



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 4033 & Hazard Class 1 B. Name of Dam: Strom Dam
C. Inspection Date (04/24/2015) & Time: 11:00 a.m. D. Date of Last Inspection: (10/01/2013)
E. Location-County/City: Greenville / Marietta F. EQC Regional Office: Upstate EQC Greenville
G. Inspector's Name: Melissa Dawkins
H. Owner's Name: Nancy Strom
I. Contact Person (if different from above):
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other (352-322-5628) (mobile)
K. Dam Owner's or Contact Person's mailing address:
Address 1 220 Silver Creek Road
Address 2 (optional)
City Greer, State SC Zip Code 29650 -

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 and weeds were observed. A few bare areas were observed. These areas should be reseeded.
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed. The owner was in the process of removing trees and woody vegetation during the inspection and debris piles were observed. These debris piles must be removed.
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)? The thick vegetation, including weeds, small trees, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, item 1.
- ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation
- iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation. The owner was in the process of removing trees and woody vegetation during the inspection and debris piles were observed. These debris piles must be removed.
- iv. Erosion observed on upstream slope? None observed but could not fully inspect because of thick vegetation
- v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? The thick vegetation, including weeds, small trees, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. Large trees (diameter >4") were also observed. See Section IV, items 1 and 2.
- ii. Animal activity observed? Could not fully inspect due to thick vegetation
- iii. Any obvious alterations or repairs made? Could not fully inspect due to thick vegetation. The owner was in the process of removing trees and woody vegetation during the inspection and debris piles were observed. These debris piles must be removed.
- iv. Erosion observed on down stream slope? Could not fully inspect due to thick vegetation
- v. Settlement or cracks visible in slope? Could not fully inspect due to thick vegetation
- vi. Toe drains flowing? None seen
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Could not fully inspect due to thick vegetation

D. Primary Spillway

- i. Any visible deterioration of structure? The primary spillway had been cut down to 2' above the bottom and was wrapped with hardware cloth to prevent debris from clogging the outlet. An above-ground siphon system was also in place. See Section IV, item 3.
- ii. Is there an obvious need to repair or replace trash rack? No, however, wire around outlet structure must be inspected regularly to ensure it does not become clogged and allow the dam to impound water
- iii. Any noticeable problems with debris? No
- iv. Is valve or gate present? Yes, the valve is currently open to maintain the pond in a drained state.

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Could not inspect due to flowing water and thick vegetation
- ii. Describe any deflection or damage observed to the pipe: Could not inspect due to flowing water and thick vegetation
- iii. Visible condition of outlet channel: Good with little to no erosion observed

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? The concrete pipe on the left side was observed as the emergency spillway. Some debris was present around the pipe and should be removed.
- ii. Animal activity observed? None observed
- iii. Any noticeable deterioration in the approach or discharge channel? Bare areas were observed in the approach and discharge channels. This area should be re-seeded and monitored to ensure grass is established.
- iv. Any visible deterioration of structure's crest? The concrete pipe was partially exposed; however, no damage to the pipe was observed.

F. Auxiliary (Emergency) Spillway continued

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

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

H. Downstream/Hazard Class Issues

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

No

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, updated EAP must be submitted on or before 9/11/15. Current EAP in file is dated 5/20/14.

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

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

Section IV (Conclusions)

General comments and recommendations:

During the inspection, the pond was drained, the valve was open, and the dam was impounding only a few inches of water. According to Ms. Strom, she does not have intentions to refill the pond at this time. Please note that, prior to re-impounding water, a thorough inspection by a qualified South Carolina licensed professional engineer would be required to evaluate the overall condition of the dam and the Department must be notified in writing.

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

Grass is the ideal ground cover for a dam.

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

3. According to Ms. Strom, the siphon system is in place as an emergency back-up to drain the lake. The bottom portion of the siphon system had broken apart on the downstream slope. This should be repaired immediately.

Preliminary Dam Inspection Disclaimer:

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

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

INSTRUCTIONS

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

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

Section I (Owner's Information):

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

Section II (Dam Condition):

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

- a) SATISFACTORY- No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions in accordance with state engineer's rules and regulations for dams or tolerable risk guidelines.

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

Section III (Dam Inspection Checklist):

This section is self-explanatory and guides the inspector 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 4037 & Hazard Class S1 B. Name of Dam: Houck Pond
C. Inspection Date (04/10/2014) & Time: 11:50 a.m. D. Date of Last Inspection: (02/15/2012)
E. Location-County/City: Greenville / Travelers Rest F. EQC Regional Office: Upstate EQC Greenville
G. Inspector's Name: Melissa Dawkins, John Cobb
H. Owner's Name: Gary Bruce Houck
I. Contact Person (if different from above):
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other () -
K. Dam Owner's or Contact Person's mailing address:
Address 1 P.O. Box 322
Address 2 (optional)
City Travelers Rest, State SC Zip Code 29690 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

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

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass in good condition was observed.
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. The upstream slope could not be fully inspected due to the thick vegetation. See Section IV, item 1.
- ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation
- iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation
- iv. Erosion observed on upstream slope? Could not fully inspect because of thick vegetation
- v. Settlement or cracks visible in slope? Could not fully inspect because of thick vegetation

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Grass in good condition was observed on the right side and middle of the dam. Ivy was observed on the rock portion at the bottom of the dam; this should be cut and removed. Thick vegetation was observed on the left side. See Section IV, items 1, 2, and 3.
- ii. Animal activity observed? Yes, possible animal holes were observed all over the face of the dam. Monitor the dam regularly to ensure that harmful animal species are not present. Remove using legal means, as necessary.
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on down stream slope? Yes, a large, fairly deep hole (2' x 4') was observed on the left side, approximately 10' down slope, near the overflow pipe and the groin. See Section IV, item 4.
- v. Settlement or cracks visible in slope? Yes, a crack was observed in the middle of the dam, extending approximately 10' down slope and 30' to the right. See Section IV, item 4.
- vi. Toe drains flowing? The toe drain to the left of the outlet pipe was not flowing.
- 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? Could not inspect because of thick vegetation and water surface elevation
- ii. Is there an obvious need to repair or replace trash rack? Yes, the trash rack appeared to be very rusty and debris was observed inside the trash rack.
- iii. Any noticeable problems with debris? Debris was observed collected on and inside the trash rack. The debris must be removed. Monitor the outlet structure regularly for the presence of debris.
- iv. Is valve or gate present? None observed

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? Could not fully inspect because of flowing water
- ii. Describe any deflection or damage observed to the pipe: Could not fully inspect because of flowing water
- iii. Visible condition of outlet channel: Good condition with minimal erosion

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? The metal pipe that connects to a corrugated plastic pipe on the left was observed as the auxiliary spillway. No obstructions to flow were observed; however, no trash rack was in place on the end of the pipe. See Section IV, item 5.
- ii. Animal activity observed? None observed
- iii. Any noticeable deterioration in the approach or discharge channel? Yes, erosion was observed at the outlet of the corrugated plastic pipe. Repairs must be made to prevent further erosion. See Section IV, items 4 and 6.
- iv. Any visible deterioration of structure's crest? Not applicable

F. Auxiliary (Emergency) Spillway continued

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

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

H. Downstream/Hazard Class Issues

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

None observed from the crest of the dam

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted on or before 12/20/14.

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

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

Section IV (Conclusions)

General comments and recommendations:

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

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

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

See attached sheet for additional comments.

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

INSTRUCTIONS

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

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

Section I (Owner's Information):

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

Section II (Dam Condition):

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

- a) SATISFACTORY- No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected under all loading conditions in accordance with state engineer's rules and regulations for dams or tolerable risk guidelines.

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

Section III (Dam Inspection Checklist):

This section is self-explanatory and guides the inspector 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 4099 & Hazard Class 1 B. Name of Dam: North Stone Lake
C. Inspection Date (12/16/2013) & Time: 11:45 a.m. D. Date of Last Inspection: (12/09/2011)
E. Location-County/City: Greenville / Greenville F. EQC Regional Office: Upstate EQC Greenville
G. Inspector's Name: Melissa Dawkins
H. Owner's Name: North Stone Lake Association (note that county records list as Stone Lake Association, which is a separate entity)
I. Contact Person (if different from above): Russell Batson
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other (864) 320 - 8062
K. Dam Owner's or Contact Person's mailing address:
Address 1 22 Stono Drive
Address 2 (optional)
City Greenville, State SC Zip Code 29609 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

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

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Road across crest. Sewer line in the road. It would be prudent to have the sewer line TVed periodically to ensure that there is no deterioration to the sewer line that could affect the dam.
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Grass in good condition was observed on the majority of the slope. A few bare areas were observed; these areas should be reseeded.
- ii. Animal activity observed? None observed
- iii. Any obvious alterations or repairs made? None observed
- iv. Erosion observed on upstream slope? Erosion was observed along the water's edge, especially at the pipe outlet into the lake on the left. Monitor these areas to ensure that the erosion does not worsen. If it does, then slope protection along the water's edge may be needed.
- v. Settlement or cracks visible in slope? None observed

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, trees, shrubs, brush, and other deleterious vegetation, must be cut and removed. Portions of the dam could not be inspected due to the thick vegetation. See Section IV, items 2, 3, and 4.
- ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation
- iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation
- iv. Erosion observed on down stream slope? None observed but could not fully inspect because of thick vegetation
- v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation
- vi. Toe drains flowing? None seen
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: Seepage may be entering the storm drain system on the right side of the dam. This should be monitored regularly to ensure that the flows do not increase and become turbid. This would indicate a very serious situation and the Department should be notified immediately.

D. Primary Spillway

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

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? None observed but could not access the outlet because of water backed up along the toe of the slope and into the outlet pipe.
- ii. Describe any deflection or damage observed to the pipe: None observed but could not access the outlet because of water backed up along the toe of the slope and into the outlet pipe.
- iii. Visible condition of outlet channel: Water was observed backing up onto the toe of the slope, into the outlet pipe. This issue must be evaluated by a qualified SC licensed professional engineer to determine whether the backed-up water is causing any concerns with the safe operation of the dam.

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? No emergency spillway was observed
- ii. Animal activity observed? Not applicable
- iii. Any noticeable deterioration in the approach or discharge channel? Not applicable
- iv. Any visible deterioration of structure's crest? Not applicable

F. Auxiliary (Emergency) Spillway continued

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

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

H. Downstream/Hazard Class Issues

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

I. Emergency Action Plan (EAP)

i. Emergency Action Plan provided by owner? No, EAP must be submitted by 10/15/14.

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

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

Section IV (Conclusions)

General comments and recommendations:

1. A storm drain that was covered with debris was observed on the crest, in the road. Make sure this is uncovered and maintained in good working order so that water does not pool on the crest.

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

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

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

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

Preliminary Dam Inspection Disclaimer:

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

INSTRUCTIONS

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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.

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- d) UNSATISFACTORY- A dam safety deficiency is recognized that requires immediate or emergency remedial action for problem resolution.
- e) NOT RATED- This should only be used if it is not possible to assess to dam's condition due to site constraints on visibility on the day of inspection. If vegetation is a problem the owner should be ordered perform maintenance to remove it before the next visit.

Section III (Dam Inspection Checklist):

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

Section IV(Conclusions):

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

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



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 4175 & Hazard Class S1 B. Name of Dam: Stiwinter Pond
C. Inspection Date (04/02/2014) & Time: 8:55 a.m. D. Date of Last Inspection: (02/15/2012)
E. Location-County/City: Pickens / Pickens F. EQC Regional Office: Upstate EQC Greenville
G. Inspector's Name: Melissa Dawkins
H. Owner's Name: Donald McGill; Sandra Galloway
I. Contact Person (if different from above):
J. Dam Owner's or Contact Person's Phone Numbers: Home () - Office () - Other (864-313-8816)
K. Dam Owner's or Contact Person's mailing address: Address 1 160 Turtle Creek Road (McGill); 214 Anthony Road (Galloway) Address 2 (optional) City Pickens, State SC Zip Code 29671 -

Section II (Dam Condition)

General Condition Assessment (Select one of the following):

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

Section III (Dam Inspection Checklist)

A. Dam Crest

- i. Vegetation (grass, trees weeds)? Grass and weeds were observed on the majority of the crest and should be cut. A few bare areas were observed near the fence, on the right side. These areas should be reseeded.
ii. Animal activity observed? None observed
iii. Any obvious alteration or repairs made? None observed
iv. Erosion noticed on crest? None observed
v. Any visible settlement, misalignment or cracks? None observed

Section III (Dam Inspection Checklist) continued

B. Upstream Slope

- i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, brush, and other deleterious vegetation, must be cut and removed. See Section IV, item 1.
- ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation
- iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation
- iv. Erosion observed on upstream slope? None observed but could not fully inspect because of thick vegetation
- v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation

C. Down Stream Slope

- i. Vegetation (grass, trees weeds)? Thick vegetation, including weeds, small trees, shrubs, brush, and other deleterious vegetation, must be cut and removed from the entire dam and extending one-half the height of the dam beyond the toe or 25' beyond the toe, whichever is greater. See Section IV, items 1 and 2.
- ii. Animal activity observed? None observed but could not fully inspect because of thick vegetation
- iii. Any obvious alterations or repairs made? None observed but could not fully inspect because of thick vegetation
- iv. Erosion observed on down stream slope? Some rills and sloughing were observed; however, they were covered by pine needles and did not appear to be current. These areas should be repaired to prevent further erosion. Monitor these areas to ensure the erosion does not worsen.
- v. Settlement or cracks visible in slope? None observed but could not fully inspect because of thick vegetation
- vi. Toe drains flowing? None observed but could not fully inspect because of thick vegetation
- vii. Any seepage observed? If so, describe location, flow rate, and any turbidity or color within the flow: None observed but could not fully inspect because of thick vegetation

D. Primary Spillway

- i. Any visible deterioration of structure? The top of the riser or trash rack appeared to be slightly tilted. This condition should be monitored regularly to ensure that it does not worsen. If it changes, then the lake level should be lowered immediately to investigate the problem. See Section IV, item 3.
- ii. Is there an obvious need to repair or replace trash rack? None observed
- iii. Any noticeable problems with debris? None observed
- iv. Is valve or gate present? No

E. Outlet Pipe

- i. Any water visibly flowing or leaking outside of the discharge pipe? None observed
- ii. Describe any deflection or damage observed to the pipe: None observed
- iii. Visible condition of outlet channel: Good condition with little to no erosion observed. Some debris was observed at the end of the outlet pipe, but Mr. McGill removed it during the inspection. Monitor the pipe regularly to ensure that it does not become clogged.

F. Auxiliary (Emergency) Spillway

- i. Noticeable obstructions to flow? A fence was in place across the spillway on the left side. This should be removed immediately. It was difficult to determine whether an additional spillway was in place on the right side; if one is in place, then it is full of trees.
- ii. Animal activity observed? None observed on the left side. Could not fully inspect because of thick vegetation and lack of access on the right side
- iii. Any noticeable deterioration in the approach or discharge channel? None observed on the left side. Could not fully inspect because of thick vegetation and lack of access on the right side
- iv. Any visible deterioration of structure's crest? None observed on the left side. Could not fully inspect because of thick vegetation and lack of access on the right side

F. Auxiliary (Emergency) Spillway continued

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

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

H. Downstream/Hazard Class Issues

i. Any noticeable changes immediately downstream of the dam that affects the hazard classification? None
observed from the crest of the dam. If you feel that the classification should be changed because of the downstream residence
not being occupied, then you can provide a request and an engineering study supporting that to John Poole with Permitting in Columbia.

I. Emergency Action Plan (EAP)

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

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

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

Section IV (Conclusions)

General comments and recommendations:

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

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

3. Water was flowing through outlet pipe, but the water surface elevation was below the top of the riser or trash rack. If there is not a larger
diameter pipe (acting as a trash rack) in place at the top of the riser, then this may be an indication of severe deterioration of the primary
spillway and must be evaluated by a qualified South Carolina licensed professional engineer.

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.
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