water level of the dam. The HOA should have a procedure for who may open the valve and have secondary contacts, if you are not available to address concerns with the structure.

Should the dam experience difficulty, the appropriate emergency officials should be notified. The agencies listed in the emergency plan can provide assistance in determining what actions to take for protection of the public health and downstream property.



Section I (Owner's Information)	
A. Dam Number: D 3360 & Hazard Class c1	B. Name of Dam: Hillbrook Forest Dam
C. Inspection Date (11/12/2014) & Time: 1020	D. Date of Last Inspection: (05 / 25 / 2012
E. Location-County/City: Spartanburg / Spartanburg	F. EQC Regional Office: Upstate Spartanburg
G. Inspector's Name: Florence Hall	
H. Owner's Name: Hillbrook HOA	
I. Contact Person (if different from above): Alice Henderson	
J. Dam Owner's or Contact Person's Phone Numbers:	Home (864_) 5791803
	Office ()
	Other (864_) 316 6387
K. Dam Owner's or Contact Person's mailing address:	
Address 1 211 Brian Court	
Address 1 211 Brian Court	
Address 2 (optional)	
Address 2 (optional)	tate SC Zip Code 29307 -
Address 2 (optional), S City Spartanburg, S Section II (Dam Condition)	tate <u>SC</u> Zip Code <u>29307</u>
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the f	tate SC Zip Code 29307
Address 2 (optional), S City Spartanburg, S Section II (Dam Condition)	tate SC Zip Code 29307
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the f	tate SC Zip Code 29307
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the fa) a) Satisfactory b) Fair c) Poor [following): d) Unsatisfactory e) Not Rated
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the fa) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest	following): d) Unsatisfactory e) Not Rated
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the f a) Satisfactory b) Fair c) Poor [Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Crest is being maintain	following): d) Unsatisfactory e) Not Rated
Address 2 (optional) City Spartanburg , S Section II (Dam Condition) General Condition Assessment (Select one of the f a) Satisfactory b) Fair c) Poor [Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Crest is being maintai ii. Animal activity observed? None	following): d) Unsatisfactory e) Not Rated

Section III (Dam Inspection Checklist) continued B. Upstream Slope i. Vegetation (grass, trees weeds)? Yes, the dam slope is visible but there are some large diameter trees on this side of the dam. ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on upstream slope? No v. Settlement or cracks visible in slope? None observed. C. Down Stream Slope i. Vegetation (grass, trees weeds)? Yes, the dam face is visible, but there are several large diameter trees on the face and ornamental ii. Animal activity observed? None observed iii. Any obvious alterations or repairs made? iv. Erosion observed on down stream slope? v. Settlement or cracks visible in slope? Refer to vii. vi. Toe drains flowing? None observed. vii. Any seepage observed? If so, describe location, There is a wet spot on the right side dam face. Flow from the dam flow rate, and any turbidity or color within the flow: was not observed. D. Primary Spillway i. Any visible deterioration of structure? ii. Is there an obvious need to repair or replace trash rack? iii. Any noticeable problems with debris? iv. Is valve or gate present? Yes, and it is operable per conversation with the dam contact. E. Outlet Pipe i. Any water visibly flowing or leaking outside of the discharge pipe? ii. Describe any deflection or damage observed to the pipe: None observed iii. Visible condition of outlet channel: The pipe is completely enclosed with the exit point visible. Pipe was flowing. F. Auxiliary (Emergency) Spillway i. Noticeable obstructions to flow? The spillway is in good condition. ii. Animal activity observed? None observed. iii. Any noticeable deterioration in the approach or discharge channel? Some erosion was observed at the end of the channel. Cinder blocks have been placed in the area of erosion and some vegetation was observed but not considered an issue at this time. iv. Any visible deterioration of structure's crest?

	ry (Emergency) Spillway continued cable, any observed exposure of rebar reinforcement? N/A
vi. If appl	icable, any visible leakage below concrete spillway? N/A
	tream/Hazard Class Issues iceable changes immediately downstream of the dam that affects the hazard classification?
	the the highest hazard classification. There was no additional changes observed downstream.
	ncy Action Plan (EAP) ency Action Plan provided by owner? A copy of the EAP template was provided to the contact during
ii. Does E	AP contains emergency alert notification plan? If so, when was it last updated?
iii. Does	EAP contain specific actions to take if the dam has failed or is near failure? Actions listed in template.
	IV (Conclusions)
	comments and recommendations: dam is in good condition. Mrs. Henderson stated that visual inspections are performed routinely. Department
	lvised that the wet area, tree bases, and outlet structure should be monitored for any changes. Mrs. Henderson is familiar
-	g and closing the gate valve. It is advisable that another homeowner be familiar with emergency procedures in her
	copy of a complete EAP should be provided to the Department 60 days from the receipt of the report.
	·

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Catherine B. Templeton, Director Promoting and protecting the health of the public and the environment

CERTIFIED MAIL

May 5, 2014

S &M Partnership Attn: Mr. John McBride and Mr. Jim Smith PO Box 530 Spartanburg SC 29304 Ms. Betty Johnson 2932 Halstread Rd Richmond, VA 23235

RE:

Inspection of Smith Cantrell Dam, D-3987

Spartanburg County

Dear Mr. McBride, Mr Smith, and Ms. Johnson,

On April 25, 2014, Department personnel conducted a routine inspection of the Smith Cantrell Dam. A copy of the report is enclosed. The dam was given a "Poor" rating based on the following findings. Since this dam has multiple owners, the responsibilities of each owner is specified below:

Ms Johnson

1. The outlet structure is in good condition, but tree growth observed just above the pipe may compromise the structure, if not properly removed. Also, the toe drains are covered and not working properly. This may be the cause of seepage observed along the area located on S&M Partnership side of the dam just below the tree growth of the dam. An engineer's assessment should be performed to determine the best method of repair including tree removal.

S&M Partnership

- 1. Tree growth was observed on the right side of the dam. Due to the extensive growth of the trees, an engineer's assessment will need to be performed to determine if the trees should be removed.
- 2. Beaver activity was observed on the right side of the upstream slope. The beaver(s) and/or other rodents should be permanently removed. During the engineer's assessment, the damage performed by the rodents should be investigated and determine what repairs will be needed. Repairs may extend to the left side (Ms Johnson's side) of the dam that will need to be addressed, also.

Both property owners

- 1. The grass on the dam structure is maintained. Due to the time of year, the grass will need cutting and should be performed within 30 days.
- 2. An updated Emergency Action Plan will need to be completed and a copy provided to the Department within 90 day from the receipt of this letter.

Page 2 of 2 Smith Cantrell Dam Inspection May 5, 2014

A copy of the EAP form was provided to Mr. James Smith, via email, along with a partial list of professional engineers. Please notify the Department within 60 days for the determination made on the dam and a schedule for repairs/corrections.

Should the dam experience difficulty, the appropriate emergency officials should be notified. The agencies listed in the emergency plan can provide assistance in determining what actions to take for protection of the public health and downstream property.

If you have any questions, please call me at 864-596-3800.

Sincerely,

Florence Hall

Regional Engineer Associate

Upstate BEHS Spartanburg Office

Cc: John Poole, P.E., SCDHEC Dam Safety Program



Section I (Owner's Information)	
A. Dam Number: D 3987 & Hazard Class C1	B. Name of Dam: Smith-Cantrell Dam
C. Inspection Date (04/25/20 14) & Time: 1330	D. Date of Last Inspection: (05 / 01 / 2012 _)
E. Location-County/City: Spartanburg / Spartanburg	F. EQC Regional Office:
G. Inspector's Name: Florence Hall and James West	
H. Owner's Name: S& M Partnership / Betty Johnson	
I. Contact Person (if different from above): Jack McBride, James	Smith, and Betty Johnson
J. Dam Owner's or Contact Person's Phone Numbers:	Home (804) 272 - 6523
	Office (864) 699 - 8205
K. Dam Owner's or Contact Person's mailing address:	Other (864_) 699 8208_
Address 1 PO Box 530, Spartanburg, SC 29304 / 2932 Halstead Rd, Ric	chmond, VA 23235
Address 2 (optional)	
City, State	Zip Code
Section II (Dam Condition)	
General Condition Assessment (Select one of the following	
a) Satisfactory b) Fair c) Poor 🗸	d) Unsatisfactory e) Not Rated
Section III (Dam Inspection Checklist)	
A. Dam Crest i. Vegetation (grass, trees weeds)? Area is maintained, but grass.	s will need cutting soon.
ii. Animal activity observed? Yes	
iii. Any obvious alteration or repairs made? None	
iv. Erosion noticed on crest? №	
v. Any visible settlement, misalignment or cracks? No	

	Slope n (grass, trees wee	eds)? Some vegetation obs	served, grass will need	cutting soon.
ii. Animal a	ctivity observed?	Yes, beavers have burrowed	into the side of the dan	n in several areas.
iii. Any obvi	ous alterations or r	epairs made? None		
iv. Erosion o	bserved on upstream	am slope? Yes, around	sareas of animal activity	7
v. Settlemer	it or cracks visible i	n slope? No		
. Down Stre				
i. Vegetatio	າ (grass, trees wee	ds)? Tree growth was obs	served on one section of	f the dam face.
ii. Animal a	ctivity observed?	None readily observed.		
iii. Any obvi	ous alterations or r	epairs made? No		
iv. Erosion o	bserved on down s	stream slope? No		
v. Settlemer	t or cracks visible i	n slope? No	THE STATE OF THE S	
vi. Toe drair	s flowing? No, drain	ns have been covered.		
flow rate, an	page observed? If s d anv turbidity or c			oserved primarily in the area along the dam interf
. Primary S	d any turbidity or c	olor within the flow:	below the tree growth	
. Primary S i. Any visible	d any turbidity or confilmay deterioration of st	olor within the flow:	below the tree growth	
. Primary S i. Any visible ii. Is there a	d any turbidity or confilmay deterioration of st	olor within the flow: ructure? No epair or replace trash	below the tree growth	1.
. Primary S i. Any visible ii. Is there a	d any turbidity or confilmay deterioration of standard or obvious need to re	olor within the flow: ructure? No epair or replace trash	below the tree growth	1.
. Primary S i. Any visible ii. Is there an iii. Any notic iv. Is valve c	d any turbidity or confilway deterioration of standard to read the problems with right gate present?	olor within the flow: ructure? No epair or replace trash	below the tree growth	1.
. Primary S i. Any visible ii. Is there an iii. Any notic iv. Is valve c iv. Outlet Pip i. Any water	d any turbidity or confilway deterioration of stances a obvious need to reable problems with regate present? Yell e visibly flowing or le	olor within the flow: ructure? No epair or replace trash h debris? No	h rack? Trash rac	ck not in place
. Primary S i. Any visible ii. Is there an iii. Any notic iv. Is valve c iv. Outlet Pip i. Any water ii. Describe a	d any turbidity or confilway deterioration of stances a obvious need to reable problems with regate present? Yell e visibly flowing or le	ructure? No epair or replace trash h debris? No eaking outside of the o	h rack? Trash rac	No
. Primary S i. Any visible ii. Is there an iii. Any notic iv. Is valve con iv. Is valve con iv. Any water ii. Describe and iii. Visible con iii. Visible con iii. Auxiliary (d any turbidity or confilway deterioration of stances obvious need to reable problems with regate present? e e visibly flowing or leany deflection or data	ructure? No epair or replace trash h debris? No eaking outside of the outside outside of the outside outside of the outside	h rack? Trash rac	No
. Primary S i. Any visible ii. Is there at iii. Any notic iv. Is valve c iv. Is valve c iv. Outlet Pip i. Any water ii. Describe a iii. Visible co iii. Visible co iii. Auxiliary (ii. Noticeable	d any turbidity or confilway deterioration of street or obvious need to reable problems with a gate present? evisibly flowing or learny deflection or day deflection or day obstructions to flow in the charge of the confidence of	ructure? No epair or replace trash h debris? No eaking outside of the camage observed to the	h rack? Trash rac	No
i. Primary S i. Any visible ii. Is there at iii. Any notic iv. Is valve c iv. Is valve c iv. Outlet Pip i. Any water iii. Describe a iii. Visible co iii. Visible co iii. Anxiliary (iii. Noticeable iii. Animal act	d any turbidity or confilway deterioration of standard to represent the deterioration of standard to represent the deterioration of standard to represent the deterior of the deterior of deterior of deterior of outlet characteristics of the deterior of th	ructure? No epair or replace trash h debris? No eaking outside of the camage observed to the annel: Good condition.	below the tree growth Track? Trash rac discharge pipe? ne pipe:	No There is tree growth directly in line of the pipe.

F. Auxiliary (Emergency) S v. If applicable, any observ	Spillway continued red exposure of rebar reinforcement? N/A
vi. If applicable, any visible	leakage below concrete spillway? N/A
H. Downstream/Hazard Cla i. Any noticeable changes	ass Issues immediately downstream of the dam that affects the hazard classification?
This dam is the highest classific	ation.
I. Emergency Action Plan i. Emergency Action Plan	
ii. Does EAP contains eme	ergency alert notification plan? If so, when was it last updated?
iii. Does EAP contain spec	ific actions to take if the dam has failed or is near failure?
General comments and r	recommendations: ondition, but continual tree growth around the outlet structure may compromise the pipe.
	bserved at the bottom right side of the dam where the slope transitions. This may be due to the
	The seepage is draining away from the dam but soft spots were observed just below the slope
where significant tree growth wa	as observed. Beaver activity was observed on the upstream side of the dam primarily on the
the right side of the dam, but of	ner activity may be occurring throughout the structure.
The dam will need an assessme	ent by a professional engineer to determine what repairs will be needed to the dam. This
will include repairs to the toe dra	ains/outlet structure and if tree removal can be performed based on the size of the tree trunks
and location of the trees. Remo	oval of the beaver(s) and other possible rodents will need to be performed by the owners.
The request for the Emergency	Action Plan will be detailed in the cover letter.
05/05/14: Mr. James Smith info	rmed the Department that the beaver had been removed.

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.



Section I (Owner's Information)

(//	
_)	
_)	
Other ()	
Not Rated	
Not Rated	
Not Rated	
) .	

Section III (Dam Inspection Checklist) continued **B. Upstream Slope** i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on upstream slope? v. Settlement or cracks visible in slope? C. Down Stream Slope i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on down stream slope? v. Settlement or cracks visible in slope? vi. Toe drains flowing? vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: D. Primary Spillway i. Any visible deterioration of structure? ii. Is there an obvious need to repair or replace trash rack? iii. Any noticeable problems with debris? iv. Is valve or gate present? E. Outlet Pipe i. Any water visibly flowing or leaking outside of the discharge pipe? ii. Describe any deflection or damage observed to the pipe: iii. Visible condition of outlet channel: F. Auxiliary (Emergency) Spillway i. Noticeable obstructions to flow? ii. Animal activity observed? iii. Any noticeable deterioration in the approach or discharge channel? iv. Any visible deterioration of structure's crest? DHEC 2604 (Rev 11/2011)

v. If applicable, any observed exposure of rebar reinforcement?			
vi. If applicable, a	any visible leakage below concrete spillway?		
	lazard Class Issues		
. Any noticeable	changes immediately downstream of the dam that affects the hazard classification?		
Emergency Act			
i. Emergency Ac	tion Plan provided by owner?		
ii. Does EAP cor	tains emergency alert notification plan? If so, when was it last updated?		
iii. Does EAP co	ntain specific actions to take if the dam has failed or is near failure?		
	nclusions) Ints and recommendations:		
Gection IV (Co			

Preliminary Dam Inspection Disclaimer:

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DHEC 2604 (Rev 11/2011)

Preliminary Inspection Report for South Carolina Regulated Dams and Impoundment Structures Regulations – DHEC 2604 R.72-1 through R.72-9

INSTRUCTIONS

Purpose: To satisfy the inspection requirements for high and significant hazard dams regulated by South Carolina Department of Health and Environmental Control. See R.72-1 through R. 72-9.

Who will complete the form: Regional engineers and inspectors engaged in the dams and reservoir safety program performing dam inspections.

Section I (Owner's Information):

- A) Dam Number; Enter the Dam's inventory number.
- B) Name of Dam; Enter the common name of dam found within EFIS.
- C) Inspection Month & Time; Enter the day, month, year, and time in which the inspections was performed.
- D) Date of Last Inspection; Enter the day, month, and year, in which the last inspection was performed.
- E) Location-County/City; Enter the county and city, if applicable, where the dam is located.
- F) EQC Regional Office; Enter the DHEC EQC Regional office that covers the area in which the dam is located.
- G) Inspector's Name: Enter the name of the person performing the inspection.
- H) Owner's Name: Enter the name of the person owning the dam. If there is multiple owners list them and their contact information in the "General comments and recommendations are in section IV.
- I) Contact Person; Enter the name of the person that represents the dam owner during the inspection. This person should be authorized to remedy any deficiencies found by the inspector.
- J) Dam Owner's or Contact Person's Phone Numbers; Enter the home, office, and other available numbers for the Dam owner or Contact person.
- K) Dam Owner's or Contact Person's mailing address; Enter the dam owner's or contact person's mailing address including city state and zip code.

Section II (Dam Condition):

Once the inspection is completed indicate the general condition of the dam. The assessment can be one of the following four categories:

a) 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.

DHEC 2604 (Rev. 11/2011)

- b) 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.
- c) 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.
- d) UNSATISFACTORY- A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- e) 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.

Section III (Dam Inspection Checklist):

This section is self-explanatory and guides the inspector though the inspection process. Follow the dam inspection checklist to complete the inspection. Mark any deficiencies observed during the inspection. If there were the deficiencies reported during the last inspection cycle check to see if they were corrected. If items are not applicable to the inspection of the dam, mark not applicable. If the dams has issues that are not covered in this section of the form make note of them in section IV.

Section IV(Conclusions):

Use the space to list additional responsible parties (dam owners) and issues found during the inspection that are not addressed in section III, as well as any general comments and recommendations generated during the inspection.

Office Mechanisms and filing: The form must be sent to the Dam's owner(s) and filed with the Bureau of Water, Dams and Reservoir Safety Program, before the end of the following month after which the inspections were performed. The report will be filed in the Bureau of Water's file room and will be retained for at least three years after the Department certifies the removal of the inspected dam.



Preliminary Inspection Report for South Carolina Regulated Dams and Impoundment Structures Regulations R.72-1 through R.72-9

Section I (Owner's Information)

A. Dam Number: D	_ & Hazard Class	B. Name of Dam:
C. Inspection Date (/_	/20) & Time:	D. Date of Last Inspection: (//
E. Location-County/City:	/	F. EQC Regional Office:
G. Inspector's Name:		
H. Owner's Name:		
I. Contact Person (if diffe	rent from above):	
J. Dam Owner's or Conta	act Person's Phone Numbers:	Home ()
		Office ()
K Dam Owner's or Cost	act Parsan's mailing address:	Other ()
	act Person's mailing address:	
Anares 1		
Address 2 (optional)		e Zip Code
Address 2 (optional)	, State	
Address 2 (optional) City Section II (Dam Cor	, State	e Zip Code
Address 2 (optional) City Section II (Dam Cor General Condition Asse	, State	e Zip Code owing):
Address 2 (optional) City Section II (Dam Cor General Condition Asse	ndition) essment (Select one of the follow) b) Fair c) Poor	e Zip Code owing):
Address 2 (optional) City Section II (Dam Cor General Condition Asso a) Satisfactory	ndition) essment (Select one of the follow) b) Fair c) Poor epection Checklist)	e Zip Code owing):
Address 2 (optional) City Section II (Dam Cor General Condition Asso a) Satisfactory Section III (Dam Ins A. Dam Crest	ndition) essment (Select one of the follow) b) Fair c) Poor epection Checklist) ees weeds)?	e Zip Code pwing): d) Unsatisfactory e) Not Rated
Address 2 (optional) City Section II (Dam Cor General Condition Asso a) Satisfactory Section III (Dam Ins A. Dam Crest i. Vegetation (grass, tre ii. Animal activity obser	ndition) essment (Select one of the folio b) Fair c) Poor epection Checklist) ees weeds)?	e Zip Code pwing): d) Unsatisfactory e) Not Rated
Address 2 (optional) City Section II (Dam Cor General Condition Asso a) Satisfactory Section III (Dam Ins A. Dam Crest i. Vegetation (grass, tre ii. Animal activity obser	ndition) essment (Select one of the folio b) Fair c) Poor epection Checklist) ees weeds)? eved? on or repairs made?	owing): d) Unsatisfactory e) Not Rated

Section III (Dam Inspection Checklist) continued **B. Upstream Slope** i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on upstream slope? v. Settlement or cracks visible in slope? C. Down Stream Slope i. Vegetation (grass, trees weeds)? ii. Animal activity observed? iii. Any obvious alterations or repairs made? iv. Erosion observed on down stream slope? v. Settlement or cracks visible in slope? vi. Toe drains flowing? vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: D. Primary Spillway i. Any visible deterioration of structure? ii. Is there an obvious need to repair or replace trash rack? iii. Any noticeable problems with debris? iv. Is valve or gate present? E. Outlet Pipe i. Any water visibly flowing or leaking outside of the discharge pipe? ii. Describe any deflection or damage observed to the pipe: iii. Visible condition of outlet channel: F. Auxiliary (Emergency) Spillway i. Noticeable obstructions to flow? ii. Animal activity observed? iii. Any noticeable deterioration in the approach or discharge channel? iv. Any visible deterioration of structure's crest? DHEC 2604 (Rev 11/2011)

v. If applicable, any observed exposure of rebar reinforcement?			
vi. If applicable, a	any visible leakage below concrete spillway?		
	lazard Class Issues		
. Any noticeable	changes immediately downstream of the dam that affects the hazard classification?		
Emergency Act			
i. Emergency Ac	tion Plan provided by owner?		
ii. Does EAP cor	tains emergency alert notification plan? If so, when was it last updated?		
iii. Does EAP co	ntain specific actions to take if the dam has failed or is near failure?		
	nclusions) Ints and recommendations:		
Gection IV (Co			

Preliminary Dam Inspection Disclaimer:

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DHEC 2604 (Rev 11/2011)

Preliminary Inspection Report for South Carolina Regulated Dams and Impoundment Structures Regulations – DHEC 2604 R.72-1 through R.72-9

INSTRUCTIONS

Purpose: To satisfy the inspection requirements for high and significant hazard dams regulated by South Carolina Department of Health and Environmental Control. See R.72-1 through R. 72-9.

Who will complete the form: Regional engineers and inspectors engaged in the dams and reservoir safety program performing dam inspections.

Section I (Owner's Information):

- A) Dam Number; Enter the Dam's inventory number.
- B) Name of Dam; Enter the common name of dam found within EFIS.
- C) Inspection Month & Time; Enter the day, month, year, and time in which the inspections was performed.
- D) Date of Last Inspection; Enter the day, month, and year, in which the last inspection was performed.
- E) Location-County/City; Enter the county and city, if applicable, where the dam is located.
- F) EQC Regional Office; Enter the DHEC EQC Regional office that covers the area in which the dam is located.
- G) Inspector's Name: Enter the name of the person performing the inspection.
- H) Owner's Name: Enter the name of the person owning the dam. If there is multiple owners list them and their contact information in the "General comments and recommendations are in section IV.
- I) Contact Person; Enter the name of the person that represents the dam owner during the inspection. This person should be authorized to remedy any deficiencies found by the inspector.
- J) Dam Owner's or Contact Person's Phone Numbers; Enter the home, office, and other available numbers for the Dam owner or Contact person.
- K) Dam Owner's or Contact Person's mailing address; Enter the dam owner's or contact person's mailing address including city state and zip code.

Section II (Dam Condition):

Once the inspection is completed indicate the general condition of the dam. The assessment can be one of the following four categories:

a) 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.

DHEC 2604 (Rev. 11/2011)

- b) 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.
- c) 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.
- d) UNSATISFACTORY- A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- e) 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.

Section III (Dam Inspection Checklist):

This section is self-explanatory and guides the inspector though the inspection process. Follow the dam inspection checklist to complete the inspection. Mark any deficiencies observed during the inspection. If there were the deficiencies reported during the last inspection cycle check to see if they were corrected. If items are not applicable to the inspection of the dam, mark not applicable. If the dams has issues that are not covered in this section of the form make note of them in section IV.

Section IV(Conclusions):

Use the space to list additional responsible parties (dam owners) and issues found during the inspection that are not addressed in section III, as well as any general comments and recommendations generated during the inspection.

Office Mechanisms and filing: The form must be sent to the Dam's owner(s) and filed with the Bureau of Water, Dams and Reservoir Safety Program, before the end of the following month after which the inspections were performed. The report will be filed in the Bureau of Water's file room and will be retained for at least three years after the Department certifies the removal of the inspected dam.



Catherine B. Templeton, Director Promoting and protecting the health of the public and the environment

CERTIFIED MAIL 7010 2780 0000 0899 0302

April 24, 2014

Lake Emory Development 1002 S. Pine Street Spartanburg, SC 29302

RE: Inspection of Dam D-4482, Lake Emory Dam, Spartanburg County

To Whom It May Concern:

On April 16, 2014, Department personnel conducted a routine inspection of the Lake Emory Dam. A copy of the report is enclosed. The dam was given a "Fair" rating based on the following findings:

- Erosion was observed along the water's edge on the upstream slope. This may be due to wave action occurring from the lake. It is recommended that the upstream slope be monitored for additional erosion. If erosion continues, the slope will need to be properly stabilized.
- 2. Erosion and settlement was observed on the downstream slope just above the outfall structure and along the left side of the structure. These areas need to be repaired and restabilized with grass.
- 3. Pine trees and wood debris observed in the auxiliary (emergency) spillway should be removed. The spillway is designed for a heavy flow event to prevent water from overtopping the dam. Obstructions in the dam will reduce the necessary flow that is needed in an emergency situation.

A partial list of professional engineers and contractors are in enclosed for your convenience. Corrections must be made within 90 days from the receipt of this letter.

Also, an updated copy of the Emergency Action Plan must be submitted to the Department within 60 days from the receipt of this letter. A form has been enclosed. Please, refer to the September 21, 2011 letter from John Poole regarding Emergency Action Plan requirements. A copy of the letter was sent to the dam contact at that time.

Should the dam experience difficulty, the appropriate emergency officials should be notified. The agencies listed in the emergency plan can provide assistance in determining what actions to take for protection of the public health and downstream property.

Page 2 of 2 Lake Emory Dam Inspection April 24, 2014

If you have any questions, please call me at 864-596-3800.

Sincerely

Florence Hall

Regional Engineer Associate

Upstate BEHS Spartanburg Office

Enclosure

Cc: John Poole, Bureau of Water - Dam Safety Program



Preliminary Inspection Report for South Carolina Regulated Dams and Impoundment Structures Regulations R.72-1 through R.72-9

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Section I (Owner's Information)	
A. Dam Number: D 4482 & Hazard Class C1	B. Name of Dam: Lake Emory Dam
C. Inspection Date (04 / 16 / 20 14) & Time: 1355	D. Date of Last Inspection: (04 / 30 / 2012)
E. Location-County/City; Spartanburg / Inman	F. EQC Regional Office: Upstae BEHS Spartanburg
G. Inspector's Name: Florence B. Hall	
H. Owner's Name: Lake Emory Development	
. Contact Person (if different from above):	
J. Dam Owner's or Contact Person's Phone Numbers:	Home ()
	Office ()
K. Dara Oumaria ar Cantact Daragnia mailine address:	Other ()
K. Dam Owner's or Contact Person's mailing address:	
Address 1 1008 South Ding Street	
Address 1 1006 South Pine Street	
Address 2 (optional)	te <u>SC</u> Zip Code <u>29302</u>
Address 2 (optional), State	
Address 2 (optional) City Spartanburg, State Section II (Dam Condition)	te <u>SC</u> Zip Code <u>29302</u> -
Address 2 (optional), State	te <u>SC</u> Zip Code <u>29302</u> -
Address 2 (optional) City Spartanburg , State Section II (Dam Condition) General Condition Assessment (Select one of the folion)	le SC Zip Code 29302
Address 2 (optional) City Spartanburg , State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair c) Poor	le SC Zip Code 29302
Address 2 (optional) City Spartanburg , State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest	le SC Zip Code 29302
Address 2 (optional) City Spartanburg , State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? maintained	le SC Zip Code 29302
Address 2 (optional) City Spartanburg , State Section II (Dam Condition) General Condition Assessment (Select one of the folion) a) Satisfactory b) Fair c) Poor Section III (Dam Inspection Checklist) A. Dam Crest i. Vegetation (grass, trees weeds)? Maintained ii. Animal activity observed? None	le SC Zip Code 29302

	eam Slope tation (grass, trees weeds)? No
ii. Anim	al activity observed? No
ii. Any	obvious alterations or repairs made? No
iv. Eros	on observed on upstream slope? Yes, some erosion was observed at the waters edge in various places
v. Settle	ement or cracks visible in slope? No
	Stream Slope tation (grass, trees weeds)? Maintained
ii. Anim	al activity observed? №
iii. Any	obvious alterations or repairs made? No
iv. Eros	on observed on down stream slope? Yes, erosion observed just above the outfall structure and to the left of the
	ement or cracks visible in slope? Yes, just above the outfall
vi. Toe	drains flowing? Yes
	e, and any turbidity or color within the flow:
. Prima i. Any v	ry Spillway isible deterioration of structure? No re an obvious need to repair or replace trash rack? No
. Prima i. Any v ii. Is the	ry Spillway sible deterioration of structure? No
i. Any v ii. Is the	ry Spillway isible deterioration of structure? No re an obvious need to repair or replace trash rack? No
i. Any vii. Is the	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? noticeable problems with debris? Some debris observed live or gate present? Yes
i. Any vii. Is the iii. Any viv. Is va	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? noticeable problems with debris? Some debris observed live or gate present? Yes
i. Any vii. Is the iii. Any iv. Is va	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? No noticeable problems with debris? Some debris observed live or gate present? Yes t Pipe rater visibly flowing or leaking outside of the discharge pipe? No
i. Any vii. Is the iii. Any iv. Is va	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? No noticeable problems with debris? Some debris observed live or gate present? Yes t Pipe rater visibly flowing or leaking outside of the discharge pipe? No ribe any deflection or damage observed to the pipe: None visible
i. Any vii. Is the iii. Any viii. Any wiii. Desciii. Visibi. Notice	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? No noticeable problems with debris? Some debris observed live or gate present? Yes t Pipe rater visibly flowing or leaking outside of the discharge pipe? No ribe any deflection or damage observed to the pipe: None visible le condition of outlet channel: Satisfactory ary (Emergency) Spillway
i. Any v ii. Is the iii. Any iv. Is va i. Outle i. Any w ii. Desc iii. Visib . Auxili i. Notice ii. Anima	ry Spillway sible deterioration of structure? No re an obvious need to repair or replace trash rack? No noticeable problems with debris? Some debris observed live or gate present? Yes t Pipe rater visibly flowing or leaking outside of the discharge pipe? In the pipe rater visibly flowing or damage observed to the pipe: No None visible le condition of outlet channel: Satisfactory ary (Emergency) Spillway able obstructions to flow? Yes, pine trees and wood debris observed in spillway

v. ii applicable, a	ergency) Spillway continued any observed exposure of rebar reinforcement? N/A
vi. If applicable,	any visible leakage below concrete spillway? N/A
	Hazard Class Issues e changes immediately downstream of the dam that affects the hazard classification?
Dam is highest haza	ard classification
	ction Plan (EAP) ction Plan provided by owner? Request in cover letter.
ii. Does EAP co	ntains emergency alert notification plan? If so, when was it last updated?
iii. Does EAP co	ontain specific actions to take if the dam has failed or is near failure?
	nent were observed on the downstream slope around the outlet structure. This will worsen with time;
General comm	ents and recommendations:
therefore, repairs sh	
	hould be performed to the area in question. Trees and debris in the auxiliary spill will need to be removed
from the channel. S	hould be performed to the area in question. Trees and debris in the auxillary spill will need to be removed Some erosion was observed along the waters edge on the upstream slope in various places
	Some erosion was observed along the waters edge on the upstream slope in various places
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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.

DHEC 2604 (Rev 11/2011)