CATEGORY I DAM INSPECTION (BIENNIAL)

NELSON HILL SUBDIVISION LAKE DAM

for the

NELSON HILL HOMEOWNERS' ASSOCIATION

Hahira, Lowndes County, GA

TPE Project No. NEL 001

March 27, 2026

Prepared by:

TRIPLE POINT ENGINEERING

Macon, Georgia

DAM INSPECTION REPORT *(Biennial P.E. Inspection)*

1. PROJECT INFORMATION

Dam Name: Nelson Hill Subdivision Lake Dam
Owner: Nelson Hill HOA
Location (County, State): Hahira, Lowndes County, Georgia
Date of Inspection: March 20, 2026
Weather Conditions: Clear and Warm, 74º F

Inspector(s): Kent McCormick, PE
Prepared By: Kent McCormick, PE

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2. PURPOSE AND SCOPE OF INSPECTION

This report documents the results of a biennial P.E. visual inspection of the earthen Nelson Hill Lake Dam and appurtenant structures. The inspection was conducted in general accordance with inspection practices recognized by the Safe Dams Unit of the Georgia Environmental Protection Division (EPD) and follows the format of EPD's embankment dam inspection checklists.

The purpose of this inspection is to identify observable conditions that may affect the performance of the dam and to recommend maintenance, monitoring, or corrective actions as appropriate.

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3. SUMMARY OF RECOMMENDATIONS

The following recommendations are based on observed conditions and professional judgment. Items are listed in order of priority.

1. Monitor local settlement on the sides of the concrete spillway near the southeastern (downstream side) and southwestern (upstream side) ends on a quarterly basis. If flow develops under the spillway or if the concrete shifts or continues to settle, notify the Engineer of Record or Safe Dams Unit at EPD.
2. Monitor downstream slope of dam quarterly to observe any cracks, sloughing or sliding. One minor location was identified on the backside of the dam north of the concrete spillway.
3. Place additional soil on the dam crest at multiple bare locations, bring soils to surrounding existing elevations, and revegetate.
4. Eradicate ant hills located across the length of the dam with appropriate chemical measures.

Photographs and supporting documentation are provided in the appendices.

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4. SUMMARY OF OBSERVATIONS

4.1 Crest

The dam crest was in satisfactory condition at the time of inspection. Minor surface irregularities were observed; no cracking, settlement, or encroachments indicative of structural distress were observed. Vegetation has been

well maintained along the crest of the dam. However, some isolated locations need topsoil backfill and revegetation.

4.2 Upstream Slope

The upstream slope exhibited stable geometry with adequate vegetative cover. No evidence of sloughing, sliding, or wave-induced erosion was observed. However, minor erosion in isolated locations halfway up the slope was observed as noted in the photographs. Overall, vegetation has been well maintained along the upstream slope of the dam.

4.3 Downstream Slope

The downstream slope exhibited stable geometry with adequate vegetative cover (neatly mowed <1" high). The toe of the dam is also the western ditch off Val Der Road. The entire length of the toe/ditch was saturated and soft. The inspector was able to advance the probe rod at least 2' in most locations with little resistance. At the southernmost location of the dam toe, the probe rod was easily advanced 36". (see Appendix A and attached location map). Observed water was clear, with no staining or discernible flow. It should be noted that the ditch/toe is relatively flat and does not drain well. Nonetheless, this area should be routinely monitored for changes such as turbidity, staining, sloughing, flowing water, or erosion.

4.4 Spillways

The principal spillway (a concrete overflow spillway) appeared to be functioning as intended with no visible obstructions or signs of leakage. The discharge immediately entered triple 30" RCP under Val Der Road. Some settlement has occurred at the southwest corner slab on the upstream slope and at the southeast corner slab on the downstream slope.

4.5 Instrumentation

N/A

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5. ITEMS TO MONITOR *(No Immediate Action Required)*

The following conditions should continue to be observed during routine inspections:

- Erosion or sloughing on the downstream slope of the dam.
- Primary spillway conditions following storm events
- Monitor for additional settlement at the southwest corner slab on the upstream slope and the southeast corner slab on the downstream slope.
- Ant hill infestation

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6. PHOTOGRAPHS

Photographs were taken during the inspection to document existing conditions. Representative photographs and an aerial view of the site are included. Site photographs (see Appendix A) were taken in the following locations:

- Picture location legend
- Dam crest

- Upstream slope
- Downstream slope
- Primary Concrete Spillway

7. INSPECTION CHECKLIST

A completed earthen dam inspection checklist consistent with Safe Dams Unit (EPD) guidance is included as Appendix B and provides detailed, item-by-item observations recorded during the inspection.

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8. INSPECTION LIMITATIONS

This inspection consisted of a visual assessment of accessible portions of the dam, concrete spillway, and associated features at the time of inspection.

- No subsurface exploration, material testing, hydraulic analysis, or structural analysis was performed.
- No excavation or intrusive investigation was conducted.
- Conditions may change due to weather events, reservoir fluctuations, vegetation growth, animal activity, or construction activities occurring after the inspection date.

The findings and recommendations presented herein are based solely on conditions observed at the time of inspection.

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9. CONCLUSIONS

Based on the visual inspection conducted, the dam appears to be performing as intended at the time of inspection. Implementation of the recommendations outlined in this report will assist in maintaining the long-term performance and safety of the structure.

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10. CERTIFICATION

Respectfully submitted,

Kent McCormick, P.E.
Georgia Registered Professional Engineer #21381
Triple Point Engineering

March 27, 2026

Appendix A – Photographs

Picture #1 – Typical crest and backslope

Picture #2 - Crest Condition south of the concrete spillway. Add soil and grass (± 80’ x 15’)

Picture #3 - Crest Condition north of the concrete spillway. Add soil and grass (± 40’ x 10’)
Multiple ant hills need to be removed over length of dam.

Picture #4 - Typical upstream slope condition.

Picture #5 - Upstream slope located north of the principal spillway. Add soil to replace eroded bare spots and grass (±120 x 15’ area)

Picture #6 - Upstream slope located north of the principal spillway. Add soil to replace eroded bare spots and grass. (±20 x 6’ area)

Picture #7 - Upstream slope located south of the principal spillway. Add soil to replace eroded bare spots and grass.(±20 x 15’ area, about 10” to 12” required)

Picture #8 - Typical downstream slope.

Picture #9 - Typical standing water in the ditch on the downstream slope at toe of the dam. Mostly hydrophilic vegetation on the ditch and the ditch does not drain well. Water is clear and is not flowing. See the attached location map.

Picture #10 - Principal Concrete Spillway Channel.
(Triple 30” RCP culverts under Val Der Road are shown in the background. These culverts are not a part of the dam or outlet system)

Picture #11 - Concrete slab at the southeastern corner of the concrete spillway. Downstream slope, slight settlement.

Picture #12 - Concrete slab at the southwestern corner of the concrete spillway. Upstream slope, slight settlement.

Appendix B – Earthen Dam Inspection Checklist

Embankment (Earth) Dam Inspection Form

Name of Dam: Nelson Hill Subdivision Lake Dam Date: 3/20/2026

Location of Dam (County): Lowndes County Weather: Clear, 74° F

Inspected by (Print Name): Kent McCormick, PE

If an inspection item requires further action on your part, place a check mark to the left of the number of the item

A. Crest (refer to Glossary for description)

☒ 1. How would you describe the vegetation on the crest? (Check all that apply)

Recently Mowed X Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe): Bare spots and minor erosion in isolated locations need fill and re-vegetation. See pictures #2 and #3.

☐ 2. Are there any trees or other inappropriate or excessive vegetation on the crest? Yes_____ No X

If yes, describe (type of vegetation, size, location, etc.)/Corrective Action:_____

☐ 3. Is there a paved road or driveway on the crest? Yes_____ No X

If yes, describe the condition (for example, good condition, numerous cracks, newly paved)/Corrective Action:_____

☒ 4. Are there any depressions, ruts or holes on the crest? Yes X No_____

If yes, describe (size, location, etc)/Corrective Action: Multiple ant hills exist on the crest that must be eliminated.

☐ 5. Are there any cracks on the crest? Yes_____ No X

If yes, describe (length and width, location, direction of cracking, etc.)/Corrective Action:_____

☐ 6. Other observations on the crest/Corrective Action:_____

B. Upstream Slope (refer to Glossary for description)

1. What is the reservoir level today? At Normal Pool X Above Normal Pool_____Feet Below Normal Pool_____Feet

☐ 2. How would you describe the vegetation on the upstream slope? (Check all that apply)

Recently Mowed X Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe):_____

☐ 3. Are there any trees or other inappropriate or excessive vegetation on the slope? Yes_____ No X

If yes, describe (type of vegetation, size, location, etc.)/Corrective Action:_____

☐ 4. Are there any depressions, bulges, ruts or holes (such as animal burrows) on the slope? Yes_____ No X

If yes, describe (size, location, etc.)/Corrective Action:_____

☒ 5. Are there any eroded areas on the slope (such as wave erosion along the shoreline)? Yes X No_____

If yes, describe (size of area, location, severity, etc.)/Corrective Action:_____

Bare spot and minor erosion in isolated locations need fill and re-vegetation. See pictures #2, 5, 6, & 7.

☐ 6. Are there any cracks, sloughs or slides (vertical cliffs) on the slope? Yes_____ No X

If yes, describe (length, width, height, location, etc.)/Corrective Action:_____

Upstream Slope (continued)

☐ 7. Is there any type of slope protection along the shoreline (such as riprap)? Yes_____ No_X_

If yes, describe what type and its condition (for example, riprap - adequate, inadequate, sparse)/Corrective Action:_____

☐ 8. Other observations on the upstream slope/Corrective Action: N/A

C. Downstream Slope (refer to Glossary for description)

☐ 1. How would you describe the vegetation on the downstream slope? (Check all that apply)

Recently Mowed_X_ Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe):_____

☐ 2. Are there any trees or other inappropriate or excessive vegetation on the slope? Yes_____ No_X_

If yes, describe (type of vegetation, size, location, etc.)/Corrective Action:_____

☐ 3. Are there any depressions, bulges, ruts or holes (such as animal burrows) on the slope? Yes_____ No_X_

If yes, describe (size, location, etc.)/Corrective Action:_____

☐ 4. Are there any eroded areas on the slope (such as along abutment contacts)? Yes_____ No_X_

If yes, describe (size of area, location, severity, etc.)/Corrective Action:_____

☐ 5. Are there any cracks, sloughs or slides (vertical cliffs) on the slope? Yes_X_ No_____

If yes, describe (length, width, height, location, etc.)/Corrective Action: Minor (±40 l.f.) longitudinal crack on north side of principal spillway.

☐ 6. Are there any wet areas or areas of hydrophilic (lush, water-loving) vegetation? Yes_X_ No_____

If yes, describe (size of area, location, etc.)/Corrective Action: Hydrophilic weeds and grasses cover the bottom of the toe of slope/road ditch most of the length of dam. The ditch is flat and does not flow well.

☐ 7. Do any wet areas indicate seepage through the dam (such as rust-colored, stained water)? Yes_____ No_X_ N/A_____

If yes, describe (for example, new area of seepage, no change from past observations, size of area, location) /Corrective Action:_____

☐ 8. Are there any leaks (flowing water) from the slope or beyond the toe of the dam? Yes_____ No_X_

If yes, describe (location, rate of flow, turbidity of flow)/Corrective Action:_____

☒ 9. Other observations on the downstream slope/Corrective Action: In general, soft to very soft soils exist at he toe of the of the dam. However, little erosion or evidence of movement exists. The ditch (i.e. toe) stays very wet presumably due to a flat slope in the ditch. Monitor.

D. Plunge Pool (refer to Glossary for description) N/A

☐ 1. Is there any type of erosion protection around the plunge pool (such as riprap)? Yes_____ No_____

If yes, describe what type and its condition (for example, riprap - adequate, inadequate, obstructed by vegetation) /Corrective Action:_____

☐ 2. Is there any erosion and or seeps around or going into the plunge pool? Yes_____ No_____

If yes, describe (size of area, location, severity, etc.) /Corrective Action:_____

☐ 3. Other observations around the plunge pool/Corrective Action:_____

Name of Dam: Nelson Hill Subdivision Lake Dam Date: 3/20/2026

E. Principal and Emergency Spillways (refer to Glossary for description)

☐ 1. What types of spillways does the dam have (such as corrugated metal, concrete or siphon pipe; concrete or earth channel)?
Principal Spillway Concrete channel Emergency Spillway Primary concrete channel serves as E.S.
Other/Corrective Action:

☐ 2. Has the emergency spillway activated (had flow) since the last inspection? Yes_____ No X
If yes describe (date(s) of flow, reason for activation, depth of flow) /Corrective Action:

☐ 3. For pipe spillways, is the intake obstructed in any way (such as with excessive debris)? Yes_____ No X
If yes, describe (type of debris, reason for obstruction, etc.) /Corrective Action:

☐ 4. For pipe spillways, what is the condition of any trash racks (for example, adequate, inadequate, damaged)? /Corrective Action:
N/A

☐ 5. For pipe spillways, are there any visible cracks, separations or holes in the pipe(s) (intake or outlet)? Yes_____ No_____
If yes, describe (location, width of crack or separation, etc.)/Corrective Action: N/A

☐ 6. For pipe spillways, are there any apparent leaks in the pipe(s)? Yes_____ No_____
If yes, describe (location, rate of flow from leak, etc.)/Corrective Action: N/A

7. For pipe spillways, how would you describe the overall condition of the pipe(s)? (Check all that apply) N/A
Functioning Normally____ Not Functional____ Deteriorated____ Damaged____ Adequate____ Inadequate____

☐ 8. For concrete or earth channel spillways, is the entrance or channel obstructed in any way? Yes_____ No X
If yes, describe (type of obstruction, location, etc.)/Corrective Action:

☐ 9. For earth channel spillways, how would you describe the vegetation in the spillway? (Check all that apply) N/A
Recently Mowed_____ Overgrown_____ Good Cover_____ Sparse_____
Other (describe)/Corrective Action:

☐ 10. For earth channel spillways, are there any trees or other inappropriate vegetation in the spillway? Yes_____ No_____
If yes, describe (type of vegetation, size, location, etc.)/Corrective Action: N/A

☐ 11. For earth channel spillways, are there any eroded areas in the spillway? Yes_____ No_____ N/A
If yes, describe (size of area, location, severity, etc.)/Corrective Action: N/A

☒ 12. For concrete channel spillways, are there any cracks or holes in the spillway? Yes X No_____
If yes, describe (width of crack or hole, location, etc.)/Corrective Action: The main section of the concrete spillway is in good condition. There is only slight erosion at the downstream outlet edge. Two side pieces have cracked and settled. See pictures # 11 & 12. Monitor for additional settlement.

☐ 13. For concrete channel spillways, are there any leaks or evidence of undermining (flow under the concrete)? Yes_____ No X
If yes, describe (location, rate of flow from leak, indicators of undermining, etc.)/Corrective Action:

Principal and Emergency Spillways (continued)

14. For earth or concrete channel spillways, how would you describe the overall condition of the spillway? (Check all that apply)

Functioning Normally X Not Functional____ Deteriorated____ Damaged____ Adequate____ Inadequate____

☐ 15. Other observations on the spillways/Corrective Action:_____

_____

F. Instrumentation (refer to Glossary for description) N/A

☐ 1. Are there any toe drains at the downstream toe or any other seepage drains on the dam? Yes_____ No_____

If yes, describe the condition (for example, clogged, free flowing, deteriorated, good condition) /Corrective Action:_____

_____

☐ 2. For drains, is an animal guard installed at the outlet of each drain? Yes_____ No_____

If no, which drains lack animal guards? /Corrective Action:_____

_____

☐ 3. For drains, measure the rate of flow from each drain and record below (use additional pages if necessary):

Designation/Location of Drain	Flow Rate	Flow Rate in GPM*	Turbidity of Flow (describe – clear, muddy, etc.)

☐ 4. Are there any piezometers on the dam? Yes_____ No_____

If yes, describe the condition (for example, good condition, damaged, etc.)/Corrective Action:_____

_____

☐ 5. For piezometers, does each piezometer have a cap with a lock? Yes_____ No_____

If no, which piezometers need caps (to prevent rain water intrusion) and/or locks (to prevent tampering)? /Corrective Action:_____

☐ 6. For piezometers, are you able to take a measurement (depth to water) in each piezometer? Yes_____ No_____

If yes, record depth to water (in feet) in each piezometer, record on a separate page, and attach to this form.

☐ 7. Are there any other monitoring devices on the dam? Yes_____ No_____

If yes, describe what type and the condition (for example, monitoring wells - good condition, damaged) /Corrective Action:

_____

☐ 8. Other observations on instrumentation/Corrective Action:_____

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G. Photographs

At a minimum, photographs should be taken of the crest, upstream slope, downstream slope and any other notable features.

List of photographs (be sure to date stamp the photos): See Pictures # 1 through #12 in the Appendix A of the narrative report.

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**GPM (gallons per minute): to convert from oz/sec multiply by 0.4688; to convert from ml/sec multiply by 0.01585*