



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 1638 & Hazard Class c2 B. Name of Dam: Mountain Rest Lake dam
C. Inspection Date (03/13/2012) & Time: 1000 D. Date of Last Inspection: (1/4/2010)
E. Location-County/City: Oconee / Mountain Rest F. EQC Regional Office: Anderson
G. Inspector's Name: paul wilkie
H. Owner's Name: Jack Brown
I. Contact Person (if different from above): Thomas Moxley
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 638-6716 Office () - Other (Thomas 864 710 0356)
K. Dam Owner's or Contact Person's mailing address: Address 1 PO Box 10 Address 2 (optional) City Mountain Rest, State sc Zip Code 29664 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? road on crest
ii. Animal activity observed? none noted
iii. Any obvious alteration or repairs made? none noted
iv. Erosion noticed on crest? none noted
v. Any visible settlement, misalignment or cracks? none noted

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? clear
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on upstream slope? none noted
- v. Settlement or cracks visible in slope? none noted

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? bamboo and small tress were cut but not removed. little difficult to navigate and observe all of the dam so the Department suggest this material be removed from the slope. sizable seep still notice and needs to be addressed, this was discussed with Mr. Moxley who agreed to have this inspected soon.
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on down stream slope? none noted
- v. Settlement or cracks visible in slope? none noted
- vi. Toe drains flowing? not observed
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: yes as noted above. please contact this office when inspection by a professional is scheduled. the Department suggests within 30 days.

D. Primary Spillway

- i. Any visible deterioration of structure? none noted
- ii. Is there an obvious need to repair or replace trash rack? not apparent
- iii. Any noticeable problems with debris? none noted
- iv. Is valve or gate present? yes

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? none noted
- ii. Describe any deflection or damage observed to the pipe: none noted
- iii. Visible condition of outlet channel: satisfactory

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? none noted
- ii. Animal activity observed? none noted
- iii. Any noticeable deterioration in the approach or discharge channel? none noted
- iv. Any visible deterioration of structure's crest? none noted

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 noted

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? signed 4/29/10

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

DHEC 2606 form

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

DHEC 2606 form

Section IV (Conclusions)

General comments and recommendations:

keep up maintenance program large seep area needs to be evaluated by a professional in dam maintenance and structures within next 30 days.

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 through 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 1639 & Hazard Class c2 B. Name of Dam: Lake Leroy Dam
C. Inspection Date (03/13/2012) & Time: 915 D. Date of Last Inspection: (1/29/2009)
E. Location-County/City: Oconee / Mountain Rest F. EQC Regional Office: Anderson
G. Inspector's Name: paul wilkie
H. Owner's Name: Thomas Moxley
I. Contact Person (if different from above): Thomas Moxley
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 638-6716 Office () - Other (Thomas 864 710 0356)
K. Dam Owner's or Contact Person's mailing address: Address 1 PO Box 52 Address 2 (optional) City Mountain Rest, State sc Zip Code 29664 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? road on crest
ii. Animal activity observed? none noted
iii. Any obvious alteration or repairs made? none noted
iv. Erosion noticed on crest? none noted
v. Any visible settlement, misalignment or cracks? none noted

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? clear
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on upstream slope? none noted
- v. Settlement or cracks visible in slope? none noted

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? mowed and clear
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on down stream slope? none noted
- v. Settlement or cracks visible in slope? none noted
- vi. Toe drains flowing? both toe drains have steady flowing water one to the left has significant flow. owner believe this drains a spring discovered during dam construction
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: yes. Large wet areas near both left and right abutments near toe drains these have been monitored for years and do not appear to be changing however the Department suggests to have these area inspected by a professional in the dams field of work.

D. Primary Spillway

- i. Any visible deterioration of structure? none noted
- ii. Is there an obvious need to repair or replace trash rack? not apparent
- iii. Any noticeable problems with debris? none noted
- iv. Is valve or gate present? yes

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? none noted
- ii. Describe any deflection or damage observed to the pipe: none noted
- iii. Visible condition of outlet channel: satisfactory

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? none noted
- ii. Animal activity observed? none noted
- iii. Any noticeable deterioration in the approach or discharge channel? none noted
- iv. Any visible deterioration of structure's crest? none noted

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 noted

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? signed 1/29/09

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

DHEC 2606 form

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

DHEC 2606 form

Section IV (Conclusions)

General comments and recommendations:

keep up maintenance program I

be sure to contact this office prior to any maintenance or remedial work on dam. the Department recommends having the areas identified in section C vii above to be evaluated within 30 days.

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.

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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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- 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.

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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 1633 & Hazard Class C2 B. Name of Dam: Nick Vatis Dam
C. Inspection Date (01/11/2013) & Time: 11:15 am D. Date of Last Inspection: (02/16/2011)
E. Location-County/City: Oconee / Salem F. EQC Regional Office: Anderson
G. Inspector's Name: Paul Wilkie Jr.
H. Owner's Name: Nicholas Vatis
I. Contact Person (if different from above):
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 247-5418
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 131 Easy Street
Address 2 (optional)
City Salem, State SC Zip Code 29676 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Trees and small brush
ii. Animal activity observed? Possibly
iii. Any obvious alteration or repairs made? No
iv. Erosion noticed on crest? Not visible
v. Any visible settlement, misalignment or cracks? Not visible

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Trees and small brush
- ii. Animal activity observed? Possibly
- iii. Any obvious alterations or repairs made? No
- iv. Erosion observed on upstream slope? Not visible
- v. Settlement or cracks visible in slope? Not visible

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Trees and small brush
- ii. Animal activity observed? Possibly, due to observed holes in dam
- iii. Any obvious alterations or repairs made? No
- iv. Erosion observed on down stream slope? Not visible
- v. Settlement or cracks visible in slope? Not visible
- vi. Toe drains flowing? Not visible
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Not visible

D. Primary Spillway

- i. Any visible deterioration of structure? Unknown
- 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? Can see valve handle but not intake structure

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Unable to tell
- ii. Describe any deflection or damage observed to the pipe: None
- iii. Visible condition of outlet channel: Flowing

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? Trees and brush
- ii. Animal activity observed? Possible
- iii. Any noticeable deterioration in the approach or discharge channel? Not able to observe entire discharge channel
due to constant flows
- 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? No

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:

Need to clear trees on front and back slopes now.

Still smaller and brush but growing.

Full emergency spillway appears to be in constant flow.

Can see valve handle but not intake structure.

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R.72-1 through R.72-9

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C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

February 28, 2011

Greek Orthodox Metropolis of Atlanta Center Inc.
Attn: Father George
2480 Clairmont Rd NE
Atlanta GA 30329

RE: Inspection of D-1635 (Leonidas Dam)

Dear Father,

On February 16, 2011, I conducted an inspection of the above referenced dam, accompanied by Michael, to determine compliance with the Dams and Reservoirs Safety Act Regulation 72-1 thru 72-9.

I am enclosing a copy of my inspection report on the dam. See the list of concerns that should be addressed in some manner on the enclosed report. A professional engineer or other qualified individual should be consulted to evaluate the noted conditions at this dam to recommend proper actions. Once corrections or plans have been made a re - inspection of this dam should be scheduled with this office.

Please note that as of July 25, 1997, it is the responsibility of the dam owner to notify any downstream property owners in the event of a failure or near-failure of the dam. An area has been supplied on the enclosed form for you to record the names, addresses, and telephone numbers of downstream property owners. A separate enclosure may need to be used to include all of the affected property owners. Please insure that the information on the Emergency Notification Plan is kept current. Please return a completed copy of the Emergency Notification Plan by **April 15, 2011** to the Anderson EQC office at the address provided in the footer below.

Provisions in the SC Dams and Reservoirs Safety Act required the owner to notify us within 30 days after transferring title or control of his dam to someone else. The notification must include the name and address for the new owner. If this occurs you can consult our website <http://www.scdhec.gov/environment.htm> or call the Anderson EQC office to obtain a form (864) 260 - 5569.

Sincerely,

Paul B. Wilkie, Jr.
District Engineer EIT

Cc: Diakonia Center – Father Vasile Bitere

South Carolina Department of Health and Environmental Control

Region 1: Serving Abbeville, Anderson, Edgefield, Greenwood, Laurens, McCormick, Oconee, and Saluda Counties •
Anderson EQC Office • 2514 East River Street • Anderson, SC 29621 • Phone: 864.260.5569 • Fax: 864.260.4855 • www.scdhec.gov

INSPECTION REPORT

Dam No. & Name: Leonidas Dam D - 1635 _____ Date: 2/16/2011

Time 11:30

Representatives of SCDHEC Present: Paul Wilkie Jr

Representatives of Owner Present: Michael

List of noted deficiencies or items requiring correction/checking:

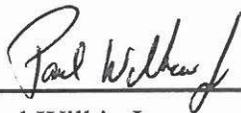
1. Spillway needs to be cleared of all brush and trees
2. Several sloughs/slides were observed on the downstream side of the dam. These have been observed at the last couple inspections.
3. Visually moving water seeping from multiple areas at toe of the dam.
4. Large wet/soggy areas at toe of the dam

List of previously noted items still uncorrected and dates previously noted:

All of the above, except the first one.

Was Emergency Action Plan updated/current?

Yes _____ No: X (not available)



Paul Wilkie Jr.
District Engineer (EIT)
Region 1 Anderson EQC



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 3132 & Hazard Class C2 B. Name of Dam: SCNONAME 04016
C. Inspection Date (5/13/2013) & Time: 0945 D. Date of Last Inspection: (12/29/2009)
E. Location-County/City: Anderson / Easley F. EQC Regional Office: Anderson
G. Inspector's Name: Stephanie Hackett Paul Wilkie Jr
H. Owner's Name: THREE & TWENTY CREEK WCD
I. Contact Person (if different from above): Phil Tripp
J. Dam Owner's or Contact Person's Phone Numbers: Home Office Other (864) 419 - 4404
K. Dam Owner's or Contact Person's mailing address: Address 1 Address 2 (optional) City State Zip Code

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [checked] b) Fair [] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? begun mowing; clear
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)? suggest to finish mowing
- 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)? suggest to finish mowing; little more growth
- ii. Animal activity observed? some drag/slide marks probably by hooves around outlet pipe but no noted concerns. With high grass hard to tell but 1 hole noted
- 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? No
- ii. Describe any deflection or damage observed to the pipe: None
- iii. Visible condition of outlet channel: free and flowing; good

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? no
- 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



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 1637 & Hazard Class C2 B. Name of Dam: Chattooga Lake Dam
C. Inspection Date (12/03/2013) & Time: 1130 AM D. Date of Last Inspection: (01/04/2010)
E. Location-County/City: Oconee / Walhalla F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson / Paul Wilkie (Also present, Chip Westcott and Felix Gravino)
H. Owner's Name: Chattooga Lake Club
I. Contact Person (if different from above): Michael Clarke
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 718 - 7835
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 PO Box 46
Address 2 (optional)
City Mtn Rest, State SC Zip Code 29664 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Gravel/dirt road with crepe myrtle trees along downstream edge. It is recommended that all trees be cut from the crest of the dam. Do not remove stumps, as this could create a void that may lead to failure of the dam.
ii. Animal activity observed? Evidence of beaver activity along crest of dam. The beavers are cutting limbs (primarily on crepe myrtle trees) and dragging them across to lake.
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; knee high. Recommend mowing this slope.
- ii. Animal activity observed? Several beaver trails were observed. See Item (A.ii.) above.
- 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; operator indicated that this slope is weed-eated once per year.
- ii. Animal activity observed? None observed; vegetation did not allow complete investigation.
- iii. Any obvious alterations or repairs made? None observed.
- iv. Erosion observed on down stream slope? Yes; near right abutment/groin area, there were a few large trees that had fallen and holes were left by the root ball. This is causing some deterioration to the slope in this area.
- v. Settlement or cracks visible in slope? Gully was observed on the left side below berm
- vi. Toe drains flowing? Yes, three (3) pipes were observed; may be more, but vegetation did not allow complete investigation.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes; seepage was observed at left abutment and on berm. Possible road drain is broken 2/3 down back slope with pooling water and deterioration. Water appears to be coming through dam, due to iron staining on the surface at this location.

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; valves exercised twice per year

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Ground was wet all around pipe; excessive vegetation did not allow for complete investigation.
- ii. Describe any deflection or damage observed to the pipe: None observed
- iii. Visible condition of outlet channel: Satisfactory; evidence of iron bacteria

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? Trees at lower end; house located between emergency spillway and dam
- 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? 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

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Yes

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

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

Section IV (Conclusions)

General comments and recommendations:

Recommend that this dam be evaluated by a Professional Engineer licensed in the state of South Carolina and experienced in the construction and repair of dam structures.

Operator requested copies of all previous inspection reports in the office file.

Operator requested a list of all Professional Engineers who do work on dams in this area.

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 through 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 1641 & Hazard Class C2 B. Name of Dam: Mtn Lake Dam (Lake Becky)
C. Inspection Date (12/03/2013) & Time: 1030 AM D. Date of Last Inspection: (01/04/2010)
E. Location-County/City: Oconee / Walhalla F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson / Paul Wilkie (Also present, Dale Hesse)
H. Owner's Name: Mtn Lake Fishing & Boating Club
I. Contact Person (if different from above): Eddie Byars (first number below) or Patty Hesse (second number below)
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 638 - 2006 Office (864) 638 - 1967 Other () -
K. Dam Owner's or Contact Person's mailing address: Address 1 PO Box 128 e-mail: aonedoglover@hotmail.com Address 2 (optional) City Mtn Rest, State SC Zip Code 29664 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Paved road
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 (mowed and cleared) and rip-rap
- 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 (mowed and cleared)
- ii. Animal activity observed? None observed; Mr. Byars indicated that beavers were known to be downstream and were being monitored.
- 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? _____
- 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? 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; valves exercised annually

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: Satisfactory

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? No; concrete pillows
- iv. Any visible deterioration of structure's crest? No; paved road

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

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Yes

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

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

Section IV (Conclusions)

General comments and recommendations:

Operator indicated that 93" of rain had been measured in this area this year.

Dam appears to be well-maintained.

Primary spillway goes under emergency spillway.

Downstream slope was very steep and was only inspected visually from the crest.

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 through 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 3119 & Hazard Class C2 B. Name of Dam: McGee Pond
C. Inspection Date (01/16/2014) & Time: 11:00 AM D. Date of Last Inspection: (12/21/2011)
E. Location-County/City: Anderson / Starr F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson (also present: John Poole, Petar Milenkov, Matthew Hauser, Jackie Rogers, Ned McGill)
H. Owner's Name: Mary M McGee
I. Contact Person (if different from above): Jackie Rogers, 864-576-0736
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 352 - 6222
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 8710 Highway 81 S
Address 2 (optional)
City Starr, State SC Zip Code 29684 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass; mowed and cleared
ii. Animal activity observed? Trails made in previous years by cattle are still being used by horses that are presently in field.
iii. Any obvious alteration or repairs made? None observed.
iv. Erosion noticed on crest? Vehicle tracks 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; cleared.
- ii. Animal activity observed? Cattle/horse trails all along slope
- iii. Any obvious alterations or repairs made? None observed.
- iv. Erosion observed on upstream slope? Erosion at shore line due to livestock use/trails
- v. Settlement or cracks visible in slope? None observed.

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass; cleared.
- ii. Animal activity observed? Trails currently being used by cattle all along slope.
- iii. Any obvious alterations or repairs made? None observed.
- iv. Erosion observed on down stream slope? Erosion due to cattle trails
- v. Settlement or cracks visible in slope? None observed.
- 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; at crotch on both sides of dam; evidence of iron ore deposits

D. Primary Spillway

- i. Any visible deterioration of structure? Unable to inspect/observe due to high water levels.
- ii. Is there an obvious need to repair or replace trash rack? Unable to inspect/observe due to high water levels.
- iii. Any noticeable problems with debris? Unable to inspect/observe due to high water levels.
- iv. Is valve or gate present? Unable to inspect/observe due to high water levels.

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: A few trees nearby, but otherwise clear.

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? 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?

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Yes, however, inundated property owners downstream were not listed. Owner was asked to complete the form and mail it in later.

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:

Recommend moving current fence along crest or adding additional fencing along toe of back slope to exclude cattle from back slope of dam.

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 through 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 1651 & Hazard Class C2 B. Name of Dam: Browns Lake

C. Inspection Date (02 / 27 / 20 1) & Time: 1300 D. Date of Last Inspection: (04 / 08 / 2011)

E. Location-County/City: Oconee / Walhalla F. EQC Regional Office: Anderson

G. Inspector's Name: Hannah Vinson; Also present: Dee Detwiler, Ron Courtney

H. Owner's Name: Ron Courtney

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

J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 638 - 2118
Office (____) _____ - _____
Other (864) 710 - 1951

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

Address 1 300 Staritt Lane

Address 2 (optional) _____

City Walhalla, State SC Zip Code 29691 - _____

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)? Concrete driveway
- 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)? Ivy, grass, weeds
- 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, mowed. Several dogwood trees.
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? Tree removal has left several large holes. Recommend fill in and compact.
- iv. Erosion observed on down stream slope? None observed
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? N/A
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Small area to left of right groin at shore line. Monitor this area.

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; appeared to be very rusty. Recommend exercise annually.

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: Clear

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? 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? Yes

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes; 10/2012

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

Section IV (Conclusions)

General comments and recommendations:

Fill in and compact all holes on back slope of dam.

Monitor damp area at shoreline of back slope near right groin.

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 1651 – Browns Lake

Date: 2/27/2014

Photographer: Hannah Vinson



1. Crest of dam.



2. Front slope of dam.



3. Valve.



4. Primary spillway.



5. Front slope of dam.



6. Emergency spillway.



7. Back slope of dam.



8. Back slope of dam.



9. Hole on back slope from tree removal.



10. Back slope of dam.



11. Outlet channel.



12. Outlet pipe.



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 1661 & Hazard Class C2 B. Name of Dam: Harper Pond
C. Inspection Date (02/27/2011) & Time: 1430 D. Date of Last Inspection: (03/11/2011)
E. Location-County/City: Oconee / Westminster F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson; Also present: Dee Detwiler, Richard Harper, John Harper
H. Owner's Name: Harper Farm, LLC
I. Contact Person (if different from above): Richard Harper
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 350 - 1102
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 108 Mariner Pointe Drive
Address 2 (optional)
City Salem, State SC Zip Code 29676 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass road
ii. Animal activity observed? Beaver trail
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, brush; mowed
- ii. Animal activity observed? Beaver trail, needs repair
- 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 on upper 2/3 of slope; trees on lower 1/3 of slope
- 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? N/A
- 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? No

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: Rusted, with a few holes visible
- iii. Visible condition of outlet channel: Clear

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? Channel was lined with rip-rap.
- 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? 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? Yes

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes; 10/2012

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

Section IV (Conclusions)

General comments and recommendations:

Remove any small trees from base of back slope of dam that are approximately 6" and less in diameter. Have a South Carolina Professional Engineer (SC PE) with Dam experience evaluate the larger trees and recommend course of action.

Owner requested that the dam be evaluated for a decrease in Hazard Classification (from C2 to C3). This dam has been evaluated by SC DHEC staff, and it was determined to have a C2 Hazard Classification. The owner may submit a Hazard Classification report performed by a SC PE for review by SC DHEC staff, if the owner still wishes to have the Hazard Classification changed.

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 through 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 4112 & Hazard Class C2 B. Name of Dam: Gillespie Smaller Dam
C. Inspection Date (02/27/2011) & Time: 1030 D. Date of Last Inspection: (03/08/2011)
E. Location-County/City: Anderson / Pendleton F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson; Also present: Dee Detwiler, Ken Hill
H. Owner's Name: Linda H. Hill & Joan Hill Testamentary Trust
I. Contact Person (if different from above): Ken Hill
J. Dam Owner's or Contact Person's Phone Numbers: Home (803) 548 - 3373
Office () -
Other (803) 325 - 4730
K. Dam Owner's or Contact Person's mailing address:
Address 1 103 Fairway Drive
Address 2 (optional)
City Fort Mill, State SC Zip Code 29715 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed; there were a few bare spots that need to be seeded to avoid future erosion
v. Any visible settlement, misalignment or cracks? No major settlement; there were a few small low areas

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass, weeds
- ii. Animal activity observed? Beavers
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Wave erosion at shoreline
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass, weeds, small brush; slope was recently bush-hogged and rye grass was sown.
- 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? Condition of outlet channel prevented complete inspection.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Wet area to left of outlet on lower 1/3 of slope - no noticeable flow. Damp area to right of outlet halfway down slope. Damp area above outlet pipe. Water flowing down right groin from emergency spillway.

D. Primary Spillway

- i. Any visible deterioration of structure? Spillway was submerged, preventing complete inspection.
- ii. Is there an obvious need to repair or replace trash rack? Spillway was submerged, preventing complete inspection.
- iii. Any noticeable problems with debris? Spillway was submerged, preventing complete inspection.
- iv. Is valve or gate present? Spillway was submerged, preventing complete inspection.

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Condition of outlet channel prevented complete inspection.
- ii. Describe any deflection or damage observed to the pipe: Condition of outlet channel prevented complete inspection.
- iii. Visible condition of outlet channel: Brush piled over outlet channel.

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? Vehicle tracks, high grass
- 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? 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? Yes

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? Yes; 10/2012

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

Section IV (Conclusions)

General comments and recommendations:

Evaluation by Professional Engineer is recommended for this dam to determine why they primary spillway and outlet pipe are submerged and to determine if there is any damage around the outlet pipe as a result of submersion.

Owner inspects dam about once per month.

Owner would like some history about when and why dam was added to DHEC's inventory.

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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 through 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 1923 & Hazard Class C2 B. Name of Dam: Mtn. Springs Lake Dam
C. Inspection Date (03 / 10 / 20 14) & Time: 1300 D. Date of Last Inspection: (04 / 08 / 2011)
E. Location-County/City: Oconee / Walhalla F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson; Also present: Paul Wilkie, Andrew Rader, Patricia Sawyer
H. Owner's Name: Right half: Patricia L. Sawyer (864) 944-8624 / Left Half: Andrew A. Rader (864) 506-4572
I. Contact Person (if different from above): e-mail address for Andrew Rader: arindian1961@gmail.com
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 210 N. Little River Rd. / 308 Ashbrook Circle
Address 2 (optional)
City Salem / Seneca State SC Zip Code 29676 / 29678

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? grass; large tree roots
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; small-medium sized trees
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? wave erosion and erosion around tree roots
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Ms. Sawyers half of dam is grassed and mowed; Mr. Raders half of dam is covered in medium-large trees
- ii. Animal activity observed? animal trail
- 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? N/A
- 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 trash rack present
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Mr. Rader said there was a valve, but it was underwater; Ms. Sawyer said there was not a valve

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: Fairly clear

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? Several large logs; trees
- 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? 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? No

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? N/A

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

Section IV (Conclusions)

General comments and recommendations:

There was a constant flow of water through the emergency spillway.

Recommend evaluation by a certified Professional Engineer, experienced in dam safety, for the purpose of tree removal along upstream slope of dam and along 1/2 of downstream slope of dam.

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D 1923 – Mtn Springs Lake

Date: 3/10/2014

Photographer: Hannah Vinson



1. Crest of dam.



2. Front slope of dam.



3. Front slope of dam.



4. Emergency spillway.



5. Back slope of dam.



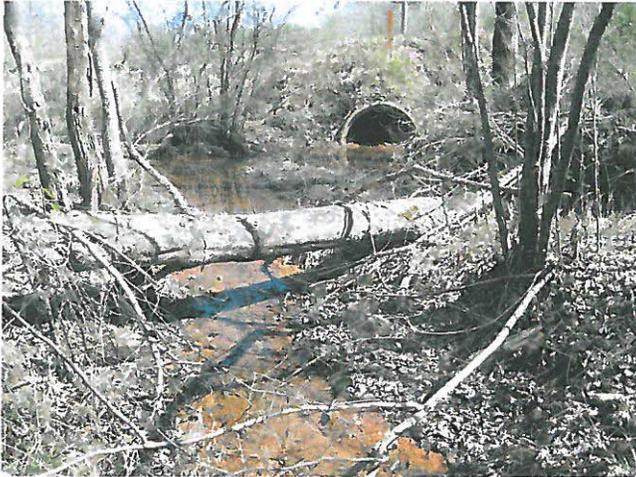
6. Back slope of dam.



7. Primary spillway.



8. Animal trail on back slope of dam.



9. Outlet channel.



10. Outlet pipe.



11. Roots on crest of dam.



12. Roots on crest of 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 4186 & Hazard Class C2 B. Name of Dam: Fiddlers Cove
C. Inspection Date (03/10/2014) & Time: 1430 D. Date of Last Inspection: (04/08/2011)
E. Location-County/City: Oconee / Tamassee F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson; Also present: Paul Wilkie
H. Owner's Name: Fiddlers Cove Property Owners Association
I. Contact Person (if different from above): Terry Angermair, President
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 557 - 1738
Office () -
Other (864) 944 - 0487
K. Dam Owner's or Contact Person's mailing address:
Address 1 688 The Bear Blvd.
Address 2 (optional)
City Tamassee, State SC Zip Code 29686 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Asphalt road
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, guardrail; mowed and maintained
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Some wave erosion; controlled by placement of rip-rap
- v. Settlement or cracks visible in slope? None observed

C. Down Stream 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 down stream slope? One area of erosion caused by a seep
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? No
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Wet area on right side of slope, near toe, approximately 20' wide x10' tall; no flowing water observed. Damp area in middle of slope.

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? No

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: Clear

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

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

Section IV(Conclusions):

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

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



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Certified Delivery

91 7108 2133 3939 6185 4021

RECEIVED

MAR 31 2014

ANDERSON EOC OFFICE

March 27, 2014

Sean DeNeale, Engineer II
Duke Energy - Environmental Services
P.O. Box 1006 Mail Code EC13K
Charlotte, NC 28201-1006

Re: WS Lee Steam Station Secondary Ash Basin (D 4888) Preliminary Inspection Results
Significant Hazard, Anderson County

Mr. DeNeale,

The Department has the responsibility and authority to routinely inspect regulated dams. During the site visit on February 24, 2014, staff from the Bureau of Water met with Duke Energy personnel to perform a preliminary inspection on the above dam. Inspection reports and photographs from this inspection are enclosed. The following issues were discovered during the inspection:

The overall condition for this dam is rated poor. This rating is assigned to dam where dam safety deficiencies are recognized for normal loading conditions, which may realistically occur. Remedial action is necessary and further analysis is required to determine appropriate response measures. **Please address the comments below in writing within 15 days of the date of this letter.**

Comments:

1. No emergency action plan was provided for review during the inspection. Duke personnel stated that an Emergency Response Plan was developed for the WS Lee Steam Station and a portion of that plan pertains to the dams. Please provide the portion specific to the dam to DHEC for review. Additionally, complete the provided DHEC 2606 form to add as an addendum to your plan.
2. The outlet pipe for this ash basin was discovered to be in disrepair during our inspection. This is a result from a slip-lining attempt. Once a permit is issued, please make the necessary repairs to the outlet pipe. In the future, ensure that necessary permits are received for non-emergency repair work on the dams. See the enclosed inspection report for more information.
3. Reshape the stone berms around toe drains so the gates may be removed for inspection access.
4. Continue to monitor the undulations in the surface of the dam's embankment. If they continue to form, repairs to the dam may be required to increase the slope's stability. Additionally, recent inspection report recommendations indicate that the upstream slopes on both the ash basins are unstable due to earthquake and rapid drawdown forces and may need to be retrofitted with soil berms to increase their stability. Please provide further information regarding how Duke is planning to address this issue.
5. Bare soil that could lead to future erosion was discovered in the groins of this dam. It is recommended that the area be stabilized with stone or some other armoring. See the enclosed inspection report and photographs for more information.
6. Ensure all areas of the dam that is not otherwise armored are stabilized by a thick stand of low growing grass.
7. Evidence of harmful animal species was discovered. Please remove all harmful animals from the dam's embankment, reservoir, and surrounding areas. Please be sure to contact DNR to obtain any required

permits for this activity. Ensure all damage to the dam that has occurred from the presence of these species on the dam is repaired. See the enclosed inspection report for more information.

8. Ensure that all piezometers are painted to prevent rust and are correctly labeled.
9. A South Carolina registered professional engineer must perform a detailed inspection on this dam. The seepage emerging on the downstream side of the embankment may be a dam safety risk. If it is, the appropriate method to correct or address this issue. Initiate monitoring of the flow rate and turbidity of seepage. Measurements must be taken as near to the toe drains and other sources of seepage as possible to ensure accurate readings. Please coordinate with the DHEC to ensure that no permits are required for the installation of any instrumentation that may be needed to monitor the seepage. Ensure that the reservoir's water surface elevation is kept at a safe level.

If the above items are not sufficiently addressed by the time allowed, this matter will be turned over to enforcement for additional action and possible fines. Please note that a review of the March 7, 2014 letter to Mr. Trofater (DHEC) from Mr. Taylor (Duke Energy) regarding Notice of Violation 153497 is underway.

Please if you have any questions or comments regarding the above information, don't hesitate to contact me. I can be reached by email at pooleja@dhec.sc.gov or by phone at (803) 898-4212.

Sincerely,



John A. Poole, P.E., State Dam Safety Engineer
Bureau of Water – SC Department of Health and Environmental Control

Enclosures:

Completed form DHEC 2604 for D 4888

Photo table for D 4888

cc: Hannah Vinson - Upstate EQC Anderson Office
Melinda Vickers – BOW- DHEC



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 4888 & Hazard Class Significant
B. Name of Dam: WS Lee Secondary Ash Basin
C. Inspection Date (02/24/2014) & Time: 3:30 PM
D. Date of Last Inspection: (02/24/2014)
E. Location-County/City: Belton / Anderson
F. EQC Regional Office: Anderson
G. Inspector's Name: John Poole
H. Owner's Name: Duke Energy (WS Lee Steam Station)
I. Contact Person (if different from above): Sean DeNeale
J. Dam Owner's or Contact Person's Phone Numbers: Home, Office (704) 382-4761, Other (704) 617-2393
K. Dam Owner's or Contact Person's mailing address: Address 1 205 Lee Steam Station Plant Road, Address 2 (optional), City Belton, State SC, Zip Code 29627

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Some bare spots that need repair. Mostly armored with gravel, which may not protect against over topping.
ii. Animal activity observed? None found.
iii. Any obvious alteration or repairs made? No.
iv. Erosion noticed on crest? Crest is covered by gravel. No erosion noted.
v. Any visible settlement, misalignment or cracks? None

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? In general the upstream slope is covered in grass. Some bare spots were found. See photo 16
- ii. Animal activity observed? None found but it looks like recent repairs to burrows were made. These areas need to be vegetated
See photo 16.
- iii. Any obvious alterations or repairs made? None, other than minor maintenance.
- iv. Erosion observed on upstream slope? No significant erosion found. See photo 16 for example of shoreline erosion.
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass. For the most part, the ash basin's downstream slopes were well maintained.
- ii. Animal activity observed? None found.
- iii. Any obvious alterations or repairs made? Yes, the outlet pipe for this ash basin was being slip lined but the process was
stopped once it was discovered that a permit from the dam safety program at DHEC is needed. See photos 1, 2, and 3.
- iv. Erosion observed on down stream slope? Yes, this may be surface erosion or a sink hole that developed from separation
in the outlet pipe. See photo 4.
- v. Settlement or cracks visible in slope? Yes, minor undulations are visible and this is an indication of marginal slope
stability. See photos 4 and 13.
- vi. Toe drains flowing? Yes, toe drains were flowing. Observation was blocked by grates on toe drain collection box. The grates was
immovable because of stones that were placed around the edges. This should be corrected to allow access. See photo 7.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Yes, the area at the toe of the embankment had flowing water that
is believed to be seepage. Its flow rate was estimated to be around
8 GPM. Additionally, higher on the embankment was another source of seepage that was less than 1 GPM. See photos 9 and 12.

D. Primary Spillway

- i. Any visible deterioration of structure? The structure appeared to be in good shape overall. No ladder access to observe the weir
was provided and a complete visual inspection of its integrity was not performed. See photos 15 thru 18.
- ii. Is there an obvious need to repair or replace trash rack? No, the structure had a floating deck that blocked most trash
from reaching the spillway. See photo 18.
- iii. Any noticeable problems with debris? None found. See photo 17.
- iv. Is valve or gate present? Yes, the structure uses stop logs to regulate the level of the ash basin. See photo 18.

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? None.
- ii. Describe any deflection or damage observed to the pipe: Sever damage to pipe. See photo 3.
- iii. Visible condition of outlet channel: Acceptable, see photo 2. Rip rap stones were in place to help prevent scour within the channel.

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? NA
- ii. Animal activity observed? NA
- iii. Any noticeable deterioration in the approach or discharge channel? NA
- iv. Any visible deterioration of structure's crest? NA

F. Auxiliary (Emergency) Spillway continued

v. If applicable, any observed exposure of rebar reinforcement? NA

vi. If applicable, any visible leakage below concrete spillway? NA

H. Downstream/Hazard Class Issues

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

Due to the presence of a rail road track directly downstream from the secondary ash basin's embankment, the hazard classification for this basin is significant.

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No plan was presented during the inspection for review.

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

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

Section IV (Conclusions)

General comments and recommendations:

1. Complete form 2606 and return it to DHEC.
2. Complete repairs to outlet pipe once permit is issued.
3. Have a professional engineer perform a detail inspection to determine the source and correct remedy for the seepage.
4. Monitor the seepage emanating from the embankment once a month. Include measurements of the flow rate and turbidity.
5. Reshape the stone berms around the toe drains so that the grates can be removed for inspection purposes.
6. Continue to monitor the undulations in the embankment. A repair to the dam may be required to increase its slope stability.
7. Recommend stone or other armor on the groins of the dam.
8. Ensure all areas of the dam that is not armored is protected from erosion by a thick stand of low growing grass.
9. Please be sure to obtain required permits before making non-emergency repairs.
10. Remove harmful animal species from the dam, reservoir, and surrounding areas.
11. Repair damage that has resulted from the presence of harmful animals.
12. Ensure all piezometers are painted and correctly labeled.

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.

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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 through 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 dam 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.

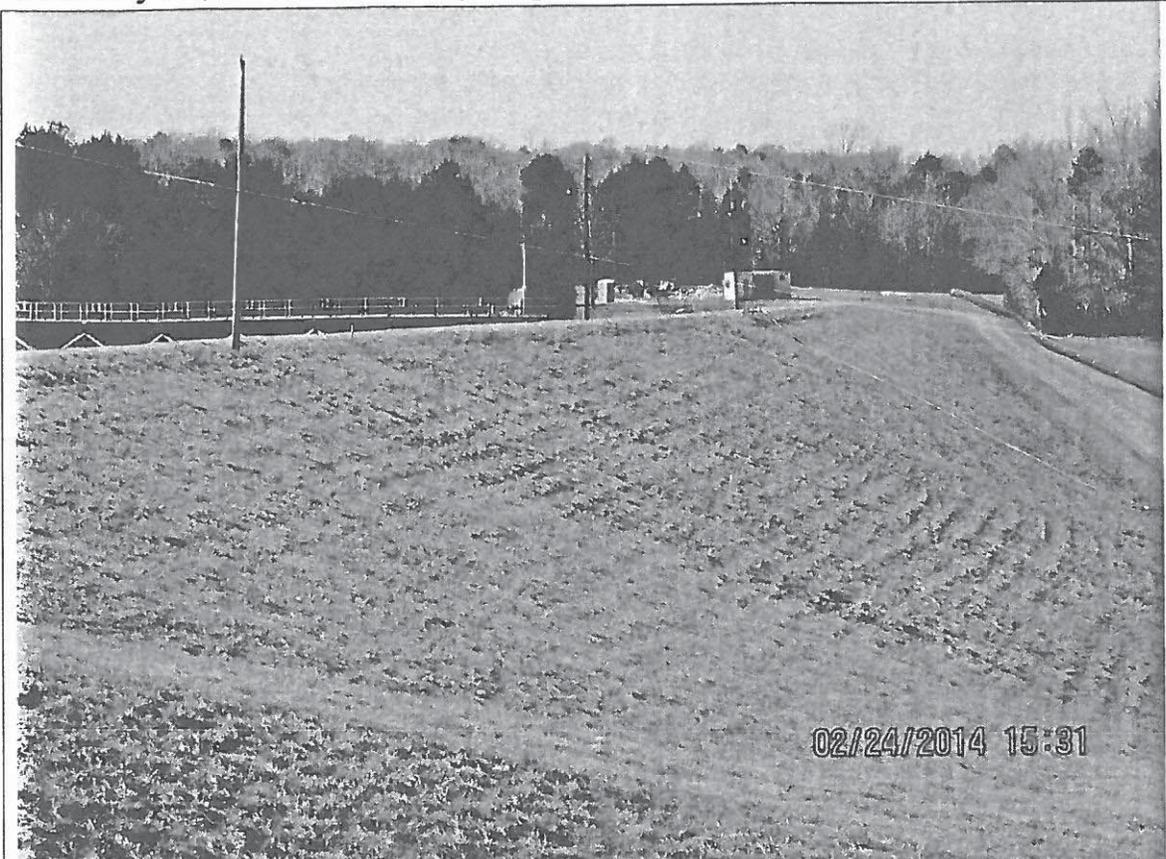


Photo 1- Pipe shown near the right groin is from previous attempt to slip line outlet pipe.



Photo 2- Out fall location for secondary ash basin.

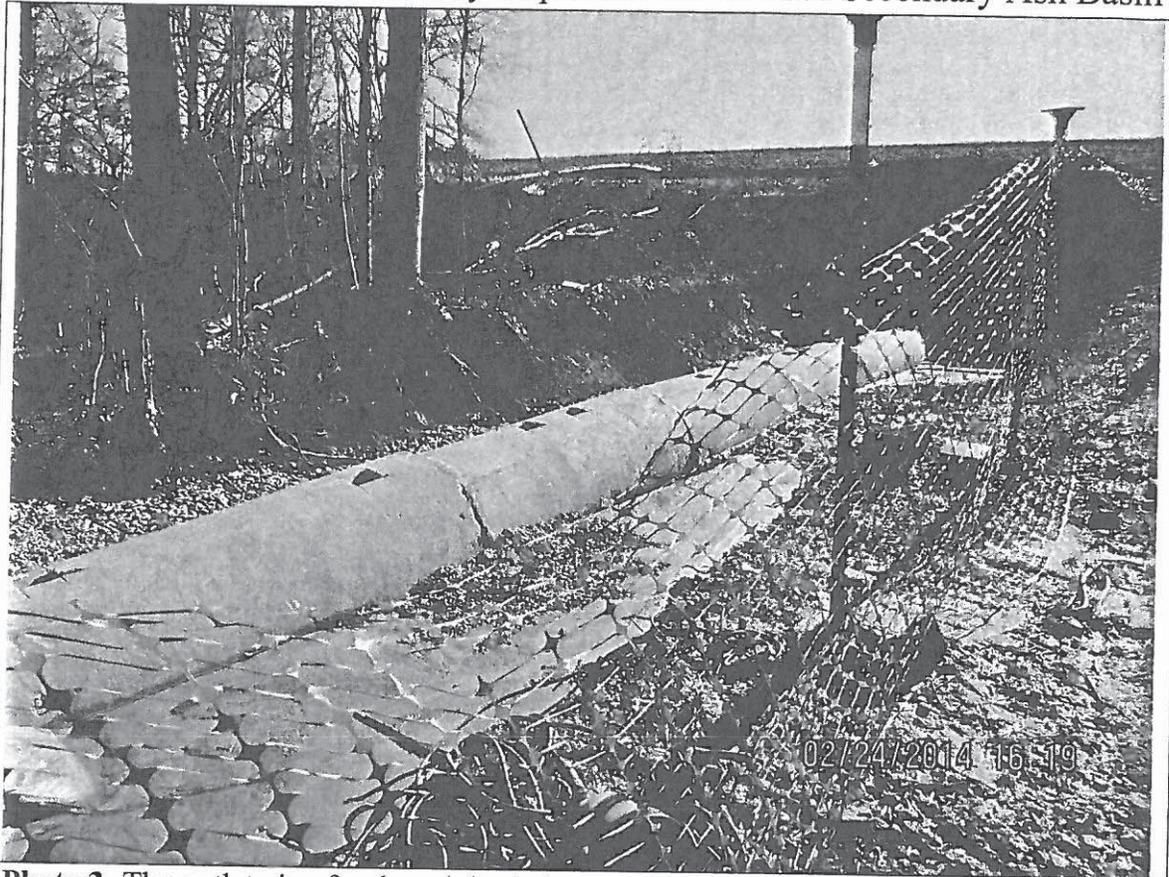


Photo 3- The outlet pipe for the ash basin is uncovered. Presumably to allow access for slip lining activities or to remove roots from pipe.

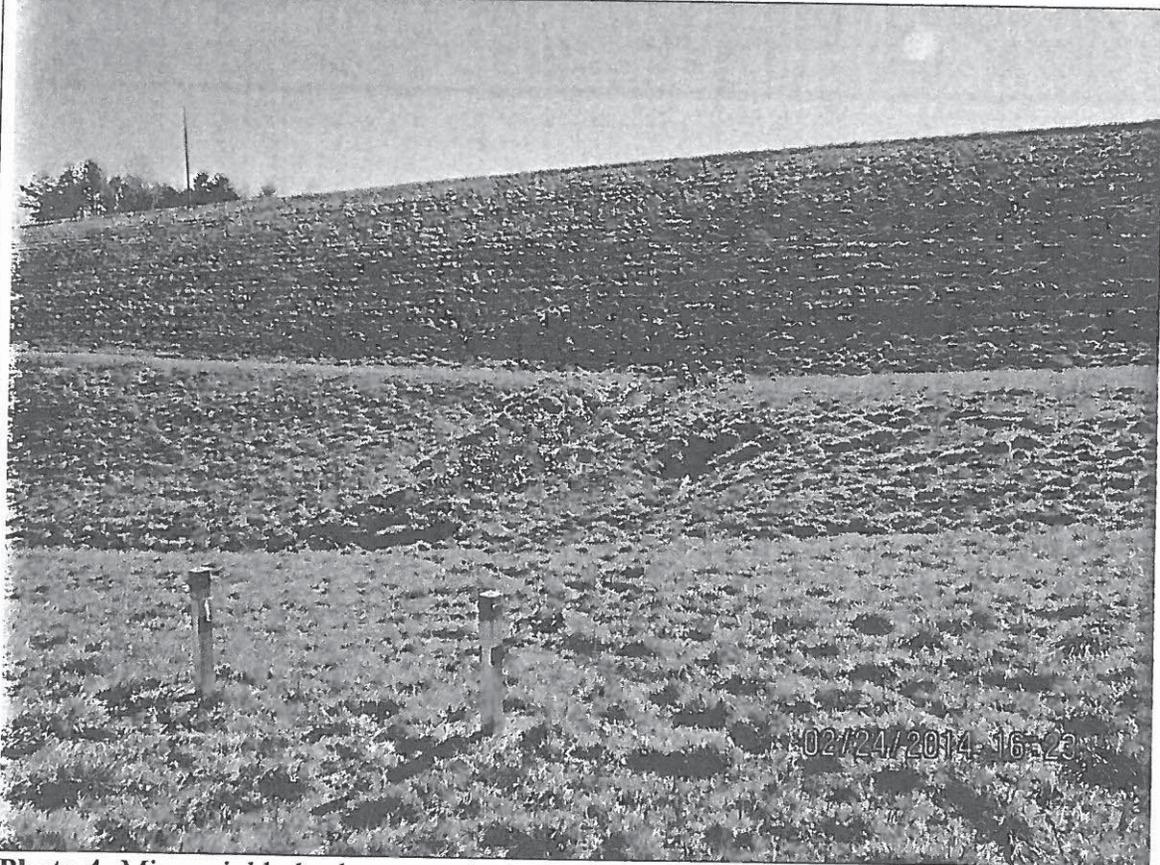


Photo 4- Minor sinkhole shown on the embankment next to rip rap armor.



Photo 5- View from left to right abutment along the toe of dam.



Photo 6- Muddy water at toe of dam on the left hand side (looking downstream) of drain.

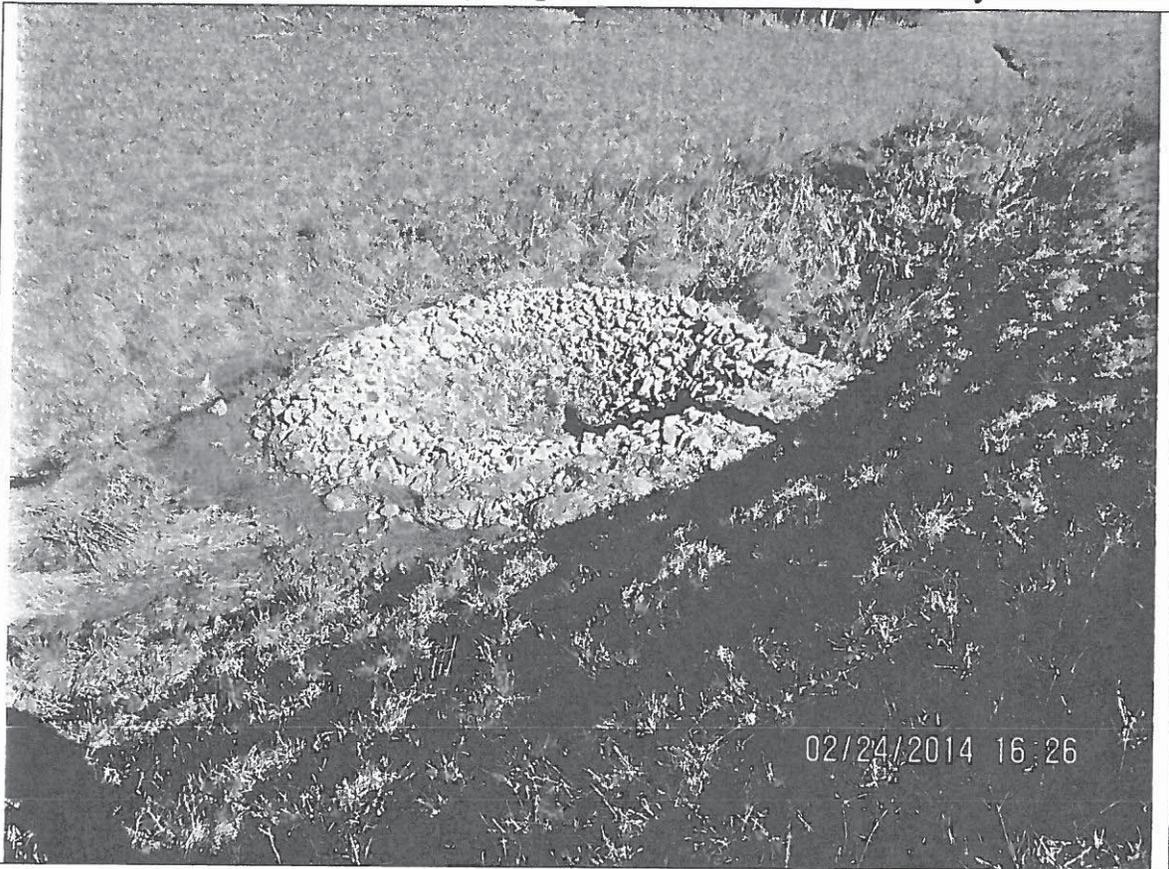


Photo 7- View of toe drain from embankment.



Photo 8- View thru grate protecting toe drain. Gate could not be removed due to stone.



Photo 9- Seepage emerging from embankment on right hand side.



Photo 10- Piezometer 9 mislabeled as Piezometer 8. Rust is showing thru paint.



Photo 11- Right side groin had no flowing water. This leads to major seep in toe of dam.

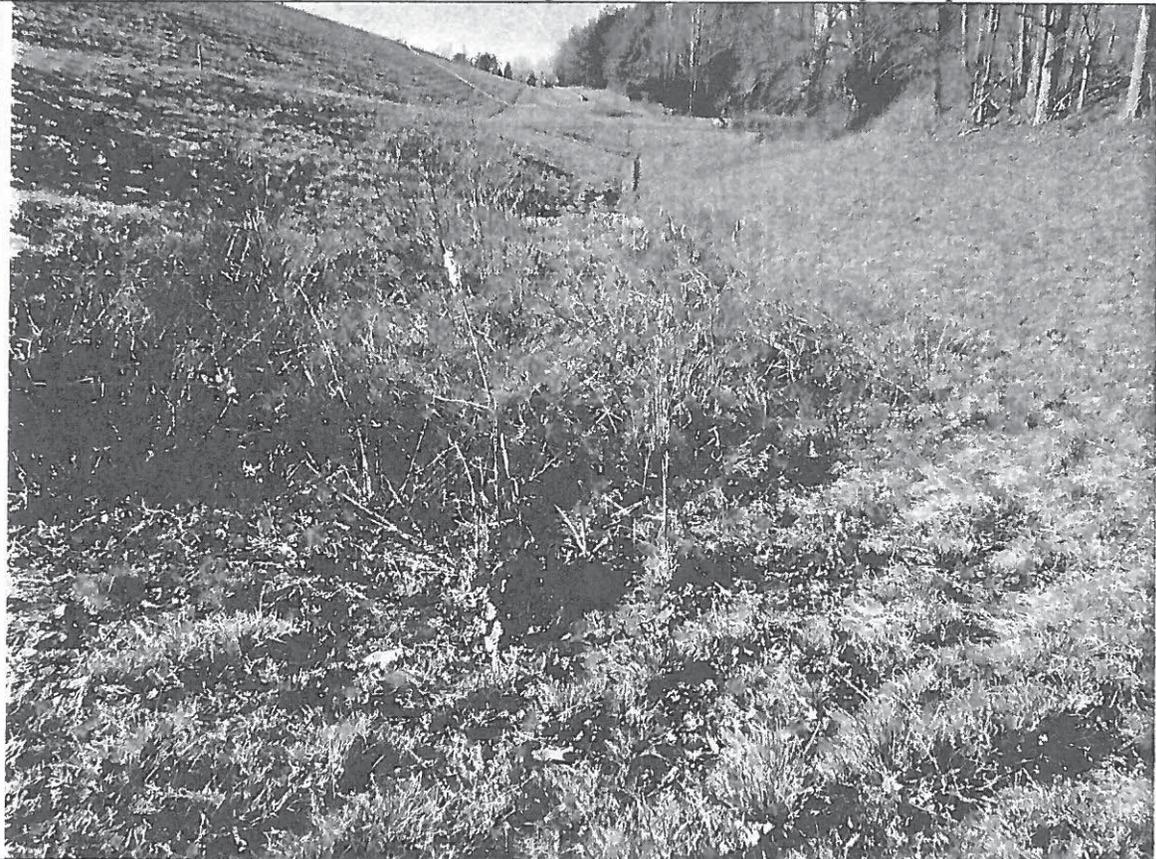


Photo 12- Major seepage area in toe of dam, appeared to have flow greater than 8 gpm. Wetland plants were growing in this area.



Photo 13- View of downstream face of embankment from rail road tracks.



Photo 14- Pump in place for diverting flow around outlet pipe for slip lining.

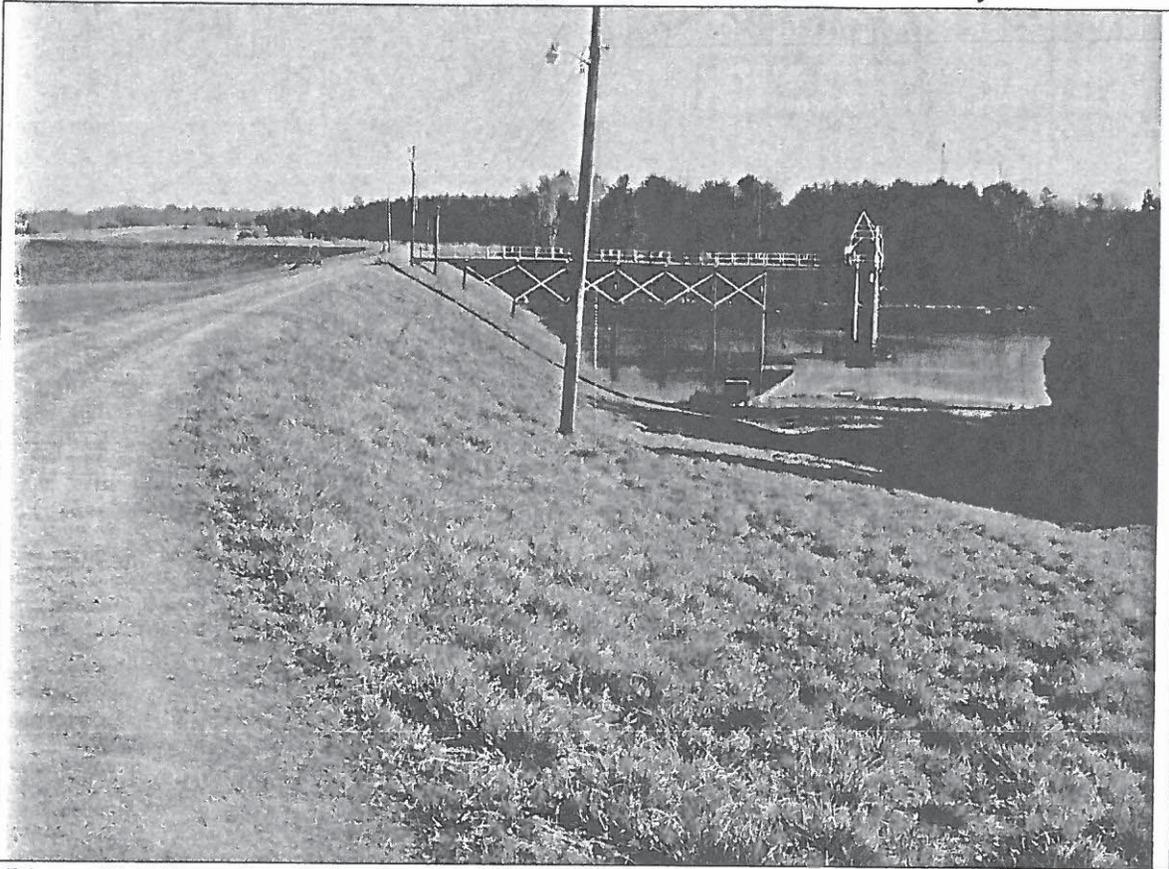


Photo 15- View of crest and upstream slope of dam.

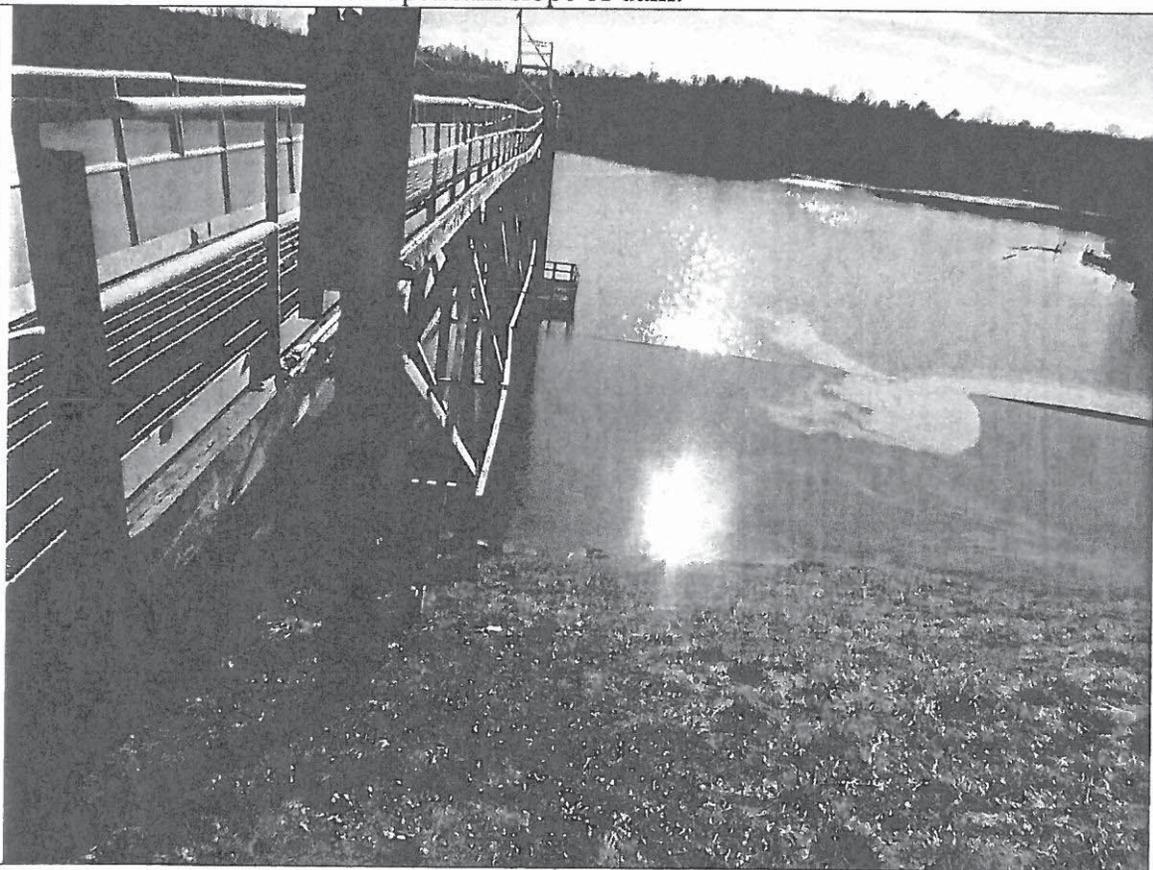


Photo 16- Bare spots shown on upstream embankment face. Along with minor wave erosion on shoreline.

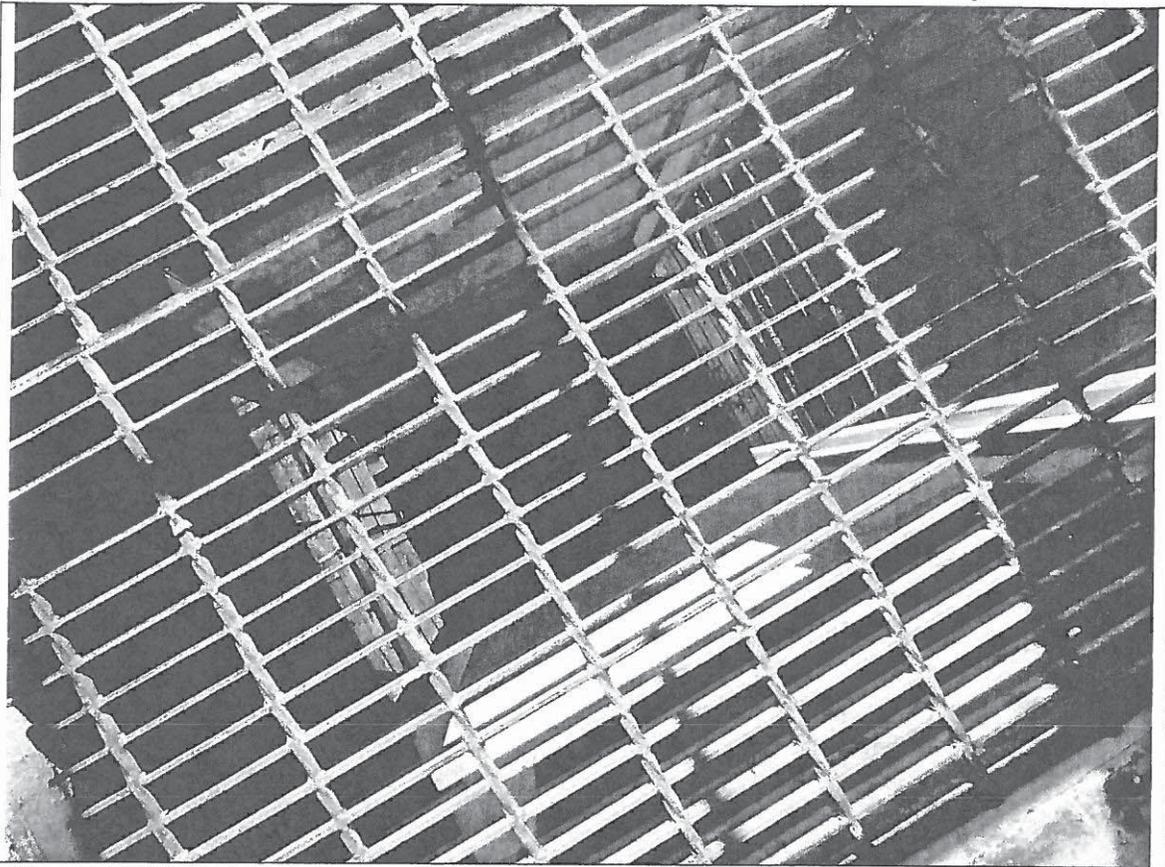


Photo 17- View thru grate on primary spillway. This is estimated to be around 25 feet above the current normal pool elevation.

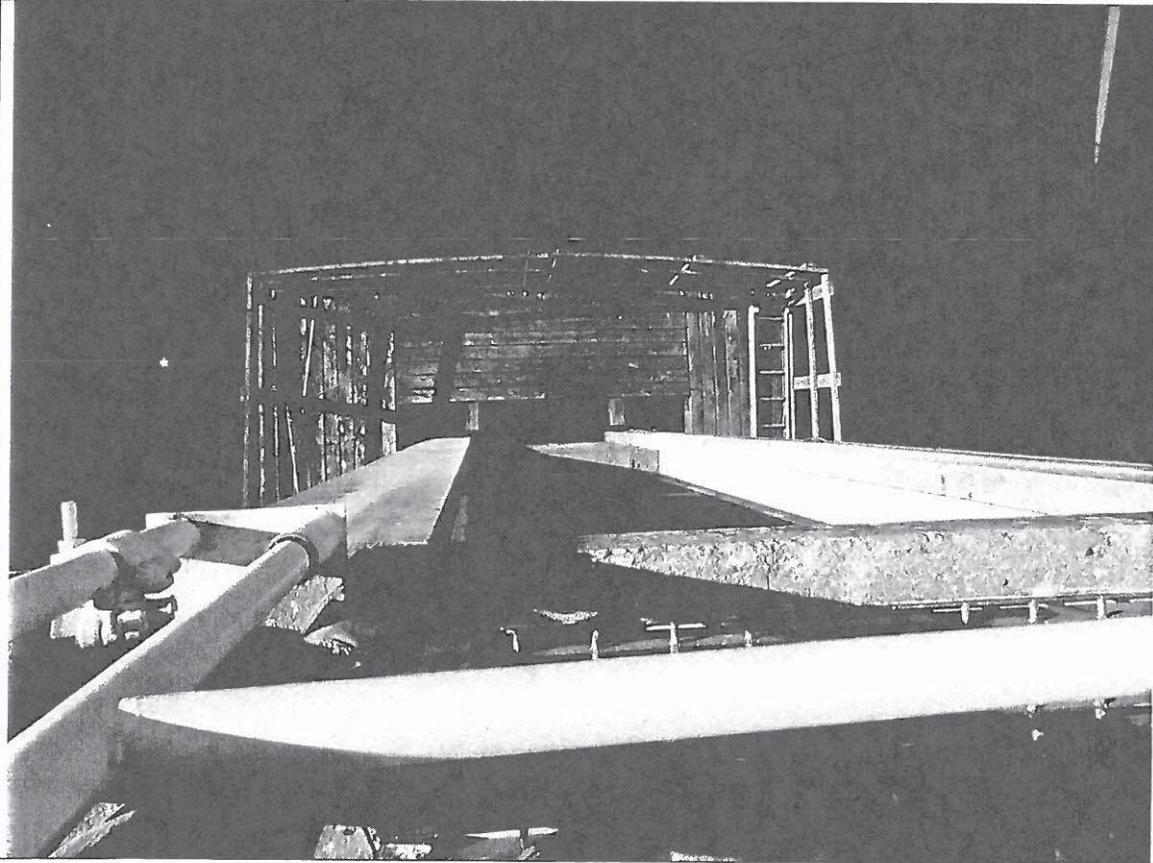


Photo 18- View of raft floating at normal pool.



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 1573 & Hazard Class C2 B. Name of Dam: Broadway Lake Dam
C. Inspection Date (12/04/2014) & Time: 10:00 AM D. Date of Last Inspection: (12/19/2011)
E. Location-County/City: Anderson / Anderson F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah M. Vinson
H. Owner's Name: Anderson County
I. Contact Person (if different from above): Matthew Schell, Parks and Recreation Department
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office (864) 231 - 7275 Other (864) 760 - 5948
K. Dam Owner's or Contact Person's mailing address: Address 1 PO Box 8002 Address 2 (optional) City Anderson, State SC Zip Code 29622 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [] c) Poor [x] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Paved road (Broadway Lake Road S-247)
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed - New waterline is in the process of installation which will cross the crest of dam.
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)? Small trees and weeds - needs to be cleared, mowed.
- ii. Animal activity observed? Several small trails from guard rail down to water's edge. Unable to determine what made trails.
Overgrowth would have obscured any burrows or holes on slope.
- iii. Any obvious alterations or repairs made? None
- iv. Erosion observed on upstream slope? Probable wave erosion - unable to see clearly due to overgrowth.
- v. Settlement or cracks visible in slope? Several large depressions/holes in area behind guard rail. Unable to determine how far down the slope they went due to overgrowth.

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Weeds, trees. Most of slope had been recently bush hogged
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? Large area of erosion on right side of slope (facing downstream) near concrete "swale" in groin. Large holes further up slope in same area, just behind end of guard rail.
- v. Settlement or cracks visible in slope? Large depression about 2/3 down slope, near the middle of dam.
- vi. Toe drains flowing? Unable to determine due to overgrowth around outlet.
- 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? Unable to determine

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Unable to inspect outlet pipe due to overgrowth around outlet.
- ii. Describe any deflection or damage observed to the pipe: Unable to inspect outlet pipe due to overgrowth around outlet.
- iii. Visible condition of outlet channel: Several large trees have fallen across outlet stream below outlet pipe.

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? 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? None observed

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No. Please provide as soon as possible.

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? N/A

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

Section IV (Conclusions)

General comments and recommendations:

Recommend thorough inspection and evaluation by a professional engineer certified in South Carolina and experienced in dam repair. This evaluation should include removal of large trees around outlet area and repair of damaged areas of dam.

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.
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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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- 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 through 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.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grassed and mowed.
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Horizontal tracks from mower (tractor with bush-hog).
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grassed and mowed
- ii. Animal activity observed? None observed.
- iii. Any obvious alterations or repairs made? None observed.
- iv. Erosion observed on down stream slope? Horizontal tracks from mower (tractor with bush-hog)
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? Yes
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Shelf area is damp to the right of the outlet pipe (facing downstream)

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; exercised every two years. Will be checked by divers this year.

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: Clear

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? 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? Mr. Tripp will mail to Columbia.

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:

Monitor vehicle tracks on crest and slopes and repair as 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.

D 3124 – Three & Twenty Creek WCD Dam

Date: 2/10/2015

Photographer: Hannah Vinson



1. Front slope of dam.



2. Front slope of dam.



3. Back slope of dam.



4. Back slope of dam.



5. Back slope of dam.



6. Outlet channel.



7. Outlet pipe..



8. Right toe drain.



9. Left toe drain.



10. Primary spillway.



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 4601 & Hazard Class C2 B. Name of Dam: Bob Stein Dam
C. Inspection Date (03/05/2015) & Time: 10:30 AM D. Date of Last Inspection:
E. Location-County/City: Oconee / Westminster F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Robert D. Stein
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 1 822 Poplar Springs Road Address 2 (optional) City Westminster, State SC Zip Code 29693

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [checked] b) Fair [] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass - mowed
ii. Animal activity observed? Horses have access to dam. Recommend excluding horses from dam to prevent erosion.
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? Slight depression in vehicle tracks. Monitor and repair as necessary.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass - Mowed
- ii. Animal activity observed? Horses have access to dam. Recommend excluding horses from dam to prevent erosion.
- 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 - Mowed
- ii. Animal activity observed? Horses have access to dam. Recommend excluding horses from dam to prevent erosion.
- 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? N/A
- 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? No - overflow design

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: Some small trees above outlet pipe. Recommend cutting all trees less than 6" diameter.

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? None observed
- ii. Animal activity observed? Hoses have access to emergency spillway
- 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? 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? Yes

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

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

Section IV (Conclusions)

General comments and recommendations:

Horses should be excluded from dam to prevent damage from 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 through 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 3129 & Hazard Class c2 B. Name of Dam: Watson Pond Dam
C. Inspection Date (01/09/2013) & Time: 1045 D. Date of Last Inspection: (03/18/2008)
E. Location-County/City: Anderson / F. EQC Regional Office: Anderson
G. Inspector's Name: paul wilkie
H. Owner's Name: Midtenu Investments Llc
I. Contact Person (if different from above): Eddie Kinsey
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office (864) 225 0025 Other (864) 933 - 8500
K. Dam Owner's or Contact Person's mailing address: Address 1 P.O. Box 5078 Address 2 (optional) City Anderson, State SC Zip Code 29623 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [checked] b) Fair [checked] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? dirt road across the top. mud ruts but stable
ii. Animal activity observed? none noted
iii. Any obvious alteration or repairs made? none noted
iv. Erosion noticed on crest? none noted
v. Any visible settlement, misalignment or cracks? none noted

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? few small trees that should be removed. vines and briars
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on upstream slope? none noted
- v. Settlement or cracks visible in slope? none noted

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? covered with trees of various sizes and vines. small trees should be removed trees larger than 6" diameter should be evaluated by a professional certified in dam construction and maintenance concerning long term stability of the structure
- ii. Animal activity observed? could not tell due to growth. did observe a few small holes
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on down stream slope? did not appear currently; however there were ruts and holes under leaves in places
- v. Settlement or cracks visible in slope? could not tell
- vi. Toe drains flowing? N/A
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: none noted, but have to see all of the dam

D. Primary Spillway

- i. Any visible deterioration of structure? could not see structure must be underwater
- ii. Is there an obvious need to repair or replace trash rack? could not see structure if there
- iii. Any noticeable problems with debris? none noted
- iv. Is valve or gate present? none noted; could not tell

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? none noted
- ii. Describe any deflection or damage observed to the pipe: end of the 6" (or so) galvanized pipe was rusted off
steady flow
- iii. Visible condition of outlet channel: some rock, a lot of roots and trees

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? none noted
- ii. Animal activity observed? none noted
- iii. Any noticeable deterioration in the approach or discharge channel? none noted
- iv. Any visible deterioration of structure's crest? none noted

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 noted

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? gave DHEC 2606 form at time of inspection to be returned, is also new owner form

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? none

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? none

Section IV (Conclusions)

General comments and recommendations:

Dam need maintenance work and evaluation as noted above.

Please return to the Department the forms given to you concerning EAP and change of ownership

Contact the Department concerning a schedule for evaluation and maintenance by February 15, 2013

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 through 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 3143 & Hazard Class C2 B. Name of Dam: Broadmouth Creek WCD
C. Inspection Date (12/17/2012) & Time: 1215 D. Date of Last Inspection: (12/07/2009)
E. Location-County/City: Anderson / F. EQC Regional Office: Anderson
G. Inspector's Name: paul wilkie
H. Owner's Name: Broadmouth Creek WCD
I. Contact Person (if different from above): Glenn Stevens
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 433 - 1708
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 1300 GW Stevens Road
Address 2 (optional)
City Belton, State SC Zip Code 29627 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [checked] b) Fair [] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? mowed and cleared
ii. Animal activity observed? none noted
iii. Any obvious alteration or repairs made? none noted
iv. Erosion noticed on crest? none noted
v. Any visible settlement, misalignment or cracks? none noted

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? mowed and clear
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on upstream slope? none noted
- v. Settlement or cracks visible in slope? none noted

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? mowed and clear
- ii. Animal activity observed? none noted
- iii. Any obvious alterations or repairs made? none noted
- iv. Erosion observed on down stream slope? several depressions or shallow holes but no seepage noted
- v. Settlement or cracks visible in slope? none noted
- vi. Toe drains flowing? yes; minimal flow
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: none noted

D. Primary Spillway

- i. Any visible deterioration of structure? none noted
- ii. Is there an obvious need to repair or replace trash rack? not apparent
- iii. Any noticeable problems with debris? none noted
- iv. Is valve or gate present? yes

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? none noted
- ii. Describe any deflection or damage observed to the pipe: none noted
- iii. Visible condition of outlet channel: satisfactory

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? none noted
- ii. Animal activity observed? none noted
- iii. Any noticeable deterioration in the approach or discharge channel? none noted
- iv. Any visible deterioration of structure's crest? none noted

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 noted

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? signed 12/18/09

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

DHEC 2606 form

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

DHEC 2606 form

Section IV (Conclusions)

General comments and recommendations:

keep up good maintenance program

if new emergency plan/contact exist please notify the Department

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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 through 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 3123 & Hazard Class C2 B. Name of Dam: Hunington Hills
C. Inspection Date (11/04/2014) & Time: 10:00 AM D. Date of Last Inspection: (12/19/2011)
E. Location-County/City: Anderson / Anderson F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah M. Vinson
H. Owner's Name: Hunington Hills, Inc.
I. Contact Person (if different from above): Duane Loftis, President
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other (864) 224 - 5490
K. Dam Owner's or Contact Person's mailing address:
Address 1 1308 Wendover Way
Address 2 (optional)
City Anderson, State SC Zip Code 29621 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [checked] b) Fair [] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? grassed, mowed
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)? grassed, mowed
- 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)? grassed, mowed
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? Previous erosion damage from before slope was stabilized
- v. Settlement or cracks visible in slope? Small areas that may develop into cracks on left 1/3 of slope. Monitor and observe.
- vi. Toe drains flowing? Yes
- 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? No
- 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: Clean

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? None at present time, but weeds inside weir need to 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? 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. There is a house located approximately 200-300 yards below dam. Classification should be upgraded to Class 1

High Hazard

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No. Owner requested that another copy be mailed to him.

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? N/A

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

Section IV (Conclusions)

General comments and recommendations:

The area to the right of the spillway (facing downstream) is also part of the dam and should be maintained and checked along with the area to the left of the spillway.

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 through 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 4533 & Hazard Class C2 B. Name of Dam: Ryan Faulkenberry Dam
C. Inspection Date (02/05/2015) & Time: 2:00 pm D. Date of Last Inspection: (12/28/2011)
E. Location-County/City: Anderson / Starr F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: William Faulkenberry
I. Contact Person (if different from above):
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 933 - 0151
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 4800 Hwy 187 South
Address 2 (optional)
City Starr, State SC Zip Code 29684 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

- a) Satisfactory [] b) Fair [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass-mowed
ii. Animal activity observed? Beaver trail
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, small shrubs - mowed annually
- ii. Animal activity observed? Multiple beaver trails. These are causing erosion at shore line. Repair and monitor beaver activity.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Erosion at shore line due to beaver activity. Repair and monitor.
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass, weeds - mowed bi-annually
- ii. Animal activity observed? Beaver trails
- 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? Depression in area of spring (see item vii below)
- vi. Toe drains flowing? N/A
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Wet area on right side about half way down slope. Mr Falukenberry has had ACOE look at this area and they have agreed that it is caused by a spring. Second wet area in center of dam about 2/3 down slope.

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 - exercised annually

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: Clear

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? 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? No. Mr. Faulkenberry will mail to Columbia.

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:

All directional comments are facing downstream.

Add dirt and compact in depressed area at spring (see items v and vii of section C).

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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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Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Certified Delivery

91 7108 2133 3939 6185 4021

March 27, 2014

Sean DeNeale, Engineer II
Duke Energy - Environmental Services
P.O. Box 1006 Mail Code EC13K
Charlotte, NC 28201-1006

Re: WS Lee Steam Station Secondary Ash Basin (D 4888) Preliminary Inspection Results
Significant Hazard, Anderson County

Mr. DeNeale,

The Department has the responsibility and authority to routinely inspect regulated dams. During the site visit on February 24, 2014, staff from the Bureau of Water met with Duke Energy personnel to perform a preliminary inspection on the above dam. Inspection reports and photographs from this inspection are enclosed. The following issues were discovered during the inspection:

The overall condition for this dam is rated poor. This rating is assigned to dam where dam safety deficiencies are recognized for normal loading conditions, which may realistically occur. Remedial action is necessary and further analysis is required to determine appropriate response measures. **Please address the comments below in writing within 15 days of the date of this letter.**

Comments:

1. No emergency action plan was provided for review during the inspection. Duke personnel stated that an Emergency Response Plan was developed for the WS Lee Steam Station and a portion of that plan pertains to the dams. Please provide the portion specific to the dam to DHEC for review. Additionally, complete the provided DHEC 2606 form to add as an addendum to your plan.
2. The outlet pipe for this ash basin was discovered to be in disrepair during our inspection. This is a result from a slip-lining attempt. Once a permit is issued, please make the necessary repairs to the outlet pipe. In the future, ensure that necessary permits are received for non-emergency repair work on the dams. See the enclosed inspection report for more information.
3. Reshape the stone berms around toe drains so the gates may be removed for inspection access.
4. Continue to monitor the undulations in the surface of the dam's embankment. If they continue to form, repairs to the dam may be required to increase the slope's stability. Additionally, recent inspection report recommendations indicate that the upstream slopes on both the ash basins are unstable due to earthquake and rapid drawdown forces and may need to be retrofitted with soil berms to increase their stability. Please provide further information regarding how Duke is planning to address this issue.
5. Bare soil that could lead to future erosion was discovered in the groins of this dam. It is recommended that the area be stabilized with stone or some other armoring. See the enclosed inspection report and photographs for more information.
6. Ensure all areas of the dam that is not otherwise armored are stabilized by a thick stand of low growing grass.
7. Evidence of harmful animal species was discovered. Please remove all harmful animals from the dam's embankment, reservoir, and surrounding areas. Please be sure to contact DNR to obtain any required

permits for this activity. Ensure all damage to the dam that has occurred from the presence of these species on the dam is repaired. See the enclosed inspection report for more information.

8. Ensure that all piezometers are painted to prevent rust and are correctly labeled.
9. A South Carolina registered professional engineer must perform a detailed inspection on this dam. The seepage emerging on the downstream side of the embankment may be a dam safety risk. If it is, the appropriate method to correct or address this issue. Initiate monitoring of the flow rate and turbidity of seepage. Measurements must be taken as near to the toe drains and other sources of seepage as possible to ensure accurate readings. Please coordinate with the DHEC to ensure that no permits are required for the installation of any instrumentation that may be needed to monitor the seepage. Ensure that the reservoir's water surface elevation is kept at a safe level.

If the above items are not sufficiently addressed by the time allowed, this matter will be turned over to enforcement for additional action and possible fines. Please note that a review of the March 7, 2014 letter to Mr. Trofatter (DHEC) from Mr. Taylor (Duke Energy) regarding Notice of Violation 153497 is underway.

Please if you have any questions or comments regarding the above information, don't hesitate to contact me. I can be reached by email at pooleja@dhec.sc.gov or by phone at (803) 898-4212.

Sincerely,



John A. Poole, P.E., State Dam Safety Engineer
Bureau of Water – SC Department of Health and Environmental Control

Enclosures:

Completed form DHEC 2604 for D 4888

Photo table for D 4888

cc: Hannah Vinson - Upstate EQC Anderson Office
Melinda Vickers – BOW- DHEC