D H E C

PROMOTE PROTECT PROSPER

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 2885 & Hazard Class 2 — B. Name of Dam: Anthony Lake Dam

C. Inspection Date (11/10/2012) & Time: 1320 — D. Date of Last Inspection: (07/10/2007)

E. Location-County/City: Taylors / Greenville — F. EQC Regional Office: Greenville

G. Inspector's Name: John Cobb

H. Owner's Name: Richard Pennoyer

I. Contact Person (if different from above):

J. Dam Owner's or Contact Person's Phone Numbers:

Home (___) ___-____

Office (___) ___-____

Other (___) ___-____

K. Dam Owner's or Contact Person's mailing address:

Address 1 1013 Camp Creek Rd

Address 2 (optional)

City Taylors, State SC Zip Code 29687-____

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)? grass

ii. Animal activity observed? no

iii. Any obvious alteration or repairs made? no

iv. Erosion noticed on crest? no

v. Any visible settlement, misalignment or cracks? no

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? grass

ii. Animal activity observed? no

iii. Any obvious alterations or repairs made? no

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? no

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? n/a

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: no

D. Primary Spillway

i. Any visible deterioration of structure? no

ii. Is there an obvious need to repair or replace trash rack? no

iii. Any noticeable problems with debris? no

iv. Is valve or gate present? yes

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? yes

ii. Describe any deflection or damage observed to the pipe: none

iii. Visible condition of outlet channel: good - cut small saplings around smaller outlet pipe

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? no (power pole along edge)

ii. Animal activity observed? no

iii. Any noticeable deterioration in the approach or discharge channel? no

iv. Any visible deterioration of structure's crest? no

F. Auxillary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? n/a

vi. If applicable, any visible leakage below concrete spillway? n/a

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? no

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner?

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? mailed to owner

iii. Does EAP contain specific actions to take if the dam has failed or is near failure?

Section IV (Conclusions)

General comments and recommendations:

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.

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

November 02, 2012 **CERTIFIED MAIL # 7009 2252 0001 0102 9433**

Mrs. Carol Batson
444 Langley Rd
Travelers Rest, SC 29690

RE: Inspection of **Dam D-2869, Batson Pond Dam,** Greenville County

Dear Mrs. Batson:

On November 1, 2012, I conducted a routine inspection of the Batson Pond Dam. I am enclosing a copy of my inspection report of the dam. The following deficiencies were noted:

1. Several small saplings around the outlet pipe should be removed. Please note that this continued growth at the slope of the dam compromises the integrity of the structure.

2. There are several seepage areas along the down stream slope of the dam. Please have a qualified professional engineer inspect the dam. It is the owner's responsibility to ensure that their dam is safe and operating in a manner that minimizes potential risk to downstream lives and property.

3. The drainpipe's trash rack is missing.

4. The outlet pipe is not draining. This could be due to the drought or the several seepages on the back of the dam.

Corrections should be performed within ninety-days (90) from the receipt of this letter. The Dams and Reservoirs Safety Act Regulations R. 72-4 require these corrections. Failure to perform these corrections is a direct violation of the Dams and Reservoirs Safety Act, Article 3, Section 49-11-260 and subsequent penalties. The Department may assess an administrative fine no more than $1000.00 against a person who violates this article.

Enclosed are two copies of a Dams and Reservoirs Emergency Notification Plan. Please complete the forms if any information needs to be updated, retain a copy for your use, and return the other copy to this office to be placed in your dam's file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

If you have any questions, please call me at 864-241-1090.

Sincerely

John Cobb
Environmental Manager
Region 2 Greenville EQC

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

The trash rack has fallen off of the drainpipe. It can be seen to the left of the pipe in the above picture.

This picture is of an area of concern that shows seepage on the down stream slope of the dam.

This picture is of an additional area of seepage on the down stream slope of the dam.

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This picture shows yet another area of seepage on the down stream slope of the dam.

Small saplings that need to be removed around the outlet pipe.

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

November 6, 2012

Ms. Evelyn Holsenback
Lake Boling Estates Property
425 Old Batson Road
Taylors, SC 29687

RE: Inspection of Boling Pond Dam
D-4187 Greenville County

Dear Ms. Holsenback:

On November 1, 2012, I conducted a routine visual inspection of the Boling Pond Dam. Overall, the dam appears to be in good condition and did not exhibit any major deficiencies.

Enclosed are two copies of a Dams and Reservoirs Emergency Notification Plan. Please complete the forms, retain a copy for your use, and return the other copy to this office to be placed in your dam's file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to some one else. Please notify our office should control of your dam be transferred.

Also, a copy of the field inspection report is enclosed for your record. Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next scheduled inspection for this dam will be performed in November 2015.

Sincerely,

John Cobb
Environmental Manager
Greenville EQC Office

cc: John Poole, Bureau of Water

Upstream slope of dam

Outlet pipe with trash rack

Crest of dam

Down stream slope of dam

Emergency spillway

Inside of discharge pipe

D H E C
PROMOTE PROTECT PROSPER

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** 1103 & Hazard Class 2

B. Name of Dam: Tankersley Dam

C. Inspection Date (02 / 13 /20 15) & Time: 12:30 p.m.

D. Date of Last Inspection: (11 / 02 / 2012)

E. Location-County/City: Greenville / Marietta

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins, John Cobb

H. Owner's Name: DST Properties LLC (Donnie), Bonnie Bridwell, Tracy Tankersley, Tankersley Properties LP (Brett),

I. Contact Person (if different from above): Donnie Tankersley, Bonnie Bridwell, Tracy Tankersley, Brett Tankersley

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 393 River Falls Road, Marietta, SC 29661 (Donnie); 2813 Wade Hampton Blvd., Taylors, SC 29687 (Bonnie)

Address 2 (optional) 8 Club Pointe, Taylors, SC 29687 (Tracy); 503 N. Main Street, Travelers Rest, SC 29690 (Brett)

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)? Grass and weeds were observed. Bare spots were also observed. These areas should be reseeded.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? Areas where test pits were dug were observed.

iv. Erosion noticed on crest? None observed; however, bare spots must be re-seeded to prevent erosion.

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Large trees were also observed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, item 1.

ii. Animal activity observed? Could not fully inspect because of thick vegetation. See Section IV, item 2.

iii. Any obvious alterations or repairs made? Areas where test pits were dug were observed.

iv. Erosion observed on upstream slope? Yes, erosion was observed along the normal pool elevation (at water's edge). Monitor this area to ensure it does not worsen. If it does, then slope protection along the water's edge may be needed.

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Large trees were also observed. Portions of the dam could not be inspected due to thick vegetation and steep slopes. See Section IV, item 1.

ii. Animal activity observed? Could not fully inspect because of thick vegetation and steep slopes. See Section IV, item 2.

iii. Any obvious alterations or repairs made? Areas where test pits were dug were observed. Also, a new power pole had been installed near the rock chute spillway.

iv. Erosion observed on down stream slope? Bare areas were observed on the down stream slope where vegetation had been cut. These areas must be re-seeded.

v. Settlement or cracks visible in slope? Yes, undulations and sloughing were observed throughout the downstream slope between the power pole and support cable and around outlet pipe; however, the entire slope could not be fully inspected because of the thick vegetation and steep slopes.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed. Note that lake was drained during the inspection.

D. Primary Spillway

i. Any visible deterioration of structure? None onserved

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? None observed. Note lake was drained during the inspection.

iv. Is valve or gate present? Yes, gate was open during inspection and lake was drained.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Could not observe because of flowing water

ii. Describe any deflection or damage observed to the pipe: Could not observe because of flowing water

iii. Visible condition of outlet channel: Good, little to no erosion observed

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Trees were observed in the spillway. These should be cut and removed in accordance with the engineer's recommendations.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed. Monitor areas with straw to ensure that vegetation is growing.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, residences at 330 and 354 River Falls Road, Marietta, SC 29661.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 7/31/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

Note that lake was drained at the time of the inspection.

1. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. During the 12/6/12 inspection, numerous, deep holes, possibly animal burrows, were observed. If these were not repaired, then the holes and burrows must be evaluated by a qualified SC licensed professional engineer to determine whether the structural stability of the dam is affected. Repairs must be made to the holes and burrows. Depending on the extent of the damage, permits may be necessary for the repairs; contact John Poole at 803-898-4212 to determine whether permits are necessary.

3. Follow recommendations and requirements in engineering report dated 1/19/15, DHEC permit 23-0025 (upon its issuance), and consent orders 13-042-W, 14-005-W, and 14-008-W.

Preliminary Dam Inspection Disclaimer:

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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.

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.

D H E C
PROMOTE PROTECT PROSPER

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** 1399 & Hazard Class 2

B. Name of Dam: Lake Placid

C. Inspection Date (12 / 29 /20 14) & Time: 11:30 a.m.

D. Date of Last Inspection: (11 / 22 /2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins (Kyle Lancaster also present)

H. Owner's Name: S.C. Department of Parks, Recreation, & Tourism

I. Contact Person (if different from above): Jason Hege (Park Manager)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 244 - 5565

Other (864) 421 - 2852

K. Dam Owner's or Contact Person's mailing address:

Address 1 2401 State Park Road

Address 2 (optional)_____

City Greenville, State SC Zip Code 29609 - _ _ _ _

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)? No vegetation observed (masonry dam).

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? A small amount of vegetation was observed growing in the joints of the masonry structure. This vegetation should be cut regularly.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Vegetation was observed growing in the joints of the masonry structure, especially under the top row of stone. This vegetation should be cut or treated regularly.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? None observed

v. Settlement or cracks visible in slope? Yes, water was observed flowing through cracks in the structure 1-2' to the right of the spillway at the spillway elevation, 2 stones down from the top approximately 10' to the right of the spillway, and in the middle of the left wall. See Section IV, item 1.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, flowing seepage was observed along the toe on the right side of the dam. The seepage must be evaluated by a qualified South Carolina licensed professional engineer. A plan must be developed to measure seepage (flow rate and turbidity) in this area at least monthly. See Section IV, item 2.

D. Primary Spillway

i. Any visible deterioration of structure? A masonry spillway is the primary spillway. Could not observe due to flowing water.

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? Yes, a small amount of debris (limbs, tree trunks) was observed. This should be removed on a regular basis to ensure full spillway capacity.

iv. Is valve or gate present? Yes, the valve stem is present; however, according to Mr. Hege, it is no longer operable.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The low-level outlet pipe was observed in this section. According to Mr. Hege, the plate in the lake is not completely closed and a small amount of water was observed flowing through this pipe. See Section IV, item 3.

ii. Describe any deflection or damage observed to the pipe: It appears that the bottom of the pipe may be corroded. See Section IV, item 3.

iii. Visible condition of outlet channel: A foot bridge is present just downstream of the dam. Little to no erosion was observed. Some debris (logs) was present in the outlet channel.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? An additional masonry spillway on the right side was observed as the emergency spillway. No obstructions observed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? No approach channel. Some erosion may be present along the toe in the discharge channel; it was difficult to inspect due to vegetation. The vegetation should be cut and removed. See Section IV, item 4.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, according to GIS, a residence is present at 425 E. Mountain Creek Road.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No. EAP must be submitted on or before 4/30/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The flows through these cracks must be evaluated by a qualified S.C. licensed professional engineer to determine if the safety of the structure is affected and whether repairs need to be made.

2. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement.

3. The pipe must be evaluated by a qualified S.C. licensed professional engineer to determine whether the deterioration of the pipe has caused or could cause issues with safety of the structure and whether the pipe should be grouted or otherwise sealed off. As part of this evaluation, the pipe should be inspected using a camera or other method to view the inside of the pipe. Permits would be necessary for closure of the low-level outlet.

4. This area must be evaluated by a qualified S.C. licensed professional engineer to determine whether any repairs need to be made.

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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.

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** 1933 & Hazard Class 2

B. Name of Dam: Georges Creek WCD 1A

C. Inspection Date (12 /02 /20 13) & Time: 11:45 a.m.

D. Date of Last Inspection: (12 / 16 / 2010)

E. Location-County/City: Pickens / Easley

F. EQC Regional Office: Upstate Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Hendricks Trust (HT)/ Stewart Bauknight (SB) / Pickens County Soil & Water Conservation District (PCSWCD-operator)

I. Contact Person (if different from above): Leon Hendricks Jr. (HT)Ross Stewart (PCSWCD)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864-420-9573 (Ross Stewart)

K. Dam Owner's or Contact Person's mailing address:

Address 1 6 Aldridge Dr. (HT); 998 Holly Bush Rd. (SB); P.O. Box 245 (PCSWCD)

Address 2 (optional)

City Greenville 29607 (HT); Easley 29640 (SB); Pickens 29671 (PCSWCD), State SC 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)? Grass and weeds in good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation had been recently cut. When the woody vegetation is cut, it must be removed and not left in place on the dam because that makes it difficult to perform a complete inspection.

ii. Animal activity observed? Yes, a hole was observed approximately 20' upslope and 100' right of the primary spillway. An animal trail down to the water was observed 20' to the right of the primary spillway. It was difficult to perform a complete inspection because of cut vegetation left in place.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, erosion around tractor tracks was observed. Monitor these areas and repair and reseed as necessary.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation had been recently cut. When the woody vegetation is cut, it must be removed and not left in place on the dam because that makes it difficult to perform a complete inspection.

ii. Animal activity observed? Yes, a newly constructed animal hole was observed approximately 20' upslope and 30' left of the outlet pipe. Fresh dirt was in place just outside the hole and an animal trail was observed down to the water left of the outlet pipe.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Yes, erosion around tractor tracks was observed. Monitor these areas and repair and reseed as necessary. Several bare areas were also observed throughout the downstream slope. Reseed these areas.

v. Settlement or cracks visible in slope? None observed.

vi. Toe drains flowing? Yes, both had a significant amount of flow during the inspection. Both were partially clogged and need to be cleaned out.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, a potential area of seepage was observed approximately 200' to the right of the outlet pipe, near a mound of riprap. See Section IV, item 1.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? Additional bars may need to be added to the sides to prevent large trees and limbs from getting inside the structure. Any modification to the riser would require a permit from the Permitting Section in Columbia.

iii. Any noticeable problems with debris? Yes, large trees and limbs were caught on top of, on the sides of, and inside the riser structure.

iv. Is valve or gate present? Yes

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: None observed

iii. Visible condition of outlet channel: Good condition

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the crest of the dam.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. A plan must be developed to measure the seepage (flow rate and turbidity) in this area at least monthly. Submit the plan to the Permitting Section in Columbia for approval (John Poole,SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement. The plan to measure the seepage must be submitted on or before June 22, 2014.

Preliminary Dam Inspection Disclaimer:

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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.

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** 1952 & Hazard Class 2

B. Name of Dam: Twelvemile Creek WCD Dam 22

C. Inspection Date (05 / 13 /20 15) & Time: 9:15 a.m.

D. Date of Last Inspection: (03 / 29 /2012)

E. Location-County/City: PIckens / Pickens

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Bruce Farm LLC (owner)/ Pickens County Soil & Water Conservation District (operator)/ Harold McJunkin (leases property)

I. Contact Person (if different from above): Mike Banks with NRCS (for Pickens County SWCD)/ Carol Geiger (for McJunkin)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (803-609-7497 (Carol Geiger)

Office (864-224-2126 ext.3 or 108 (Mike)

Other (864-940-0852 (Mike cell)

K. Dam Owner's or Contact Person's mailing address:

Address 1 399 Mill Creek Road, Atlanta GA 30307 (Bruce Farm LLC)

Address 2 (optional) P.O. Box 245, Pickens , SC 29671 (Pickens County SWCD)

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)? A road was in place; see item iv below. Grass in good condition was observed; however, it needs to be cut.

ii. Animal activity observed? Yes, an animal trail was observed up and over the crest near the primary spillway.

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? Yes, deep ruts were observed in 4 places on the crest (near spillway, approximately 30' to the right of the spillway, at the corner of the dam on the right side, and at the right groin). These ruts must be repaired and then re-grassed or otherwise stabilized (gravel, etc.).

v. Any visible settlement, misalignment or cracks? Deep ruts were observed; see item iv above.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, brush, and other deleterious vegetation, must be cut and removed. See Section IV, item 1.

ii. Animal activity observed? Yes, an animal trail to the spillway was observed. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on upstream slope? A small amount of erosion was observed at the water's edge where the animal trail entered the water. Monitor this area to ensure that it does not worsen.

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, brush, and other deleterious vegetation, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. See Section IV, items 1 and 2.

ii. Animal activity observed? Yes, animal trails were observed around the outlet pipe, and possible animal burrows were observed around the outlet pipe, primarily on the left side. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary. See Section IV, item 3.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? Significant erosion was observed around the outlet pipe, primarily on the left side. See Section IV, item 4. Small bare areas were observed along the toe on the right side. Monitor these areas and re-seed as necessary.

v. Settlement or cracks visible in slope? Minor sloughing, possibly equipment tracks, was observed along the toe on the right side. Monitor these areas to ensure that the sloughing does not worsen, grass is re-established, and erosion does not occur.

vi. Toe drains flowing? The right toe drain was trickling. The left toe drain appeared to be clogged with vegetation growing out of the drain. Both must be cleaned out.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed but could not fully inspect because of thick vegetation

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed. A small amount of debris was observed and should be removed as part of regular maintenance.

iii. Any noticeable problems with debris? Vegetation was observed growing out of the spillway; this must be removed.

iv. Is valve or gate present? Yes, unknown if operated regularly.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Could not observe because of flowing water

ii. Describe any deflection or damage observed to the pipe: Could not observe because of flowing water

iii. Visible condition of outlet channel: Significant erosion was observed around the outlet pipe on both side; see item C.iv above.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? A boat was located in the entrance to the emergency spillway. It must be moved.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any noticeable deterioration in the approach or discharge channel? A cut-out area was observed at the entrance to the spillway (appears to have been present at least back to 2010). It appears to be stable.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, residences at 486 and 500 Midway Road, Pickens SC 29671.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 9/19/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. Large trees (diameter >4") were observed along the toe of the downstream slope on both sides. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified S.C. licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact David Graves at 803-898-4398 to determine whether permits are necessary.

3. The holes and burrows must be evaluated by a qualified S.C. licensed professional engineer to determine what repairs need to be made to prevent further erosion.

4. This erosion was noted in previous inspection reports and appears to have worsened over the years. The erosion must be evaluated by a qualified S.C. licensed professional engineer to determine what repairs need to be made to stabilize the area and prevent further erosion.

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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.

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.

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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** 2825 & Hazard Class 2

B. Name of Dam: Lake Gintomo

C. Inspection Date (03 /13 /20 13) & Time: 2:30 p.m.

D. Date of Last Inspection: (01 /20 /2010)

E. Location-County/City: Greenville / Cleveland

F. EQC Regional Office: Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Alice Lawton/ GIN-TO-MO

I. Contact Person (if different from above):

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 836 - 6539

Office ( ) - -

Other ( ) - -

K. Dam Owner's or Contact Person's mailing address:

Address 1 120 Gintomo Road

Address 2 (optional)

City Cleveland, State SC Zip Code 29635 -

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)? Roadbed, good contiion

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? Repairs to bridge structure over spillway

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, good condition

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Small areas of erosion observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Primarily moss and grass. Shrubs at the toe of the slope must be removed before their root systems become large enough to create seepage pathways. Two small, pine/ spruce trees near the left groin must be cut immediately to prevent seepage pathways.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? Yes, riprap area, approximately 50' x 20', at the toe of the slope to the left of the outlet pipe

iv. Erosion observed on down stream slope? Appears that the toe of the slope is eroding, as evidenced by the steep slopes at the toe of the dam; structural stability of the dam needs to be evaluated by a qualified licensed SC professional engineer. Bare areas observed under fallen riprap.

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? None observed

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, area approximately 30' to the left and 20' downslope of the riprap area slowly flowing. Area should be observed on a regular basis to ensure that the flow rate does not increase or become turbid.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? None observed

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None visible from above but area around outlet pipe is not safely accessible (pipe discharges approximately 15' above the creek bottom with steep slopes surrounding the area). Debris in bottom of pipe should be removed.

ii. Describe any deflection or damage observed to the pipe: Pipe was flowing and could not safely access to observe completely. From above, it appears that the end of the pipe had some damage or that the outlet pipe had been altered or replaced since the previous inspection.

iii. Visible condition of outlet channel: Rocky creek bed in good condition. Metal sheet under outlet pipe appeared to be used as erosion protection--this is not recommended as permanent erosion control.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes, metal fence at entrance to spillway should be removed immediately.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Yes, concrete slabs in the bottom of the channel had shifted. Spillway was flowing substantially so could not inspect completely.

iv. Any visible deterioration of structure's crest? Yes, concrete slabs in the bottom of the channel had shifted. Spillway was flowing substantially so could not inspect completely.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? None observed, but spillway was flowing substantially so could not inspect completely.

vi. If applicable, any visible leakage below concrete spillway? None observed, but spillway was flowing substantially so could not inspect completely.

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, house at nearest downstream road crossing.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Yes, received 2/18/10 by the Department

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes, 2/17/10

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? No

Section IV (Conclusions)

General comments and recommendations:

1. Emergency spillway appears to flow regularly: Hydraulic adequacy of primary spillway needs to be evaluated by a qualified, licensed SC professional engineer.

2. Erosion at the toe of the dam: A detailed analysis of the structural stability of the dam must be done by a qualified, licensed SC professional engineer.

3. Provide explanation as to why dam was partially drained in 2011.

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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.

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for dams or tolerable risk guidelines.

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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** 2828 & Hazard Class 2

B. Name of Dam: Friddle Lake

C. Inspection Date (05 / 28 /20 15) & Time: 1:00 p.m.

D. Date of Last Inspection: (11 / 21 / 2012)

E. Location-County/City: Greenville / Marietta

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins, Kyle Lancaster

H. Owner's Name: Palmetto Bible Camp

I. Contact Person (if different from above): Tim Godley (hotwiredgodley@bellsouth.net)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (828-329-3397 (Tim cell)

K. Dam Owner's or Contact Person's mailing address:

Address 1 142 Fall Creek Road

Address 2 (optional)

City Marietta, State SC Zip Code 29661 - _ _ _ _

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)? A dirt road was in place on the crest. According to Mr. Godley, the road was created when the work on the primary spillway was done in 2014. Grass and weeds were also observed with a few bare spots. Re-seed these areas and monitor to ensure grass is established.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? Siphons were installed according to CP 23-0023 issued 1/9/14.

iv. Erosion noticed on crest? A few bare spots, primarily tire tracks, were observed. Re-seed these areas and monitor to ensure grass is established.

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, brush, and other deleterious vegetation, must be cut and removed. Bare areas were also observed. Re-seed these areas and monitor to ensure grass is established. See Section IV, item 1.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? Siphons were installed according to CP 23-0023 issued 1/9/14.

iv. Erosion observed on upstream slope? Erosion, sloughing (not all active), and damage to the slope were observed and must be repaired. According to Mr. Godley, some of this damage was from equipment gaining access to repair the primary spillway. See Section IV, item 2.

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Same as upstream slope - the thick vegetation must be removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. See Section IV, items 1 and 3.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? Siphons were installed according to CP 23-0023 issued 1/9/14.

iv. Erosion observed on down stream slope? Minor erosion was observed along the left groin. Surface water flows should be diverted away from this area to prevent further erosion. Erosion around the outlet pipe was observed as mentioned in previous inspection reports. See Section IV, item 4.

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

vi. Toe drains flowing? Yes, both toe drains were flowing. Make sure they are cleaned out regularly to prevent a blockage.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed but could not fully inspect because of thick vegetation

D. Primary Spillway

i. Any visible deterioration of structure? None observed. Modifications to the spillway were made according to CP 23-0023 issued 1/9/14.

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? A small amount of debris was present and should be removed as part of routine maintenance.

iv. Is valve or gate present? Yes, a valve and gate are present and operated annually according to Mr. Godley; however, they do not drain the lake. The siphons were installed to be able to drop the lake level lower.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect due to flowing water

ii. Describe any deflection or damage observed to the pipe: The coating on the outside of the outlet pipe had deteriorated. The inside of the pipe could not be observed due to flowing water. According to CP 23-0023, the outlet pipe needs to be replaced.

iii. Visible condition of outlet channel: Some erosion was observed on the left side. Monitor this area to ensure that it does not worsen. If it does, then repairs need to be done; permits may be necessary for those repairs.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes, debris piles and logs were observed in the spillway. These must be removed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, residences at 195 and 212 Gap Creek Road and 101, 103, 105, 115 Cool River Road, Marietta, SC 29661

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 9/23/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. Because a construction permit is already in place, a request for this additional work can be submitted to the Permitting Section (David Graves, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). This request must be accompanied with plans showing the areas of repair.

3. Large trees (diameter >4") were observed along the toe of the slope. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified S.C. licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact David Graves at 803-898-4398 to determine whether permits are necessary.

4. The erosion must be evaluated by a qualified S.C. licensed professional engineer to determine whether repairs need to be made. Follow the engineer's recommendations for repair of this area to prevent further erosion. If repairs are needed, then, because a construction permit is already in place, a request for this additional work can be submitted to the Permitting Section (David Graves, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201).

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.

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.

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** 2837 & Hazard Class 2

B. Name of Dam: Stevens Pond

C. Inspection Date (12 / 13 /20 13) & Time: 11:30 a.m.

D. Date of Last Inspection: (12 / 9 / 2010)

E. Location-County/City: Greenville / Travelers Rest

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins, Kevin Lewis

H. Owner's Name: John & Hilda Hulsey

I. Contact Person (if different from above):

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 576 - 1292

Office ( ) - -

Other ( ) - -

K. Dam Owner's or Contact Person's mailing address:

Address 1 202 Thornhill Drive

Address 2 (optional)

City Spartanburg, State SC Zip Code 29301 -

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)? Thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, items 1 and 2.

ii. Animal activity observed? Yes, many animal trails, holes, and trees/ limbs cut down by beavers were observed. Burrowing animals can cause cause significant damage to a dam. See Section IV, item 4.

iii. Any obvious alteration or repairs made? None observed but could not fully inspect due to thick vegetation

iv. Erosion noticed on crest? None observed but could not fully inspect due to thick vegetation

v. Any visible settlement, misalignment or cracks? None observed but could not fully inspect due to thick vegetation

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Same as crest (Section III.A.i). Large trees were also observed. 3. The larger trees must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. See Section IV, items 1, 2, and 3.

ii. Animal activity observed? Same as crest (Section III.A.ii). See Section IV, item 4.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect due to thick vegetation

iv. Erosion observed on upstream slope? Yes, erosion was observed in the areas of the animal trails down to the water's edge.

v. Settlement or cracks visible in slope? None observed but could not fully inspect due to thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Same as upstream slope (Section III.B.i). See Section IV, items 1, 2, and 3.

ii. Animal activity observed? Same as crest (Section III.A.ii). See Section IV, item 4.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect due to thick vegetation

iv. Erosion observed on down stream slope? Water was observed backing up onto the toe of the slope, under the outlet pipe. When I spoke to the owner before the inspection, he indicated that the water may be backing up due to beaver dams downstream. See Section IV, item 5.

v. Settlement or cracks visible in slope? None observed but could not fully inspect due to thick vegetation

vi. Toe drains flowing? None seen but could not fully inspect due to thick vegetation

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area of seepage was observed on the downstream slope in the earthen spillway, approximately 20' to the left of the outlet pipe. This area of seepage should be monitored regularly to ensure that the water does not become flowing and turbid. This would indicate a very serious situation and the Department should be notified immediately.

D. Primary Spillway

i. Any visible deterioration of structure? Water was flowing through outlet pipe, but the water surface elevation was below the top of the riser or trash rack. If there is not a larger diameter pipe (acting as a trash rack) in place at the top of the riser, then this may be an indication of severe deterioration of the primary spillway. See Section IV, item 6.

ii. Is there an obvious need to repair or replace trash rack? Unable to determine if trash rack was in place. See item i above.

iii. Any noticeable problems with debris? No debris was observed around the primary spillway.

iv. Is valve or gate present? None observed

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed; however, the flows from the outlet pipe were surging and spurting. This is not a typical situation and should be evaluated by a qualified South Carolina licensed professional engineer.

ii. Describe any deflection or damage observed to the pipe: Could not observed because of flowing water

iii. Visible condition of outlet channel: See Section III.C.iv. Additional outlet protection may be needed to prevent undercutting of the outlet pipe. See Section IV, item 5.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes, the earthen spillway was on the left side and was full of trees and downed trees. The small trees and downed trees must be removed. The larger trees must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. See Section IV, item 3.

ii. Animal activity observed? None observed but could not fully inspect due to thick vegetation

iii. Any noticeable deterioration in the approach or discharge channel? None observed but could not fully inspect due to thick vegetation

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, residences at 315 Goodwin Road. The mobile home does not appear to be occupied, and it was difficult to tell whether the other structure was occupied.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 10/12/14.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

3. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

4. The holes and burrows must be evaluated by a qualified SC licensed professional engineer to determine whether the structural stability of the dam is affected. All harmful animal species must be removed from the dam in a legal manner to prevent further damage. Repairs must be made to the holes and burrows. Depending on the extent of the damage, permits may be necessary for the repairs; contact John Poole at 803-898-4212to determine whether permits are necessary.

5. This issue must be evaluated by a qualified SC licensed professional engineer to determine whether the backed-up water is causing any concerns with the safe operation of the dam and whether additional outlet protection is necessary to prevent erosion under the pipe. You should work with the downstream property owners and the County to address the problem.

6. This must be evaluated by a qualified South Carolina licensed professional engineer.

Preliminary Dam Inspection Disclaimer:

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.

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** 2841 & Hazard Class 2

B. Name of Dam: Swan Lake

C. Inspection Date (04 / 28 /20 15) & Time: 11:40 a.m.

D. Date of Last Inspection: (02 / 23 / 2012)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Furman University

I. Contact Person (if different from above): Bernie Stanton

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 294 - 3287

Other (864-363-6156 (cell)

K. Dam Owner's or Contact Person's mailing address:

Address 1 3300 Poinsett Highway

Address 2 (optional)

City Greenville, State SC Zip Code 29613 - _ _ _ _

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)? A road was in place across the dam with sidewalks and lighting.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? Cracks were observed in the road surface. Monitor all cracks to ensure that they do not widen.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Small bare areas were observed. Monitor these areas and re-seed as necessary. Large trees (diameter>4") were also observed. See Section IV, item 1.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, erosion and undulations were observed along the water's edge. Monitor this area to ensure that it does not worsen. If it does, then additional slope protection may be needed. Erosion was observed where the road pipes empty onto the slope. See Section IV, items 2 and 3.

v. Settlement or cracks visible in slope? Sloughing/ erosion (not active) was observed on the upstream slope, primarily around the tree roots. Monitor these areas to ensure they do not worsen.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Large trees (diameter>4"), dead trees, fallen trees, and decaying stumps were also observed. See Section IV, items 1, 4, 5, and 6.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? Erosion was observed where the road pipes/ curb cuts empty onto the slope. On the left side, flows from one of the curb cuts has caused more significant erosion and these areas need to be repaired. See Section IV, item 2 and 7.

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

vi. Toe drains flowing? Yes, 2 pipes were observed on the right side of the concrete walls for the spillway. Both were trickling.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, actively flowing seepage was observed on the right side, along the toe of the slope and around the outlet structure (from the bank on right side). The limits of the seepage areas should be marked so that you can determine if the area is increasing in size. See Section IV, item 8.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? A small amount of debris was observed. This should be removed as part of routine maintenance.

iv. Is valve or gate present? Yes, according to Mr. Stanton, it has been operated within the last 10 years but is not operated regularly.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Flowing water prevented inspection

ii. Describe any deflection or damage observed to the pipe: Flowing water prevented inspection of the pipe itself. The wooden supports under the concrete slab near the end of the outlet pipe are deteriorating and may be need to be replaced. Monitor their condition. See Section IV, item 9.

iii. Visible condition of outlet channel: Significant erosion of the banks was observed to the right and left of the outlet. Monitor this area to ensure it does not worsen. If it does, then slope protection/ armor may be needed.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway observed

ii. Animal activity observed? No emergency spillway observed

iii. Any noticeable deterioration in the approach or discharge channel? No emergency spillway observed

iv. Any visible deterioration of structure's crest? No emergency spillway observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? No emergency spillway observed

vi. If applicable, any visible leakage below concrete spillway? No emergency spillway observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residences at 52, 70, 72, 74 Montague Circle, Greenville SC 29609.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 9/17/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact David Graves at 803-898-4398 to determine whether permits are necessary.

2. Erosion was observed where the road pipes/ curb cuts empty onto the slopes (minor on the upstream slope, more pronounced on the downstream slope). These pipes should be extended to empty directly into the lake for the upstream slope and extended beyond the toe of the slope for the downstream slope or the flow path stabilized to these same points (from pipe outlets into lake for upstream and from pipe outlets to beyond toe of slope for downstream).

See attached sheet for additional comments

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.

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.

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):

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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** 2853 & Hazard Class 2

B. Name of Dam: Paris Mountain Reservoir 3 (formerly GWS)

C. Inspection Date (12 / 29 /20 14) & Time: 10:15 a.m.

D. Date of Last Inspection: (12 / 2 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins (Kyle Lancaster also present)

H. Owner's Name: S.C. Department of Parks, Recreation, & Tourism

I. Contact Person (if different from above): Jason Hege (Park Manager)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 244 - 5565

Other (864) 421 - 2852

K. Dam Owner's or Contact Person's mailing address:

Address 1 2401 State Park Road

Address 2 (optional)_____

City Greenville, State SC Zip Code 29609 - _ _ _ _

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)? Grass in good condition was observed. Some bare areas were observed. Re-seed these areas and monitor to ensure grass is established.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? An area of standing water, indicating a depressed area, was observed on the left side. Fill and compact this area, and monitor to ensure grass is established.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Small amounts of grass and weeds were observed growing in cracks in the concrete slope protection. These should be cut or treated. On the right side, woody vegetation, which prevented complete inspection, was observed. This must be cut and removed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? Yes, holes and cracks were observed in the concrete at the water's edge. These should be marked and monitored to ensure they do not increase in size or depth.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Weeds, small trees, shrubs, brush, and other deleterious vegetation were observed growing in the riprap that covers the downstream slope; this vegetation must be cut and removed. See Section IV, items 1 and 2.

ii. Animal activity observed? None observed but could not fully inspect because of steep slopes and vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of steep slopes and vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect because of steep slopes and vegetation

v. Settlement or cracks visible in slope? Some sloughing was observed along the slope near the crest. Monitor this area to ensure that it does not worsen. If it does, then repairs need to be done; permits may be necessary for those repairs.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, a very wet area (approximately 40' L x 20' W) was observed just beyond the toe of the slope on the right side. Water-loving vegetation was present. Flowing seepage was observed along both groins (more on left). See Section IV, items 3 and 4.

D. Primary Spillway

i. Any visible deterioration of structure? No primary spillway was visible in the reservoir.

ii. Is there an obvious need to repair or replace trash rack? No primary spillway was visible in the reservoir.

iii. Any noticeable problems with debris? No primary spillway was visible in the reservoir.

iv. Is valve or gate present? No primary spillway was visible in the reservoir.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The concrete arch pipe was observed. No flows were flowing outside the pipe; however, thick vegetation and flowing water int he pipe prevented a complete inspection. The tire in the pipe should be removed.

ii. Describe any deflection or damage observed to the pipe: Water was visible at some of the seams in the pipe. The entire length of pipe could not be observed. Based on the age of the structure, the Department recommends a complete inspection be done to look for deterioration.

iii. Visible condition of outlet channel: Little to no erosion was observed. Woody vegetation and shrubs were present at the outlet from the arch pipe. Vegetation within 25' from the pipe outlet should be cleared so the outlet can be inspected regularly and flows are not impeded.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes, logs and debris were present in the spillway. These must be removed. Vegetation was observed at the entrance to the spillway. This must be cut and removed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Some deterioration of the walls were observed. The bottom of the channel could not be observed because of leaves and debris. The top portions of the walls were missing in some areas. The deterioration should be monitored.

iv. Any visible deterioration of structure's crest? Some deterioration of the walls were observed. The bottom of the channel could not be observed because of leaves and debris. The top portions of the walls were missing in some areas. The deterioration should be monitored.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? The bottom of the channel could not be observed because of leaves and debris.

vi. If applicable, any visible leakage below concrete spillway? None observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residence at 4751 State Park Road. D-4409 (Class 3) is located adjacent to this house, but it appears that that dam may also be breached if this were to fail.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 6/18/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation, including small trees, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

2. Large trees (diameter >4") were observed on the downstream slope and along both groins. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

3. The limits of the wet area should be marked so that you can determine if the area is increasing in size. This area should be monitored regularly to ensure that the flow rate does not change and that the water does not become turbid. This would indicate a very serious situation and the Department should be notified immediately.

4. The limits of the actively flowing seeps should be marked so that you can determine if the areas are increasing in size. A plan must be developed to measure seepage (flow rate and turbidity) in these areas at least monthly. Submit the plan to the Permitting Section in Columbia for approval. The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement.

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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):

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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.

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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.

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D H E C
PROMOTE PROTECT PROSPER

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** 2854 & Hazard Class 2

B. Name of Dam: Mountain Lake

C. Inspection Date (12 / 29 /20 14) & Time: 12:10 p.m.

D. Date of Last Inspection: (11 / 22 /2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins (Kyle Lancaster also present)

H. Owner's Name: S.C. Department of Parks, Recreation, & Tourism

I. Contact Person (if different from above): Jason Hege (Park Manager)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 244 - 5565

Other (864) 421 - 2852

K. Dam Owner's or Contact Person's mailing address:

Address 1 2401 State Park Road

Address 2 (optional)_____

City Greenville, State SC Zip Code 29609 - _ _ _ _

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)? Grass and weeds were observed growing on the crest on the right side. The right side could not be accessed, so it was difficult to tell the extent of the vegetation near the edge of the dam. This vegetation must be cut and removed or treated.

ii. Animal activity observed? None observed; however, the right side could not be accessed.

iii. Any obvious alteration or repairs made? None observed; however, the right side could not be accessed.

iv. Erosion noticed on crest? None observed; however, the right side could not be accessed.

v. Any visible settlement, misalignment or cracks? None observed; however, the right side could not be accessed. On the right side, adjacent to the spillway, the first block appeared to have been damaged at some time in the past and vegetation was growing in this area.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Some grass and weeds were observed growing in cracks on the upstream face (more on the right side than the left). The vegetation must be cut and removed or treated.

ii. Animal activity observed? None observed; however, the right side could not be accessed.

iii. Any obvious alterations or repairs made? None observed; however, the right side could not be accessed.

iv. Erosion observed on upstream slope? None observed; however, the right side could not be accessed.

v. Settlement or cracks visible in slope? None observed; however, the right side could not be accessed.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds were observed growing in cracks. This vegetation must be cut and removed or treated. Thick vegetation, including trees, brush, and other deleterious vegetation, was observed along the toe on the right side. See Section IV, items 1 and 2.

ii. Animal activity observed? None observed; however, the right side could not be accessed.

iii. Any obvious alterations or repairs made? None observed; however, the right side could not be accessed.

iv. Erosion observed on down stream slope? None observed; however, the right side could not be accessed.

v. Settlement or cracks visible in slope? Yes, water was observed flowing through cracks in the structure, toward the top of the dam on the left side. The right side could not accessed. See Section IV, item 3.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, significant flows were observed from the valve housing; these flows appeared to have increased since the previous inspection. See Section IV, item 4.

D. Primary Spillway

i. Any visible deterioration of structure? None observed; however, could not fully inspect because of flowing water

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? Yes, a small amount of debris was observed in the spillway. This should be removed on a regular basis. A large tree was observed at the bottom of the spillway; this should be removed.

iv. Is valve or gate present? Yes, according to sign present at dam, valve is deteriorated and inoperable.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The plugged low-level outlet to the left of the spillway was observed as the outlet pipe. Significant flows were observed from the pipe; these flows appeared to have increased since the previous inspection. See Section IV, item 5.

ii. Describe any deflection or damage observed to the pipe: Pipe was plugged so could not observe; however, increased flows were observed, along with a large amount of iron bacteria in the area around the pipe.

iii. Visible condition of outlet channel: Good with little to no erosion. Some debris was present; this should be removed on a regular basis.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Not applicable, no emergency spillway.

ii. Animal activity observed? Not applicable, no emergency spillway.

iii. Any noticeable deterioration in the approach or discharge channel? Not applicable, no emergency spillway.

iv. Any visible deterioration of structure's crest? Not applicable, no emergency spillway.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable, no emergency spillway.

vi. If applicable, any visible leakage below concrete spillway? Not applicable, no emergency spillway.

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from crest of dam

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 6/18/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. The right abutment was very steep and the thick vegetation prevented inspection of the right side. The engineer's thorough inspection must include a complete inspection of the right side, and the report must include recommendations for vegetation removal and control. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

2. If larger trees are present on the right side (diameter >4"), then those trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

See attached sheet for additional comments.

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INSTRUCTIONS

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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.
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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.

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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.

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Section IV(Conclusions):

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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.

D H E C
PROMOTE PROTECT PROSPER

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** 2857 & Hazard Class 2

B. Name of Dam: Bruce Lake

C. Inspection Date (08 / 19 /20 14) & Time: 10:30 a.m.

D. Date of Last Inspection: (N/A/_ _/_ _ _ _)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate/ Greenville

G. Inspector's Name: Melissa Dawkins, John Cobb

H. Owner's Name: JOPE Inc.

I. Contact Person (if different from above):

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 2705 Poinsett Highway

Address 2 (optional)

City Greenville, State SC Zip Code 29609 - _ _ _ _

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)? Thick vegetation, including weeds, small trees, shrubs, brush, poison ivy, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. Numerous large trees were also observed. See Section IV, items 1, 2, and 3.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alteration or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion noticed on crest? None observed but could not fully inspect because of thick vegetation

v. Any visible settlement, misalignment or cracks? The crest of the dam is not level. There were multiple elevation changes along the length of the crest. This could be by design or due to settling or overtopping.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Same as crest (Section III.A.i). See Section IV, items 1, 2, and 3. Very little freeboard (approximately 9") was observed in some places, so there was not much of an upstream slope to observe.

ii. Animal activity observed? Yes, animal trails into the lake were observed.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on upstream slope? None observed but could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Same as crest (Section III.A.i). See Section IV, items 1, 2, and 3.

.

ii. Animal activity observed? Yes, holes, possibly animal burrows were observed throughout the downstream slope (e.g., on the upstream side of the channel from the emergency spillway).

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? Yes, the channel from the concrete spillway drops off partway down, and significant erosion was observed. Flows then appear to go underground, in an area of erosion, and beneath a large tree. Could not fully inspect because of thick vegetation.

v. Settlement or cracks visible in slope? Yes, a large hole was observed above outlet pipe on the downstream slope. Could not fully inspect because of thick vegetation

vi. Toe drains flowing? None observed but could not fully inspect because of thick vegetation

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed but could not fully inspect because of thick vegetation

D. Primary Spillway

i. Any visible deterioration of structure? None observed from crest of dam

ii. Is there an obvious need to repair or replace trash rack? No trash rack installed. No debris was present, but it appears that a trash rack should be installed.

iii. Any noticeable problems with debris? No debris was present.

iv. Is valve or gate present? None observed

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect because of thick vegetation. There was significant flow through the outlet pipe, even though the top of the riser was at or above the water surface elevation.

ii. Describe any deflection or damage observed to the pipe: Pipe joints are visibly separated. A cavity was observed above the outlet pipe.

iii. Visible condition of outlet channel: Erosion was visible in the channel coming from the concrete spillway.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes, debris (limbs, trees, etc.) was present in the channel.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any noticeable deterioration in the approach or discharge channel? Yes, partway down the channel, the concrete spillway drops off and significant erosion was observed. This eroded channel continues and flows appear to go underground, below a large, leaning tree.

iv. Any visible deterioration of structure's crest? Could not fully inspect because of thick vegetation

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? None observed but could not fully inspect because of thick vegetation

vi. If applicable, any visible leakage below concrete spillway? Could not fully inspection because of thick vegetation

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? None observed from the crest

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP is required to be submitted on or before 9/29/14.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

The concrete spillway on the left-hand side was evaluated as the auxiliary (emergency) spillway in Section III.F; however, the elevation of the concrete spillway is below the riser. The riser structure out in the lake was evaluated as the primary spillway in Section III.D. During the inspection, flows were going through the concrete spillway and only trickling through the riser structure (the water surface elevation was at the top of the riser).

1. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

3. Removal of larger trees needs to be evaluated by a licensed SC professional engineer. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

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.

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.

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** 2859 & Hazard Class 2

B. Name of Dam: Prince Lake

C. Inspection Date (12 /10 /20 13) & Time: 11:00 a.m.

D. Date of Last Inspection: (12 /09 /2010)

E. Location-County/City: Greenville / Piedmont

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Jerry & Brenda Cooper, Henry Jr. & Fran Herlong et al, Henry Jr. & Fran Herlong, Georgia Brown Trust

I. Contact Person (if different from above): Jerry Cooper

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 277 - 1583

Office ( ) -

Other (864) 230 - 4212

K. Dam Owner's or Contact Person's mailing address:

Address 1 110 Beechwood Dr., Piedmont 29673 (Cooper); 126 Beechwood Dr., Piedmont 29673 (Herlong et al.),

Address 2 (optional) 300 E. Washington St., Greenville 29601 (Herlong); 122 Beechwood Dr., Piedmont 29673 (Brown Trust)

City _____, State SC 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)? Road in place across the dam. A large tree was observed on the right side of the dam between the driveway and wall. See Section IV, item 1.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? Some cracks parallel to the direction of flow through the dam were observed. Monitor these cracks to ensure that they do not widen. If any changes in the widths are observed, then you should contact and engineer to evaluate them.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Riprap and grass were observed. On the left side where the tree fell, grass needs to be re-established.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? On the left side, repairs to the wall that was damaged by the fallen tree were observed. No repairs to the dam were observed.

iv. Erosion observed on upstream slope? Small bare areas were observed. Monitor these areas and re-seed as necessary.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, small trees, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. A few large trees were also observed on the left side. See Section IV, items 1, 2, and 3.

ii. Animal activity observed? Could not fully inspect because of thick vegetation.

iii. Any obvious alterations or repairs made? Could not fully inspect because of thick vegetation.

iv. Erosion observed on down stream slope? Some sloughing was observed but could not fully inspect because of thick vegetation. Bare/ scalped areas were observed on the right side where the vegetation had been cut. Monitor these areas to ensure that grass is re-established and erosion does not occur.

v. Settlement or cracks visible in slope? Ruts and sloughing were observed but could not fully inspect due to thick vegetation, possibly due to steep slopes. A qualified licensed SC engineer must evaluate these areas to determine whether the ruts and steep slopes need to be flattened/ smoothed out/ repaired.

vi. Toe drains flowing? None observed but could not fully inspect because of thick vegetation.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area (approximately 75' x 30') to the right of the outlet pipe was observed. This was also noted in the 2010 report. The area was not flowing; however, the ground was soggy. The entire slope could not be inspected due to thick vegetation. This area must be monitored. See Section IV, item 4.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? No trash rack; however, according to Mr. Cooper, a strainer was recently added to the end of the siphon. He also indicated that the a bend was added and the bottom elevation was changed. See Section IV, item 5.

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? According to Mr. Cooper, the gate valve was decommissioned approximately 2-1/2 years ago. See Section IV, item 5. With the gate valve decommissioned, what is the current plan to drain the lake, if that were necessary?

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: Could not observe because of flowing water

iii. Visible condition of outlet channel: A large tree rootball was observed approximately 30' downstream. This could act as a constriction in times of high flows.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? A partial berm was in place on the downstream side of the 3 pipes. This may act as an obstruction. Remove debris at pipe inlets and outlets.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? The last joints of all 3 pipes were separated.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 10/8/14.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The larger trees must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed.

Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

2. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

3. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures

on a regular basis to ensure safe operation of the dam.

4. If any changes to the rate of seepage and size of the area are observed, then you must have it evaluated by a qualified, licensed SC

engineer to determine whether repairs are necessary.

5. According to Mr. Cooper, changes/ repairs were made to the siphon and gate valve since the last inspection. Permits are required for all changes to

the dam and its structures. Provide all documentation related to this work to the Department. A retroactive permit for the work may be required.

6. On the left side of the dam, direct runoff from the driveway area away from the downstream slope of the dam.

7. On the left side, a pipe that appears to be draining into the lake has separated joints. This must be evaluated by a qualified South Carolina

licensed professional engineer.

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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.

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** 2863 & Hazard Class 2

B. Name of Dam: Ridgill Lake Dam

C. Inspection Date (03/01/20 13) & Time: 11:30 a.m.

D. Date of Last Inspection: (01/12/2010)

E. Location-County/City: Greenville / Travelers Rest

F. EQC Regional Office: Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Richard Ridgill

I. Contact Person (if different from above): Richard Ridgill or Boyd Harrison (for access)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 320 - 5055

Office ( ) -

Other (864) 895-5148 (Boyd)

K. Dam Owner's or Contact Person's mailing address:

Address 1 2600 Highway 11

Address 2 (optional)

City Travelers Rest, State SC Zip Code 29690 -

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)? Grass and gravel road bed

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? Yes, stabilize road bed tracks on right side of dam.

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Vegetation, including weeds, small trees, and grass, must be cut. Small trees must be cut immediately before they grow larger and their root systems create seepage pathways.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Some small bare areas observed

v. Settlement or cracks visible in slope? None observed but could not completely inspect because of vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Vegetation, including weeds, small trees, and grass, must be cut. Small trees must be cut immediately before they grow larger and their root systems create seepage pathways.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Could not inspect because of thick vegetation

v. Settlement or cracks visible in slope? Could not inspect because of thick vegetation

vi. Toe drains flowing? None found

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, 20'x10' area 100' to the right of the primary outlet pipe (not flowing but water-loving vegetation was observed)

D. Primary Spillway

i. Any visible deterioration of structure? No, deterioration observed of the structure in place on the downstream side of the dam; however, the pipe system appears to have been altered without appropriate permits. No structure visible in the reservoir.

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? No structure visible in the reservoir.

iv. Is valve or gate present? Yes, valve present on downstream side of the dam.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: Could not inspect because pipe submerged

iii. Visible condition of outlet channel: Good, water from downstream unregulated dam backed up in outlet channel

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Yes. Small trees and thick vegetation observed for concrete structure spillway. Large pipe, fence and fence posts, and barn structure for earthen spillway. These obstructions must be removed immediately.

ii. Animal activity observed? None observed for concrete structure or earthen spillways.

iii. Any noticeable deterioration in the approach or discharge channel? Concrete structure: Could not inspect because of thick vegetation. Earthen spillway: Yes, some rills observed down to catch pond and erosion in road bed that crosses the spillway.

iv. Any visible deterioration of structure's crest? Concrete structure: Could not inspect because of thick vegetation. Earthen spillway: Yes, erosion in road bed that crosses the spillway.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Unpermitted alteration of the primary outlet pipe: A detailed analysis of the hydraulic adequacy and structural stability of the dam must be done by a qualified, licensed SC professional engineer to evaluate the impacts of this alteration.

2. Large gully/ area of erosion near the left groin: Structural stability of dam needs to be observed and evaluated by a qualified, licensed SC professional engineer.

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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.

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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.
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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):

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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.

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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** 2875 & Hazard Class 2

B. Name of Dam: Parkins Lake (formerly E.P. Collins)

C. Inspection Date (09 / 06 /20 13) & Time: 11:30 a.m.

D. Date of Last Inspection: (04 / 29 /2010)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate--Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: J.M.S. Inc

I. Contact Person (if different from above): Tom Latham

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 288 - 6885

Office ( ) -

Other (864) 449 - 0603

K. Dam Owner's or Contact Person's mailing address:

Address 1 122 Parkins Lake Road

Address 2 (optional)

City Greenville, State SC Zip Code 29607 -

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)? Grass in good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition

ii. Animal activity observed? Holes along the erosion protection were observed (see item B.iv below); animals may have caused this erosion. Fill in holes and reseed as necessary to prevent erosion. Monitor the dam regularly for signs of burrowing animals.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, holes were observed in an area on the right side of the dam behind the concrete erosion protection.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Some sloughing was observed in the area of seepage (see item C.vii below). Also, it appears that the dam may have been mowed while it was wet and there are tire tracks from the equipment--monitor these tracks and reseed as necessary to prevent erosion.

v. Settlement or cracks visible in slope? Some sloughing was observed in the area of seepage (see item C.vii below)

vi. Toe drains flowing? Yes, significant flows through toe drain. Monitor the toe drain to ensure that it does not become clogged with iron bacteria. The toe drain system should be monitored regularly to ensure that it does not become clogged.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, a large area (15' tall x 75' wide) in the center of the dam, 25' downslope was very wet and spongy with standing water observed. Tom Latham indicated that this area appeared to be larger than in the past. See Section IV, item 1.

D. Primary Spillway

i. Any visible deterioration of structure? Concrete spillway is considered to be the primary spillway since the main spillway through the dam was closed off in 1997, according to the file. No visible deterioration of the concrete spillway was observed; however, vegetation and debris obscured a portion of the spillway.

ii. Is there an obvious need to repair or replace trash rack? No trash rack

iii. Any noticeable problems with debris? Yes, vegetation and debris in the spillway must be cut and removed. See Section IV, item 2.

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? A small amount of flow was observed from the plate blocking the old outlet pipe. Continue to monitor this area to ensure that flows do not increase.

ii. Describe any deflection or damage observed to the pipe: N/A

iii. Visible condition of outlet channel: Good

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway. See item D.i above.

ii. Animal activity observed? N/A

iii. Any noticeable deterioration in the approach or discharge channel? N/A

iv. Any visible deterioration of structure's crest? N/A

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? N/A

vi. If applicable, any visible leakage below concrete spillway? N/A

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, houses below the dam on Poplar Grove Court, Beechridge Way, Springhouse Way, and Parkins Mill Road.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The area of seepage should be evaluated by a South Carolina licensed, professional engineer. The area should be monitored on a regular basis to ensure that it does not become larger and that flowing, muddy water is not present. The toe drain system should be monitored on a regular basis to ensure that it is not or does not become clogged.

2. The spillway must be maintained with no obstructions to flow. The footbridge across the primary spillway could potentially trap debris and may need to be removed.

3. The hydraulic capacity of the dam should be evaluated. We have no documentation in our files of an updated hydraulic analysis showing that the primary spillway and outlet pipe have been decommissioned. Provide an updated hydrologic and hydraulic analysis of the dam on or before March 13, 2014. Contact John Poole (803-898-4212) to determine the spillway design flood that should be used for the analysis.

Note: Siphon system in place to lower the water level. It was not in use at the time of the inspection and was capped. Tom Latham indicated that it had been tested in the past 2 years.

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.

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.

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.

D H E C
PROMOTE PROTECT PROSPER

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** 2876 & Hazard Class 2

B. Name of Dam: Lake Conestee

C. Inspection Date (12 / 18 /20 14) & Time: 10:20 a.m.

D. Date of Last Inspection: (11 / 17 /2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins, Petar Milenkov, John Poole

H. Owner's Name: Conestee Foundation Inc.

I. Contact Person (if different from above): Dave Hargett, PhD

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 277 - 2004

Other (864) 787 - 8160

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 9111

Address 2 (optional)_____

City Greenville, State SC Zip Code 29604 - _ _ _ _

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)? Vegetation was observed growing out of portions of the masonry. This vegetation should be removed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? No erosion was observed; however, deterioration of the mortar in some spots was observed. This should be monitored to ensure that the situation does not worsen.

v. Any visible settlement, misalignment or cracks? Cracks in the mortar were observed.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Vegetation was observed growing out of portions of the masonry. This vegetation should be removed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of safety concerns

iv. Erosion observed on upstream slope? None observed but could not fully inspect because of safety concerns

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of safety concerns

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? On the right side, a small amount of vegetation was observed. On the left side, more vegetation was observed. The vegetation must be cut or treated and removed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? Yes, the permitted repairs to the sluice gate were observed. A few small cracks were observed in the concrete surface. Monitor these to ensure that they do not worsen.

iv. Erosion observed on down stream slope? No erosion was observed; however, deterioration of the masonry face was observed on the left side along the toe. Portions of the face were missing near the areas of seepage.

v. Settlement or cracks visible in slope? Cracks in the mortar were observed throughout the face.

vi. Toe drains flowing? The drain on the right side of the previously filled sluice gate on the left was dripping. Monitor to ensure that the flow does not increase.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, flowing seeps were observed at multiple locations on the right and left sides. According to Dr. Hargett, the ochre has been tested and found to contain high levels of heavy metals. See Section IV, items 1 and 2.

D. Primary Spillway

i. Any visible deterioration of structure? According to Dr. Hargett, there are 8 different primary spillway elevations. The penstock also acts as a spillway. Some of the spillways could be observed; deterioration of the mortar was observed.

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? Yes, some debris was observed in some of the spillways and must be removed. According to Dr. Hargett, debris is removed on a regular basis and access to remove it is an issue.

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The penstock was reviewed as the outlet pipe. Significant flows were observed through the penstock. According to Dr. Hargett, the structure around the penstock was designed to leak. See Section IV, item 3.

ii. Describe any deflection or damage observed to the pipe: Could not inspect because of flowing water

iii. Visible condition of outlet channel: Some debris was observed in the channel below the penstock. This should be removed. The main channel was in good condition with little erosion observed.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? All of the masonry spillways were reviewed under item III.C.iii above. It is unknown which are considered to be primary and which are auxiliary.

ii. Animal activity observed? None observed for any spillways.

iii. Any noticeable deterioration in the approach or discharge channel? Not applicable

iv. Any visible deterioration of structure's crest? See item III.C.i above.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? No

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? An updated EAP must be submitted on or before 4/29/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Submit the laboratory results for these seeps to the Department. Additional requirements may be given upon review of these results.

2. A qualified, licensed S.C. professional engineer must evaluate this seepage to determine whether it is affecting the safety of the dam and whether measurements should be taken to determine baseline flows.

3. A qualified, licensed S.C. professional engineer must evaluate these flows to determine whether measurements should be taken to determine baseline flows.

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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.

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A) Dam Number; Enter the Dam's inventory number.
B) Name of Dam; Enter the common name of dam found within EFIS.
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D) Date of Last Inspection; Enter the day, month, and year, in which the last inspection was performed.
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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):

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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.

D H E C
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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** 2879 & Hazard Class 2

B. Name of Dam: Huff Creek WCD 2A

C. Inspection Date (12 / 15 /20 14) & Time: 9:50 a.m.

D. Date of Last Inspection: (11 / 30 / 2011)

E. Location-County/City: Greenville / Pelzer

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Teresa Burdine et al and Ted Bell (land owners)/ Greenville County Soil & Water Conservation District (operator)

I. Contact Person (if different from above): Kirsten Robertson (GCSWCD)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864) 907 _ - 5534 _

K. Dam Owner's or Contact Person's mailing address:

Address 1 460 Woodville Road, Pelzer SC 29669 (Burdine et al)/ 709 E. McBee Avenue, Greenville, SC 29601 (Bell)

Address 2 (optional) 301 University Ridge, Suite 4800, Greenville, SC 29601 (GCSWCD)

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)? Grass and weeds in good condition were observed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation (recently cut) were observed. Some bare areas were observed on the right side; monitor and re-seed as necessary. Woody vegetation was observed along the fence; it must be cut and removed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Some equipment ruts were observed throughout the slope. Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation (recently cut) were observed. Some bare areas were observed on the right side; monitor and re-seed as necessary. See Section IV, item 1.

ii. Animal activity observed? Yes, an animal trail was observed on the right side of the outlet pipe. Erosion was observed in this area. The erosion must be repaired with additional riprap or other measures. Monitor the dam regularly to ensure that harmful animal species are not present.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Yes, erosion was observed on the right side of the outlet pipe and must be repaired. Some equipment ruts were observed throughout the slope. Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary.

v. Settlement or cracks visible in slope? A hole was observed at the toe of the dam, approximately 30' to the right of the outlet pipe. If it appears to be an old tree stump, then fill and compact the area. If it appears to be deeper, then additional investigation would be necessary.

vi. Toe drains flowing? Yes, both toe drains were flowing and need to be cleaned out.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, according to the operator, the valves are operated every other year.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect because of flowing water

ii. Describe any deflection or damage observed to the pipe: Could not fully inspect due to flowing water.

iii. Visible condition of outlet channel: Some erosion was observed on the right side. A fence was observed across the outlet channel, approximately 60' from the outlet. This may be causing water to back up and erode the banks on the right side.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Some bare areas were observed in the road. Monitor and re-seed as necessary to prevent erosion.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residences at 1751 and 1779 Reedy Fork Road, Pelzer.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 4/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed from the area extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

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

INSTRUCTIONS

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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.
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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.

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** 2880 & Hazard Class 2

B. Name of Dam: Huff Creek WCD 3A

C. Inspection Date (12 / 15 /20 14) & Time: 11:00 a.m.

D. Date of Last Inspection: (11 / 30 / 2011)

E. Location-County/City: Greenville / Pelzer

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Clarence Hamrick III & John Hamrick (land owners)/ Greenville County Soil & Water Conservation District (operator)

I. Contact Person (if different from above): Kirsten Robertson (GCSWCD)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864) 907 - 5534

K. Dam Owner's or Contact Person's mailing address:

Address 1 170 McKittrick Road, Pelzer, SC 29669 (Hamrick)

Address 2 (optional) 301 University Ridge, Suite 4800, Greenville, SC 29601 (GCSWCD)

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)? Grass and a dirt road were observed. Bare spots were observed in the tire tracks. Monitor and reseed as necessary. Gravel may be needed in the tire tracks to prevent erosion.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? A rut was observed in the tire tracks in the middle of the dam, in line with the outlet pipe. Fill and compact. Monitor to ensure no additional sagging occurs in this area.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation (recently cut) were observed.

ii. Animal activity observed? A possible animal trail was observed down to the spillway. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Riprap is in place along the water's edge. Some equipment ruts were observed. Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation (recently cut) were observed. Corn was observed at the toe of the slope on the left side; this needs to be cut so that portion can be inspected regularly. See Section IV, item 1.

ii. Animal activity observed? A possible deer trail was observed. Monitor and reseed as necessary.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Equipment ruts were observed throughout the downstream slope. Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary. See Section IV, items 2 and 3.

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? Yes, both toe drains were flowing and need to be cleaned out.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, the bottom 1/3 of the dam was wet from 10' to the left of the outlet pipe to 50' to the right of the outlet pipe. Some water-loving vegetation was also observed. Standing water was observed on the right side, approximately 15-20' from the toe, from 100' to the right of the outlet pipe to the outlet channel. See Section IV, item 4.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, according to the operator, the valves are operated every other year.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect because of flowing water

ii. Describe any deflection or damage observed to the pipe: Could not fully inspect due to flowing water. Vegetation was observed in the outlet pipe and must be removed. Also, deterioration of the concrete support on the right was observed. Monitor to ensure it does not worsen.

iii. Visible condition of outlet channel: Good, little to no erosion was observed

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Bare spots were observed in the tire tracks of the road. Monitor and reseed as necessary or add gravel to prevent erosion.

iv. Any visible deterioration of structure's crest? Bare spots were observed. Monitor and reseed as necessary.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? No

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 4/4/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed from the area extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. Deeper ruts were observed just above and approximately 100' to the right of the outlet pipe. These must be filled and compacted to prevent erosion. Reseed and monitor to ensure that grass is re-established.

3. Erosion was also observed on both side of the outlet pipe, down into the stilling basin, between the riprap. Monitor this area to ensure it does not worsen. Additional riprap or other erosion prevention measures may be necessary.

4. These areas should be monitored regularly to ensure that water does not begin flowing or become turbid. This would indicate a very serious situation and the Department should be notified immediately.

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.

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.

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** 2882 & Hazard Class 2

B. Name of Dam: Shelby Joines Pond

C. Inspection Date (03 / 01 /20 13) & Time: 1:00 p.m.

D. Date of Last Inspection: (01 / 12 / 2010)

E. Location-County/City: Greenville / Landrum

F. EQC Regional Office: _____

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Morgan Graham

I. Contact Person (if different from above): _____

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 1804

Address 2 (optional) _____

City Greer, State SC Zip Code 29652 - _ _ _ _

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)? Grass, good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? A few small bare areas were observed.

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, mostly good condition

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Some sloughing noted in 1/12/10 inspection report still observed--should be repaired.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The road that is on the downstream slope needs to be stabilized. Elsewhere, grass in good condition.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Yes, erosion observed on the road and below the road on the left side down to the next impoundment.

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, the same seepage area that was noted in the 1/12/10 inspection report was observed (on the rocks); this area is approximately 20'x20'. Two other areas of possible seepage were observed. Both were on the left side of the dam, below the road. Both areas were approximately 10'x20'.

D. Primary Spillway

i. Any visible deterioration of structure? No structure was visible in the reservoir

ii. Is there an obvious need to repair or replace trash rack? No structure was visible in the reservoir

iii. Any noticeable problems with debris? No structure was visible in the reservoir

iv. Is valve or gate present? No structure was visible in the reservoir

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Outlet pipe could not be located for inspection

ii. Describe any deflection or damage observed to the pipe: Outlet pipe could not be located for inspection

iii. Visible condition of outlet channel: Outlet pipe could not be located for inspection

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Trees were observed around the pipe on the right side of the reservoir, near the right groin. This pipe was also partially full of leaves. The trees and leaves should be removed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Discharge channel could not be located for inspection

iv. Any visible deterioration of structure's crest? Not applicable

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, a covered bridge, mill, and new houses are located approximately 1/4 mile downstream

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

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.

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.

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** 2889 & Hazard Class 2

B. Name of Dam: Huff Creek WCD 1B

C. Inspection Date (12 / 15 /20 14) & Time: 13:00

D. Date of Last Inspection: (11 / 30 / 2011)

E. Location-County/City: Greenville / Pelzer

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Tracey Coleman & Donald Hawthorne (land owners)/ Greenville County Soil & Water Conservation District (operator)

I. Contact Person (if different from above): Kirsten Robertson (GCSWCD)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864) 907 _ - 5534 _

K. Dam Owner's or Contact Person's mailing address:

Address 1 2486 W. Georgia Road, Piedmont, SC 29673 (Coleman/ Hawthorne)

Address 2 (optional) 301 University Ridge, Suite 4800, Greenville, SC 29601 (GCSWCD)

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)? Weeds and grass in good condition were observed

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? Ruts were observed approximately 200' from the left groin and near the power pole near the outlet pipe (not directly over the pipe). Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation that had been recently cut was observed. Based on the design drawings, the trees along the shoreline between the beach dock, power poles and emergency spillway appear to be off the footprint of the dam.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass, weeds, and woody vegetation that had been recently cut was observed on the majority of the slope. Some of the woody vegetation that was observed below the farm road, near the outlet pipe appears to be on the dam. See Section IV, item 1.

ii. Animal activity observed? Yes, a possible animal trail was observed to the right of the outlet pipe. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Ruts were observed on the far left side where the kudzu was removed. Monitor these areas to ensure that grass is re-established and erosion does not occur. Filling may be necessary to prevent erosion in these areas. See Section IV, item 2.

v. Settlement or cracks visible in slope? An area of sloughing was observed on the right side of the outlet pipe. It appears that filling/ leveling these areas is need to prevent further erosion.

vi. Toe drains flowing? Yes, the left toe drain was trickling. No flow was coming out of the right toe drain. The right toe drain should be inspected to ensure that it is not clogged. See item vii below; the areas of flowing water may be related to the right toe drain not flowing.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, approximately 15' downstream and to the right of the outlet pipe two areas of flowing water, possible seepage under the dam, were observed. The seepage must be evaluated by a qualified SC licensed professional engineer. See Section IV, item 3.

D. Primary Spillway

i. Any visible deterioration of structure? None observed but could not get close to observe it

ii. Is there an obvious need to repair or replace trash rack? None observed but could not get close to observe it

iii. Any noticeable problems with debris? A small amount of debris was observed and should be removed as part of regular maintenance.

iv. Is valve or gate present? Yes, according to the operator, the valves are operated every other year.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect because of flowing water

ii. Describe any deflection or damage observed to the pipe: None observed but could not fully inspect because of flowing water

iii. Visible condition of outlet channel: Some erosion was observed on the right side of the channel. Monitor this area to ensure it does not worsen.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? No

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 3/14/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick woody vegetation must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. Erosion was observed along the road along the toe on the left side. The erosion needs to be repaired. Flows may need to be diverted off the toe to prevent further erosion in this area.

3. A plan must be developed to measure seepage (flow rate and turbidity) in these areas at least monthly. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly, correlated to the stage in the reservoir at the time of the measurement, and reported to the Department. Based on the measurements, a plan to control the seepage may also be required.

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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.

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** 2894 & Hazard Class 2

B. Name of Dam: Huntington Lake

C. Inspection Date (12 / 11 /20 14) & Time: 9:40 a.m.

D. Date of Last Inspection: (12 / 22 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Lake Huntington Inc.

I. Contact Person (if different from above): Frank Washick (washickf@bellsouth.net), Larry Reinhart (lwr1964@gmail.com)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864-275-3453 (Frank)

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 509 Huntington Road

Address 2 (optional)

City Greenville, State SC Zip Code 29615 - _ _ _ _

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)? Grass and weeds in good condition on the majority of the crest. A few bare areas were observed on the right side. These areas should be reseeded.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds were observed.

ii. Animal activity observed? Possible animal holes were observed on the right side. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Some erosion was observed along the water's edge. Monitor this area to ensure that it does not worsen. If it does, then slope protection along the water's edge may be needed.

v. Settlement or cracks visible in slope? Yes, holes and sloughing were observed approximately 100' from the right groin. These areas should be filled in and compacted to ensure that the erosion does not worsen.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The downstream slope was difficult to inspect because of the steep slopes and fallen leaves. Large trees were observed along the toe of the slope. See Section IV, item 1.

ii. Animal activity observed? None observed but difficult to inspect because of steep slopes and fallen leaves

iii. Any obvious alterations or repairs made? None observed but difficult to inspect because of steep slopes and fallen leaves

iv. Erosion observed on down stream slope? None observed but difficult to inspect because of steep slopes and fallen leaves

v. Settlement or cracks visible in slope? Yes, sloughing and undulations were observed on both sides. Steep slopes were present, and portions of the dam could not be inspected because of this. See Section IV, item 2.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, possible areas of seepage were observed around the original outlet pipe Water did not appear to be flowing but there was a large amount of standing water. A wet area (approximately 2' x 4') was also observed approximately 30' to the right of the siphon. These areas must be monitored. See Section IV, item 3.

D. Primary Spillway

i. Any visible deterioration of structure? Primary spillway was decommissioned in the past 10 years. The Department has no record of this outlet structure being removed. See Section IV, item 4.

ii. Is there an obvious need to repair or replace trash rack? Not applicable; spillway was decommissioned

iii. Any noticeable problems with debris? Not applicable; spillway was decommissioned

iv. Is valve or gate present? Not applicable; spillway was decommissioned

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? No water was observed flowing out of the pipe; however, a large area of standing water was observed beyond the decommissioned outlet pipe. See Section III.C, iv above.

ii. Describe any deflection or damage observed to the pipe: Not applicable; outlet pipe was decommissioned

iii. Visible condition of outlet channel: Not applicable; outlet pipe was decommissioned

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? The concrete spillway on the left was evaluated here; however, with the original primary spillway decommissioned, this is acting as the primary spillway. The log below the lip at the entrance on the left and the small tree growing in the crack between the bottom and the wall on the right should be removed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Yes, significant erosion was observed beyond the concrete portion of the spillway. See Section IV, item 5.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? None observed

vi. If applicable, any visible leakage below concrete spillway? Could not observe due to flowing water

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residences located at 19 and 23 Thistle Brooke Court and 1 and 2 Rosebay Drive.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 3/7/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified S.C. licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

2. A qualified S.C. licensed professional engineer must evaluate the slopes and determine whether any work should be done to flatten out the slopes.

3. The large area of standing water must be evaluated by a qualified S.C. licensed professional engineer. This area of seepage should be monitored regularly to ensure that the water does not become flowing and turbid. This would indicate a very serious situation and the Department should be notified immediately.

4. An updated hydraulic analysis must be done to ensure there is adequate spillway capacity. The analysis must be done by a qualified S.C. licensed professional engineer. Repairs or modifications to the dam may be necessary depending on the results of the analysis. Permits are required for any modifications or repairs to the dam.

5. The erosion must be evaluated by a qualified S.C. licensed professional engineer to determine whether the structural stability of the dam is affected or whether repairs need to be made or additional erosion protection added to prevent additional erosion.

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.

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.

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.

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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** 2897 & Hazard Class 2

B. Name of Dam: Brooks Pond

C. Inspection Date (09 / 26 /20 13) & Time: 12:02 p.m.

D. Date of Last Inspection: (02 / 25 /2011)

E. Location-County/City: Greenville / Simpsonville

F. EQC Regional Office: Upstate, Greenville

G. Inspector's Name: Melissa Dawkins, John Cobb

H. Owner's Name: Estates at Governor's Lake HOA (EGLHOA) and Neely Farm Homeowner's Association (NFHOA)

I. Contact Person (if different from above): Amy Grimes (EGLHOA)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 1371 Dogwood Drive South, Conyers, GA 30012 and 40 Governors Lake Way, Simpsonville, SC 29680 (EGLHOA)

Address 2 (optional) PO Box 17542, Greenville, SC 29606 (NFHOA)

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)? Vegetation, including weeds and grass, must be cut. Shrubs and other vegetation must be cut and removed.

ii. Animal activity observed? Could not inspect because of thick vegetation

iii. Any obvious alteration or repairs made? Could not inspect because of thick vegetation

iv. Erosion noticed on crest? Could not inspect because of thick vegetation

v. Any visible settlement, misalignment or cracks? Could not inspect because of thick vegetation

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Vegetation, including weeds and grass, must be cut. Shrubs and other vegetation must be cut and removed. It appears that shrubs may have been planted along the edge of the water; these must be cut and removed.

ii. Animal activity observed? Could not inspect because of thick vegetation

iii. Any obvious alterations or repairs made? Could not inspect because of thick vegetation

iv. Erosion observed on upstream slope? Could not inspect because of thick vegetation

v. Settlement or cracks visible in slope? Could not inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Vegetation, including weeds and grass, must be cut. Shrubs and other vegetation must be cut and removed.

ii. Animal activity observed? Could not inspect because of thick vegetation

iii. Any obvious alterations or repairs made? Could not inspect because of thick vegetation

iv. Erosion observed on down stream slope? Could not inspect because of thick vegetation

v. Settlement or cracks visible in slope? Could not inspect because of thick vegetation

vi. Toe drains flowing? None observed, but the thick vegetation prevented complete inspection

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed, but the thick vegetation prevented complete inspection

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? No trash rack on the siphon or vent pipe

iii. Any noticeable problems with debris? A turtle was clogging the siphon vent pipe, so the siphon continued to release water below the normal pool elevation. As long as you do not change the function of the siphon, you can add a trash guard around the siphon and vent pipe to prevent this from continuing (no permit would be necessary).

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Yes, flow was observed from the right side of the outlet pipe. The source of flow could not be determined because of thick vegetation. You must inspect the area to determine the source. See item 2 under Section IV of this report.

ii. Describe any deflection or damage observed to the pipe: Could not inspect because of thick vegetation

iii. Visible condition of outlet channel: Good

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Thick vegetation was observed blocking the spillway. Vegetation, including weeds and grass, must be cut. Shrubs and other vegetation must be cut and removed.

ii. Animal activity observed? Could not inspect because of thick vegetation

iii. Any noticeable deterioration in the approach or discharge channel? Yes, significant erosion was observed in the discharge channel. This area needs to be observed regularly to ensure that erosion does not progress back toward the reservoir.

iv. Any visible deterioration of structure's crest? Could not inspect because of thick vegetation

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? N/A

vi. If applicable, any visible leakage below concrete spillway? N/A

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, according to Greenville County GIS, houses on Dapple Gray Court, Farming Creek Drive, and Chestnut Hill Place

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis.

2. Determine source of water flowing from the right of the outlet pipe. If it is from a toe drain, then submit to the Department a photograph of the area and toe drain as documentation. If a toe drain is not the source, then a detailed inspection by a qualified, licensed South Carolina professional engineer is required. Notify the Department immediately of the results of that inspection.

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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** 2901 & Hazard Class 2

B. Name of Dam: Stonebrook Farm (formerly Spaulding Lake)

C. Inspection Date (12 /19 /20 14) & Time: 9:45 a.m.

D. Date of Last Inspection: (12 / 22 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Stonebrook Farm HOA

I. Contact Person (if different from above): Jay Cox (jaybirdcox@gmail.com), John Farrall (johnfarrall2@gmail.com), Jerry Hunter

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864-419-2278 (John)

Office (864-444-8113 (Jay)

Other (864-288-7345 (Jerry)

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 16059

Address 2 (optional)

City Greenville, State SC Zip Code 29606 -

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)? Grass and weeds in condition were observed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Weeds and woody vegetation were observed.

ii. Animal activity observed? Yes, multiple animal holes were observed throughout. A large cave-in was observed approximately 10' to the left of the right siphon. Deep holes were observed on both side of the right siphon. See Section IV, item 1.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, some erosion was observed along the water's edge. The entire slope must be evaluated by a qualified S.C. licensed professional engineer to determine what repairs are needed to prevent further erosion. Slope protection along the water's edge may be needed.

v. Settlement or cracks visible in slope? Yes, some sloughing was observed. The entire slope must be evaluated by a qualified S.C. licensed professional engineer to determine what repairs are needed to prevent further erosion.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds were observed on the majority of the slope. Thick vegetation, including weeds, trees, shrubs, brush, and other deleterious vegetation, were observed along the toe of the slope. See Section IV, items 2 and 3.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? A small disturbed area was observed around the left siphon (currently being used to maintain lowered water level); according to Mr. Cox, this was done to fix a bad joint. The soil should be replaced and the area re-compacted.

iv. Erosion observed on down stream slope? Yes, a large eroded area (approximately 20' x 20') was observed on the right side of the primary spillway, at the toe. A small amount of erosion was also observed near the crest on the left side of the spillway.

v. Settlement or cracks visible in slope? Yes, cracks were visible near the large eroded area on the right side of the spillway.

vi. Toe drains flowing? A pipe was exposed in the large eroded area. It is unknown whether this was a toe drain. No flows were coming from it.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, a large wet area was observed on the right side, approximately 30' from the primary spillway, just beyond the toe. Another large wet area was observed on the left side along the toe. Standing water was observed approximately 20' from the toe, 15' to the left of the outlet channel. See Section IV, item 4.

D. Primary Spillway

i. Any visible deterioration of structure? Yes, a large eroded area was observed on the right side of the spillway, at the toe. The spillway was undercut and the rebar was exposed. See Section IV, item 5 for information about the right siphon (inoperable).

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? Debris was observed on the bottom left side of the spillway. This should be removed.

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Not applicable

ii. Describe any deflection or damage observed to the pipe: Not applicable

iii. Visible condition of outlet channel: A large amount of riprap was observed beyond the spillway. The banks on both sides were significantly undercut, but it was difficult to inspect because of standing water. There is no visible outlet to this area; the riprap may have dammed up the area. See Section IV, item 6.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Yes, a small amount of erosion was observed around the right side of the concrete pad. This should be filled in, compacted, and stabilized.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? None observed

vi. If applicable, any visible leakage below concrete spillway? None observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residence at 733 Moore Road.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 3/8/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

Note that the lake was lowered 2-3' during the inspection.

1. The holes and burrows must be evaluated by a qualified SC licensed professional engineer to determine whether the structural stability of the dam is affected and what repairs need to be made to prevent erosion and piping in these areas. All harmful animal species must be removed from the dam in a legal manner to prevent further damage. Repairs must be made to the holes and burrows. Depending on the extent of the damage, permits may be necessary for the repairs; contact John Poole at 803-898-4212 to determine whether permits are necessary.

2. The thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

See attached sheet for additional comments.

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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.

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** 2903 & Hazard Class 2

B. Name of Dam: Shannon Lake

C. Inspection Date (12 / 11 /20 14) & Time: 11:00 a.m.

D. Date of Last Inspection: (12 / 22 /2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Shannon Lake Inc.

I. Contact Person (if different from above): Gordon Thruston

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864-288-1588 (Gordon)

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 122 Shannon Lake Circle

Address 2 (optional)

City Greenville, State SC Zip Code 29615 - _ _ _ _

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)? Grass and straw were in place. Monitor any bare areas and re-seed as necessary

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? In 2013 or 2014, the crest was leveled to 892'.

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass and straw were in place. Some bare areas were observed. Monitor these areas and re-seed as necessary.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? Riprap was added at the water's edge for slope protection.

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, brush, and other deleterious vegetation, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. See Section IV, item 1.

ii. Animal activity observed? None observed but could not fully inspect due to thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect due to thick vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect due to thick vegetation

v. Settlement or cracks visible in slope? Some undulations were observed on the left side. Other drop-offs (possible sloughing) were noticed but could not be inspected because of thick vegetation.

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area of seepage was observed on the left side, near the groin, down to the toe. Based on the engineer's report dated 6/28/13, there were significant flows from this area. See Section IV, items 2 and 3. The bottom 1/3 of the dam was wet in this area.

D. Primary Spillway

i. Any visible deterioration of structure? Primary spillway was decommissioned. The Department has no record of this outlet structure being removed. A siphon was also installed; no visible deterioration of the siphon was observed.

ii. Is there an obvious need to repair or replace trash rack? Not applicable; primary spillway decommissioned

iii. Any noticeable problems with debris? Not applicable; primary spillway decommissioned. No problems with debris were observed for the siphon.

iv. Is valve or gate present? Not applicable; primary spillway decommissioned

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? The outlet of the siphon was inspected. No flows outside the pipe were observed but could not fully inspect because of flowing water and thick vegetation.

ii. Describe any deflection or damage observed to the pipe: None observed but could not fully inspect because of flowing water

iii. Visible condition of outlet channel: Good, little to no erosion

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? The earthen spillway on the right was evaluated here; however, with the original primary spillway decommissioned, this spillway is flowing regularly (at the same elevation as the siphon) and was flowing during the inspection.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Yes, erosion was observed along the spillway. Because it is not confirmed that bedrock is present along the entire length of the spillway, repairs to the erosion in the spillway must be made. See Section IV, item 4.

iv. Any visible deterioration of structure's crest? Yes, erosion was observed along the spillway.

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, residences at 108 Shannon Lake Circle, 837-850 Woodsford Drive, 422-440 Windbrooke Circle, and along Wyndham Court.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 3/8/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Thick vegetation was observed on the lower third of the dam on the left side. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam. The debris along the groin must also be removed.

2. A plan must be developed to measure seepage (flow rate and turbidity) in these areas at least monthly. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement. Based on the measurements, a plan to control the seepage may also be required. According to the engineer's report dated 6/28/13, a long-term recommendation was to install a toe drain. This may be required based on the seepage measurements.

See attached sheet for additional comments.

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.

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

September 24, 2013

CERTIFIED MAIL 7009 2250 0001 0102 9877

Mr. Will Merritt
Gap Creek LLC ITS
3759 Highway 153
Powdersville, SC 29611

RE: Inspection of Moon Lake Dam
D-2911, Greenville County

Dear Mr. Merritt:

On March 1, 2013, I conducted a routine visual inspection of the Moon Lake Dam. I also conducted a follow-up inspection on September 16, 2013 and confirmed that the items noted in the March 1, 2013 inspection report had not been addressed. Copies of both inspection reports are attached, along with pictures of items observed. **The Department strongly recommends that the lake be drained until a qualified South Carolina licensed professional engineer thoroughly inspects the dam and prepares a detailed analysis of the hydraulic adequacy and structural stability of the dam. This analysis is required to be submitted to the Department on or before October 24, 2013.**

Because there are multiple owners of this dam and associated structures, please note that you and the other property owner(s) must work together to address all of the deficiencies with the dam and spillway and to complete and submit the *Surveillance, Emergency Notification, and Action Plan for South Carolina Regulated Dams* (Form D2606). The other property owner(s) is copied on this letter; see inspection report dated 9/16/13 for updated contact information.

Below is a discussion of the major items of concern noted during the inspection:

- Thick vegetation on the upstream and downstream slopes needs to be mowed and small shrubs and small trees cut. The removal of larger trees needs to be evaluated by a qualified South Carolina licensed professional engineer. Permits may be necessary for removal of trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.
- Significant erosion was observed in the emergency spillway, and flows were being conveyed through the spillway at the time of the inspection. This erosion may affect the structural stability of the dam.
- A large area of erosion/ gully was observed between the outlet pipe and the emergency spillway. This may affect the structural stability of the dam.
- Animal trails were observed on the upstream and downstream slopes of the dam. The dam should be evaluated to determine if any animal burrows are present, as these may affect the structural stability of the dam.
- As noted in the inspection report, portions of the dam could not be inspected due to the presence of thick vegetation; a complete inspection of the dam should be completed when the vegetation has been removed.

Return all documentation required by this letter to SCDHEC—Upstate Region EQC, Greenville, 200 University Ridge, Greenville, SC 29601.

Enclosed are two copies of a Dams and Reservoirs Emergency Notification Plan. Please complete the forms, retain a copy for your use, and return the other copy to this office to be placed in your dam's file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to someone else. Please notify our office should control of your dam be transferred.

Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next routine inspection for this dam is scheduled to be performed during or before March 2016.

If you have any questions, please contact me at 864-241-1090.

Sincerely,

Melissa M. Dawkins, P.E.
Regional Engineer
Upstate EQC Region—Greenville Office

cc: John Poole, P.E.—Bureau of Water
S. Michael Bruce

Attachment 1: 3/1/13 Pictures

1: Thick vegetation on the upstream and downstream slopes of the dam

2: Emergency spillway conveying flow

3: Significant erosion observed in the emergency spillway

4: Large gully/ area of erosion between outlet pipe and emergency spillway

5: Animal trails on the downstream slope

6: Thick vegetation prevented access to outlet pipe

Attachment 2: 9/16/13 Pictures

1: Thick vegetation on the upstream and downstream slopes of the dam

2: Thick vegetation around the outlet pipe

3: Emergency spillway conveying flow

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** 2914 & Hazard Class 2

B. Name of Dam: H.C. Harper Lake

C. Inspection Date (12 / 17 /20 13) & Time: 12:30 p.m.

D. Date of Last Inspection: (12 / 21 / 2010)

E. Location-County/City: Greenville / Simpsonville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Timberland Capital Investments

I. Contact Person (if different from above): Jeff Drummond (jeff@latone.net)

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 242 - 3811

Other (864) 420 - 2358

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 9297

Address 2 (optional)_____

City Greenville, State SC Zip Code 29604 - _ _ _ _

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)? Grass in good condition was observed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? A dip/ area of settlement was observed on the crest, above the outlet pipe through the dam. This area should be evaluated by a qualified South Carolina licensed professional engineer.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, items 1 and 2.

ii. Animal activity observed? Yes, animal trails were observed. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on upstream slope? Erosion was observed along the water's edge. This area should be evaluated by a qualified South Carolina licensed professional engineer to determine if slope protection needs to be added to prevent further erosion. See Section IV, item 3

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, items 1 and 2.

ii. Animal activity observed? Yes, animal trails were observed. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

vi. Toe drains flowing? None observed

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Areas of seepage were observed around the outlet pipe in the channel (to the left) where the bank is undercut and on the downstream slope (bottom ¼ of the dam), extending approximately 50' to the left and 100' to the right of the outlet pipe. See Section IV, item 4.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, valve is present. According to Mr. Drummond, it is operated on a regular basis by the fishing club that has has access to the lake.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed; however, the flows from the outlet pipe were surging and spurting. This is not a typical situation and should be evaluated by a qualified South Carolina licensed professional engineer.

ii. Describe any deflection or damage observed to the pipe: Could not observe because of flowing water

iii. Visible condition of outlet channel: No erosion was observed near the outlet pipe.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? A dead tree was observed and should be removed. Make sure the spillway is maintained free of debris.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Erosion was observed along the water's edge. See item B.iv above.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, house at 218 White Drive and trailers at the creek crossing with White Drive. I could not tell if additional trailers had been added since the previous determination was made in 2000.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 10/16/14.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

2. Large trees were observed on the upstream slope (left side) and downstream slope above the outlet pipe in the middle of the slope and around the outlet pipe/ creek bed area. The larger trees must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

3. Permits may be necessary for the addition of slope protection; contact John Poole at 803-898-4212 to determine whether permits are necessary.

4. An area of possible seepage (standing water) was also observed approximately 200' to the right of the outlet pipe, beyond the tree line. The seepage needs to be evaluated by a qualified SC licensed professional engineer to determine if structures need to be added to safely convey these flows through the dam. A plan must be must developed to measure seepage (flow rate and turbidity) in these areas at least monthly. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement.

Preliminary Dam Inspection Disclaimer:

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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.

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** 2915 & Hazard Class 2

B. Name of Dam: South Tyger WCD 4/ Mush Creek

C. Inspection Date (11/25/20 13) & Time: 12:15 p.m.

D. Date of Last Inspection: (12/09/2010)

E. Location-County/City: Greenville / Travelers Rest

F. EQC Regional Office: Upstate, Greenville

G. Inspector's Name: Melissa Dawkins, John Cobb

H. Owner's Name: Beaver Run Homeowner's Association (owner-BR)/ Greenville County Soil & Water Conservation District (operator-GCSWCD)

I. Contact Person (if different from above): Kirsten Robertson

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 467 - 2755

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 100 Beaver Run Drive (BR); 301 University Ridge Ste 4800 (GCSWCD)

Address 2 (optional)_____

City Travelers Rest (BR); Greenville (GCSWCD), State SC Zip Code 29690 (BR); 29601 (GCSWCD)

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)? Grass in good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition

ii. Animal activity observed? Yes, holes, possibly animal burrows, were observed. These areas must be filled and compacted and monitored on a regular basis to ensure that no burrowing animals are present.

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition was observed on the majority of the downstream slope. A patch of trees on the left side was observed. These trees should be evaluated by a licensed SC professional engineer to determine whether it is safe for them to remain. See Section IV, item 1.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Yes, continue to monitor the same area that was noted on the previous inspection report for erosion. The area is on the right side, midway between the groin and the outlet pipe.

v. Settlement or cracks visible in slope? Yes, some sloughing, possibly caused by equipment tracks, was observed. The Department recommends that you fill in and smooth out these areas with compacted soil and then re-establish grass.

vi. Toe drains flowing? Yes. The toe drain should be cleaned out so it does not become clogged.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? No

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: None observed

iii. Visible condition of outlet channel: Good, no erosion was observed

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the dam's crest

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

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.

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.

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.

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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** 4034 & Hazard Class 2

B. Name of Dam: Laurel Lake

C. Inspection Date (12 / 19 /20 14) & Time: 11:15 a.m.

D. Date of Last Inspection: (12 / 22 /2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Laurel Lake Homeowners' Association c/o Norcon Property Managers LLC

I. Contact Person (if different from above): XXXXXXXXXXX

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 284 - 6515

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 17542 (Norcon)

Address 2 (optional)

City Greenville, State SC Zip Code 29606 - _ _ _ _

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)? Grass, weeds, and moss in good condition were observed.

ii. Animal activity observed? A possible animal trail was observed 10' to the left of the deck.

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

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? _____

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? _____

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? ___

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? _____

ii. Does EAP 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? _____

Section IV (Conclusions)

General comments and recommendations:

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.

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.

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** 4239 & Hazard Class 2 B. Name of Dam: Nine Times Dam

C. Inspection Date (03/08/2013) & Time: D. Date of Last Inspection: (02/03/2010)

E. Location-County/City: Pickens / Pickens F. EQC Regional Office: Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Dam: Adam Fisher Jr.; Reservoir: David Vorpagel, Don Worth, John Mincey, Rudy Stancell

I. Contact Person (if different from above): David Vorpagel

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864) 878 - 1055

Office (_ _ _) _ _ _ - _ _ _ _

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 105 Well Springs Drive (Adam Fisher) 135 Slippery Rock Drive (David Vorpagel)

Address 2 (optional)

City Pickens, State SC Zip Code 29671 - _ _ _ _

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)? Road and grass in good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, small area to the right of the riser.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass, moss and water-loving vegetation present. Dead tree on downstream slope needs to be monitored to ensure that the decaying roots do not create seepage pathways.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Yes, large area erosion was observed on right side; it appears that the water running down the hill and road needs to be diverted into the reservoir and not be allowed to flow down the downstream slope.

v. Settlement or cracks visible in slope? Some sloughing observed

vi. Toe drains flowing? No toe drains were seen; however, the plans show toe drains. You need to locate the toe drains and unclog/ repair them.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, the entire bottom half of the slope was soft and water-loving vegetation was observed. This could be due to the toe drains not functioning properly. This area needs to be closely monitored to determine whether the seepage areas begin flowing or become turbid.

D. Primary Spillway

i. Any visible deterioration of structure? Riser spillway: Not accessible for inspection. Four pipes spillway: None observed. The riprap area needs to be closely monitored to ensure that no flows are coming under the riprap and that the erosion beyond the pad does not progress back under the pad.

ii. Is there an obvious need to repair or replace trash rack? Riser spillway: Not accessible for inspection. Four pipes spillway: Not applicable

iii. Any noticeable problems with debris? Riser spillway: None observed. Four pipes spillway: None observed

iv. Is valve or gate present? Riser spillway: None seen in reservoir. Four pipes spillway: None observed

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but pipe was flowing so difficult to inspect.

ii. Describe any deflection or damage observed to the pipe: Could not inspect interior because the pipe was flowing. Damage to the end of the pipe was observed; this needs to be inspected by an engineer to ensure that damage not progressing back into dam.

iii. Visible condition of outlet channel: Good

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Significant erosion was observed beyond the riprap pad for the four pipes spillway and emergency spillway. The area needs to be monitored as described in item D.i above.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? None observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? Yes, house at 863 Nine Times Road.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Alteration/ repair to riser and flows spurting from outlet pipe: Detailed analysis of the hydraulic adequacy and structural stability of the dam needs to be done by a qualified, licensed SC professional engineer.

2. Deterioration of outlet pipe and flows spurting from outlet pipe: Thorough inspection needs to be done by a qualified, licensed SC professional engineer to ensure that deterioration not progressing back into dam.

3. Power poles on downstream slope: These should be closely monitored to ensure that they do not create seepage pathways.

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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:

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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.

D H E C
PROMOTE PROTECT PROSPER

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** 4314 & Hazard Class 2

B. Name of Dam: Half Mile Lake

C. Inspection Date (04 / 24 /20 15) & Time: 2:00 p.m.

D. Date of Last Inspection: (04 / 03 / 2012)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins (Matt Raven also attended)

H. Owner's Name: Half Mile Lake Homeowners Association

I. Contact Person (if different from above): Tom Hancock

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864-918-8137 (Tom mobile)

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 3591

Address 2 (optional)

City Greenvillw, State SC Zip Code 29608 - _ _ _ _

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)? Grass and weeds in good condition were observed. There were bare spots along the walking trail. The walking trail should be stabilized (grass, gravel, mulch) to prevent erosion. Crape myrtles were still in place on the crest. See Section IV, item 1.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed. Monitor the walking trail.

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds in good condition were observed.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? Yes, erosion was observed along the water's edge (approximately 1' high with some undulations). Monitor this area to ensure that it does not worsen. If it does, then repairs need to be done; permits may be necessary for those repairs.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds with a few bare areas were observed. The bare areas should be reseeded and monitored to ensure grass is established. Large trees were observed around the concrete walls for the outlet pipe. See Section IV, item 1.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? None observed

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? None seen. Drains inside the walls of the outlet pipe are not toe drains; according to Mr. Hancock, those are in place to relieve pressure behind the walls.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area of flowing seepage was observed at the bottom of the emergency spillway, with the bottom 1/3 of the spillway being soggy and wet. The seepage flows through the trees and enters the creek to the left of the outlet pipe. See Section IV, item 2.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, according to Mr. Hancock, it has been operated in the last 10 years.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect due to flowing water

ii. Describe any deflection or damage observed to the pipe: A couple of pipe joints near the reservoir may be deteriorated and appeared to have some leakage. At least one other pipe joint was wet. See Section IV, item 3.

iii. Visible condition of outlet channel: Good with little to no erosion observed. An aerial sewer line crossing is downstream.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Some debris was piled in the spillway. it must removed immediately.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? Yes, erosion was observed at the water's edge in the approach channel.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? None observed

vi. If applicable, any visible leakage below concrete spillway? None observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, residences at 121 and 122 Nature Trail, Greenville 29609

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 9/17/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The crape myrtles and large trees (diameter > 4", on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact David Graves at 803-898-4398 to determine whether permits are necessary.

2. The limits of the seepage area should be marked so that you can determine if the area is increasing in size. A plan must be developed to measure seepage (flow rate and turbidity) in this area at least monthly. Submit the plan to the Permitting Section in Columbia for approval (David Graves, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement.

3. The outlet pipe must be evaluated by a qualified S.C. licensed professional engineer to determine whether the deterioration of the joints has caused or could cause issues with safety of the structure and whether the pipe should be repaired. As part of this evaluation, the inside of the pipe must be inspected. Permits would be necessary for repair/ replacement of this pipe.

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

INSTRUCTIONS

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A) Dam Number; Enter the Dam's inventory number.
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C) Inspection Month & Time; Enter the day, month, year, and time in which the inspections was performed.
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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.
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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.

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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):

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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.

D H E C
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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** 4396 & Hazard Class 2

B. Name of Dam: Stanley McJunkin Dam

C. Inspection Date (03 / 13 /20 13) & Time: 3:45 p.m.

D. Date of Last Inspection: (01 / 14 / 2010)

E. Location-County/City: Pickens / Dacusville

F. EQC Regional Office: Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Stanley McJunkin

I. Contact Person (if different from above):

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (_ _ _) _ _ _ - _ _ _ _

Other (864) 420 - 0735

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 1675

Address 2 (optional)

City Easley, State SC Zip Code 29641 - _ _ _ _

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)? Driveway and grass, good condition

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass, good condition

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? No alterations or repairs to dam observed; beach area added in reservoir

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition on most of the slope. At the toe of the slope, around the outlet pipe, small trees and brush need to be cut.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? Small bare areas were observed. Also, erosion was observed around the small building on the dam. Measures should be taken to prevent water from the building from causing erosion and the bare areas must be stabilized.

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? Yes, some of them. Also, one of the toe drains on the right side appears to be broken and clogged with iron bacteria. You must inspect this and repair/ unclog the toe drain to ensure it is working properly.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? Debris was observed around the primary spillway; the debris should be removed immediately.

iv. Is valve or gate present? None observed

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Yes, this may be due to a clogged or broken toe drain or some other source. You must inspect the area to determine the source. See item 1 under Section IV of this report.

ii. Describe any deflection or damage observed to the pipe: Could not access the area to inspect. No damage observed at end of pipe.

iii. Visible condition of outlet channel: Good

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Determine source of water flowing under outlet pipe. If due to a clogged/ broken toe drain, then repair and submit photo documentation to the Department. If toe drain is not the source, then inspection by a qualified, licensed South Carolina professional engineer is required. Notify the Department immediately of the results of the inspection.

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.

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.

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** 4513 & Hazard Class 2

B. Name of Dam: Montebello Dam A

C. Inspection Date (04 / 04 /20 14) & Time: 9:50 a.m.

D. Date of Last Inspection: (04 / 20 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Montebello Homeowners' Association

I. Contact Person (if different from above): Nancy McCrory

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 232 - 5543

Other (864) 505 - 8367

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 31034

Address 2 (optional)_____

City Greenville, State SC Zip Code 29608 - _ _ _ _

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)? A road with storm drain system is in place on the crest.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? Some cracks in the road parallel to the flow through the dam were observed. Monitor these cracks to ensure that they do not widen. If any changes in the widths are observed, then you should contact an engineer to evaluate them.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition was observed. A few bare areas were observed on the left side. These areas should be reseeded.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass was observed on the upper half. Thick vegetation, including weeds, trees, brush, and other deleterious vegetation, was observed on the lower portion. See Section IV, items 1 and 2.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area of seepage was observed on the left side, approximately 100' down from the fire hydrant. The bottom of the dam was soggy and wet from the toe to approximately 30' from the toe. The seepage must be evaluated by a qualified South Carolina licensed professional engineer. See Section IV, item 3.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? None seen

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not fully inspect because of flowing water

ii. Describe any deflection or damage observed to the pipe: None observed but could not fully inspect because of flowing water

iii. Visible condition of outlet channel: Debris was observed and must be removed. Erosion was observed around the outlet pipe; this must be evaluated by a qualified S.C. licensed professional engineer to determine what erosion protection is necessary to prevent further erosion. See Section IV, item 4.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway; not applicable

ii. Animal activity observed? No emergency spillway; not applicable

iii. Any noticeable deterioration in the approach or discharge channel? No emergency spillway; not applicable

iv. Any visible deterioration of structure's crest? No emergency spillway; not applicable

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? No emergency spillway; not applicable

vi. If applicable, any visible leakage below concrete spillway? No emergency spillway; not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the crest of the dam

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 1/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

3. This area of seepage should be monitored regularly to ensure that the water does not become flowing and turbid. This would indicate a very serious situation and the Department should be notified immediately.

4. Permits may be necessary for the repairs; contact John Poole at 803-898-4212 to determine whether permits are necessary.

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.

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.

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.

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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** 4514 & Hazard Class 2

B. Name of Dam: Montebello Dam B

C. Inspection Date (04 / 04 /20 14) & Time: 10:25 a.m.

D. Date of Last Inspection: (04 / 20 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Montebello Homeowners' Association

I. Contact Person (if different from above): Nancy McCrory

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 232 - 5543

Other (864) 505 - 8367

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 31034

Address 2 (optional)_____

City Greenville, State SC Zip Code 29608 - _ _ _ _

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)? Grass and weeds in good condition were observed.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds in good condition were observed on the majority of the slope. Could not inspect under the deck.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? Unpermitted alterations (deck installed) were observed. A qualified S.C. licensed professional engineer must certify that the modifications that were done to the dam (deck) are in accordance with S.C. Regulation 72-1 through 72-9.

iv. Erosion observed on upstream slope? Yes, a large hole was observed on the right side near the deck. Erosion was observed along the water's edge, near and under the deck. Monitor this area to ensure that it does not worsen. See Section IV, item 1.

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Weeds were observed on the upper half. Land-clearing debris (mentioned in the previous report) and thick vegetation, including weeds, trees, brush, and other deleterious vegetation, were observed on the lower portion. See Section IV, items 2, 3, and 4.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, an area of seepage was observed approximately 10' to the left of the outlet pipe. The seepage must be evaluated by a qualified S.C. licensed professional engineer. This area of seepage should be monitored regularly to ensure that the water does not become flowing and turbid. See Section IV, item 5.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? None observed

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? None seen

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: Yes, some deflection/ damage was observed in the top of the last section of pipe. This must be evaluated by a qualified S.C. licensed professional engineer.

iii. Visible condition of outlet channel: The outlet channel was full of debris; this must be removed immediately. Large holes were observed along the channel near the area of seepage mentioned in item III.C.vii above. This must be evaluated by a qualified S.C. licensed professional engineer.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway; not applicable

ii. Animal activity observed? No emergency spillway; not applicable

iii. Any noticeable deterioration in the approach or discharge channel? No emergency spillway; not applicable

iv. Any visible deterioration of structure's crest? No emergency spillway; not applicable

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable

vi. If applicable, any visible leakage below concrete spillway? Not applicable

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from crest of dam

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 1/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. This area should be evaluated by a qualified South Carolina licensed professional engineer to determine if slope protection needs to be added to prevent further erosion. Permits may be necessary for the addition of slope protection; contact John Poole at 803-898-4212.

2. The land-clearing debris must be removed immediately.

3. The thick vegetation, including small trees, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

4. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

5. This would indicate a very serious situation and the Department should be notified immediately.

Preliminary Dam Inspection Disclaimer:

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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.

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** 4515 & Hazard Class 2

B. Name of Dam: Montebello Dam D

C. Inspection Date (04 / 04 /20 14) & Time: 11:15 a.m.

D. Date of Last Inspection: (04 / 20 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Montebello Homeowners' Association

I. Contact Person (if different from above): Nancy McCrory

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 232 - 5543

Other (864) 505 - 8367

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 31034

Address 2 (optional)_____

City Greenville, State SC Zip Code 29608 - _ _ _ _

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)? A road is in place across the crest.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Grass in good condition was observed on the majority of the slope. A few bare areas were observed around cypress trees and where trees had been removed. Re-seed these areas and monitor to ensure grass is established, or stabilize using other methods.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on upstream slope? None observed

v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds were observed on most of the slope. Thick vegetation, including trees, brush, and other deleterious vegetation, was observed along the toe. Bare areas were observed on the left side, near new home construction. See Section IV, items 1, 2, 3, and 4.

ii. Animal activity observed? None observed but could not fully inspect lower portion due to thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect lower portion due to thick vegetation

iv. Erosion observed on down stream slope? None observed but could not fully inspect lower portion due to thick vegetation. Bare areas on left must be re-seeded to ensure erosion does not occur.

v. Settlement or cracks visible in slope? None observed but could not fully inspect lower portion due to thick vegetation

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None seen; significant amount of iron bacteria was present in outlet pipe on the right. See Section D below.

D. Primary Spillway

i. Any visible deterioration of structure? Both riser structures were evaluated as primary spillway. The 1st outlet structure is on the right facing downstream. The 2nd outlet structure is on the left. No deterioration of either structure was observed.

ii. Is there an obvious need to repair or replace trash rack? A small amount of debris was observed on the trash rack of the 2nd outlet structure. Make sure this is removed periodically.

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, valves were present on both outlet structures.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? No water was observed leaking outside of either outlet pipe.

ii. Describe any deflection or damage observed to the pipe: No damage was observed to either outlet pipe; however, there was a significant amount of iron bacteria in the bottom of the outlet pipe from the 1st outlet structure. See Section IV, item 5.

iii. Visible condition of outlet channel: Good condition with little to no erosion

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway observed

ii. Animal activity observed? No emergency spillway observed

iii. Any noticeable deterioration in the approach or discharge channel? No emergency spillway observed

iv. Any visible deterioration of structure's crest? No emergency spillway observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? No emergency spillway observed

vi. If applicable, any visible leakage below concrete spillway? No emergency spillway observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the crest

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 1/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation, including small trees, must be cut and removed from the area extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. The larger trees (extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified S.C. licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

See attached sheet for additional comments.

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.

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.

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** 4516 & Hazard Class 2

B. Name of Dam: Montebello Existing Dam

C. Inspection Date (04 / 04 /20 14) & Time: 9:20 a.m.

D. Date of Last Inspection: (04 / 20 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Montebello Homeowners' Association

I. Contact Person (if different from above): Nancy McCrory

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 232 - 5543

Other (864) 505 - 8367

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 31034

Address 2 (optional)_____

City Greenville, State SC Zip Code 29608 - _ _ _ _

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)? Thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Large trees were also observed. See Section IV, items 1 and 2.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alteration or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion noticed on crest? None observed but could not fully inspect because of thick vegetation

v. Any visible settlement, misalignment or cracks? None observed but could not fully inspect because of thick vegetation

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Large trees were also observed. See Section IV, items 1 and 2.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on upstream slope? Could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? Could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, trees, shrubs, brush, and other deleterious vegetation, was observed. Debris had collected along the toe of the slope; it must be removed. See Section IV, items 1 and 2.

ii. Animal activity observed? Holes, possibly animal holes or old tree stumps, were observed along the toe of the slope. These must be evaluated by a qualified South Carolina licensed professional engineer to determine if they pose a threat to the dam.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on down stream slope? Yes, bare areas were observed around the trees. Monitor these areas to ensure they do not worsen. If it does, then repairs need to be done; permits may be necessary for those repairs.

v. Settlement or cracks visible in slope? Could not fully inspect because of thick vegetation

vi. Toe drains flowing? None seen

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, areas of actively flowing seepage were observed on the right near a manhole, near the guardrail, all along the toe (approximately 20' from toe), and in the spillway channel. A plan must be developed to measure seepage (flow rate and turbidity) in these areas at least monthly. See Section IV, item 3.

D. Primary Spillway

i. Any visible deterioration of structure? No visible deterioration of the concrete spillway was observed; however, seepage was observed in the spillway.

ii. Is there an obvious need to repair or replace trash rack? Not applicable

iii. Any noticeable problems with debris? Some debris was collected at the side of the spillway inlet and in the channel. A large log was observed at the outlet. This debris must be removed and the area monitored regularly to maintain it free of debris.

iv. Is valve or gate present? No

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? Not applicable; concrete spillway is only outlet

ii. Describe any deflection or damage observed to the pipe: Not applicable; concrete spillway is only outlet

iii. Visible condition of outlet channel: Good with little erosion prior to the road culvert

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? Not applicable; concrete spillway is only outlet

ii. Animal activity observed? Not applicable; concrete spillway is only outlet

iii. Any noticeable deterioration in the approach or discharge channel? Not applicable; concrete spillway is only outlet

iv. Any visible deterioration of structure's crest? Not applicable; concrete spillway is only outlet

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? Not applicable; concrete spillway is only outlet

vi. If applicable, any visible leakage below concrete spillway? Not applicable; concrete spillway is only outlet

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Yes, house at 308 Von Hollen Drive, Greenville

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 1/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The thick vegetation must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

3. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly, correlated to the stage in the reservoir at the time of the measurement, and reported to the Department. Based on the measurements, a plan to control the seepage may also be required.

Preliminary Dam Inspection Disclaimer:

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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.

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** 4536 & Hazard Class 2

B. Name of Dam: Montebello Dam E

C. Inspection Date (04 / 04 /20 14) & Time: 11:00 a.m.

D. Date of Last Inspection: (04 / 20 / 2011)

E. Location-County/City: Greenville / Greenville

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Montebello Homeowners' Association

I. Contact Person (if different from above): Nancy McCrory

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 232 - 5543

Other (864) 505 - 8367

K. Dam Owner's or Contact Person's mailing address:

Address 1 P.O. Box 31034

Address 2 (optional)_____

City Greenville, State SC Zip Code 29608 - _ _ _ _

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)? Grass and weeds in good condition were observed. A few bare areas were observed. These areas should be reseeded and monitored to ensure grass is established.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? None observed

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Thick vegetation, including brush and other deleterious vegetation, must be cut and removed. Grass needs to be mowed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, item 1.

ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation

iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation

iv. Erosion observed on upstream slope? None observed but could not fully inspect because of thick vegetation

v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Grass and weeds in good condition were observed. A few bare areas were observed. These areas should be reseeded and monitored to ensure grass is established.

ii. Animal activity observed? None observed

iii. Any obvious alterations or repairs made? None observed

iv. Erosion observed on down stream slope? None observed

v. Settlement or cracks visible in slope? None observed

vi. Toe drains flowing? Yes, on the left side, the white PVC pipe was flowing and needs to be cleaned out. On the right side, the first white PVC pipe was not flowing. The second white PVC pipe (needs to be cleaned out) and two black corrugated plastic pipes were flowing.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None seen; significant amount of iron bacteria was present in outlet pipe on the left. See Section D below.

D. Primary Spillway

i. Any visible deterioration of structure? Both riser structures were evaluated as primary spillway. The 1st outlet structure is on the right facing downstream. The 2nd outlet structure is on the left. No deterioration of either structure was observed.

ii. Is there an obvious need to repair or replace trash rack? Yes, the trash rack was missing for the 2nd outlet structure (left); it must be replaced immediately in accordance with the approved plans.

iii. Any noticeable problems with debris? None observed

iv. Is valve or gate present? Yes, the valve stem was observed for the 2nd outlet structure (left). No valve stem was observed for the 1st outlet structure; however, the entire outlet structure could not be observed. The approved plans show a low-level outlet with valve stem. See Section IV, item 2.

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? No water was observed leaking outside of either pipe but could not fully inspect because water was backed up into the pipes.

ii. Describe any deflection or damage observed to the pipe: No damage was observed for the outlet pipe for the 1st outlet structure (right) but could not fully inspect because water was backed up into pipe. For the 2nd outlet structure outlet pipe, see Section IV, items 3 and 4.

iii. Visible condition of outlet channel: Good condition, lined with stones. Flows directly into Montebello Pond D.

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? No emergency spillway was observed; however, the approved plans call for an emergency spillway on the left side. Provide additional information about this structure. Were the calculations redone to account for it not being installed? See Section IV, item 5.

ii. Animal activity observed? No emergency spillway observed

iii. Any noticeable deterioration in the approach or discharge channel? No emergency spillway observed

iv. Any visible deterioration of structure's crest? No emergency spillway observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? No emergency spillway observed

vi. If applicable, any visible leakage below concrete spillway? No emergency spillway observed

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the crest

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 1/2/15.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

2. Provide documentation showing that the valve stem is in place or provide documentation showing that it was repaired.

3. Damage to the 2nd outlet structure outlet pipe (on left) was noted in the previous inspection (4/20/11). Some of this damage near the end of the pipe had been corrected; however, the pipe was not fully restored to its original diameter. Provide revised flow calculations for this pipe to ensure that its capacity is unchanged. Also, see item 4; inspection of the pipe for damage is required.

See attached sheet for additional comments.

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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.

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.

D H E C
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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** 2207 & Hazard Class 2

B. Name of Dam: Holiday Lake Resort

C. Inspection Date (05 / 14 /20 14) & Time: 1315

D. Date of Last Inspection: (12 / 28 / 2011)

E. Location-County/City: Greenville / Marietta

F. EQC Regional Office: Upstate Greenville eqc

G. Inspector's Name: John Cobb

H. Owner's Name: Greenville County Recreation District

I. Contact Person (if different from above): Don Shuman

J. Dam Owner's or Contact Person's Phone Numbers:

Home (_ _ _) _ _ _ - _ _ _ _

Office (864) 676 - 2180

Other (864) 561 - 9645

K. Dam Owner's or Contact Person's mailing address:

Address 1 4806 Old Spartanburg Road

Address 2 (optional)_____

City Taylors, State SC Zip Code 29687 - _ _ _ _

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)? need to cut grass

ii. Animal activity observed? no

iii. Any obvious alteration or repairs made? no

iv. Erosion noticed on crest? no

v. Any visible settlement, misalignment or cracks? no

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? need to cut the brush

ii. Animal activity observed? could not observe due to thick vegetation

iii. Any obvious alterations or repairs made? no

iv. Erosion observed on upstream slope? could not inspect du to thick vegetation

v. Settlement or cracks visible in slope? could not inspect due to thick vegetation

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? grass and weeds need to be cut

ii. Animal activity observed? yes

iii. Any obvious alterations or repairs made? no

iv. Erosion observed on down stream slope? yes- around outlet pipe

v. Settlement or cracks visible in slope? yes

vi. Toe drains flowing? n/a

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: yes- seepage starts midway down dam and increases the closer to the siphon outlet pipe; flowing seep on left side of dam (groin area)

D. Primary Spillway

i. Any visible deterioration of structure? siphon system

ii. Is there an obvious need to repair or replace trash rack? n/a

iii. Any noticeable problems with debris? n/a

iv. Is valve or gate present? n/a

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? no

ii. Describe any deflection or damage observed to the pipe: no

iii. Visible condition of outlet channel: clear

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? yes- flows through a culvert that may restrict flow

ii. Animal activity observed? no

iii. Any noticeable deterioration in the approach or discharge channel? no

iv. Any visible deterioration of structure's crest? no

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? n/a

vi. If applicable, any visible leakage below concrete spillway? n/a

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

Camp is currently closed. However, if camp is reopened the classification will need to be changed to a Class 1.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? sent a copy to owner to fill out

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

Seepage is very heavy midway down dam and getting worse as it approaches the outlet structure

Some areas of settling on downstream slope

trees in groin of dam (both sides)

Culvert may restrict flow of emergency spillway

Grass/weeds/brush need to be cut on the dam

Develop plan to measure seepage (flow rate, turbidity and stage in reservoir) and submit to John Poole (SCDHEC-BOW)

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.

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.

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.

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

January 10, 2013

Northbrook Carolina Hydro LLC
Attn: Glenn Beaumont
14550 N Frank Lloyd Wright # 210
Scottsdale, AZ 85260

RE: Inspection of Holidays Lake Dam
D-4470 Greenville County

Dear Mr. Beaumont:

On December 7, 2012, I conducted a routine visual inspection of the Holidays Lake Dam. A copy of my inspection report is attached. During the inspection some items of concern were noted and were discussed with onsite representative Kevin Grogan and are outlined in this letter.

Below is a discussion of the items of concern noted during the inspection:

- There is seepage at the tow of the slope of the channel the leads to the power generator house. Please monitor this area and take necessary action as needed.
- There is seepage at the concrete structure across from the power generator house.
- There is animal activity along the channel leading to the power generator house
- The flashboards are leaking.

During the inspection Mr. Grogan informed the writer that the flashboards would be replaced within the year. Please contact John Poole with the Bureau of Water- Dams and Reservoirs Program for obtaining all appropriate permits. Mr. Poole can be contacted at 803-898-4212.

Enclosed are two copies of a Dams and Reservoirs Emergency Notification Plan. Please complete the forms, retain a copy for your use, and return the other copy to this office to be placed in your dam's file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to some one else. Please notify our office should control of your dam be transferred.

Also, a copy of the field inspection report is enclosed for your record. Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next scheduled inspection for this dam will be performed in December 2015.

Sincerely,

John Cobb

Environmental Manager
Greenville EQC Office

cc: John Poole, Bureau of Water

channel leading to power house

channel leading to power house

crest of dam and debris on flashboards

impoundment

down stream

channel leading to power house


animal activity in channel


animal activity in channel


seepage at toe of channel


seepage at toe of channel


seepage at concrete structure


flashboards and downstream slope of dam

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

July 1, 2013

Mr. Samuel W. Crowe
The Reserve at Lake Keowee
641 Pine Grove Church Rd
Sunset, SC 29685

RE: Inspection of Keowee River Club Dam
D-4548 Pickens County

Dear Mr. Crowe:

On March 8, 2013, I conducted a routine visual inspection of the Keowee River Club Dam. A copy of my inspection report is attached, along with pictures of items observed.

Below is a discussion of the major item of concern noted during the inspection:

- Upstream embankment needs to be reseeded to prevent further erosion.

Return all documentation required by this letter to SCDHECð Upstate Region EQC, Greenville, 200 University Ridge, Greenville, SC 29601.

A copy of the Emergency Action Plan was provided to you during the inspection. Please complete the EAP, retain a copy for your use, and return the other copy to this office to be placed in your damôs file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to someone else. Please notify our office should control of your dam be transferred.

Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next routine inspection for this dam is scheduled to be performed during or before March 8, 2016.

If you have any questions, please contact me at 864-241-1090.

Sincerely,

Melissa M. Dawkins, P.E.
Regional Engineer
Upstate EQC Regionð Greenville Office

cc: John Poole, P.E.ð Bureau of Water

Upstream slope

Upstream slope- needing to be stabilized

Inlet riser

Downstream slope

Downstream slope

Spillway outlet

Downstream slope

Downstream slope

D H E C
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Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

August 6, 2014 **Certified 7009 2250 0001 0099 2554**

Mr. Rick Burris
Executive Director
YMCA Camp Greenville
601 E. McBee Avenue, Suite 212
Greenville, SC 29601

RE: Inspection of Lake Sudy Dam
D-2826 Greenville County

Dear Mr. Burris:

On April 11, 2014, I conducted a routine visual inspection of the Lake Sudy Dam. A copy of my inspection report is attached, along with pictures of items observed. **A detailed inspection, as defined in S.C. Reg. 72-1, by a qualified South Carolina licensed professional engineer is required. Documentation of this inspection must be submitted to the Department on or before October 6, 2014 unless a repair permit from the Department has been issued.**

- A boat shed has been constructed on the dam.
- Large trees and thick underbrush are on the downstream slope of the dam. A qualified South Carolina licensed professional engineer must inspect these areas.
- Seepage was visible below the dam. Also, flowing seeps on each side of the outlet pipe were noticed, toe drains could not be located in the areas of the seeps.
- There were signs of animal burrows on the dam.

A blank copy of the EAP was provided to you during the inspection. Please complete the form, retain a copy for your use, and return the other copy to this office to be placed in your damôs file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Rick Burris informed the writer that a permit has been submitted to SCDHEC in Columbia for repairs to be made on the dam. Just a reminder, no construction can begin until approval from SCDHEC has been granted.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to someone else. Please notify our office should control of your dam be transferred.

Also, a copy of the field inspection report is enclosed for your record. Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next scheduled inspection for this dam will be performed in April 2017.

Sincerely,

John Cobb
Environmental Manager III
Upstate Region, Greenville EQC

cc: John Poole, Bureau of Water

Trash rack w/ debris

Large concrete pipe for emergency spillway

Trees on dam

Boat shed constructed on dam

Channel being formed by emergency spillway

Seepage area

Large trees on dam

Seepage area

Seepage area

Outlet pipe

Seepage area

Burrow

Trees and thick underbrush on dam

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

July1, 2013 **CERTIFIED 7009 2250 0001 0102 9631**

Mr. Ross Stewart
Pickens County Soil and Water Conservation District
P.O. Box 245
Pickens, SC 29671

RE: Inspection of Twelve Mile WCD Dam 6
D-3981 Pickens County

Dear Mr. Stewart:

On April 10, 2013, I conducted a routine visual inspection of the Twelve Mile WCD Dam 6. A copy of my inspection report is attached, along with pictures of items observed. A response as to how the items noted in this letter and corresponding inspection report and the previous inspection report are being addressed is required to be submitted to the Department on or before September 1, 2013.

Below is a discussion of the major items of concern noted during the inspection:

- Vegetation needs to be mowed/cut on the Dam
- Animal activity was observed throughout the dam and possible animal burrows at the toe of the dam
- Seepage areas on both the right and left side of the Dam
- An area has sloughed off
- Tree roots along the toe of the Dam

Return all documentation required by this letter to SCDHECð Upstate Region EQC, Greenville, 200 University Ridge, Greenville, SC 29601.

Enclosed are two copies of a Dams and Reservoirs Emergency Notification Plan. Please complete the forms, retain a copy for your use, and return the other copy to this office to be placed in your damôs file. The agencies listed on your copy of the Emergency Alert Notification Plan can provide service in the case of an emergency and should all be notified immediately should a dam failure be imminent.

Provisions to the S.C. Dams and Reservoirs Safety Act require the owner to notify the Department within 30 days of transferring title or the control of his dam to someone else. Please notify our office should control of your dam be transferred.

Please feel free to call me with any questions or concerns. As a Class 2 Dam, the next routine inspection for this dam is scheduled to be performed during or before April 10, 2016.

If you have any questions, please contact me at 864-241-1090.

Sincerely,

John C Cobb
Environmental Manager

Upstate EQC Regionð Greenville Office

cc: John Poole, P.E.ð Bureau of Water

Emergency spillway

Downstream slope of dam- thick vegetation

Animal trail on downstream slope of dam

Roots on toe of dam

Seepage area at the toe of the dam

Toe drain and main outlet pipe

Sloughed area on downstream slope of dam

Animal trail on downstream slope of dam

Crest of dam w/ vegetation needing to be cut

Upstream slope of dam

Upstream slope of dam

Upstream slope of dam

Outlet structure

Downstream slope of dam

Possible animal activity/burrow

Roots at toe of dam

Outlet pipe

Toe drain with Iron bacteria

D-2901 Stonebrook Farm Subdivision Dam Section IV Additional Comments

3. Large trees were observed near the toe and along the groins. The larger trees (on the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater) must be evaluated by a qualified South Carolina licensed professional engineer to determine if they should be removed. A tree management plan must be developed to address the long-term plans for tree removal. Permits may be necessary for removal of the large trees; contact John Poole at 803-898-4212 to determine whether permits are necessary.

4. These areas of seepage should be monitored regularly to ensure that the water does not become flowing and turbid. This would indicate a very serious situation and the Department should be notified immediately.

5. Deep holes were observed along both sides of the right siphon (near the spillway). This siphon must be evaluated by a qualified SC licensed professional engineer to determine whether it can be repaired or grouted or whether it must be removed to prevent a potential piping pathway. Permits will be necessary for the repair or removal. A permit application for the repairs must be submitted to the Department on or before 4/8/15.

6. This area must be drained to allow for complete inspection by a qualified SC licensed professional engineer to determine whether the riprap is appropriately placed and what repairs are needed to prevent further erosion of the banks.

D-2841: Swan Lake Section IV Additional Comments (4-28-15)

3. Significant undercutting was observed where a large tree fell to the left of the primary spillway. This area must be evaluated by a qualified S.C. licensed professional engineer to determine whether the structural stability of the dam is affected and what repairs are necessary to stabilize this area. Was the entire rootball removed when the tree was removed? Follow the engineer's recommendations for repair of this area to prevent further erosion. Contact David Graves at 803-898-4398 to determine whether permits are necessary for the repairs in this area.

4. Portions of the dam could not be inspected due to the thick vegetation. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam. Once the thick vegetation has been removed, an appropriate ground cover must be established. Grass is the ideal ground cover for a dam.

5. A decaying stump was observed in the middle of the downstream slope to the right of the outlet structure, and a fallen tree with a partially removed rootball was observed on the left side of the downstream slope. Also, dead/ dying trees (diameter >4") were observed on the downstream slope. All of these stumps and rootballs must be removed and holes filled and compacted. This work would require permits from the Dams Permitting Section in Columbia (David Graves, Manager; 803-898-4398).

6. Some bare areas were observed. Monitor these areas and re-seed as necessary.

7. Permits may be necessary for repair of this erosion if more than just minor surface filling and compaction is done; contact David Graves at 803-898-4398 to determine whether permits are necessary.

8. The seepage needs to be evaluated by a qualified SC licensed professional engineer to determine if structures need to be added to safely convey these flows through the dam. A plan must be developed to measure seepage (flow rate and turbidity) in these areas at least monthly. Submit the plan to the Permitting Section in Columbia for approval (David Graves, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly, correlated to the stage in the reservoir at the time of the measurement, and reported to the Department. Based on the measurements, a plan to control the seepage may also be required.

9. Undercutting (1-2') of the concrete outlet structure/ pipe was observed on the right side. This area must be evaluated by a qualified S.C. licensed professional engineer to determine what repairs are necessary to stabilize this area. Follow the engineer's recommendations for repair of this area to prevent further erosion. Contact David Graves at 803-898-4398 to determine whether permits are necessary for the repairs in this area.

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** 2878 & Hazard Class 2

B. Name of Dam: Lake Trollingwood

C. Inspection Date (12 /10 /20 13) & Time: 1:00 p.m.

D. Date of Last Inspection: (11 / 19 / 2011)

E. Location-County/City: Greenville / Pelzer

F. EQC Regional Office: Upstate EQC Greenville

G. Inspector's Name: Melissa Dawkins

H. Owner's Name: Lake Trollingwood Inc.

I. Contact Person (if different from above): Doug Stazer, Keith Mayfield

J. Dam Owner's or Contact Person's Phone Numbers:

Home (864-243-9090 (Keith)

Office (864-243-2868 (Doug)

Other (_ _ _) _ _ _ - _ _ _ _

K. Dam Owner's or Contact Person's mailing address:

Address 1 207 Rivendell Drive

Address 2 (optional)

City Pelzer, State SC Zip Code 29669 - _ _ _ _

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)? On most of the crest, grass was in good condition. However, there were a few bare areas, primarily in the area where the work on the outlet structure and pipe occurred. Monitor these and reseed as necessary.

ii. Animal activity observed? None observed

iii. Any obvious alteration or repairs made? None observed

iv. Erosion noticed on crest? Some bare areas, see item A.i above

v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? Weeds need to be cut. Woody vegetation needs to be cut and removed.

ii. Animal activity observed? None observed but could not fully inspect due to thick vegetation.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect due to thick vegetation.

iv. Erosion observed on upstream slope? There were a few bare areas, primarily in the area where the work on the outlet structure and pipe occurred. Monitor these and reseed as necessary.

v. Settlement or cracks visible in slope? None observed but could not fully inspect due to thick vegetation.

C. Down Stream Slope

i. Vegetation (grass, trees weeds)? Weeds and grass need to be cut. In the areas where the new outlet structure was placed, bare areas were observed. Monitor and reseed as necessary to maintain complete cover. See Section IV, item 1.

ii. Animal activity observed? None observed but could not fully inspect due to thick vegetation.

iii. Any obvious alterations or repairs made? None observed but could not fully inspect due to thick vegetation.

iv. Erosion observed on down stream slope? There were a few bare areas; see item C.i above.

v. Settlement or cracks visible in slope? None observed but could not fully inspect due to thick vegetation.

vi. Toe drains flowing? The toe drains were under water and could not be observed.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, a large wet area (100'x100' triangle) was observed in the plateau area approximately 50' to the right of the outlet pipe, along with a small cave-in where it flows into the main channel, to the right of the outlet pipe. A smaller area to the left of the pipe was also observed. See Section IV, item 2.

D. Primary Spillway

i. Any visible deterioration of structure? None observed

ii. Is there an obvious need to repair or replace trash rack? No

iii. Any noticeable problems with debris? A small amount of debris was observed around the outlet structure, but the trash rack appears to be functioning properly.

iv. Is valve or gate present? Unknown

E. Outlet Pipe

i. Any water visibly flowing or leaking outside of the discharge pipe? None observed

ii. Describe any deflection or damage observed to the pipe: None observed

iii. Visible condition of outlet channel: Good with little to no erosion observed

F. Auxiliary (Emergency) Spillway

i. Noticeable obstructions to flow? None observed; however, weeds need to be cut and woody vegetation needs to be cut and removed.

ii. Animal activity observed? None observed

iii. Any noticeable deterioration in the approach or discharge channel? None observed but could not fully inspect due to thick vegetation.

iv. Any visible deterioration of structure's crest? None observed

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? N/A

vi. If applicable, any visible leakage below concrete spillway? N/A

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification?

None observed from the crest

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No. EAP must be submitted on or before 9/29/14.

ii. Does EAP 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?

Section IV (Conclusions)

General comments and recommendations:

1. The vegetation must remain at a manageable level so that you can perform complete inspections of the dam and associated structures on a regular basis to ensure safe operation of the dam.

2. Even though heavy rains occurred 2 days before the inspection, hydrophilic vegetation was observed in the areas of possible seepage, which indicates that the water was not just a result of the recent rainfall. If the areas are determined to be seepage, then a plan must be developed to measure seepage (flow rate and turbidity) in this area at least monthly. Submit the plan to the Permitting Section in Columbia for approval (John Poole, SCDHEC Dams and Reservoir Permitting, 2600 Bull Street, Columbia, SC 29201). The seepage measurements must be recorded at least monthly and should be correlated to the stage in the reservoir at the time of the measurement.

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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.

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.