



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 0005 & Hazard Class c1 B. Name of Dam: Big Creek WCD Dam 2
C. Inspection Date (12/02/2013) & Time: 0930 D. Date of Last Inspection: (12/19/2011)
E. Location-County/City: Anderson / williamston F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Al Rentz (first phone #) and Paul Williams (second phone #)
I. Contact Person (if different from above): Al Rentz, present at time of inspection, phone number below
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 940 - 7418 Office (864) 847 - 1157 Other () - - - -
K. Dam Owner's or Contact Person's mailing address: Address 1 223 Walton Drive (Rentz) 124 P Williams Road (Williams) Address 2 (optional) City Williamston, State sc Zip Code 29697 - - - -

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? None observed
iii. Any obvious alteration or repairs made? No
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; rip-rap at shore line
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? No
- 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 and cleared
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? No
- iv. Erosion observed on down stream slope? None observed
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? Yes; small flow.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Soft, damp areas at bottom of slope, to right of outlet pipe and above outlet pipe.

Continue to monitor these areas.

D. Primary Spillway

- i. Any visible deterioration of structure? None observed
- ii. Is there an obvious need to repair or replace trash rack? No
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Small areas of standing water above outlet pipe and to right of outlet pipe
- ii. Describe any deflection or damage observed to the pipe: None observed
- iii. Visible condition of outlet channel: Clear, 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? 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? Owner has worked with City/County on EAP. Inspector asked owner to complete DHEC Form 2606

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? See item (i) above

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? See item (i) above

Section IV (Conclusions)

General comments and recommendations:

Dam appears to be well maintained.

Locked gate located at property line, about halfway across dam. Mr. Williams was not present at time of inspection, so the half of the dam on his property was not inspected.

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 0006 & Hazard Class c1 B. Name of Dam: Big Creek WCD Dam 1
C. Inspection Date (12/02/2013) & Time: 1030 D. Date of Last Inspection: (12/19/2011)
E. Location-County/City: Anderson / Williamston F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Al Rentz (first phone #) and John B. Roache and Bonnie R. Meeks
I. Contact Person (if different from above): Al Rentz, present at time of inspection, phone number below
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 940-7418
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 223 Walton Drive (Rentz) 14 Greenville Drive (Raoche)
Address 2 (optional)
City Williamston, State SC Zip Code 29697 -

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? None observed
iii. Any obvious alteration or repairs made? No
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? Small low area about 1/3 across; vehicle tracks; low area about 2/3 across. Continue to monitor these areas.

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass; mowed and cleared
- ii. Animal activity observed? Animal trail about 2/3 across
- iii. Any obvious alterations or repairs made? No
- 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 and cleared
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? No
- iv. Erosion observed on down stream slope? None observed
- v. Settlement or cracks visible in slope? Low area about 1/3 across. Continue to monitor this area.
- vi. Toe drains flowing? Yes; small flow.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Standing water observed around left groin area and right groin area; damp area about 1/3 across.
- Continue to monitor these areas.

D. Primary Spillway

- i. Any visible deterioration of structure? None observed
- ii. Is there an obvious need to repair or replace trash rack? No
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? None observed.
- ii. Describe any deflection or damage observed to the pipe: None observed
- iii. Visible condition of outlet channel: Satisfactory; observed that water has high iron content with buildup of iron bacteria at end of outlet pipe and toe drains. Recommend cleaning this buildup away.

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?

None observed

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? Owner has worked with City/County on EAP. Inspector asked owner to complete DHEC Form 2606

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? See item (i) above

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? See item (i) above

Section IV (Conclusions)

General comments and recommendations:

Dam appears to be well maintained.

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

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- D) Date of Last Inspection; Enter the day, month, and year, in which the last inspection was performed.
- E) Location-County/City; Enter the county and city, if applicable, where the dam is located.
- F) EQC Regional Office; Enter the DHEC EQC Regional office that covers the area in which the dam is located.
- G) Inspector's Name: Enter the name of the person performing the inspection.
- H) Owner's Name: Enter the name of the person owning the dam. If there is multiple owners list them and their contact information in the "General comments and recommendations are in section IV.
- I) Contact Person; Enter the name of the person that represents the dam owner during the inspection. This person should be authorized to remedy any deficiencies found by the inspector.
- J) Dam Owner's or Contact Person's Phone Numbers; Enter the home, office, and other available numbers for the Dam owner or Contact person.
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Section II (Dam Condition):

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- b) FAIR- No existing dam safety deficiencies are recognized for normal loading conditions. Rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Risk may be in the range to take further action.
- c) POOR- A dam safety deficiency is recognized for loading conditions, which may realistically occur. Remedial action is necessary. A POOR condition is used when uncertainties exist as to critical analysis parameters, which identify a potential dam safety deficiency. Further investigations and studies are necessary.
- d) UNSATISFACTORY- A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- e) NOT RATED- This should only be used if it is not possible to assess to dam's condition due to site constraints on visibility on the day of inspection. If vegetation is a problem the owner should be ordered perform maintenance to remove it before the next visit.

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Section IV(Conclusions):

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 1648 & Hazard Class C1 B. Name of Dam: Lake Jemike Dam #1
C. Inspection Date (12/03/2013) & Time: 0930 D. Date of Last Inspection: (03/15/2011)
E. Location-County/City: Oconee / Walhalla F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson, Paul Wilkie
H. Owner's Name: Donald Payne (present at time of inspection) Gate code 2008
I. Contact Person (if different from above): Donald Payne (first number below), Jason Payne (second number below)
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 710 - 1231 Office (864) 710 - 2302 Other () - -
K. Dam Owner's or Contact Person's mailing address: Address 1 PO Box 910 Address 2 (optional) e-mail: AllLockedUp@bellsouth.net City West Union, State SC Zip Code 29696 - -

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? None observed
iii. Any obvious alteration or repairs made? No
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.
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? No
- iv. Erosion observed on upstream slope? None observed
- v. Settlement or cracks visible in slope? None observed other than small trail to dock for spillway.

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass, weeds; mowed and cleared.
- ii. Animal activity observed? None observed.
- iii. Any obvious alterations or repairs made? No
- 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: Wet area to left of outlet pipe at toe of dam - owner believes there is a natural spring here. Continue to 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; valve is exercised twice per year

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Seepage was observed to the right of the outlet pipe, along with a couple of holes with constant flow (not heavy, but steady and consistent). Continue to monitor these areas.
- 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? None observed
- iv. Any visible deterioration of structure's crest? None observed; emergency spillway is covered with rip-rap.

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? DHEC Form 2606 was mailed to owner prior to inspection.

Please complete this form and mail the original to the address on the form.

ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? See item (i) above.

iii. Does EAP contain specific actions to take if the dam has failed or is near failure? See item (i) above.

Section IV (Conclusions)

General comments and recommendations:

Owner indicated that a pond liner was installed over bentonite in 2000.

Dam appears to be well maintained.

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Impoundment Structures Regulations – DHEC 2604
R.72-1 through R.72-9

INSTRUCTIONS

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- G) Inspector's Name: Enter the name of the person performing the inspection.
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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.

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Section IV(Conclusions):

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

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

RECEIVED MAR 19

March 14, 2014

Sean DeNeale, Engineer II
Duke Energy - Environmental Services
205 Lee Steam Plant Rd.
Belton, SC 29627

Re: WS Lee Steam Station Primary Ash Basin (D 4887) Preliminary Inspection Results
High Hazard, Anderson County

Mr. Sean 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. The dam holding back the primary ash basin is considered to have two earthen embankments where only one embankment has an outlet structure and it discharges into the secondary ash basin. See the enclosed location map for further clarification. Inspection reports and photographs from these inspections are enclosed. The following issues were discovered during the inspection:

The overall condition for this dam is rated fair. This rating is assigned to dam where no existing dam safety deficiencies are recognized for normal loading conditions. However, rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. Please address the comments below in writing within 30 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 enclosed DHEC 2606 form to add as an addendum to your plan.
2. Remove dead and dying vegetation from rip rapped areas on the dam. See the enclosed inspection report for more information.
3. Remove debris from the spillway structure of this dam. A log was observed blocking flow. See the enclosed inspection report and photographs for more information.
4. Continue monitoring the condition of the spillway. Several locations on the spillway had defects from the improper fitting of pour in place concrete forms. These may affect the structures stability if reinforcing material within the concrete begins to rust. If signs of rusting are observed a detailed inspection of this structure may be required. Please continue to document all observations made.
5. Monitor the wet areas at the toe of the embankment and measure flow rates entering the drains. It is uncertain if the wetness in this area is a result of seepage or surface water. If flow rates increase or if coloration of flows is discovered, this could lead to a dam safety deficiency. Please document all observations made to establish a log of your observations. The flow data should be correlated with the water surface elevation within the ash pond and recent rainfall should be taken into account. Reshape the stone berms around toe drains so the gates may be removed for inspection. If at all possible flow rate



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

Certified Delivery

91 7108 2133 3939 6185 4038

from the actual toe drains (pipes running parallel to the dam collection seepage flows) should be

6. Continue to monitor the occurrence of surface slides in 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 need to be retrofitted with soil berms to increase their stability. Please provide further information regarding how Duke is planning to address this issue.
7. Bare soil that could lead to further 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.
8. It appears that some work that may have required a permit recently occurred at toe of this dam. Please, in the future, ensure that necessary permits are received for non-emergency repair work on the dams.
9. Ensure all areas of the dam that is not protected by armor is stabilized by a thick stand of low growing grass.
10. 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 from the presence of these species on the dam is repaired. See the enclosed inspection report for more information.
11. Ensure all piezometers are painted and have locking covers. See the enclosed inspection report for more information.

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,



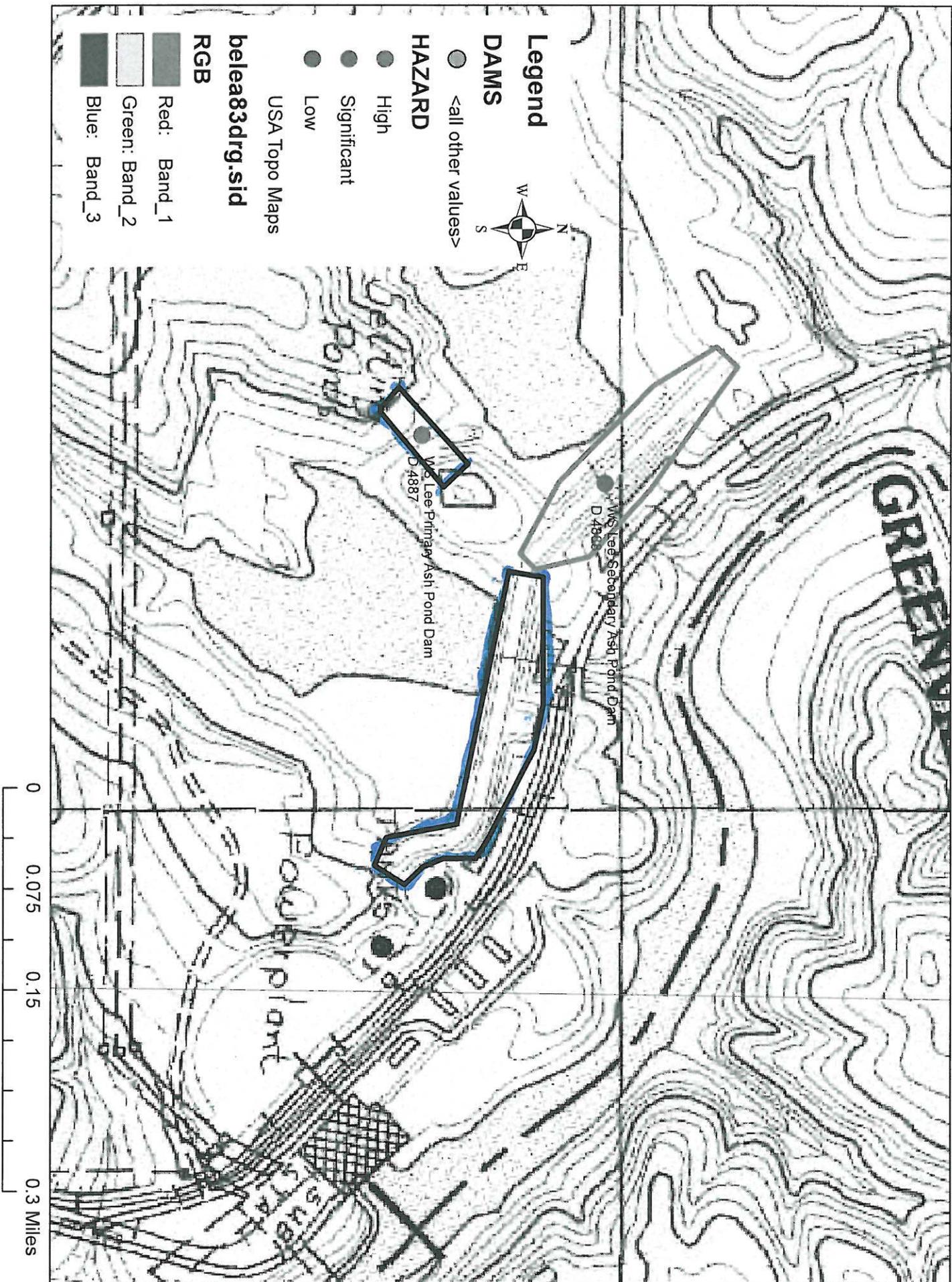
John A. Poole, P.E., State Dam Safety Engineer
Bureau of Water – SC Department of Health and Environmental Control

Enclosures:

Location Map	Completed form DHEC 2604 for D 4887
	Photo table for D 4887

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

Location of D_4887 and D_4888





- 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? The divider dike shows evidence of or harmful animal activity that needs to be repaired. See photos 26 & 25
- iii. Any obvious alteration or repairs made? None
- 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)

- General Condition Assessment (Select one of the following):
- a) Satisfactory b) Fair c) Poor d) Unsatisfactory e) Not Rated

Section II (Dam Condition)

A. Dam Number: D 4887 & Hazard Class High

B. Name of Dam: WS Lee Primary Ash Basin

C. Inspection Date (02/24/2014) & Time: 1:30 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 I (Owner's Information)

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



Section III (Dam Inspection Checklist) continued

B. Upstream Slope

i. Vegetation (grass, trees weeds)? In general the upstream slope is covered in grass. However some small weeds and brush was

observed. See photos 5 and 18

ii. Animal activity observed? Yes, on the divider dike. See photo 25

iii. Any obvious alterations or repairs made? Unsure, found unusual survey markings. Believe these may be associated

with reggrading activities to control erosion on dike.

iv. Erosion observed on upstream slope? Yes, it appears that erosion is wearing away at the surface of the dike, see photo 19.

Also the shore line along the main embankment is also eroded from what appears to be wave action or current from process water. See photo 5

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? Yes, an animal path was discovered on the divider dike portion of the dam. See photo 26.

iii. Any obvious alterations or repairs made? Yes, an area along the toe of slope on the embankment was recently repaired.

The area is still not stabilized from recent work. See photo 11.

iv. Erosion observed on down stream slope? Yes, in the groin area of the main embankment water flow has created a bare path.

These locations should be armored to prevent erosion if a thick stand of low growing grass cannot provide adequate protection. See photo 13.

v. Settlement or cracks visible in slope? Yes, many small surface slides have occurred. This is an indication of marginal slope

stability. See photos 4 and 16.

vi. Toe drains flowing? Yes all toe drain were flowing. Observation was blocked by grates on all but one toe drain collection box.

The grates were immovable because of stones that were placed around the edges. This should be corrected to allow access. See photos 15 and 17.

vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow.

appeared to be seepage. See photo 3.

D. Primary Spillway

i. Any visible deterioration of structure? The structure appeared to be in good shape overall. Some evidence that forms were

improperly fitted during construction was obvious but it was minor and shouldn't affect the structure's ability to function.

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 24.

iii. Any noticeable problems with debris? Yes, a small log was within the spillway structure and was partially blocking flow.

See photo 23.

iv. Is valve or gate present? Yes, the structure uses stop logs to regulate the level of the ash basin. See photo 23.

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: None, see photo 23.

iii. Visible condition of outlet channel: The pipe discharges into the secondary ash pond but the rip rap in the area has large amounts

of dead vegetation that needs to be removed.

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

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 Dam Inspection Disclaimer:

- 1. Complete form 2606 and return it to DHEC. 2. Remove dead vegetation from rip rapped areas.
- 3. Remove debris from spillway structure. 4. Monitor the condition of the spillway to ensure its structural integrity.
- 5. Monitor the wet area at the embankment's toe and measures the flow rate of the seepage in toe drains.
- 6. Reshape the stone berms around the toe drains so that the grates can be removed for inspection purposes.
- 7. Continue to monitor the occurrence of surface slides in the embankment. If they continue to form, a repair to the dam may be required increase its slope stability. 8. Recommend stone or other armor on the groin of the dam. These are formed where the embankment intersects the abutments. 9. Ensure all areas of the dam that is not armored is protected from erosion by a thick stand of low growing grass. 10. Please be sure to obtain required permits before making non-emergency repairs. 11. Remove harmful animal species from the dam, reservoir, and surrounding areas. 12. Repair damage that has resulted from the presence of harmful animals. 13. Ensure locking covers are on all piezometers and they are painted.

General comments and recommendations:

Section IV (Conclusions)

- iii. Does EAP contain specific actions to take if the dam has failed or is near failure? NA
- ii. Does EAP contains emergency alert notification plan? If so, when was it last updated? NA

I. Emergency Action Plan (EAP)

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

directly downstream from the primary ash basin's main embankment, the hazard classification for this basin is high. Due to the presence of a power generation station, rail road track, fuel storage tank and other commercial/ industrial bldgs.

H. Downstream/Hazard Class Issues

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

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

F. Auxiliary (Emergency) Spillway continued

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

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.

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.

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.

Section IV(Conclusions):

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 III (Dam Inspection Checklist):

- 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.

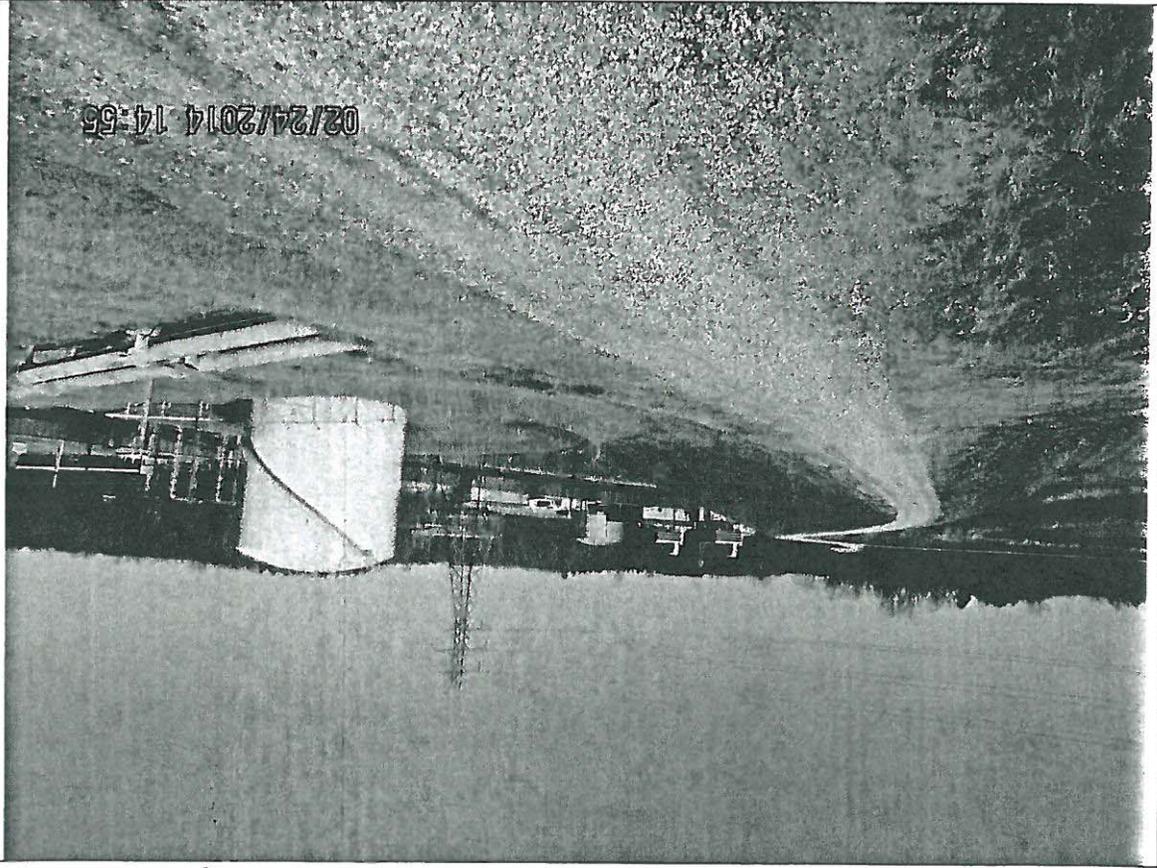


Photo 1-Major utilities, fuel storage, and railroad track shown directly below the southern most embankment for the dam.

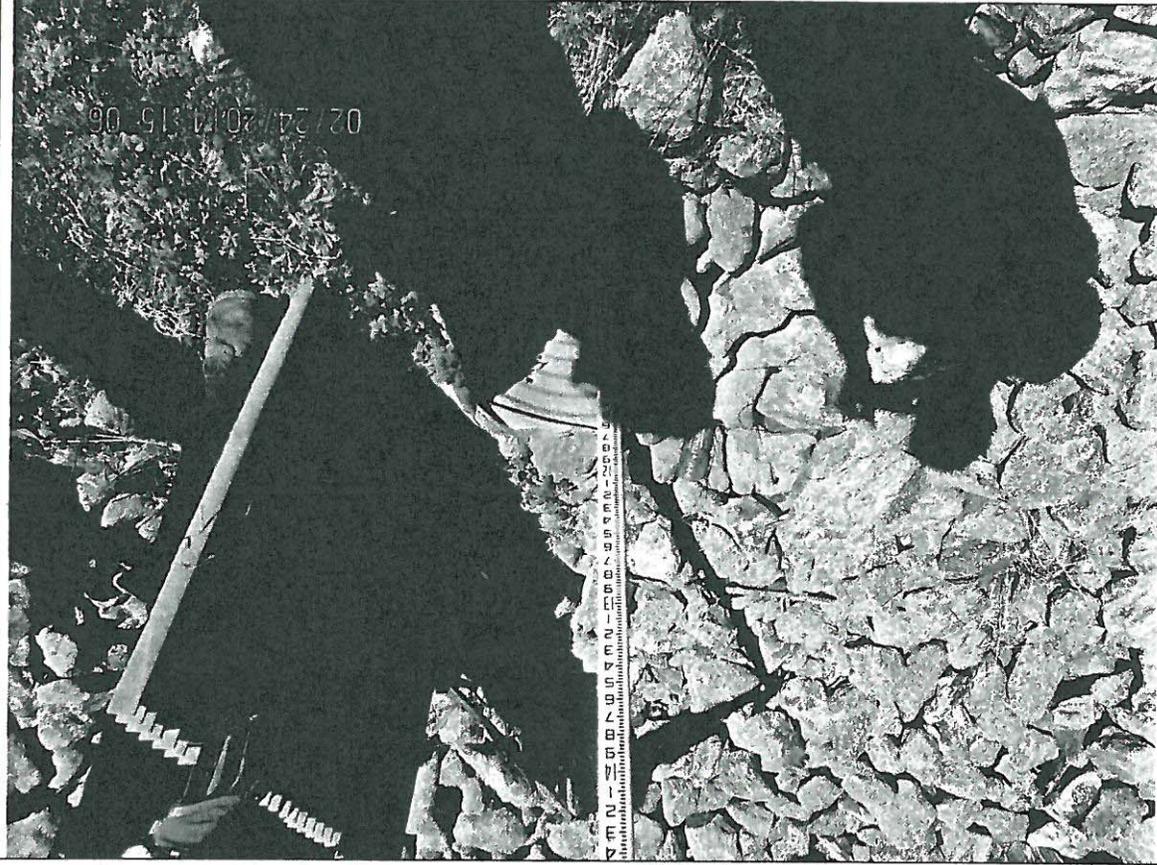


Photo 2-The Toe drain in this location is 11.5 feet deep.



Photo 3 - Standing water is shown in this location left of the drain.



Photo 4 - Minor surface slippage shown on the embankment.

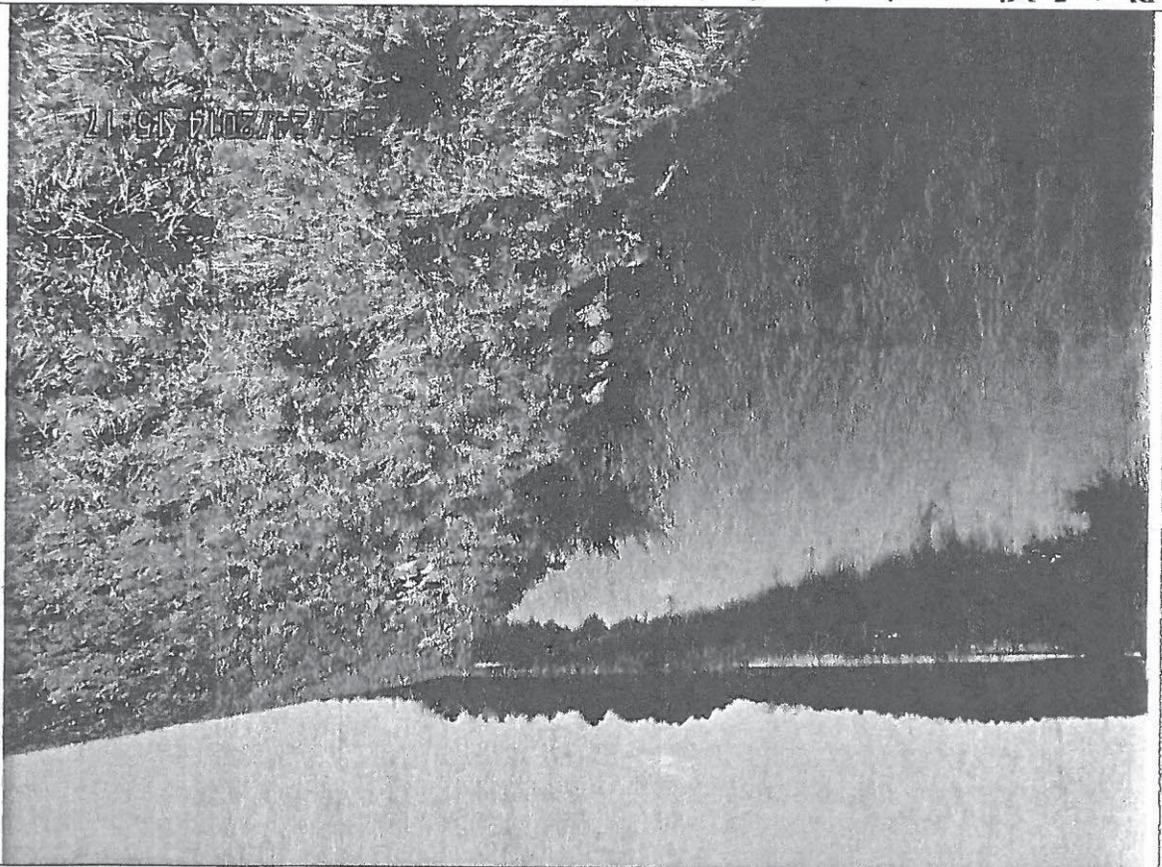


Photo 5 - Minor erosion along the shoreline of the upstream side of the embankment.



Photo 6 - Bare spots in vegetation that need to be reestablished.

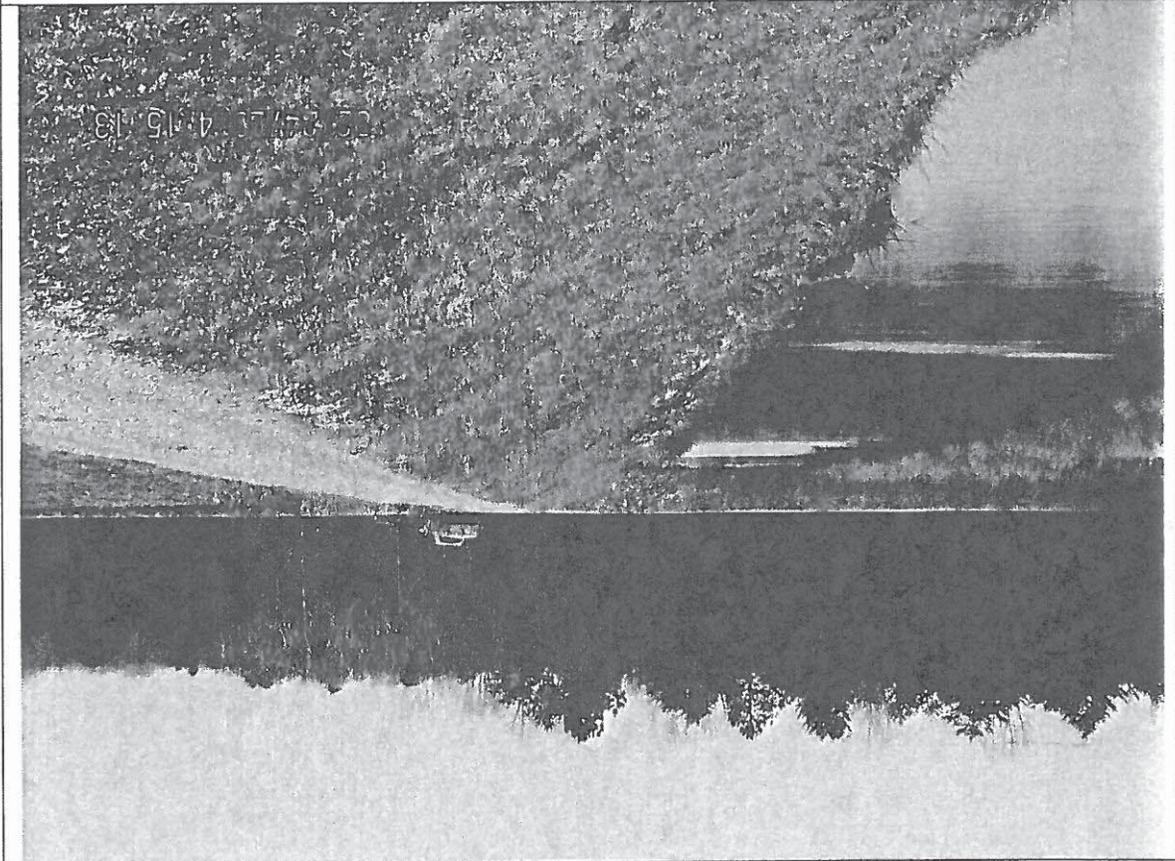


Photo 7- View along upstream of the embankment at crest.

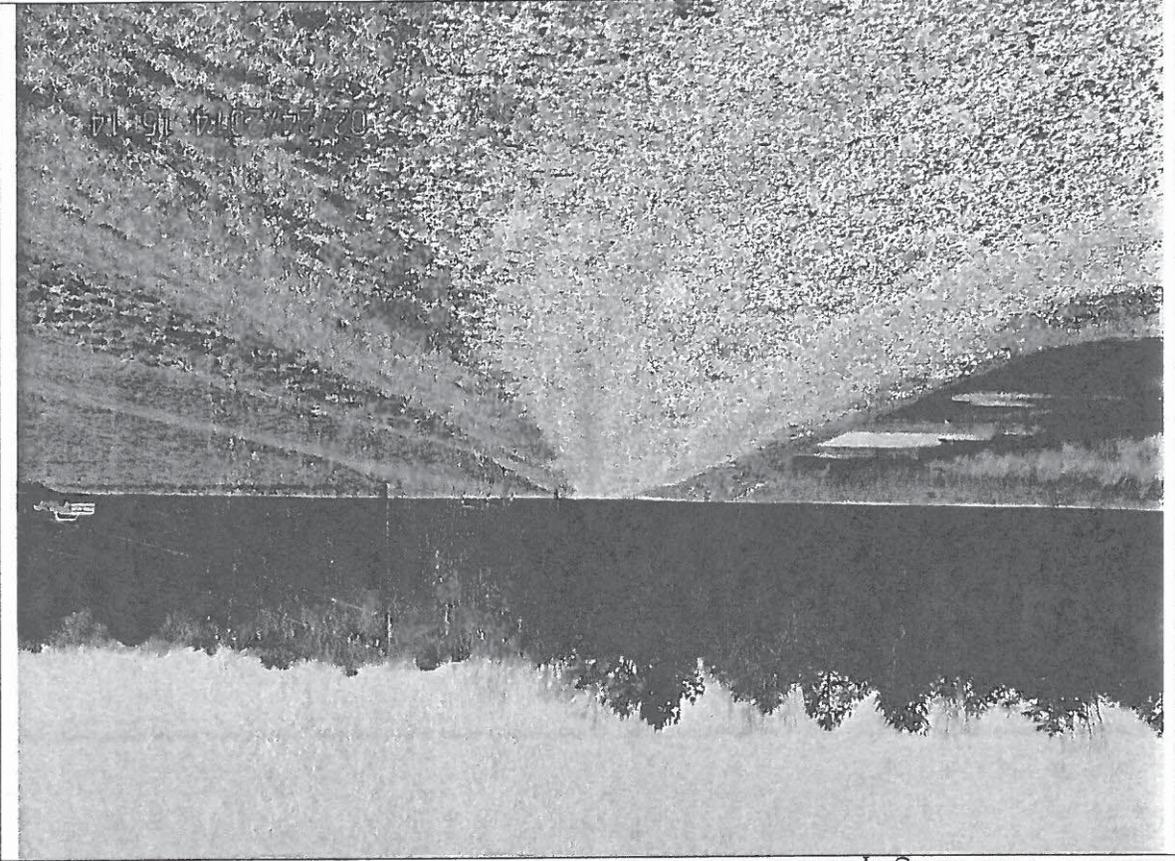


Photo 8- View along the crest on downstream side.

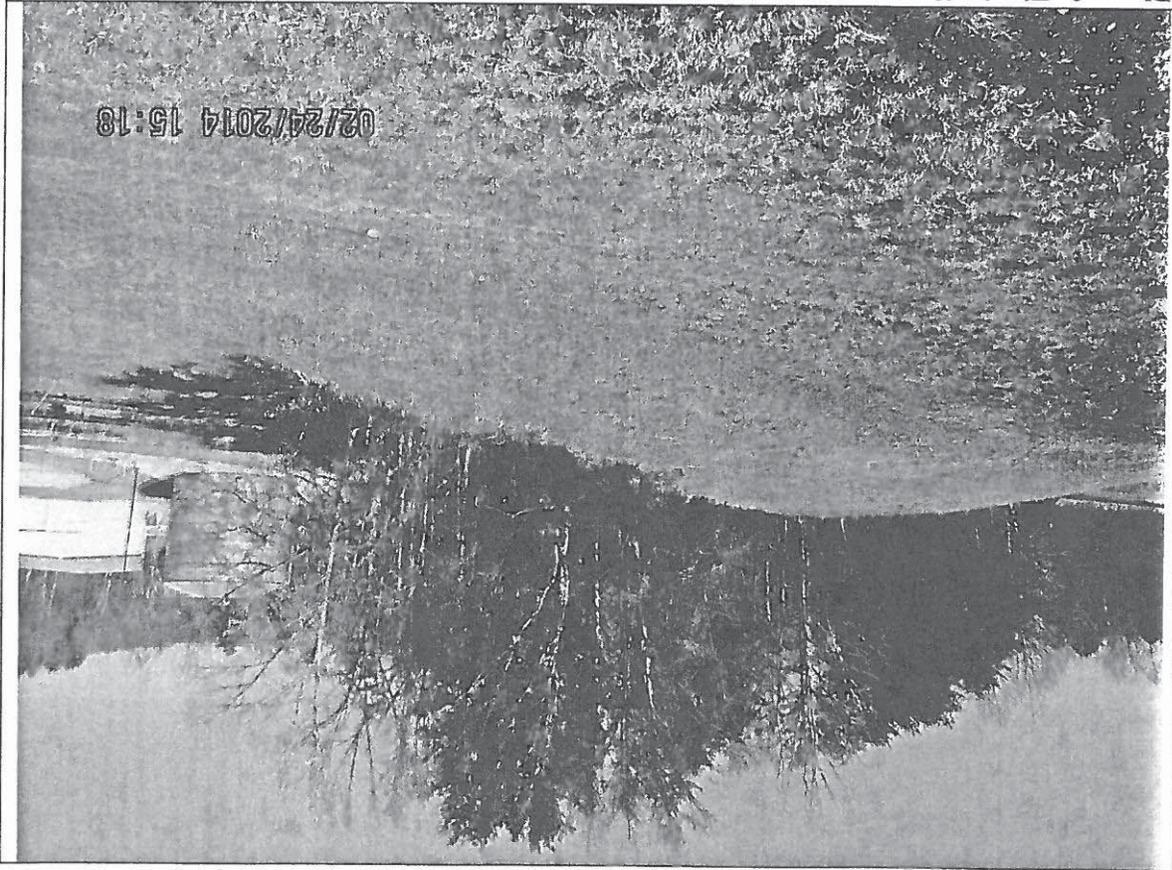


Photo 9- The buffer area along this area is not properly stabilized.



Photo 10- The slopes along the embankment are not uniform and some areas appear to be under high stress.



Photo 11 - This area was recently repaired due to sever erosion. Stabilization needs to be established in this area.



Photo 12 - Ensure all piezometers have locking caps.

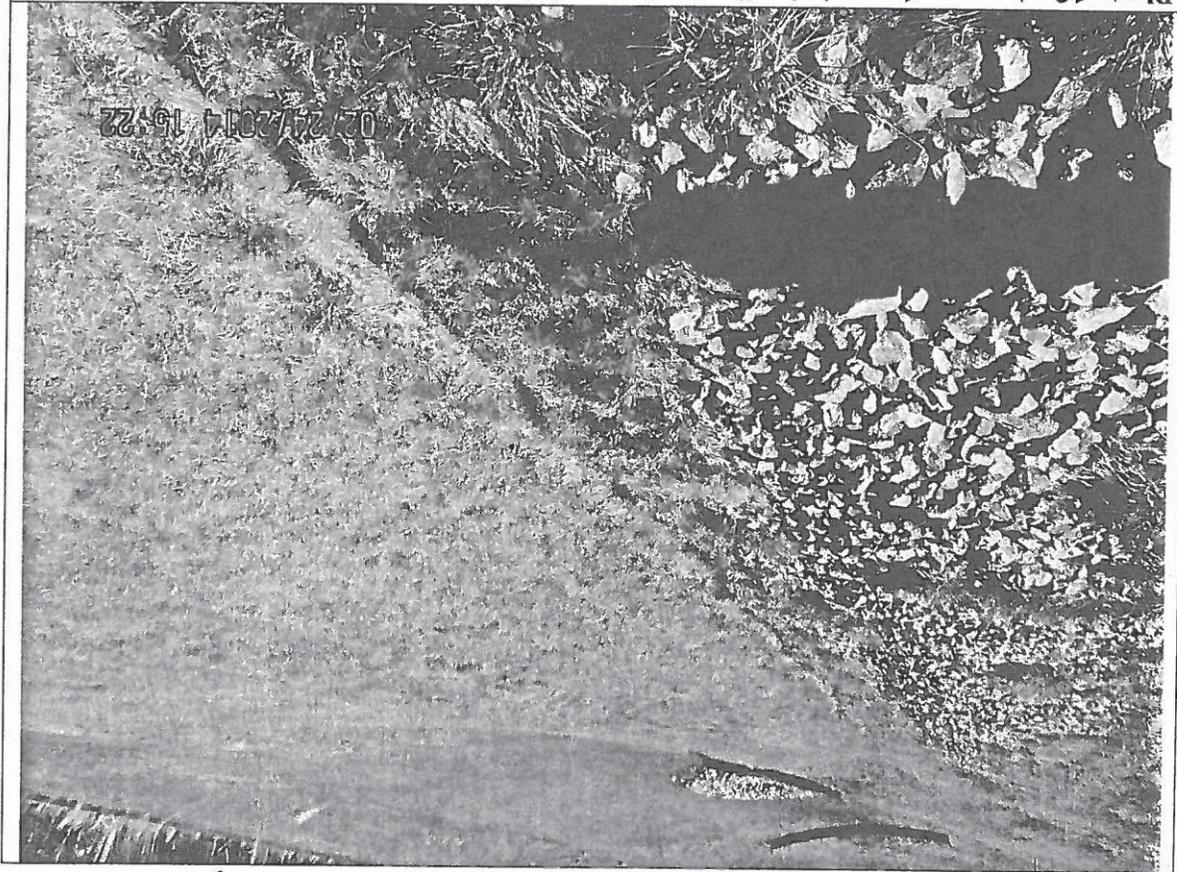


Photo 13- Appears the groin leading to the toe drain has erosion.

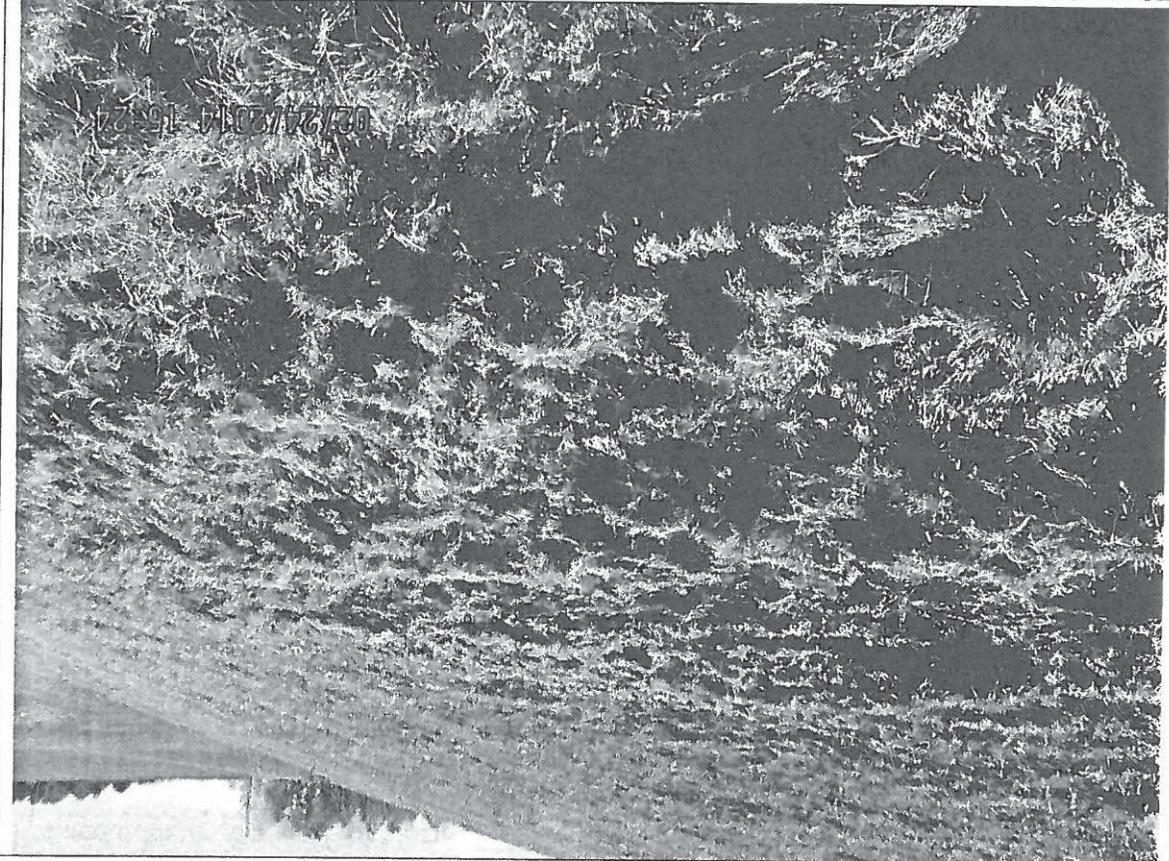


Photo 14- Marked Change in vegetation that may indicate high seepage line.

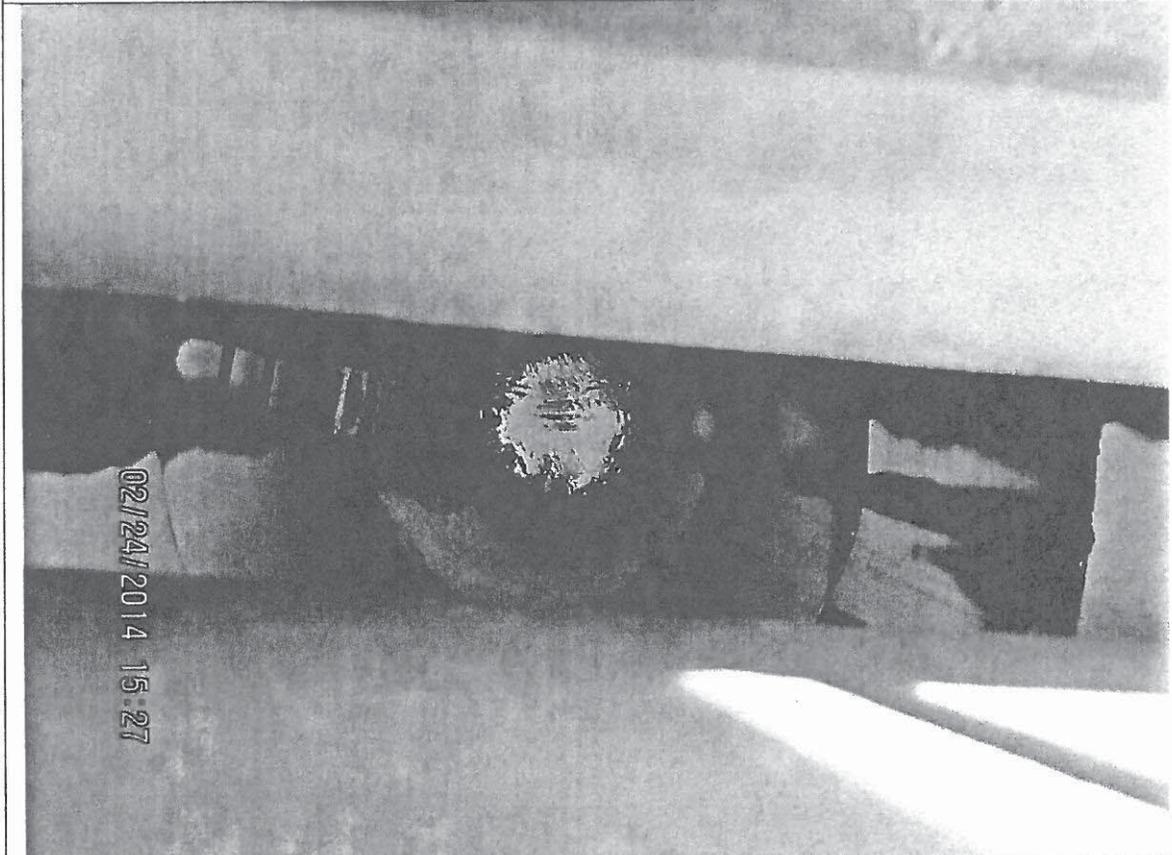


Photo 15- View through grate on second toe drain from south. Grate could not be removed due to stones piled along its edge. This restricts access that is need for sampling.

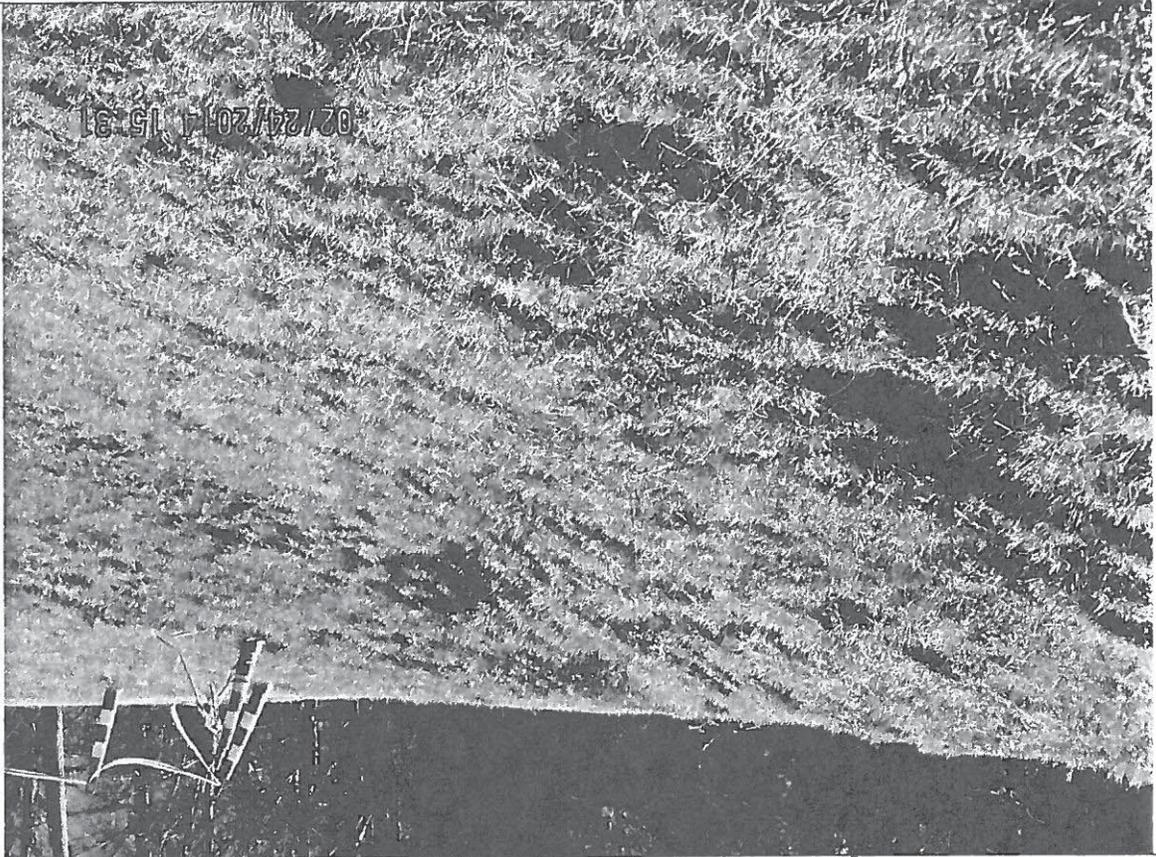


Photo 16- Minor surface slippages near crest on northern end of embankment.

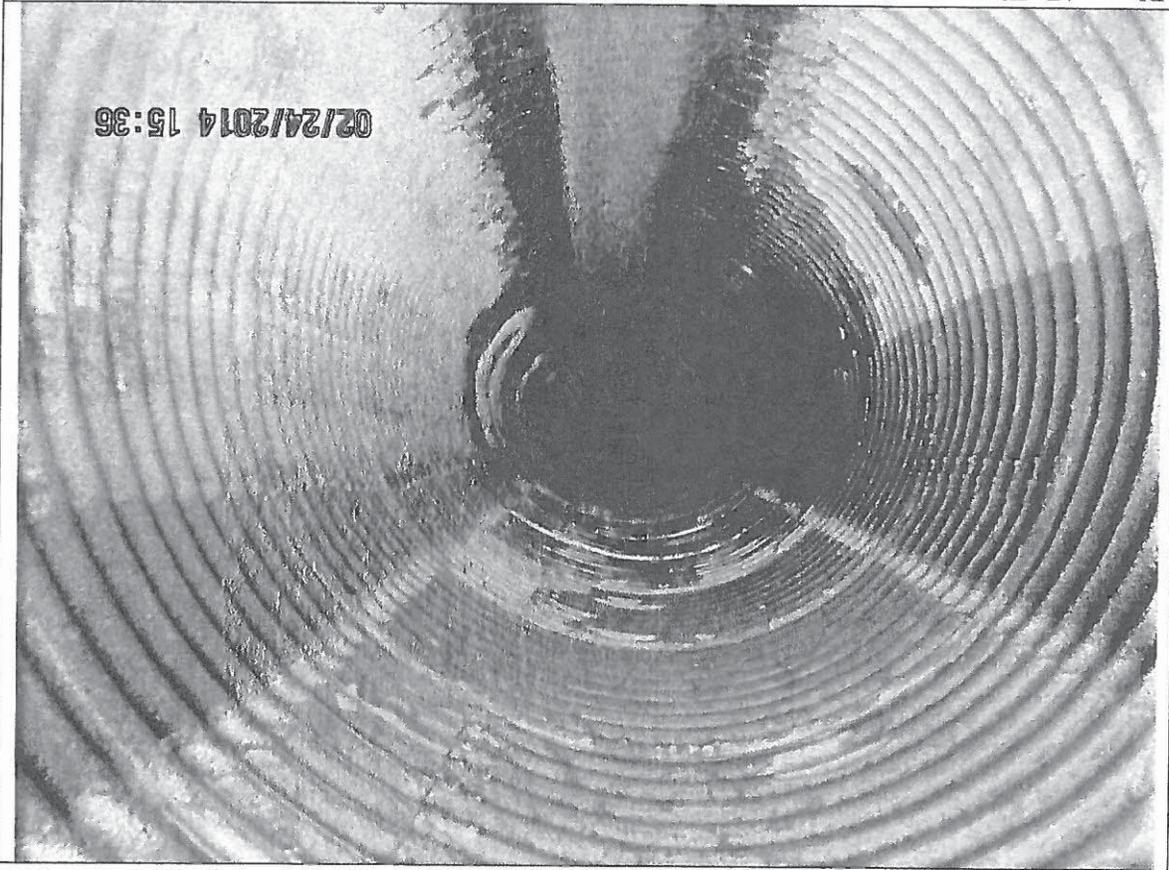


Photo 17- The second toe drain pipe shows a slight elliptical shape. This will need to be monitored.

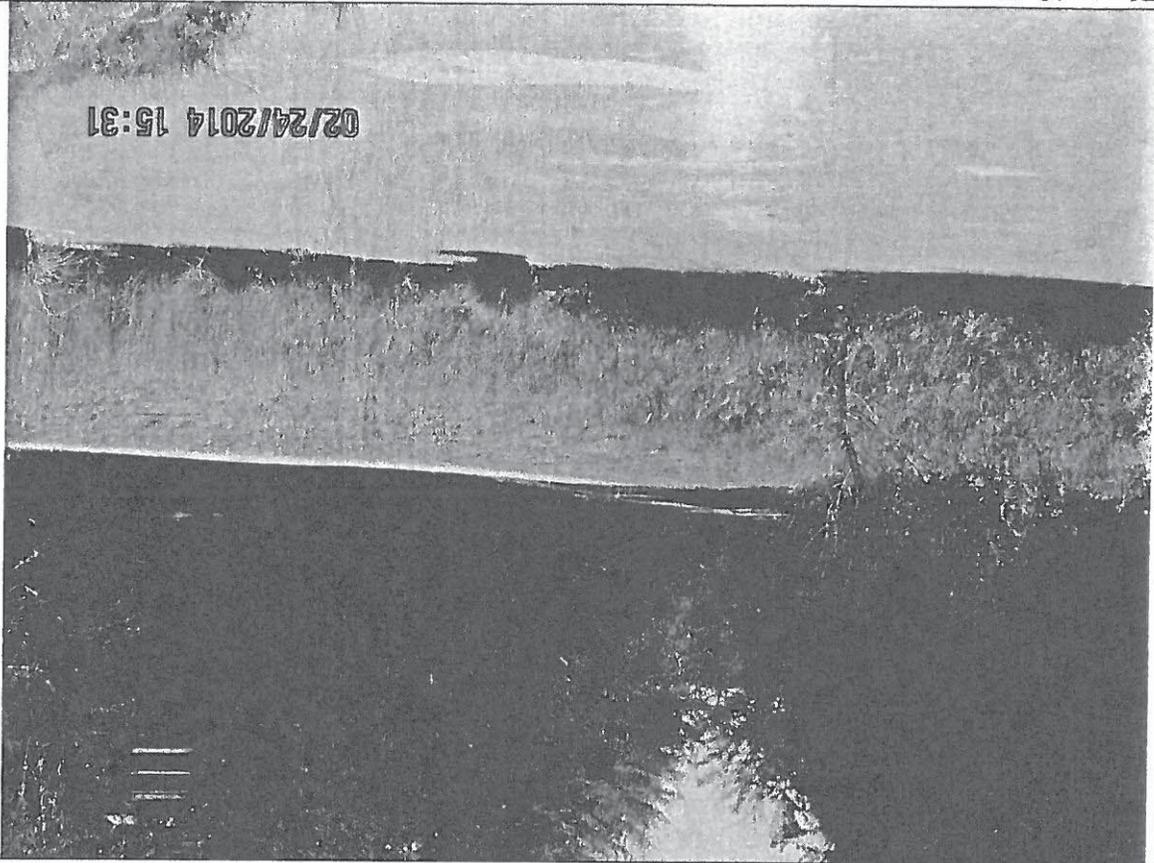


Photo 18- Trees in this location appear to be in natural grade.

February 24, 2014 Preliminary Inspection for WS Lee Primary Ash Basin

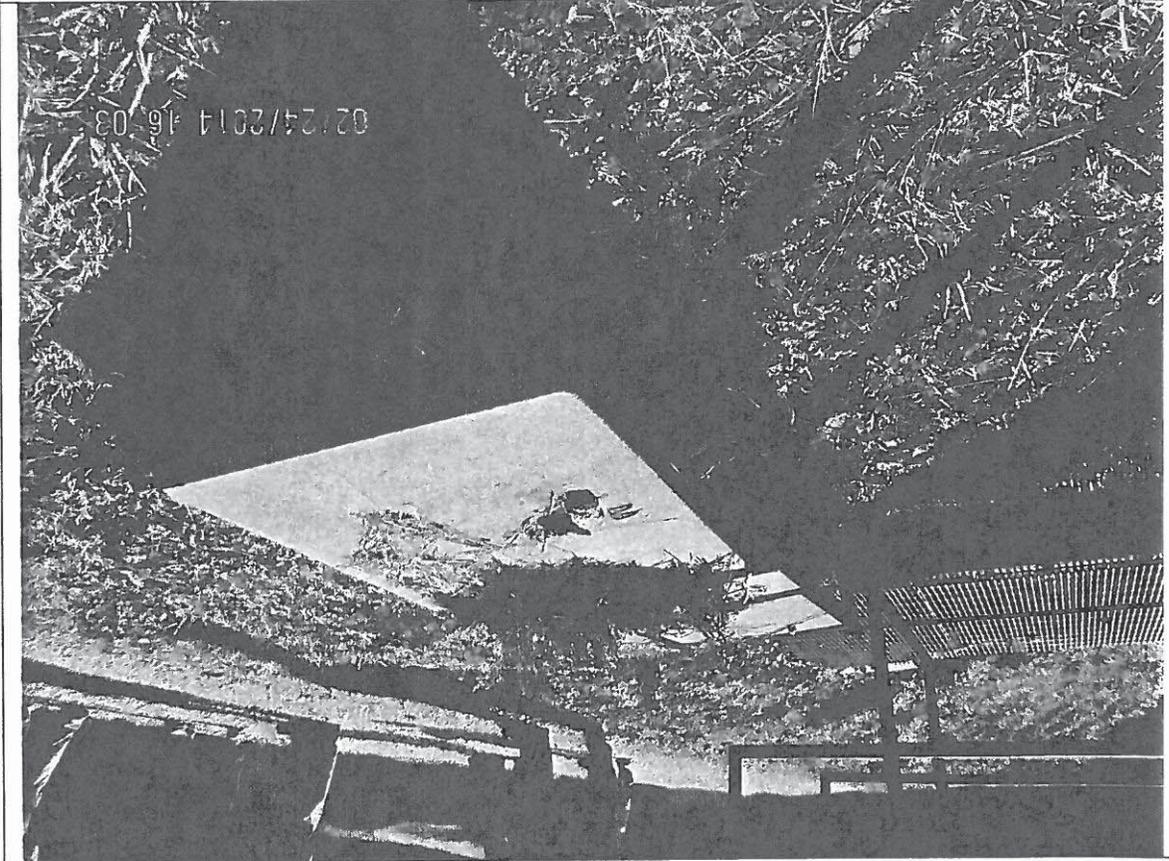


Photo 19- Areas protected from erosion on dike appear visibly higher.

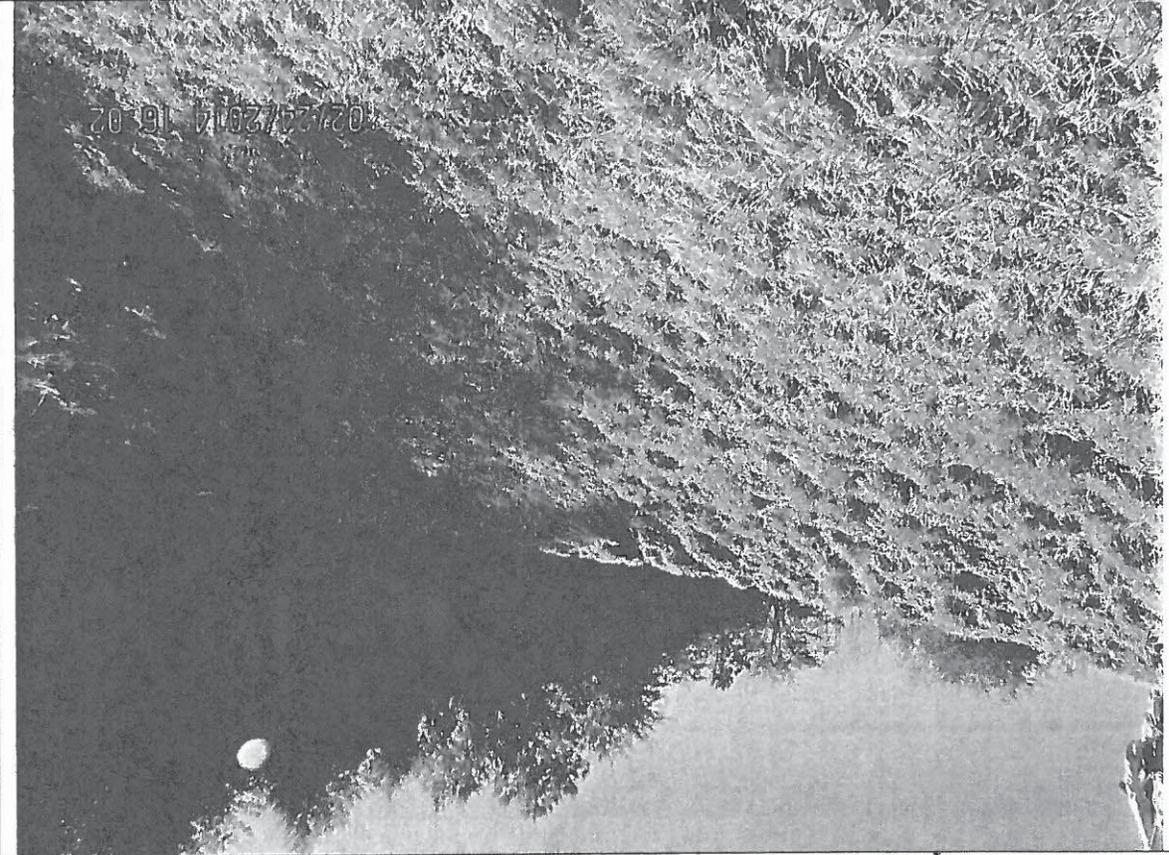


Photo 20- The slopes on dike are very steep and appear pear shaped.

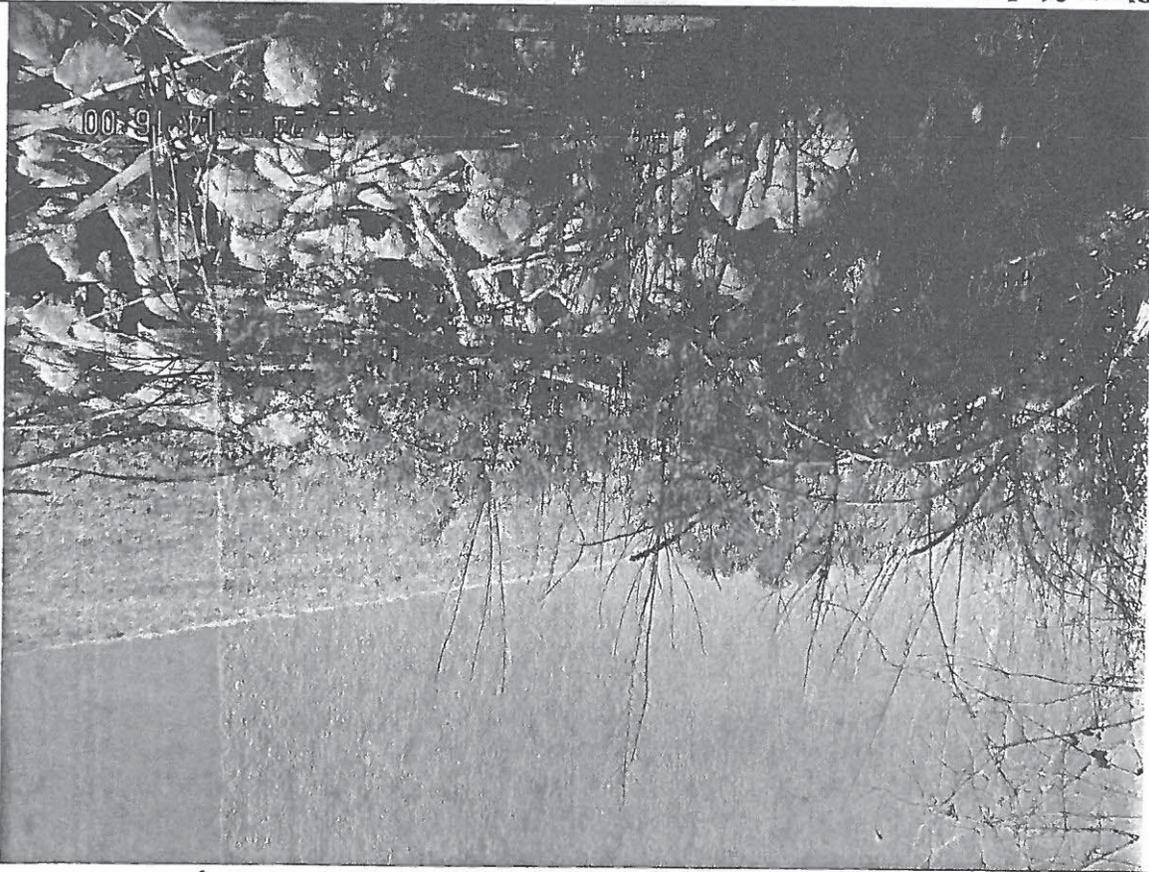


Photo 21 - Large amounts of dead vegetation that needs to be removed from riprap.



Photo 22 - View of conveyance between primary and secondary ash basins.

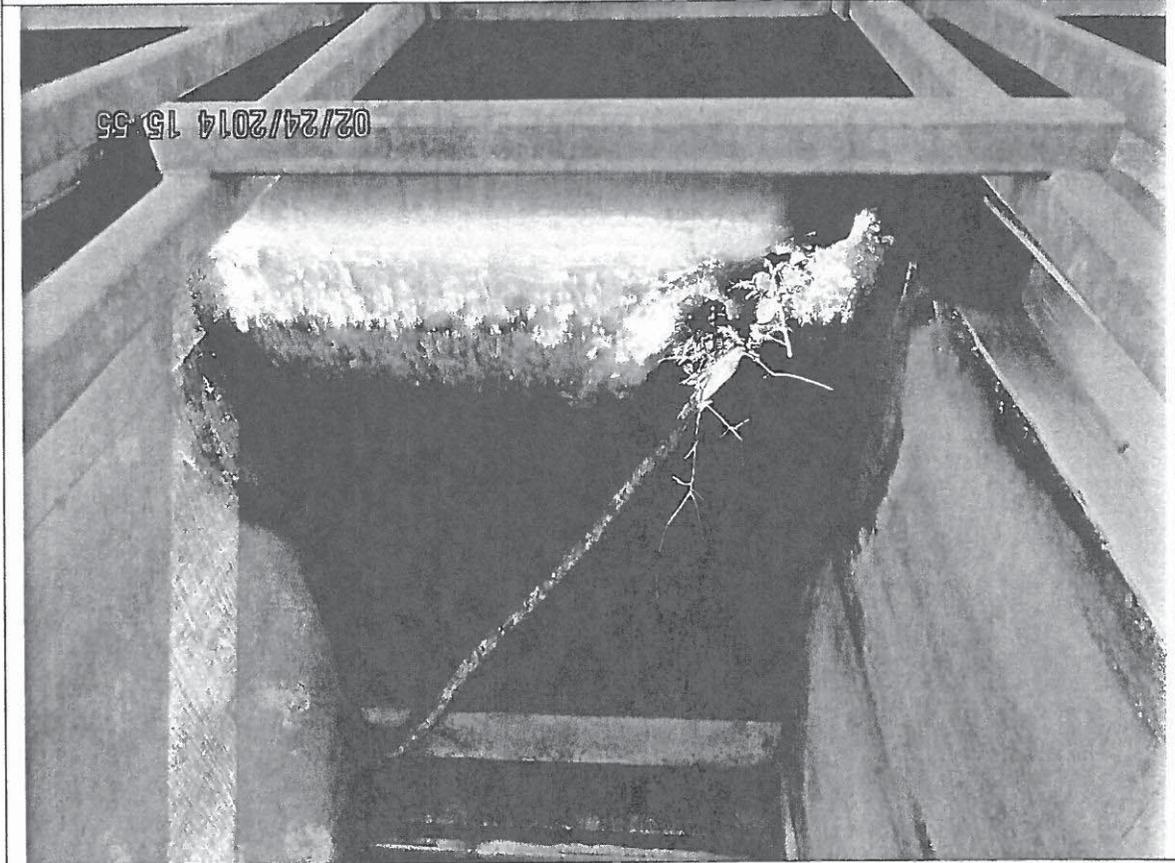


Photo 23- Debris shown within riser/spillway structure of primary ash basin.



Photo 24- View of primary ash basin spillway structure from dike embankment.



Photo 25 - Animal path shown on dike embankment leading to primary ash basin.

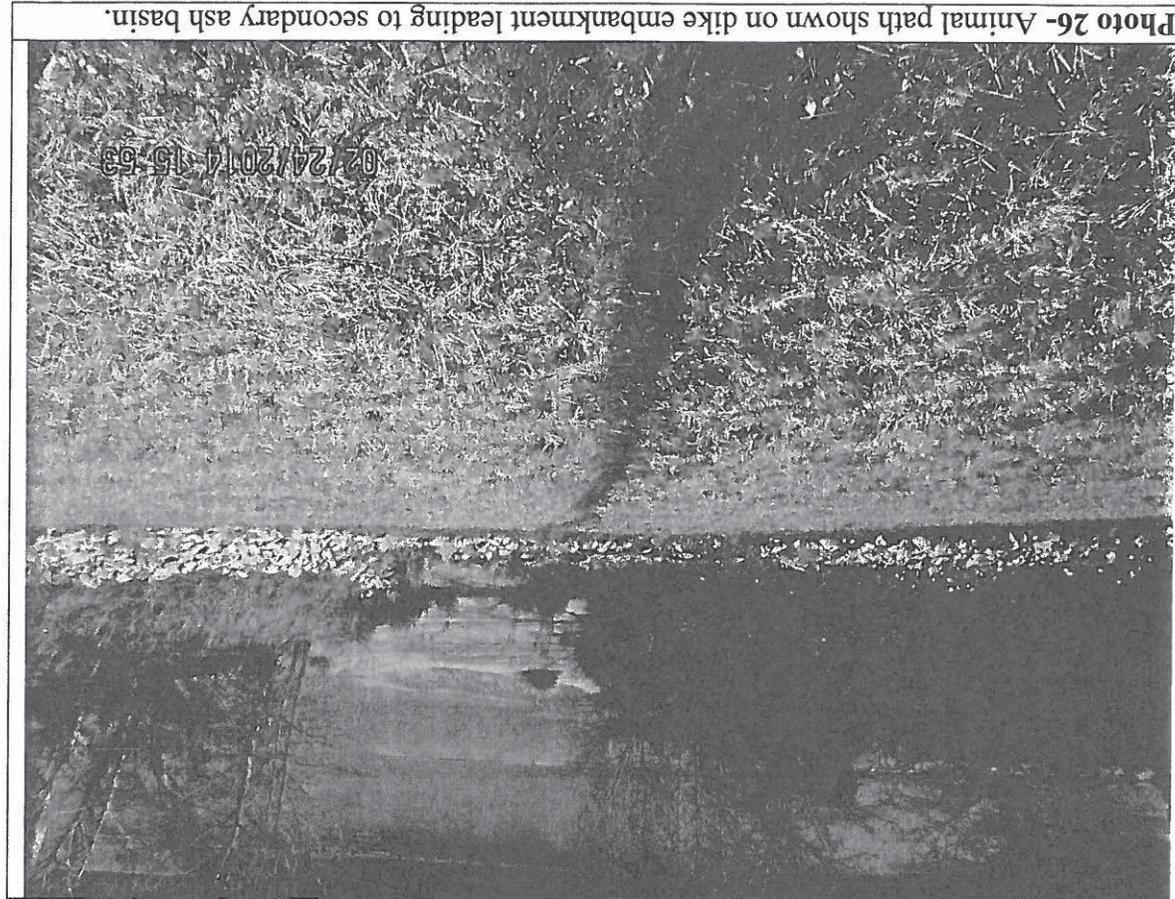


Photo 26 - Animal path shown on dike embankment leading to secondary ash basin.



02/24/2014 15:51

Photo 27- Upstream shoreline of dike embankment.



02/24/2014 15:51

Photo 28- Unusual survey markings on dike embankment.



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 3139 & Hazard Class C1 B. Name of Dam: Brushy Creek WCD Dam #18
C. Inspection Date (01/30/2015) & Time: 11:00 AM D. Date of Last Inspection: (12/27/2012)
E. Location-County/City: Anderson / Piedmont F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah M. Vinson (Todd Tripp (864-505-3547) and James Chastain also present)
H. Owner's Name: Richard Tripp (864-430-3439) / James Chastain
I. Contact Person (if different from above): Ben Wigington, Chairman, Brushy Creek WCD (864-982-0083, cell)
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other (864) 982 - 0083
K. Dam Owner's or Contact Person's mailing address:
Address 1 3311 Highway 86 (Wigington)
Address 2 (optional) 111 Hamby Dr (Tripp) 313 Timms Rd (Chastain)
City Piedmont, State SC Zip Code 29673 -

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 and mowed
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? Shallow tire ruts - monitor and repair as necessary
v. Any visible settlement, misalignment or cracks? None observed

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? None observed
- 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? None observed
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? Small trickle; pipes were replaced/repared within last 2 years
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

- i. Any visible deterioration of structure? None observed
- ii. Is there an obvious need to repair or replace trash rack? None observed
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes - replaced last 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? N/A
- iv. Any visible deterioration of structure's crest? N/A

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 1666 & Hazard Class C1 B. Name of Dam: Beaverdam Creek WCD #2
C. Inspection Date (02/03/2015) & Time: 10:30 AM D. Date of Last Inspection: (12/18/2012)
E. Location-County/City: Oconee / Fairplay F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Beaverdam Creek Water Conservation District
I. Contact Person (if different from above): Eddie Martin
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office (864) 638 2213x101 Other () -
K. Dam Owner's or Contact Person's mailing address: Address 1 301 W South St 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 [x] c) Poor [] d) Unsatisfactory [] e) Not Rated []

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass - mowed or bush-hogged annually
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 or bush-hogged annually
- ii. Animal activity observed? Left half of dam has horses. Fence needs to be moved/added to exclude animals from dam.
- 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 or bush-hogged annually
- ii. Animal activity observed? Burrows observed to right of outlet pipe, about halfway down slope.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? ATV tracks to left of fence are causing erosion and depression down entire length of slope.
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? Yes, however, pipe to left of outlet pipe appears to be clogged. Pipe needs to be cleared of blockages.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Left of outlet pipe, near base of dam.

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 4 years

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? Horses are pastured in this area.
- 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:

All directional comments are facing downstream.

Horses and ATV's should be excluded from dam to prevent further damage from erosion.

Burrows should be filled and area monitored for any additional animal activity.

Toe drain pipe should be cleared of blockages.

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 4026 & Hazard Class C1 B. Name of Dam: Beaverdam Creek WCD #3A
C. Inspection Date (02/03/2015) & Time: 11:30 AM D. Date of Last Inspection: (12/18/2012)
E. Location-County/City: Oconee / Fairplay F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Beaverdam Creek Watershed Conservation District
I. Contact Person (if different from above): Eddie Martin
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office (864) 638 2213 x101 Other () -
K. Dam Owner's or Contact Person's mailing address: Address 1 301 W South Broad St Address 2 (optional) City Walhalla, State SC Zip Code 29691 -

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; fence across middle of dam to mark property line.
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; fence across middle of dam to mark property line.
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Bare area with depression near left of fence about halfway down slope.
- v. Settlement or cracks visible in slope? Depression to right of fence about halfway down slope approximately 10' high x4' wide.

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass - mowed; fence across middle of dam to mark property line.
- ii. Animal activity observed? None observed.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? Bare areas where mowing tractor is turning on slope; please stabilize with grass seed and monitor for erosion.
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? No toe drains visible
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

- i. Any visible deterioration of structure? None observed
- ii. Is there an obvious need to repair or replace trash rack? None observed
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes; valve exercised every four (4) years

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; emergency spill way appears to go behind two (2) houses on the left side of 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? N/A

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 3126 & Hazard Class C1 B. Name of Dam: Three & Twenty WCD Dam
C. Inspection Date (02/10/2015) & Time: 12:30 PM D. Date of Last Inspection: (03/08/2012)
E. Location-County/City: Anderson / Liberty F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Three & Twenty Watershed Conservation District
I. Contact Person (if different from above): Phil Tripp, Chairman
J. Dam Owner's or Contact Person's Phone Numbers: Home (864) 419 - 4404
Office () -
Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 143 Hunt Road
Address 2 (optional)
City Easley, State SC Zip Code 29642 -

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 and mowed
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed.
iv. Erosion noticed on crest? Vehicle tracks.
v. Any visible settlement, misalignment or cracks? None observed.

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:

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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.



W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

May19, 2015

Whitewater Lake Fishing & Boating Club
PO Box 266
Salem, SC 29676

**Re: Preliminary Inspection of Dam 1636
Whitewater Lake Dam, Oconee County**

Dear Sir or Madam:

As you are aware, the South Carolina Department of Health and Environmental Control (DHEC) is responsible for assuring all hazardous dams are properly maintained in order to prevent failure. On March 17, 2015, DHEC conducted its routine inspection of the "Class 1 High Hazard" dam listed above.

This dam appears to be in SATISFACTORY condition. Please see enclosed inspection report for further detail.

Also enclosed is DHEC Form 2606, Surveillance, Emergency Notification, and Action Plan for South Carolina Regulated Dams. Please complete this form and mail it back to the Department within thirty (30) days of receipt of this letter.

The dam will be re-inspected in two (2) years, per regulation; if concerns are reported, this may occur sooner. Provisions of the SC Dams and Reservoirs Safety Act require the owner to notify us within 30 days after transferring title or control of this dam to another. If you have any questions related to this inspection, you may contact me by e-mail at vinsonhm@dhec.sc.gov, or by phone at (864) 260-5585.

Thank you,

Hannah M Vinson, EI
Regional Engineer
Upstate EQC Anderson
220 McGee Road
Anderson, SC 29621

Enclosures

Cc: John Poole, SCDHEC Dams and Reservoirs Safety Program
File

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass; rip-rap at shoreline
- 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
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? Bank is very steep; nearly vertical beside road
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? None observed
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Wet area above outlet pipe at toe of slope; water flowing down right groin, starting about 1/3 of the way up the slope (could be spring)

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? Stem is visible

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: Pipe is rusty
- iii. Visible condition of outlet channel: Clear with rip-rap on sides of channel

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

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.

Emergency Action Plan should be submitted to the Department.

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 1636 – Whitewater Lake Dam

Date: 3/17/2015

Photographer: Hannah Vinson



1. Crest of dam.



2. Front slope of dam.



3. Front slope of dam.



4. Back slope of dam.



5. Back slope of dam.



6. Back slope of dam.



7. Primary spillway.



8. Primary spillway.



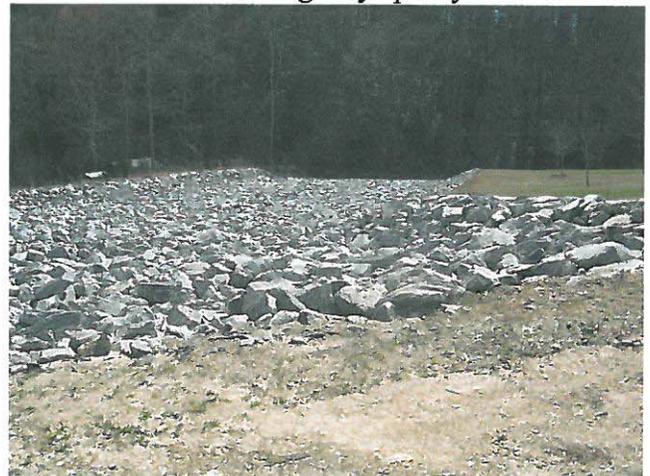
9. Primary spillway.



10. Emergency spillway.



11. Emergency spillway.



12. Emergency spillway.



13. Emergency spillway.



14. Outlet pipe.



15. Outlet pipe.



16. Rust on outlet pipe.



17. Outlet channel.



18. Wet area in right groin.



W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

May 19, 2015

Mr. Eddie Martin
Beaverdam Creek WCD
301 W South St
Walhalla, SC 29691

**Re: Preliminary Inspection of Dam 1652
Coneross Creek WCD Dam #1A, Oconee County**

Dear Mr. Martin:

As you are aware, the South Carolina Department of Health and Environmental Control (DHEC) is responsible for assuring all hazardous dams are properly maintained in order to prevent failure. On March 18, 2015, DHEC conducted its routine inspection of the "Class 1 High Hazard" dam listed above.

This dam appears to be in SATISFACTORY condition. Please see enclosed inspection report for further detail.

The dam will be re-inspected in two (2) years, per regulation; if concerns are reported, this may occur sooner. Provisions of the SC Dams and Reservoirs Safety Act require the owner to notify us within 30 days after transferring title or control of this dam to another. If you have any questions related to this inspection, you may contact me by e-mail at vinsonhm@dhec.sc.gov, or by phone at (864) 260-5585.

Thank you,

Hannah M Vinson, EI
Regional Engineer
Upstate EQC Anderson
220 McGee Road
Anderson, SC 29621

Enclosures

Cc: John Poole, SCDHEC Dams and Reservoirs Safety Program
File



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 1652 & Hazard Class C1
B. Name of Dam: Beaverdam Creek WCD #1A (Poor Farm)
C. Inspection Date (03/18/2015) & Time: 11:30 AM
D. Date of Last Inspection: (02/01/2013)
E. Location-County/City: Oconee / Walhalla
F. EQC Regional Office: Anderson
G. Inspector's Name: Hannah Vinson
H. Owner's Name: Beaverdam Creek Water Conservation District
I. Contact Person (if different from above): Eddie Martin
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office (864) 638 2213x101 Other () -
K. Dam Owner's or Contact Person's mailing address: Address 1 301 W South Broad St Address 2 (optional) City Walhalla, State SC Zip Code 29691 -

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
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass
- ii. Animal activity observed? None observed.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? None observed
- v. Settlement or cracks visible in slope? Two areas were slightly depressed. Monitor and repair as necessary.

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? Some damage to slope, possibly from tractor used to mow slope.
- v. Settlement or cracks visible in slope? Area in center of slope is slightly depressed. Monitor and repair as necessary.
- vi. Toe drains flowing? Yes, repaired last year.
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Wet area on bench to left of outlet pipe.

D. Primary Spillway

- i. Any visible deterioration of structure? None observed - structure was mostly submerged.
- ii. Is there an obvious need to repair or replace trash rack? None observed - structure was mostly submerged.
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes

E. Outlet Pipe

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

D 1652 – Coneross Creek WCD Dam #1A

Date: 3/18/2015

Photographer: Hannah Vinson



1. Crest of dam.



2. Crest of dam.



3. Front slope of dam.



4. Front slope of dam.



5. Front slope of dam.



6. Front slope of dam.



7. Back slope of dam.



8. Back slope of dam.



9. Back slope of dam.



10. Back slope of dam.



11. Back slope of dam.



12. Back slope of dam.



13. Possible spring on back side of dam.



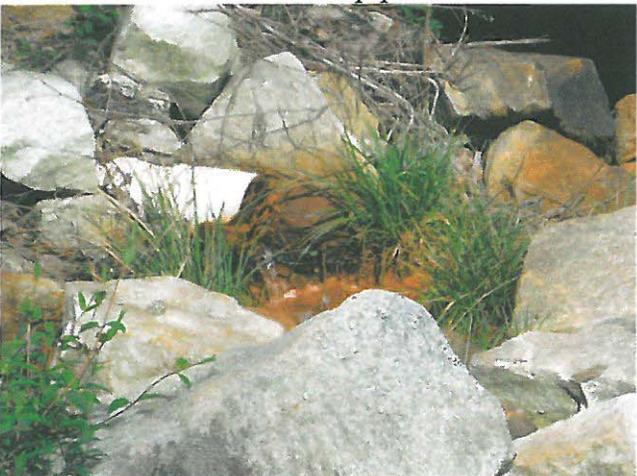
14. Possible spring on back side of dam.



15. Outlet pipe.



16. Outlet channel.



17. Toe drain.



18. Back slope of dam.



19. Back slope of dam.



20. Primary spillway.



21. Primary spillway.



22. Emergency spillway.



W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

May 19, 2015

Mr. Eddie Martin
Beaverdam Creek WCD
301 W South Broad St
Walhalla, SC 29691

**Re: Preliminary Inspection of Dam 1653
Coneross WCD Dam #8, Oconee County**

Dear Mr. Martin:

As you are aware, the South Carolina Department of Health and Environmental Control (DHEC) is responsible for assuring all hazardous dams are properly maintained in order to prevent failure. On March 18, 2015, DHEC conducted its routine inspection of the "Class 1 High Hazard" dam listed above.

This dam appears to be in SATISFACTORY condition. Please see enclosed inspection report for further detail.

The dam will be re-inspected in two (2) years, per regulation; if concerns are reported, this may occur sooner. Provisions of the SC Dams and Reservoirs Safety Act require the owner to notify us within 30 days after transferring title or control of this dam to another. If you have any questions related to this inspection, you may contact me by e-mail at vinsonhm@dhec.sc.gov, or by phone at (864) 260-5585.

Thank you,

Hannah M Vinson, EI
Regional Engineer
Upstate EQC Anderson
220 McGee Road
Anderson, SC 29621

Enclosures

Cc: John Poole, SCDHEC Dams and Reservoirs Safety Program
File

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass
- ii. Animal activity observed? Animal trail (possibly raccoon?) in center of slope. Wild hog activity on right side of slope. Monitor and repair as necessary to avoid 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? Possible crack in center near animal trail. Monitor and repair as necessary to prevent further damage to slope.

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass
- ii. Animal activity observed? Wild hog activity on right side. Animal trail (possibly raccoon?) in center of slope. Monitor and repair as necessary to prevent eroision.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? None observed
- v. Settlement or cracks visible in slope? None observed
- vi. Toe drains flowing? Yes
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed

D. Primary Spillway

- i. Any visible deterioration of structure? None observed
- ii. Is there an obvious need to repair or replace trash rack? None observed
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? Yes. Repair/replacement is to be scheduled soon.

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? Wild hog activity.
- iii. Any noticeable deterioration in the approach or discharge channel? None observed
- iv. Any visible deterioration of structure's crest? None observed

D 1653 – Coneross Creek WCD Dam #8

Date: 3/18/2015

Photographer: Hannah Vinson



1. Crest of dam.



2. Crest of dam with evidence of wild hogs.



3. Front slope of dam.



4. Front slope of dam.



5. Trail on front slope of dam.



6. Another view of trail on front slope of dam.



7. Back slope of dam with evidence of wild hogs.



8. Back slope of dam.



9. Evidence of wild hogs on back slope of dam.



10. Evidence of wild hogs on back slope of dam.



11. Evidence of wild hogs on back slope of dam.



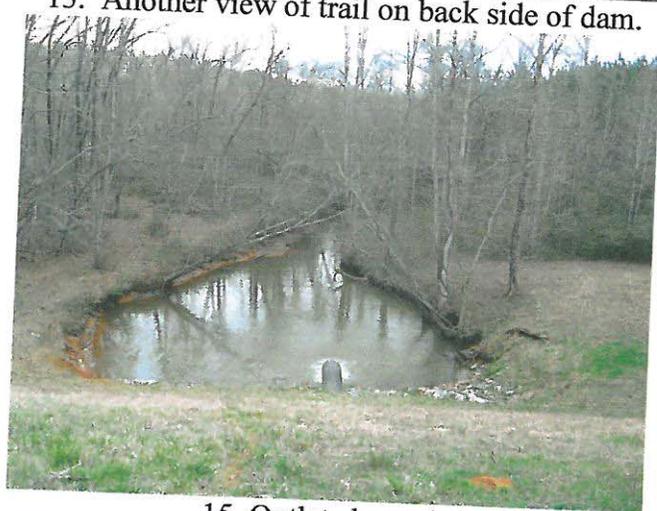
12. Trail on back slope of dam.



13. Another view of trail on back side of dam.



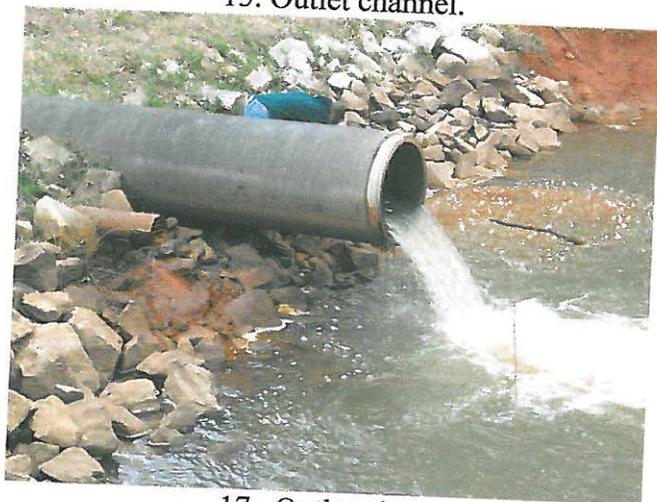
14. Another view of trail on back side of dam.



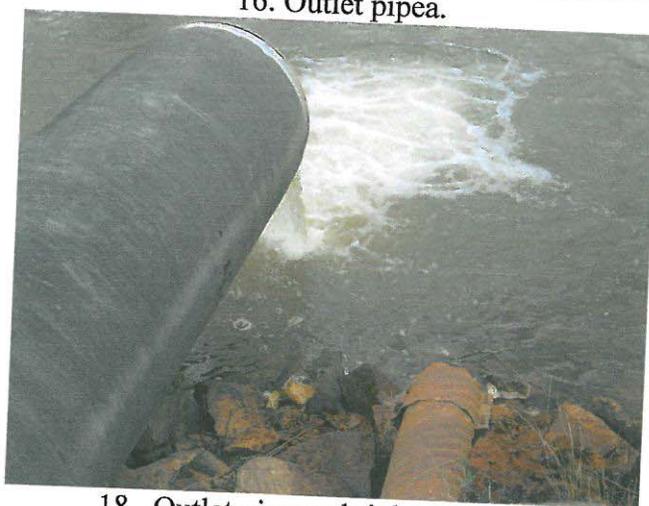
15. Outlet channel.



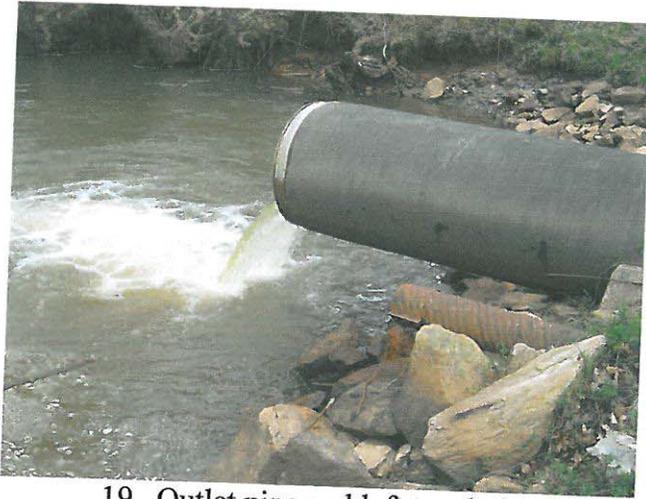
16. Outlet pipea.



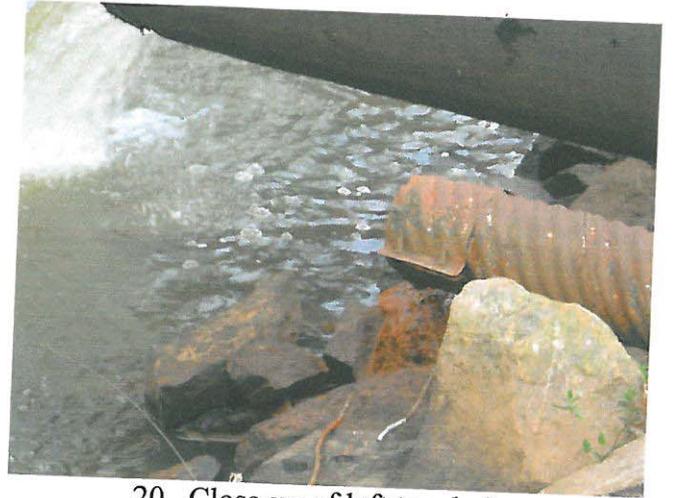
17. Outlet pipe.



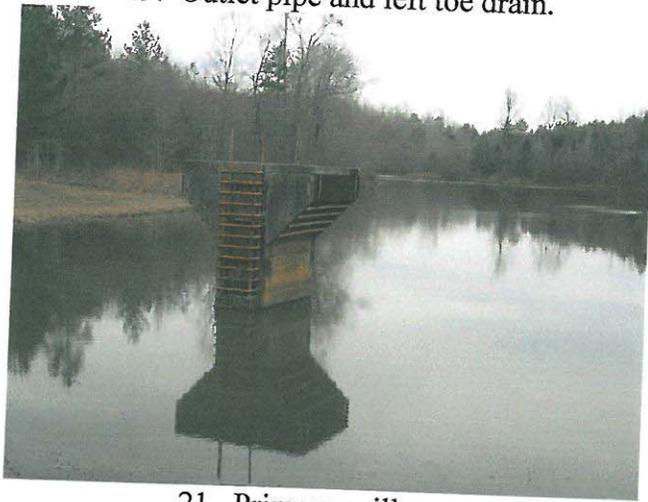
18. Outlet pipe and right toe drain.



19. Outlet pipe and left toe drain.



20. Close-up of left toe drain.



21. Primary spillway.



22. Emergency spillway.



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

Certified Delivery

91 7108 2133 3939 6185 4038

March 14, 2014

Sean DeNeale, Engineer II
Duke Energy - Environmental Services
205 Lee Steam Plant Rd.
Belton, SC 29627

Re: WS Lee Steam Station Primary Ash Basin (D 4887) Preliminary Inspection Results
High Hazard, Anderson County

Mr. Sean 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. The dam holding back the primary ash basin is considered to have two earthen embankments where only one embankment has an outlet structure and it discharges into the secondary ash basin. See the enclosed location map for further clarification. Inspection reports and photographs from these inspections are enclosed. The following issues were discovered during the inspection:

The overall condition for this dam is rated fair. This rating is assigned to dam where no existing dam safety deficiencies are recognized for normal loading conditions. However, rare or extreme hydrologic and/or seismic events may result in a dam safety deficiency. **Please address the comments below in writing within 30 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 enclosed DHEC 2606 form to add as an addendum to your plan.
2. Remove dead and dying vegetation from rip rapped areas on the dam. See the enclosed inspection report for more information.
3. Remove debris from the spillway structure of this dam. A log was observed blocking flow. See the enclosed inspection report and photographs for more information.
4. Continue monitoring the condition of the spillway. Several locations on the spillway had defects from the improper fitting of pour in place concrete forms. These may affect the structures stability if reinforcing material within the concrete begins to rust. If signs of rusting are observed a detailed inspection of this structure may be required. Please continue to document all observations made.
5. Monitor the wet areas at the toe of the embankment and measure flow rates entering the drains. It is uncertain if the wetness in this area is a result of seepage or surface water. If flow rates increase or if coloration of flows is discovered, this could lead to a dam safety deficiency. Please document all observations made to establish a log of your observations. The flow data should be correlated with the water surface elevation within the ash pond and recent rainfall should be taken into account. Reshape the stone berms around toe drains so the gates may be removed for inspection. If at all possible flow rate

from the actual toe drains (pipes running parallel to the dam collection seepage flows) should be collected, measured, and analyzed.

6. Continue to monitor the occurrence of surface slides in 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 need to be retrofitted with soil berms to increase their stability. Please provide further information regarding how Duke is planning to address this issue.
7. Bare soil that could lead to further 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.
8. It appears that some work that may have required a permit recently occurred at toe of this dam. Please, in the future, ensure that necessary permits are received for non-emergency repair work on the dams.
9. Ensure all areas of the dam that is not protected by armor is stabilized by a thick stand of low growing grass.
10. 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 from the presence of these species on the dam is repaired. See the enclosed inspection report for more information.
11. Ensure all piezometers are painted and have locking covers. See the enclosed inspection report for more information.

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:

Location Map	
Completed form DHEC 2604 for D 4887	Photo table for D 4887

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