After recording return to:
Cherokee County BOC
Engineering Dept.
1130 Bluffs Pkwy.
Canton, GA 30114

---------- SPACE ABOVE FOR RECORDER'S USE----------

STATE OF GEORGIA
COUNTY OF CHEROKEE

Inspection, Maintenance and Access Easement Agreement
(Please type or print legibly)

WHEREAS, the owners of the property parcels 03N18 074, 03N18 103, and 03N18 104, (the "**Property Owner(s)**"), which is currently, Gregory Hill, Olmstead Properties, LLC, and John Brauer, recognizes that the earthen dam found thereupon must be maintained for the lake called, Bob Mitchell Lake, located in Land Lot 1275, District 3, of Cherokee County, Georgia; and,

WHEREAS, the Property Owner(s) are the owner(s) of real property containing the earthen dam more particularly described on the attached Exhibit "A," incorporated herein by reference (hereinafter referred to as "the earthen dam Property"); and,

WHEREAS, Cherokee County (hereinafter referred to as "the County") and the Property Owner(s), or its administrators, executors, successors, heirs, or assigns, agree that the health, safety and welfare of the citizens of the County require that the earthen dam located upon the property be maintained; more particularly described on the attached Exhibit "E," incorporated herein by reference (hereinafter referred to as the " dam") and,

WHEREAS, the County requires that the dam be inspected and maintained by the Property Owner(s), its administrators, executors, successors, heirs, or assigns and further require that the Property Owner(s) enter into an Inspection and Maintenance Agreement containing the terms set forth.

NOW, THEREFORE, for and in consideration of the sum of ONE DOLLAR ($1.00) in hand paid at and before the sealing and delivery of this agreement and in consideration of the agreements and covenants contained in this document and the following terms and conditions, the parties hereto agree as follows:

SECTION 1.

The dam rehabilitation shall be provided by the Property Owner(s) in accordance with the mutually agreed upon rehabilitation plans and specifications for the dam.

SECTION 2.

The Property Owner(s), their administrators, executors, successors, heirs or assigns shall maintain the earthen dam in good working condition in a manner compliant with County, State, and/or Federal requirements, and in accordance with the schedule of long-term maintenance activities agreed hereto and attached hereto and incorporated herein by reference as Exhibit "B."

SECTION 3

It is expressly understood and agreed that the County is under no obligation to maintain or repair the dam, and in no event shall this Agreement be construed to impose any such obligation on the County. The County is not liable for failure of the dam and is not required to perform any inspections on the dam. Routine inspections, operations, maintenance are the full responsibility of the Property Owner(s), their administrators, executors, successors, heirs or assigns.

SECTION 4

It is the intent of this Agreement to ensure the proper maintenance of the dam by the Property Owner(s); provided, however, that this Agreement shall not be deemed to create or effect any additional liability of any party for damage alleged to result from or caused by storm water runoff and other acts of God.

SECTION 5

The Property Owner(s) shall use the standard BMP Operation and Maintenance Inspection Report attached to this agreement and incorporated herein by reference as Exhibit "D," and by this reference made a part hereof, for the purpose of a minimal inspections of the dam by a qualified inspector. the current Property Owner(s) designates their respective owners listed in this Agreement, as the person responsible for carrying out the inspection and maintenance. Future Property Owner(s) shall designate their responsible party in writing upon assuming ownership.

SECTION 6

The Property Owner(s), their administrators, executors, successors, heirs and assigns hereby indemnifies and holds harmless the County and its officers, authorized agents and employees from and against any and all damages, accidents, casualties, occurrences or claims ("Claims") which might arise or be asserted against the County from the rehabilitation, presence, existence or maintenance of the dam by the Property Owner(s) or the CountyIn the event a Claim subject to indemnity under this provision is asserted against the County, its officers, authorized agents or employees, the County shall promptly notify the Property Owner(s), and the Property Owner(s) shall defend, at its own expense, any suit based on such Claim. If any judgment or Claims subject to indemnity under this provision against the County, its officers, authorized agents or employees shall be allowed, the Property Owner(s) shall pay for all costs and expenses in connection herewith.

SECTION 7

This Agreement shall be recorded among the deed records of the Clerk of Superior Court of Cherokee County, shall constitute a covenant running with the land in perpetuity for so as long as the dam may exist, and shall be binding on the Property Owner(s), its administrators, executors, heirs, assigns and any other successors in interest.

SECTION 8

This Agreement may be enforced by proceedings at law or in equity by or against the parties hereto and their respective successors in interest.

SECTION 9

Invalidation of any one of the provisions of this Agreement shall in no way affect any other provisions and all other provisions shall remain in full force and effect.

MAINTENANCE AGREEMENT SO AGREED this 22nd **day of** August **, 20** 24.

CURRENT PROPERTY OWNER(S):

Gregory Hill

Signature: Gregory Hill

Name: Gregory Hill

Title: Owner of 03N18 074

Signed and sealed in the presence of:

GW

Unofficial Witness

Notary Public Kay Covey
My Commission Expires: 03/20/2025

Name: Kay Covey
Address: The UPS Store #3877 6175 Hickory Flat Hwy Suite 110 Canton, GA 30115
Phone: 770.345.7151

(NOTARIAL SEAL)

KAY COVEY NOTARY PUBLIC CHEROKEE COUNTY GEORGIA EXPIRES March 20, 2025

Olmstead Properties, LLC

Signature:

Name: John Olmstead, Manager of Olmstead Properties, LLC

Title: Owner of 03N18 103

Signed and sealed in the presence of:

Unofficial Witness

Notary Public
My Commission Expires: 10/6/2026

Name: Michael Chavez
Address: 58 W. Juanita St, Mesa, AZ 85201
Phone: 480-320-0201

(NOTARIAL SEAL)

Notary Public State of Arizona
Maricopa County
Michael Chavez
My Commission Expires 10/6/2026
Commission Number 636120

John Brauer

Signature: John D. Brauer
Name: John Brauer John D. Brauer
Title: Owner of 03N18 104

Signed and sealed in the presence of:
Sue C. Schaffler Ellis
Unofficial Witness

Ashok K Tikoo

ASHOK K TIKOO
Notary Public - State of Georgia
Fulton County
My Commission Expires Aug 11, 2025
(NOTARIAL SEAL)

Notary Public
My Commission Expires: Aug 11 2025

Name: Ashok K Tikoo
Address: 5565 Atlanta Hwy.
Phone: 7088 9892

CHEROKEE COUNTY, GEORGIA

Signature: By L. M
Name: BENJAMIN L. MORGAN
CHEROKEE COUNTY, GEORGIA
Title: COUNTY ENGINEER

Signed and sealed in the presence of:
J. Gagn
Unofficial Witness

RHONDA HILLIARD
NOTARY PUBLIC
GILMER COUNTY
State Of Georgia
(NOTARIAL SEAL) My Comm. Expires March 10, 2028

Notary Public
My Commission Expires: 3/10/2028

Rhonda Hilliard

Name: Rhonda Hilliard
Address: 498 Meadow Circle Ellijay Ga 30540
Phone: 954 304 2274

Attachments:
Exhibit A (Plat)
Exhibit B (Maintenance and Inspection Schedule)
Exhibit C (Access Easement Legal Description)
Exhibit D (Standard BMP Operation and Maintenance Inspection Report)
Exhibit E (Bob Mitchell Lake Dam Survey)

EXHIBIT 'A'

PLAT AND LEGAL DESCRIPTION OF SUBJECT PROPERTY

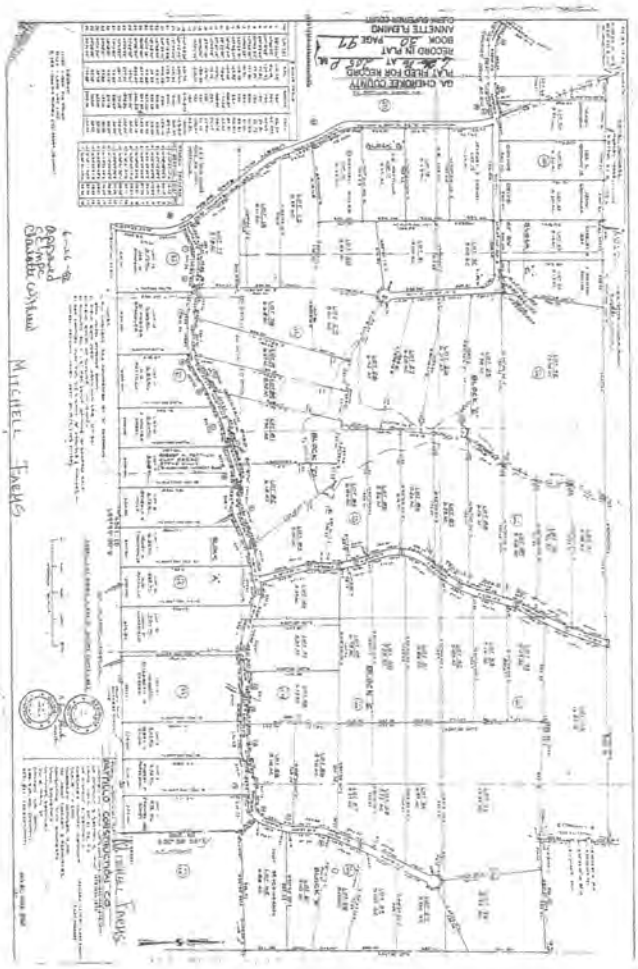

MITCHELL FARMS

EXHIBIT 'B'

MAINTENANCE AND INSPECTION SCHEDULE

Operation and Maintenance Inspection Report for Stormwater Management Ponds

Inspector Name: _____ Stormwater Pond: Normal Pool _____ Project Location _____
Inspection Date: _____ Normally Dry _____

Inspection Items	Checked (Yes / No)	Maintenance Required (Yes / No)	Inspection Frequency	Comments
Pond Components				
1. Embankment and Emergency Spillway				
a. Adequate vegetation and ground cover			A	
b. Embankment erosion			A	
c. Animal Burrows			A	
d. Unauthorized plantings			A	
e. Cracking, bulging, or sliding of dam				
i. Upstream face			A	
ii. Downstream face				
iii. At or beyond upstream toe				
iv. At or beyond downstream toe				
v. Emergency Spillway				
f. Pond drains clear and functioning			A	
g. Leaks on downstream face			A	
h. Abutment protection or riprap failures			A	
i. Visual settlement or horizontal misalignment of top of dam			A	
j. Emergency spillway clear of debris			A	
k. Other (specify)			A	
2. Riser and Principal Spillway Type: Reinforced concrete				
a. Weir Trash Rack				
i. Debris removal necessary			A	
ii. Corrosion control				
b. Excessive sediment accumulation inside riser			A	
c. Concrete condition				
i. Cracks or displacement				
ii. Minor Spalling (<1")				
iii. Major Spalling (rebar exposed)			A	
iv. Joint failures				
v. Water tightness				
d. Outfall channels flowing			A	
e. Other (specify)			A	
3. Permanent pool (wet ponds)				
a. Undesirable vegetative growth			M	
b. Floating or floatable debris removal required			M	
c. Visible pollution			M	
d. High water marks			M	
e. Shoreline problems			M	
f. Other (specify)			M	
4. Dry pond areas				
a. Vegetation adequate			M	
b. Undesirable vegetative growth			M	
c. Undesirable woody vegetation			M	
d. Low flow channels clear of obstructions			M	
e. Standing water or wet spots			M	
f. Sediment and/or trash accumulation			M	
g. Other (specify)			M	

Inspection Items	Checked (Yes / No)	Maintenance Required (Yes / No)	Inspection Frequency	Comments
5. Condition of outfalls into pond				
a. Riprap failures			A,S	
b. Slope erosion			A,S	
c. Storm drain pipes			A,S	
d. Endwalls/headwalls			A,S	
e. Other (specify)			A,S	
6. Other				
a. Encroachments on ponds or easement area			M	
b. Complaints from residents			M	
c. Aesthetics				
i. Grass height			M	
ii. Graffiti removal necessary				
iii. Other (specify)				
d. Any public hazards (specify)			M	
e. Maintenance access			M	
7. Constructed wetland areas				
a. Vegetation healthy and growing			A	
b. Evidence of invasive species			A	
c. Excessive sedimentation in wetland area			A	

*A=Annual, M=Monthly, S=After Major Storm

Inspection Summary

Inspector's Remarks: _____

Overall condition of Stormwater Management Pond: Acceptable _____
Unacceptable _____

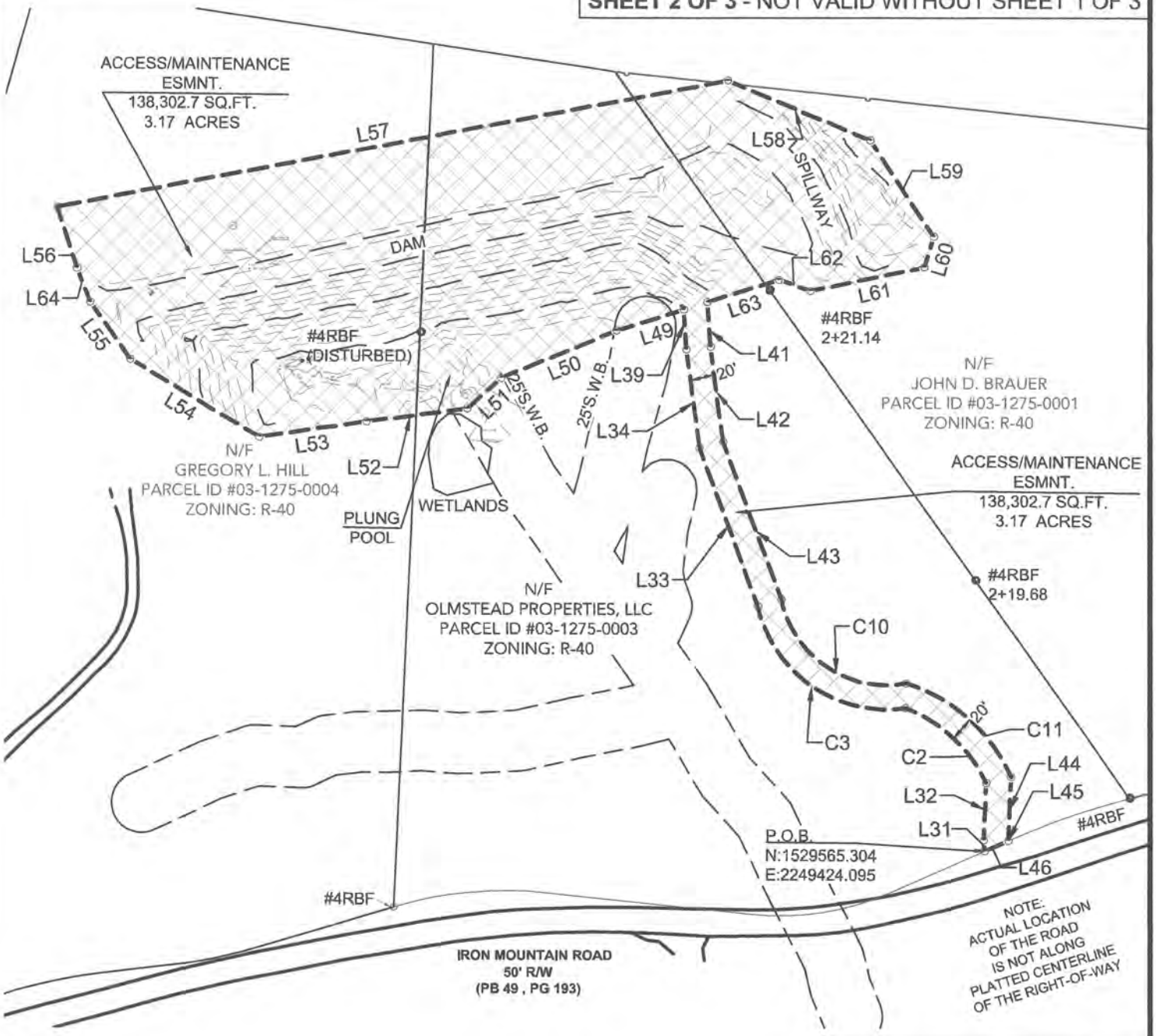
Dates any maintenance must be completed by: _____

_____
Inspector's Signature

EXHIBIT "C"

ACCESS EASEMENT LEGAL DESCRIPTION

SHEET 2 OF 3 - NOT VALID WITHOUT SHEET 1 OF 3



GEORGIA
PROFESSIONAL
3346
LAND SURVEYOR
MICHAEL FOLEY

RLS#

DATE PREPARED:

04/30\2024

N

0' 60' 120' 240'

DRAWING SCALE: 1" = 120'

CARTER ENGINEERING

ACCESS EASEMENT

PROJECT INFORMATION

21001MFN
315 IRON MOUNTAIN ROAD
CANTON, GA 30115

SHEET 1 OF 3 - NOT VALID WITHOUT SHEET 2 OF 3

ACCESS AND MAINTENANCE EASEMENT
ALL THAT TRACT OR PARCEL OF LAND LYING AND BEING IN LAND LOT 1275 OF THE 3RD DISTRICT, CHEROKEE COUNTY, GEORGIA AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ALONG THE NORTHERLY RIGHT-OF-WAY OF IRON MOUNTAIN ROAD (50' RIGHT-OF-WAY), SAID POINT HAVING A GEORGIA STATE PLANE COORDINATE VALUE OF (N: 1,529,565.30', E: 2,249,424.09', NAD 83, GEORGIA WEST ZONE) AND BEING THE POINT OF BEGINNING; THENCE FROM THE POINT OF BEGINNING AS THUS ESTABLISHED AND DEPARTING THE SAID NORTHERLY RIGHT-OF-WAY OF IRON MOUNTAIN ROAD NORTH 04 DEGREES 42 MINUTES 32 SECONDS WEST A DISTANCE OF 8.97 FEET TO A POINT; THENCE NORTH 02 DEGREES 38 MINUTES 35 SECONDS EAST A DISTANCE OF 47.40 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING AN ARC LENGTH OF 92.92 FEET AND A RADIUS OF 120.40 FEET AND BEING SUB-TENDED BY A CHORD BEARING OF NORTH 47 DEGREES 15 MINUTES 37 SECONDS WEST A CHORD DISTANCE OF 90.63 FEET TO A POINT. THENCE ALONG A CURVE TO THE RIGHT HAVING AN ARC LENGTH OF 162.28 FEET AND A RADIUS OF 108.42 FEET AND BEING SUB-TENDED BY A CHORD BEARING OF NORTH 55 DEGREES 26 MINUTES 38 SECONDS WEST A CHORD DISTANCE OF 147.55 FEET TO A POINT. NORTH 20 DEGREES 17 MINUTES 17 SECONDS WEST A DISTANCE OF 139.27 FEET TO A POINT; THENCE NORTH 07 DEGREES 35 MINUTES 01 SECONDS WEST A DISTANCE OF 81.94 FEET TO A POINT; THENCE NORTH 03 DEGREES 58 MINUTES 52 SECONDS WEST A DISTANCE OF 33.00 FEET TO A POINT; THENCE SOUTH 72 DEGREES 34 MINUTES 17 SECONDS WEST A DISTANCE OF 57.89 FEET TO A POINT; THENCE SOUTH 67 DEGREES 25 MINUTES 06 SECONDS WEST A DISTANCE OF 102.32 FEET TO A POINT; THENCE SOUTH 47 DEGREES 27 MINUTES 58 SECONDS WEST A DISTANCE OF 37.41 FEET TO A POINT; THENCE SOUTH 82 DEGREES 44 MINUTES 25 SECONDS WEST A DISTANCE OF 84.21 FEET TO A POINT; THENCE SOUTH 81 DEGREES 45 MINUTES 54 SECONDS WEST A DISTANCE OF 88.80 FEET TO A POINT; THENCE NORTH 59 DEGREES 08 MINUTES 27 SECONDS WEST A DISTANCE 124.30 FEET TO A POINT; THENCE NORTH 35 DEGREES 07 MINUTES 44 SECONDS WEST A DISTANCE OF 57.87 FEET TO A POINT; THENCE NORTH 20 DEGREES 58 MINUTES 45 SECONDS WEST A DISTANCE OF 30.09 FEET TO A POINT; THENCE NORTH 17 DEGREES 33 MINUTES 28 SECONDS WEST A DISTANCE OF 52.75 FEET TO A POINT; THENCE NORTH 79 DEGREES 13 MINUTES 53 SECONDS EAST A DISTANCE OF 561.90 FEET TO A POINT; THENCE SOUTH 67 DEGREES 04 MINUTES 53 SECONDS EAST A DISTANCE OF 127.20 FEET TO A POINT; THENCE SOUTH 33 DEGREES 31 MINUTES 28 SECONDS EAST A DISTANCE OF 95.32 FEET TO A POINT; THENCE SOUTH 17 DEGREES 01 MINUTES 28 SECONDS WEST A DISTANCE OF 26.44 FEET TO A POINT; THENCE SOUTH 78 DEGREES 17 MINUTES 30 SECONDS WEST A DISTANCE OF 96.02 FEET TO A POINT; THENCE NORTH 70 DEGREES 42 MINUTES 52 SECONDS WEST A DISTANCE OF 27.49 FEET TO A POINT; THENCE SOUTH 72 DEGREES 39 MINUTES 29 SECONDS WEST A DISTANCE OF 61.90 FEET TO A POINT; THENCE SOUTH 03 DEGREES 58 MINUTES 52 SECONDS EAST A DISTANCE OF 37.03 FEET TO A POINT; THENCE SOUTH 07 DEGREES 35 MINUTES 01 SECONDS EAST A DISTANCE OF 79.08 FEET TO A POINT; THENCE SOUTH 20 DEGREES 17 MINUTES 17 SECONDS EAST A CHORD DISTANCE OF 138.47 FEET TO A POINT; THENCE ALONG A CURVE TO THE LEFT HAVING AN ARC LENGTH OF 137.18 FEET AND A RADIUS OF 88.42 FEET AND BEING SUB-TENDED BY A CHORD BEARING OF SOUTH 56 DEGREES 10 MINUTES 51 SECONDS EAST A CHORD DISTANCE OF 123.83 FEET TO A POINT; THENCE ALONG A CURVE TO THE RIGHT HAVING AN ARC LENGTH OF 119.39 FEET AND A RADIUS OF 137.19 FEET AND BEING SUB-TENDED BY A CHORD BEARING OF SOUTH 48 DEGREES 10 MINUTES 37 SECONDS EAST A CHORD DISTANCE OF 115.66 FEET TO A POINT; THENCE SOUTH 02 DEGREES 38 MINUTES 35 SECONDS WEST A DISTANCE OF 51.80 FEET TO A POINT; THENCE SOUTH 04 DEGREES 42 MINUTES 32 SECONDS EAST A DISTANCE OF 0.80 FEET TO A POINT LOCATED ON THE NORTHERLY RIGHT-OF-WAY LINE OF IRON MOUNTAIN ROAD (50' RIGHT-OF-WAY); THENCE SOUTH 66 DEGREES 18 MINUTES 56 SECONDS WEST A DISTANCE OF 21.15 FEET TO THE POINT OF BEGINNING.

SAID TRACT OR PARCEL BEING 3.17 ACRES (138,302.7 SQUARE FEET).

GEORGIA
PROFESSIONAL
3346
LAND SURVEYOR
MICHAEL FOLEY

RLS#

LEGAL EXHIBIT OF PROPOSED PERMANENT MAINTENANCE EASEMENT:
315 IRON MOUNTAIN ROAD

CHEROKEE COUNTY
LAND LOT 1275, 3RD DISTRICT

DATE PREPARED:
04/30/2024

CARTER ENGINEERING

ACCESS MAINTENANCE EASEMENT

PROJECT INFORMATION
21001MEN
315 IRON MOUNTAIN ROAD
CANTON, GA 30115

SHEET 3 OF 3 - NOT VALID WITHOUT SHEET 2 OF 3

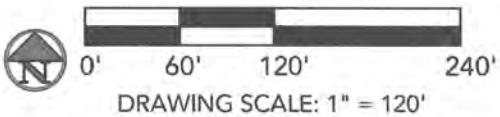
Line Table		
Line #	Length	Direction
L31	8.97	N04° 42' 32"W
L32	47.40	N02° 38' 35"E
L33	139.27	N20° 17' 17"W
L34	81.94	N07° 35' 01"W
L39	33.00	N03° 58' 52"W
L41	37.03	N03° 58' 52"W
L42	79.08	N07° 35' 01"W
L43	138.47	N20° 17' 17"W
L44	51.80	N02° 38' 35"E
L45	0.80	N04° 42' 32"W
L46	21.15	N66° 18' 56"E
L49	57.89	S72° 34' 17"W
L50	102.32	S67° 25' 06"W
L51	37.41	S47° 27' 58"W
L52	84.21	S82° 44' 25"W
L53	88.80	S81° 45' 54"W
L54	124.30	N59° 08' 27"W
L55	57.87	N35° 07' 44"W
L56	52.75	N17° 33' 28"W

Line Table		
Line #	Length	Direction
L57	561.90	N79° 13' 53"E
L58	127.20	S67° 04' 53"E
L59	95.32	S33° 31' 28"E
L60	26.44	S17° 01' 28"W
L61	96.02	S78° 17' 30"W
L62	27.49	N70° 42' 52"W
L63	61.90	S72° 39' 29"W
L64	30.09	N20° 58' 45"W

Curve Table				
Curve #	Length	Radius	Chord Direction	Chord Length
C2	92.92	120.40	N47° 15' 37"W	90.63
C3	162.28	108.42	N55° 26' 38"W	147.55
C10	137.18	88.42	N56° 10' 51"W	123.83
C11	119.39	137.19	N48° 10' 37"W	115.66

DATE PREPARED:

04/15/2024



DRAWING SCALE: 1" = 120'

RLS#

CARTER ENGINEERING

ACCESS EASEMENT

PROJECT INFORMATION

21001MFN
315 IRON MOUNTAIN ROAD
CANTON, GA 30115

EXHIBIT "D"

FACILITY MAINTENANCE REPORT

CARTER
ENGINEERING

Operation and Maintenance Manual

For

Bob Mitchell Lake Dam

315 Iron Mountain Road
Canton, GA
(Parcel No. 03N18 074)

Prepared By:
Carter Engineering Consultants
1010 Commerce Drive
Bogart, GA 30622

June 2023

Table of Contents

Appendix A— Blank Inspection Form & Information

Appendix B— Past Inspection Reports

General Information

Purpose

This document is the Operations and Maintenance Manual for Bob Mitchell Lake Dam, and it provides operational procedures, recommendations, and standard forms to be utilized during normal operation and maintenance of the dam. The objective of this document is to provide a record-keeping template for current and past owners and/or operators of the dam. It enables anyone (operators, owners, HOA officers, etc.) new to the dam to easily incorporate into the operations of the dam.

This O&M Manual is NOT an Emergency Action Plan.

COMMON INDICATORS OF POTENTIAL DAM FAILURE:

- Muddy water flowing from the downstream slope or toe.
- Significant cracks or depressions forming on the embankment.
- Movement or sliding of the surface of the embankment.
- Water flowing over the top of the dam, or rapidly approaching overflow.

IF DAM FAILURE IS IMMINENT:

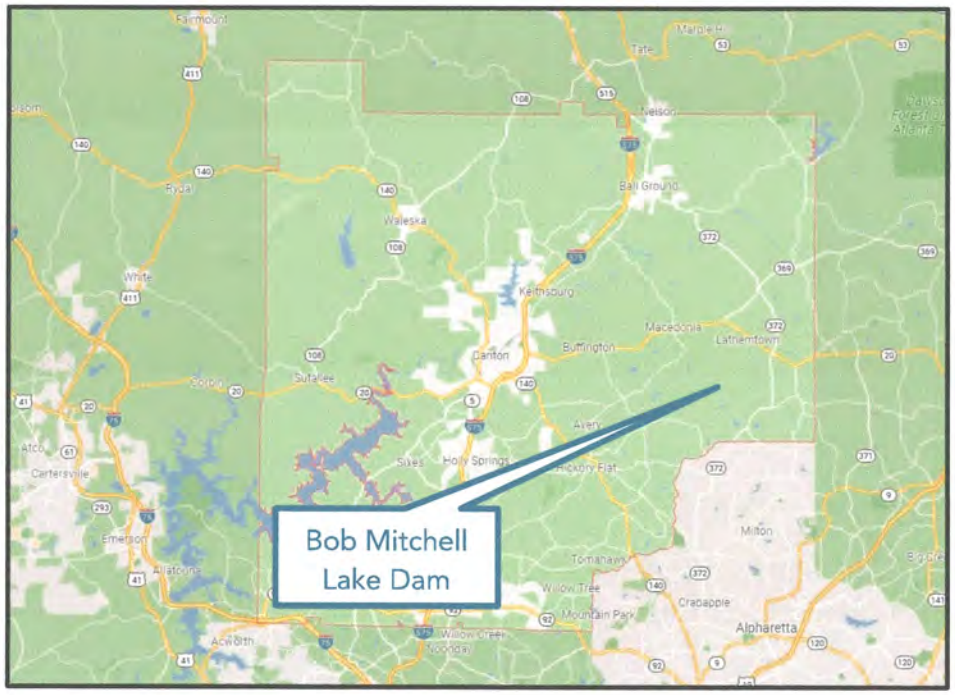
- Contact 911
- Call EPD-Safe Dams Program (404-463-2461)

Operation and Maintenance Definition

This document is the Operation and Maintenance (O&M) Manual for Bob Mitchell Lake Dam. The document provides procedures, guidance, and standard forms for the normal operation and maintenance of the facilitates. The purpose of the O&M Manual is to ensure adherence approved operating procedures over long periods of time and during changes in operating personnel. The instructions will permit personnel, knowledgeable in reservoir operations but unfamiliar with the conditions at a particular dam, to operate the dam and reservoir at times when regular operating personnel cannot perform their normal duties.

Directions to Dam

(See Location and Vicinity Maps, Appendix A.)
From downtown Canton, travel east on GA-Hwy 20 (Cumming Highway) for approximately 6.8 miles. Turn right onto Beavers Rd. Continue 1.4 miles, then turn left onto E Cherokee Dr. After approximately 0.7 miles, take the first exit of a traffic circle onto Gaddis Rd. Then, travel approximately 2.0 miles and then take a left on Arbor Hill Rd. After approximately 0.8 miles, take a sharp right onto Old Lathemtown Rd. After 0.2 miles, turn left onto Chilhoe Dr. Then, after 0.1 miles, turn right onto Liberty Hill Rd. After 0.5 miles, turn left on to Iron Mountain Rd. After approximately 0.3 miles on Iron Mountain Rd, 315 Iron Mountain Rd will be on the left with the Bob Mitchell Lake Dam at the end of the access drive.



Vicinity Map

Dam Description

Dam Information:		
Name:	Bob Mitchell Lake Dam	
State ID#:	028-045-02906	
USACE NID:	GA04071	
State/ Condition:	Proposed Conditions	
Dam Characteristics:		
Type:	Earthen Embankment	
Dam Crest Elevation:	1072.41	MSL-Feet (Low Point)
Channel Elevation:	1043.10	MSL-Feet (Natural Channel Elevation)
Height:	29.27	Feet
Crest Width:	12.00	Feet
Crest Length:	±440.00	Feet
Upstream Slope:	3:1	Horizontal : Vertical (Orientation)
Downstream Slope:	3:1	Horizontal : Vertical (Orientation)
Spillway Information (Principal/ Primary):		
Spillway/Conduit:	(2) 12" Schedule 40 PVC Siphon	
Crest Elevation:	1072.41	MSL-Feet
Spillway Information (Auxiliary 2-Stage System):		
Stage 1:	Earthen Channel	
Crest Length:	35.00	Feet (Bottom Width)
Crest Elevation:	1069.50	MSL-Feet

Reservoir Information:			
Stage	**Elevation (MSL-Feet)**	**Surface Area (Acre)**	**Storage Volume (Acre-Feet)**
Normal Pool	1067.50	10.80	131.90
Maximum Pool	1072.41	13.76	191.40

GASDP Classification:	
[4] **Dam Classification:**	Category II
[5] **Dam Subclassification:**	Medium Dam

Operation Procedures

Proper operational procedures are highly important to maintaining the safety of the embankment, spillways, gates, etc. The following sections detail in specific language how to properly perform daily operations at the dam. These sections allow those not knowledgeable about the dam's operational procedures to appropriately perform daily operations.

Routine Operation

This includes, but not limited to operation of all control spillways, gates, valves, siphon, subsurface drain flowrate readings, etc.

A. Principal Spillway – 12" PVC Siphon System

This system consists of (2) 12" PVC pipes that penetrates the middle of the dam. The inlet is equipped with a strainer and is in the pool near the toe of the front slope. The siphon pipes outlet is located near the toe of the back slope. One of the siphons is equipped with a butterfly valve at the outlet which allows for manual activation. The siphons should be operated a minimum of once a year in January to ensure the valve and siphons are functioning properly for manual activation. Below are instructions for manual operation or activation of the system:

System Activation:

Perform the following steps to "prime" the siphons. See Figure 1 below for a general schematic of siphon systems with locations of pertinent components.

1. Close the butterfly valve using the handwheel located on the back of siphon pipe outlet at the concrete headwall.
2. Locate the vent pipe and valve box on the front slope of the dam (Inside Valve Box are valves and cleanouts. Be sure to locate the specific valve box associated with the siphon that has the butterfly valve at the outlet.).
3. Remove Valve Box Cover and Close Vent Valve (Typically: Valve handle in line with pipe = open, Valve handle perpendicular to pipe = closed).
4. Remove the cleanout cap.
5. Use portable utility pump to pump water from pond into the cleanout. Fill until water begins to fill and/or overflow from cleanout. Then replace cap on cleanout.
6. Go to outlet and open the butterfly valve using the valve handwheel. NOTE: OPEN VALVE FROM ABOVE HEADWALL. DO NOT STAND BELOW SIPHON(S) OR IN PLUNGE POOL WHEN OPENING BUTTERFLY VALVE. SIPHON(S) WILL

IMMEDIATELY OPERATE AT FULL CAPACITY WHICH COULD LEAD TO INJURY IF PEOPLE OR ANIMALS ARE LOCATED IN OR IMMEDIATELY DOWNSTREAM OF PLUNGE POOL.

7. Siphon should begin siphoning at full capacity.
8. If siphon does not begin discharging at full capacity, repeat steps 1-8.
9. Inspect outlet, plunge pool and channel for erosion and/or rock displacement.
10. Return to the vent pipes on the front slope of the dam.
11. Open the valve on the discharging siphon vent pipe to "break" the siphon and discontinue full discharge. Leave vent valve open and ensure siphon outlet butterfly valve is open for return to normal use/ function.

Airlock Release:

When a siphon is functioning under normal conditions, a phenomenon called "air lock" can occur. This is the presence of trapped air in the horizontal portion of the pipe. If the water level is above the normal pool elevation and is not functioning fully, this is an indication of "air lock" in the conduit. The following steps should be taken to the release the "air lock":

1. If present, ensure the valve at the siphon outlet is open. Ensure the vent pipe vale is open as well.
2. Open the cleanout plug cap on the tee, located in the valve box.
3. Inspect the outlet of the siphon. If flow increases, replace the cap. Continue to inspect discharge over the course of a few days.
4. If siphon does not begin discharging at full capacity, repeat steps 1-3. Notify engineer for further steps if the process does not work successfully the second time.

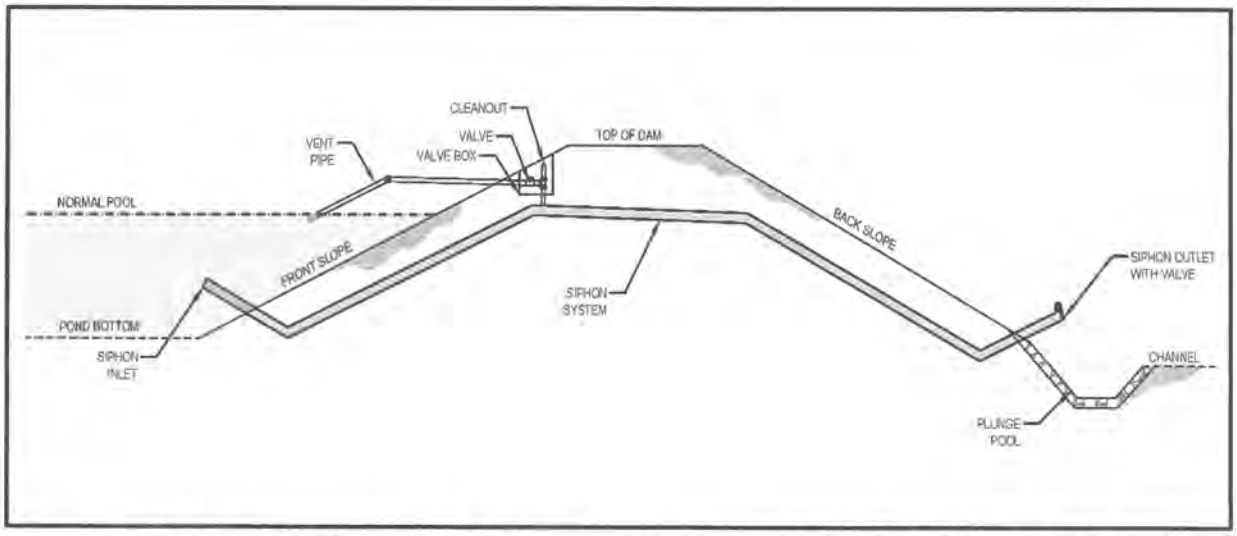


Figure 1 – General Schematic of Siphon System (Note: outlet valve only on one siphon)

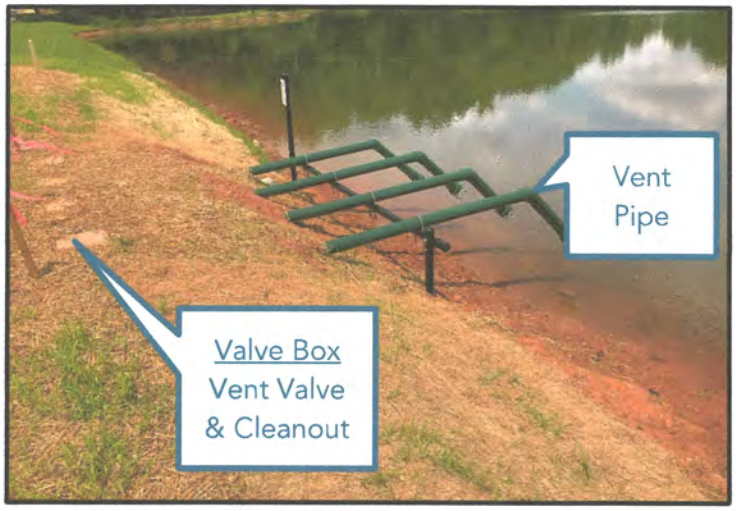


Figure 2
Typical Siphon Vent Pipes, Valve Box (Valves & Cleanouts)
(NOT ACTUAL FIGURE OF BOB MITCHELL LAKE DAM)

Figure 3
Typical Figure of Siphon Outlets with Butterfly Valves
(NOT ACTUAL FIGURE OF BOB MITCHELL LAKE DAM)

Periodic Maintenance Procedures

Dam owners and operators are responsible for conducting routine maintenance of the dam. This includes, but is not limited to, the sections provided below. If you need any assistance with this section, please contact your engineer. Any issues observed during the periodic maintenance directives shown below, should be recorded during the Owner Quarterly Inspection Reports.

A. General

i. Immediately repair any damage due to vandalism and/or vehicles that has occurred on the structure, embankment, the spillway, or other appurtenances.

B. Embankment

i. Maintain vigorous growth of desirable vegetative coverings. This includes reseeding, fertilizing, and applying herbicides when necessary. Periodically mow to control height.

ii. Check the embankment top and slopes for settlement or cracks. Check slopes for uniformity, bulges, sloughs, or wet areas.

iii. Inspect the downstream toe of the embankment when water levels are normally highest on the upstream side. Wet areas (indicated by seeps, wetland plants, or unusually vigorous vegetation on the downstream face of an embankment) could indicate a serious problem.

iv. Inspect for damage from rodents or burrowing animals. Repair any damage and take appropriate actions to avoid further damage.

v. Maintain embankments to the designed shape and height. All settlement or cracks in the soil should be investigated to determine the cause. Notify your engineer.

vi. Fill rills and gullies that occur on the embankment or in the auxiliary spillway with properly compacted cohesive soil material and reseed the disturbed areas.

vii. Remove woody vegetation (brush and trees) on the embankment promptly before it becomes well-established. Control growth by hand-cutting, mowing, or applying chemicals. Avoid damaging desirable vegetation with herbicides. Trees less than 8 inches in diameter may be removed. Trees over 8 inches in diameter require notification and direction of the engineer.

viii. Control vegetation heigh on embankment slopes by periodic mowing.

ix. Inspect for settlement, sinkholes, cave-ins, or cracks in the front and back slope of the embankment. If any of the above-mentioned items are discovered:

   a. Note the date and time of discovery

b. Note the location(s) & size
c. Note Pool level
d. Notify engineer

C. Principal Spillway

i. Remove the accumulation of debris, obstruction, or other deleterious materials from:
   a. Siphon vent pipes
   b. Siphon outlets/ plunge pool
ii. Test, clean, and lubricate valves as recommended by the manufacturer.
iii. Perform a monthly inspection of the principal spillways (12" PVC Siphon Pipe) for proper functionality and ability to maintain the water level to design elevations.
iv. Inspect the siphon valve annually to ensure all part are functioning adequately. The following valves should be exercised annually per GA State Rule 391-3-8-10.
   a. Siphon Vent Ball Valve
   b. Siphon Outlet Butterfly Valve
   c. If the valves are deteriorated or not functioning properly, notify the engineer for corrective actions/ recommendations.
v. Inspect the concrete headwall for any cracks, undermining, and/or displacement in concrete surfaces indicating settlement. Notify engineer if cracks are detected during inspection. Repairs and remediation shall be at the direction of the engineer.
vi. Repair spalls, cracks, and weathered areas in concrete surfaces. Repair or replace rusted or damaged metal.
vii. Check all rock riprap sections for accelerated weathering and displacement and replace to original shapes and grades if necessary. The riprap plunge pool should be inspected after each major rain event and repaired to original design requirements if damaged.
viii. The engineer should be notified a minimum of 48-hours prior to high-pressure jet cleaning of any drain conduit. The contractor or cleaning professional shall submit the proposed plan/ procedure to the engineer for approval prior to commencing ANY work. The cleaning procedure should always utilize the minimum pressure required to remove blockages and never exceed the maximum recommended pressure for Schedule 40 PVC.

D. Auxiliary Spillway

i. The auxiliary spillway consists of an earther spillway with a control section that has a bottom width of 35-feet. When inspecting, specifically inspect the control

section for erosion and damages. If during inspections, any of the above-mentioned items are discovered:

a. Note the date and time of discovery
b. Note the location(s) & size
c. Note Pool level
d. Notify engineer

ii. Remove woody vegetation (brush and trees) located in the auxiliary spillway promptly before it becomes well-established. Control growth by hand-cutting, mowing, or applying chemicals. Trees less than 8 inches in diameter may be cut flush with the ground surface and removed. Trees over 8 inches in diameter require notification and direction of the engineer.

Inspection and Maintenance Plan Requirements

The key to lasting success and performance of a dam is proper maintenance. A maintenance program should be developed that includes at a minimum the following:

1. Monthly inspections: Certain components of a dam should be monitored more frequently than a formal annual inspection. These inspections can be accomplished during normal activities around the dam.
2. Mowing Schedule: The dam and spillways should be mowed at a minimum of twice each year.
3. Seed, Lime, and Fertilizer: A soil sample should be obtained from the vegetated areas each year to determine the quantity of lime and fertilizer needed to encourage vigorous vegetation growth. Any bare areas should be over-seeded to prevent erosion.
4. Principal and Auxiliary Spillways: Each spillway should be checked after a large rain event to make certain the system is operating properly. Specifically, note any obstructions, erosion, debris, etc.
5. Wet Areas: Any wet areas should be noted and monitored. If the backside of the dam becomes wet with flowing water, contact an engineer with dam experience immediately.

Dam Owners and operators of dams shall be responsible for conducting routine inspection and maintenance of dams necessary to:

(a) Prevent the growth of trees or brush on the embankment of the dam and on the spillway system.
(b) Prevent the accumulation of debris, obstructions, or other deleterious materials from the spillway system.
(c) Ensure that all gates, orifices, dissipators, trash racks, and other appurtenances that affect the proper operation of the dam and reservoir are kept in good repair and working order, and that spillway and outlet gates necessary to pass flood flows shall be test operated at least once each year. The dam owner shall file an affidavit with the Director certifying that such gates and other appurtenances are in good repair and working order.
(d) Maintain adequate and suitable vegetation to prevent erosion of the embankment and earthen spillway for the dam.
(e) Determine that any seepage on the downstream slopes of the dam does not exceed normal amounts and does not present a situation indicative of potential dam failure. At any time where there is a question regarding seepage and potential dam failure,

the Director shall be notified in writing and provided a description of the situation; and

(f) Dam owners shall immediately notify an engineer when symptoms of failure, including but not limited to, erosion, surface cracks, seepage, settlement, or movement occur.

APPENDIX

APPENDIX A

Blank Inspection Form & Information

Embankment (Earth) Dam Inspection Form

Name of Dam:_____ Date:_____

Location of Dam (County):_____ Weather:_____

Inspected by (Print Name):_____

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_____ Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe):_____

_____

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

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

_____

☐ 3. Is there a paved road or driveway on the crest? Yes_____ No_____

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_____ No_____

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

_____

☐ 5. Are there any cracks on the crest? Yes_____ No_____

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____ 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_____ Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe):_____

_____

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

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_____

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_____ No_____

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

_____

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

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_____

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:_____

_____

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_____ Overgrown_____ Good Cover_____ Sparse_____

Other/Corrective Action (describe):_____

_____

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

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_____

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

_____

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

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_____ No_____

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

_____

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

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

_____

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

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

_____

☐ 9. Other observations on the downstream slope/Corrective Action:_____

_____

D. **Plunge Pool** (refer to Glossary for description)

☐ 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:_____

_____

↑ Check if corrective action is noted/required.

Name of Dam:_____ Date:_____

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_____ Emergency Spillway_____
Other/Corrective Action:_____

☐ 2. Has the emergency spillway activated (had flow) since the last inspection? Yes_____ No_____
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_____
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:_____

☐ 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:_____

☐ 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:_____

7. For pipe spillways, how would you describe the overall condition of the pipe(s)? (Check all that apply)
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_____
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)
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:_____

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

☐ 12. For concrete channel spillways, are there any cracks or holes in the spillway? Yes_____ No_____
If yes, describe (width of crack or hole, location, etc.)/Corrective Action:_____

☐ 13. For concrete channel spillways, are there any leaks or evidence of undermining (flow under the concrete)? Yes_____ No_____
If yes, describe (location, rate of flow from leak, indicators of undermining, etc.)/Corrective Action:_____

↑ Check if corrective action is noted/required.

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____ Not Functional____ Deteriorated____ Damaged____ Adequate____ Inadequate____

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

_____

F. Instrumentation (refer to Glossary for description)

☐ 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:_____

_____

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): _____

_____

_____

_____

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

↑ Check if corrective action is noted/required.

INSPECTION OF EMBANKMENT DAMS
INSTRUCTIONS

Through regular inspections, you will become more familiar with your dam and better able to recognize changes which could be of concern. Following are general guidelines for completing the Embankment (Earth) Dam Inspection Form. As all dams are different, every situation cannot be included in these instructions. If you have any questions, please contact the Safe Dams Program or the Engineer of Record (EOR) of your choice.

Each item listed below corresponds with an item on the Embankment (Earth) Dam Inspection Form. Within each item listed below, there is a short description which discusses the importance of the item for the inspection and things to observe. There is also a CORRECTIVE ACTION section. When completing the inspection form, make notes of anything that you see concerning that inspection item, and make the appropriate notes on your inspection form based off the CORRECTIVE ACTION section.

If an inspection item requires further action on your part (hiring an EOR, monitoring changes in cracks, etc.), place a check mark to the left of the number of the item on the inspection form. This will provide an easy way for you and the Safe Dams Program to determine items which need to be observed or corrected.

Thank you for taking the time to complete this inspection, as it will proactively help you to maintain your dam while at the same time providing for the protection of fellow Georgians downstream.

A. Crest

The crest of a dam is the top surface of the dam, and is usually relatively flat. The following items should be noted when inspecting the crest:

1. Unless there is a road on the dam (see Item 3 in this section), the crest of the dam should have a good cover of a low-growing grass. The vegetation should be regularly mowed to allow for easy identification of problems with the dam. CORRECTIVE ACTION: Note any areas that need to be reseeded or need to have maintenance performed on them.

2. Although a healthy cover of grass is desirable as erosion protection, the growth of deep-rooted vegetation, such as large shrubs and trees, is undesirable. Note in this section any trees or large shrubs which are located on the dam. CORRECTIVE ACTION: If the trees and shrubs are less than 8" in diameter, note that the trees and shrubs must be removed from the dam, any holes must be filled in and compacted, and the area must be seeded. If the trees and shrubs are greater than 8" in diameter, then an EOR must be hired to determine the best way to safely remove the inappropriate vegetation.

3. If there is a road on the crest of the dam, it should be paved or layered in gravel. It should be relatively flat, with no major ruts, depressions, or cracking. CORRECTIVE ACTION: For solid surface roads (i.e., asphalt or concrete), identify any excessive cracking, ruts, or depressions. Note that the cracks must be sealed, and that ruts and depressions should be filled in to prevent ponding of water on the road. For gravel roads, identify any ruts or depressions. Note that these areas must be filled in with additional gravel to prevent erosion.

4. Depressions are low spots in the crest and may be localized or widespread. They may be caused by settlement in the embankment or foundation or internal erosion or piping and

subsequent collapse of overlying material. Some areas of the embankment surface that look like depressions may be the result of improper final grading during construction, however the cause of depressions should be determined. Depressions can be minor or they can be very serious. Sinkholes are a serious type of depression. A good way of distinguishing between localized settlement and sinkholes is to look at their profiles:

i) Localized settlement usually has gently sloping, bowl-like sides.
ii) Sinkholes usually have steep sides from the soil shearing as it collapses into an underlying void.

The bottom of depressions should be probed to determine if there is an underlying void, which would be caused by the removal of subsurface material by internal erosion or piping.

CORRECTIVE ACTION: Photograph and record the location, size or extent, and depth of any depression. Have a survey performed of the crest if there is a concern about loss of freeboard. Note that the depression should be inspected frequently to ensure it is not continuing to settle or enlarge. If after several months of inspection it is determined that the depression is stable, then note that the depression should be filled with top soil, compacted, and grassed. If the depression continues to settle or enlarge, then note an EOR must be hired.

5. Cracking in an embankment dam falls into the following three major categories:
   i) Longitudinal cracking occurs in a direction roughly parallel to the length of the dam. It is an indication of a potentially unstable slope.
   ii) Transverse cracking appears in a direction roughly perpendicular to the length of the dam. Deep transverse cracking can provide a pathway for water into the core of the dam.
   iii) Desiccation cracking is caused by the drying out of certain types of embankment soils, and usually develop in a random, honeycomb pattern.

   CORRECTIVE ACTION: *For longitudinal and transverse cracking*, photograph and record the location, depth, length, width and offset of each crack observed. Monitor these cracks for any changes. Note the Safe Dams Program must be contacted for major cracking, or if the cracks are changing. *For desiccation cracking*, probe the more severe cracks to determine their depth, especially if they are oriented in an upstream/downstream direction. Photograph and record the location, length, width, depth and orientation of any severe cracks observed. Compare these measurements with any past measurements to determine if the condition is worsening. Note the Safe Dams Program must be contacted if the desiccation cracking continues to worsen.

6. Note here any items on the crest which are not covered above. In particular, note if there is evidence of livestock or recreation vehicles using the crest, which can lead to erosion problems. CORRECTIVE ACTION: If practical, restrict usage of the dam by animals or vehicles which will damage the vegetative cover. Note any areas which must be reseeded to prevent further erosion.

B. Upstream Slope

The upstream slope is the inclined surface of the dam on the reservoir (lake/pond) side of the crest. The following items should be noted when inspecting the upstream slope of the dam:

1. The reservoir level affects many other areas of the dam. It is important when inspecting the dam to determine if it is at normal pool (the normal elevation of the water in the reservoir), above normal pool, or below normal pool. If the reservoir is above or below normal pool, the difference in elevation should be estimated (in feet) and included on the inspection form. CORRECTIVE ACTION: If the reservoir is above normal pool, it should be monitored to make sure it returns to normal pool. Note that the principal or emergency spillway (see Section E) may be blocked and may need to be cleaned out. If the reservoir is below normal pool, the downstream slope and principal spillway (see Sections C and E, respectively) should be monitored for flow which may indicate pending failure of the dam. If such flow is noted, the Safe Dams Program must be immediately notified to determine if the reservoir needs to be drawn down further to prevent failure. Additionally, an EOR must be hired to determine the scope of the internal erosion of the dam and if repairs will be needed.

2. The upstream slope of the dam should have a good cover of a low-growing grass. This vegetation should be regularly mowed to allow for easy identification of problems with the dam. Additionally, there may be slope protection, such as rip rap, on the slope. This is covered in item 7 below. CORRECTIVE ACTION: Note any areas that need to be reseeded or need to have maintenance performed on them.

3. A description of inappropriate vegetation can be found in Section A, Item 2.

   CORRECTIVE ACTION: If the trees and shrubs are less than 8" in diameter, note that the trees and shrubs must be removed from the dam, any holes must be filled in and compacted, and the area must be seeded. If the trees and shrubs are greater than 8" in diameter, then an EOR must be hired to determine the best way to safely remove the inappropriate vegetation.

4. A description of depressions can be found in Section A, Item 4 of these instructions.

   An additional issue on the slope of the dam is holes, such as animal burrows. In Georgia, these burrows are typically caused by groundhogs, muskrats, or beavers. Beavers are of particular concern because of their habit of building dams in spillways to raise water levels.

   CORRECTIVE ACTION: Photograph and record the location, size or extent, and depth of any depression. Have a survey performed of the crest if there is a concern about loss of freeboard. Note that the depression should be inspected frequently to ensure it is not continuing to settle or enlarge. If after several months of inspection it is determined that the depression is stable, then note that the depression should be filled with top soil, compacted, and grassed. If the depression continues to settle or enlarge, then note an EOR must be hired. IF ANIMAL BURROWS ARE FOUND, note the size and location of the burrows. Remove or eradicate the animals causing the problem. Note that the holes must be filled with soil, compacted, and reseeded.

5. Erosion on the upstream slope has several different causes, including wave action on the shoreline, livestock on the slope, and recreational vehicles driving on the slope. CORRECTIVE ACTION: If erosion is found, note the size, location, and severity of the eroded areas. IF THE EROSION IS CAUSED BY WAVE ACTION ON THE RESERVOIR, note that additional slope protection, such as riprap, may be required. The Safe Dams Program must be contacted prior to installation of riprap to determine acceptability of the material proposed to be used. IF THE EROSION IS CAUSED BY TRAFFIC ON THE DAM, note that the eroded areas must be filled in, compacted and grassed. Additionally, if possible, access to

the upstream slope of the dam should be limited to prevent future erosion. Note the slope must be monitored for further erosion, and any erosion found must be repaired as soon as possible.

6. A description of cracks typically found on dams can be found in Section A, Item 5 of these instructions.

   Of additional concern on the slopes of dams are sloughs or slides. These usually fall into two categories: shallow slides and deep-seated slides. Shallow slides in the upstream slope are often the result of an overly steep slope combined with a rapid lowering of the reservoir. Deep-seated slides are serious threats to the safety of a dam, and are typically characterized by a steep back slope, a soil bulge near the bottom of the slide, and arc-shaped cracks in the slope (which may also be signs of developing deep-seated slides.) CORRECTIVE ACTION: FOR SHALLOW SLIDES, photograph and record the location of the slide, including dimensions. Note any cracks which have developed uphill from the slide which could be signs of potential development of a deep-seated slide. Note the slide should be regularly monitored for changes in size or development into a deep-seated slide. FOR DEEP-SEATED SLIDES, contact the Safe Dams Program to discuss the potential need of lowering and restricting the reservoir, and the potential need to hire an EOR.

7. Slope protection is used along the shoreline of the reservoir to prevent wave action erosion, surface runoff erosion, and wind scour. Riprap (broken or angular rock) is typically used. It is important that riprap is large and durable enough to not be moved or broken down by wave action. Additionally, irregular sized and shaped rocks create an interlocking mass that prevents waves from passing between the larger rocks and eroding the underlying material. You should look for beaching, scarping, or degrading of the slope protection to determine if it is adequate. Additionally, vegetation should be regularly removed from the riprap to allow for easy inspection of the slope and to ensure the vegetation does not move the riprap. CORRECTIVE ACTION: Note if maintenance needs to be performed to remove vegetation from the riprap slope protection. Note any areas of the slope which are not adequately protected (slope protection is easily moved by the water, there is not enough to protect the dam from erosion, etc.) Additionally, note any areas where the slope protection has settled, as this is a sign that erosion may be occurring below its surface. Document the dimensions of all areas of inadequate protection. Note that all areas of inadequate protection must be repaired. Contact the Safe Dams Program to discuss the recommended approach to addressing this issue.

8. Note any issues with the upstream slope which are not mentioned elsewhere in this section.

C. Downstream Slope

The downstream slope is the inclined surface of the dam on the opposite side of the crest from the reservoir. The following items should be noted when inspecting the downstream slope of the dam:

1. The downstream slope of the dam should have a good cover of a low-growing grass. This vegetation should be regularly mowed to allow for easy identification of problems with the dam. CORRECTIVE ACTION: Note any areas that need to be reseeded or need to have maintenance performed on them.

2. A description of inappropriate vegetation can be found in Section A, Item 2.

CORRECTIVE ACTION: If the trees and shrubs are less than 8" in diameter, note that the trees and shrubs must be removed from the dam, any holes must be filled in and compacted, and the area must be seeded. If the trees and shrubs are greater than 8" in diameter, then an EOR must be hired to determine the best way to safely remove the inappropriate vegetation.

3. A description of depressions, ruts, and holes can be found in Section B, Item 4. Of additional concern on the downstream slope are bulges which can be caused by seepage through the dam, and may lead to a shallow or deep-seated slide (see Item 5 in this section.)

   CORRECTIVE ACTION: FOR SHALLOW SLIDES, photograph and record the location of the slide, including dimensions. Note any cracks which have developed uphill from the slide which could be signs of potential development of a deep-seated slide. Note that the slide should be regularly monitored for changes in size or development into a deep-seated slide. FOR DEEP-SEATED SLIDES, contact the Safe Dams Program to discuss the potential need of lowering and restricting the reservoir. Additionally, note that an EOR must be hired to perform an investigation to determine the magnitude and the cause of the slide. FOR BULGES, note the location and dimensions of the bulge. Additionally, note any wetness in the area of the bulge. Note the bulge should be monitored regularly for any changes.

4. Erosion on the downstream slope has several different causes, including runoff from the crest, livestock traffic on the slope, and recreational vehicles driving on the slope. Erosion is especially prevalent near the groins of the dam, which is where the dam makes contact with the natural river valley. This can be caused by runoff or seepage through the contact between the dam and natural ground. CORRECTIVE ACTION: If erosion is found, note the size, location, and severity of the eroded areas. IF THE EROSION IS CAUSED BY RUNOFF, note that the eroded area should be filled with soil, compacted, and grassed. If the area continues to erode, note that additional protection may be needed. The Safe Dams Program must be contacted prior to installation of additional protection to determine acceptability of the material proposed to be used. IF THE EROSION IS CAUSED BY TRAFFIC ON THE DAM, note that the eroded areas must be filled in, compacted and grassed. Additionally, if possible, access to the downstream slope of the dam should be limited to prevent future erosion. Note the slope must be monitored for further erosion, and any erosion found must be repaired as soon as possible.

5. A description of cracks typically found on the slopes of dams can be found in Section B, Item 5 of these instructions.

   CORRECTIVE ACTION: FOR SHALLOW SLIDES, photograph and record the location of the slide, including dimensions. Note any cracks which have developed uphill from the slide which could be signs of potential development of a deep-seated slide. Note that the slide should be regularly monitored for changes in size or development into a deep-seated slide. FOR DEEP-SEATED SLIDES, contact the Safe Dams Program to discuss the potential need of lowering and restricting the reservoir. Additionally, note an EOR must be hired to perform an investigation to determine the magnitude and the cause of the slide.

6. Seepage is the passage of water through a dam. Seepage passes through all embankment dams. Many embankment dams have internal drains to intercept this seepage and discharge it safely. These drains are discussed in Section F of these instructions. Of greater concern is uncontrolled seepage, which can carry with it soil from within the dam, leading to erosion from the inside of the dam and eventual failure of the dam. This seepage may exit the ground

through the dam, or it may appear downstream of the dam. Items 6, 7, and 8 in this section are intended to document this uncontrolled seepage.

Wet areas on or at the toe of the dam can be caused by uncontrolled seepage or an area poorly graded to drain. Wet areas can be identified either by water on the surface, areas of water-loving vegetation (such as cattails, reeds and mosses), or areas of vegetation which are much greener than the vegetation around it. CORRECTIVE ACTION: Note the size and location of the wet areas. If the wet area appears to be caused by a low area, note that the area should be drained, filled with soil, compacted, and grassed.

7. Seepage through the dam which is causing erosion will typically appear rust-colored or stained. Additionally, the soils in Georgia will often cause the seepage to have what appears to be an oily sheen on its surface. CORRECTIVE ACTION: Note the size and location of any areas of seepage which exhibit any of the signs listed in this item. Note if the area is new or existing. If it is a new area, document the extents of the area. If it is an existing area, note if the size of the area or the appearance of the seepage has changed.

8. Seepage visibly flowing out of the slope or beyond the toe of the dam is of great concern. These areas can appear to be springs or sand boils, and may appear to have a cone of sediment around them. This sediment is most likely being eroded from within the dam. Of additional concern is water flowing along the outside of the principal spillway pipe or other drains, which can be a sign of a leak in the pipe or water using the outside of the pipe as a conduit. Seepage flowing through the dam, whether through the embankment or along a pipe, can lead to a type of dam failure called piping, which is internal erosion of the dam which can lead to failure. CORRECTIVE ACTION: Contact the Safe Dams Program to discuss the potential need of lowering and restricting the reservoir. Additionally, note that an EOR must be hired to perform an investigation to determine the source and severity of the seepage.

9. Note any issues with the downstream slope which are not mentioned elsewhere in this section.

D. Plunge Pool

The plunge pool is a natural or artificially created pool at the base of a dam that dissipates the energy of free-falling water. It is the location where the principal spillway exits the dam, and the water is returned to the natural flowing stream.

1. Erosion protection is often used around the plunge pool to prevent erosion caused by falling water. Additionally, it provides energy dissipation to the water before it is returned to the natural channel. Riprap is typically used. It is important that it is large and durable enough to not be moved or broken down by the energy of the falling water. It is desirable to have irregular sized and shaped rocks that create an interlocking mass to protect the underlying material. You should look for beaching, scarping, or degrading of the slope protection to determine if it is adequate. Additionally, vegetation should be regularly removed from the riprap to allow for easy inspection of the plunge pool. CORRECTIVE ACTION: Note if maintenance needs to be performed to remove vegetation from the riprap protection. Note any areas of the plunge pool which are not adequately protected (erosion protection is easily moved by the water, there is not enough to protect the plunge pool from erosion, etc.) Additionally, note any areas that the erosion protection has settled, as this is a sign that erosion may be occurring below its surface. Document the dimensions of all areas of inadequate protection.

Note that areas of inadequate protection must be repaired. Contact the Safe Dams Program to discuss the recommended approach to addressing this issue.

2. Erosion at the plunge pool is typically caused by runoff from around the plunge pool or from the energy of the water falling from the principal spillway. Seepage, which is discussed in Section C, Items 6-8, will often come to the surface within the plunge pool. CORRECTIVE ACTION: If erosion is found, note the size, location, and severity of the eroded areas. Note that additional erosion protection is needed to protect the area from erosion. Contact the Safe Dams Program to discuss the recommended approach to addressing this issue. If seepage is found, document the size and any of the signs exhibited in Section C, Item 7. For any seepage which is actively flowing, contact the Safe Dams Program to discuss the potential need of lowering and restricting the reservoir. Additionally, note that an EOR must be hired to perform an investigation to determine the source and severity of the seepage.

3. Note any issues with the plunge pool which are not mentioned elsewhere in this section.

E. Principal and Emergency Spillways

A principal (also known as primary) spillway is a pipe, channel, etc. which is designed to provide continuous or frequent releases from a reservoir in order to maintain the normal pool. An emergency spillway is designed to provide additional protection against overtopping of a dam intended for use under extreme conditions such as malfunction of the principal spillway or extreme rainfall. Water flowing through the emergency spillway should be a rare occurrence. Generally, the principal spillway should be able to carry most normal storm events.

1. Principal spillways on earthen dams in Georgia have typically been made of corrugated metal, concrete, plastic, or iron, and can either be a traditional spillway (where water falls into a riser in the lake and flows out of the pipe) or a siphon spillway (where water is pulled up out of the lake via pressurized flow). The spillway may also be a concrete channel. Emergency spillways are typically an earthen or concrete channel at one or both ends of the dam, but they can take other forms depending on the construction of the dam. While corrugated metal pipe has been used in the past for spillways in earthen dams, it has been determined to not be appropriate in this application and is no longer considered an acceptable option for use in dams. CORRECTIVE ACTION: Note in this section the type of primary and emergency spillways at your dam. If you are not sure what kind of spillways your dam has, please contact the Safe Dams Program to discuss.

2. As indicated previously, the emergency spillway should not activate regularly. However, there are occasionally storm events which cause this spillway's activation. CORRECTIVE ACTION: Note if there has been flow in the emergency spillway since the last inspection. Note the date(s) it occurred, what caused the spillway to flow, and how deep the flow was in the spillway.

3. One concern with pipe spillways is that they can become obstructed by various items, including excessive debris (tree limbs, logs, etc.) This leads to reduced flow through the spillway. It is important that obstructions be removed from pipe spillways regularly so they may carry their full design flow. CORRECTIVE ACTION: Note if there is debris at the entrance to the spillway pipe. If there is debris, note that the debris must be removed.

4. The entrance to pipe spillways should have some form of trash rack to prevent debris from entering the pipe and becoming lodged in the pipe. The trash rack is typically a metal grate. CORRECTIVE ACTION: Note if a trash rack is installed. If a trash rack is not installed, note that a trash rack should be added to the pipe spillway entrance. If a trash rack is installed, note its condition, including if it adequately covers the pipe, if it is broken, etc. If the trash rack is damaged, note that it will need to be repaired or replaced.

5. Pipe spillways are typically shorter lengths of pipes which are joined together in various ways. Over time, these joints can become separated. Additionally, cracks or holes may develop in the pipes due to rusting or damage from outside forces, including heavy equipment. CORRECTIVE ACTION: Note any separations, cracks, or holes in the pipe, including location, the dimensions of the damage, and if water is flowing through the damaged area. Note that these areas must be monitored for any changes. Contact the Safe Dams Program to determine what additional actions must be taken.

6. In general, there should be no leaks in a spillway pipe. Leaks can be visible or can be internal to the dam. If water is flowing into the pipe but not flowing out of it, or if no water is flowing into a pipe but is flowing out of it, there is an issue with the pipe within the dam. CORRECTIVE ACTION. Note if there are any leaks in the spillway pipe. If there are leaks, note their locations, sizes, and the rate of flow. (Rate of flow determination is discussed in Section F, Item 3 of these instructions.) Note that an EOR must be hired to determine if the leaks adversely impact the spillway pipe.

7. This item provides a general overview of the pipe(s). Check the items which are appropriate for the pipes in your dam based on your inspection.

8. For open channel spillways, including earthen and concrete-line spillways, there should be no obstructions to prevent the flow of water in the event the spillway activates. CORRECTIVE ACTION: Note if there are any obstructions within the spillway, including fences, buildings, etc. If there are obstructions, note that they must be removed.

9. Earthen spillway must have a good cover of a low-growing grass. This vegetation should be regularly mowed to allow for easy identification of problems within the spillway. CORRECTIVE ACTION: Note any areas that need to be reseeded or need to have maintenance performed on them.

10. Although a healthy cover of grass is desirable as erosion protection, the growth of deep-rooted vegetation, such as large shrubs and trees, is undesirable. Note in this section any trees or large shrubs which are located within the spillway. CORRECTIVE ACTION: If the trees and shrubs are less than 8" in diameter, note that the trees and shrubs must be removed from the spillway, any holes must be filled in and compacted, and the area must be seeded. If the trees and shrubs are greater than 8" in diameter, then an EOR must be hired to determine the best way to safely remove the inappropriate vegetation.

11. Eroded areas within earthen spillways must be dealt with to prevent further erosion in the event of spillway activation. CORRECTIVE ACTION: Note the location and extent of the damage, including depth of erosion. Contact the Safe Dams Program to discuss options to address the damage.

12. Concrete channel spillways should not be cracked or have holes in them. Cracks and holes can allow water to get under the concrete and erode away the material beneath the concrete, thus undermining the spillway. Also, this water can lead to uplift which can possibly break the concrete. CORRECTIVE ACTION: Note the location and size of any cracks or holes in the concrete. Contact the Safe Dams Program to discuss options to address the cracks and/or holes.

13. As mentioned previously, water under concrete channel spillways can potentially lead to erosion and undermining of the spillway. If water flows in the spillway and then disappears at a crack or joint, or if water suddenly appears at a crack or joint, this is a sign that water is flowing under the concrete. Additional signs could be if a section of the concrete has collapsed or if water is visibly flowing from under the concrete at the end of the spillway. CORRECTIVE ACTION: Note the location and rate of flow of the leak. If unable to measure the leak, note the reason that you believe water is flowing under the spillway. Note that an EOR must be hired to determine the extent of undermining of the spillway and to determine the best method of repair.

14. This item provides a general overview of the earthen or concrete channel spillway(s). Check the items which are appropriate for the earthen or concrete channel spillway(s) on your dam based on your inspection.

15. Note any issues with the spillways which are not mentioned elsewhere in this section.

F. Instrumentation

Instrumentation is defined as any device installed into or near a dam which are used to monitor the performance of the dam. Typical instrumentation on an earthen dam includes piezometers and toe drains. A piezometer is an instrument that measures hydraulic pressures within an earthen dam. They typically will be pipes that extend vertically out of the dam, or they may be set in the surface of the dam with a cover similar to a groundwater well. A toe drain is a system of pipe and/or pervious material along the downstream toe of a dam used to collect seepage from the foundation and embankment and convey it to a free outlet. These typically come out near the toe of the dam, and can often be found near the plunge pool. They are smaller pipes than the spillway pipe.

1. As indicated previously, toe drains are located along the toe of the dam, often near the plunge pool. The area around the drains should be cleaned out to allow for easy inspection and measurement of the flow from the pipes. CORRECTIVE ACTION: Note if there are toe or other seepage drains on the dam. If there are toe drains, describe their condition, including if they are visibly clogged, if water is flowing from them, and if they have deteriorated (rusted, broken, etc.) If the drains are clogged, note that they should be flushed to remove sediment so they flow freely. If the toe drains are overgrown or have sediment built up under them, note that the area around them needs to be maintained. If the drains have deteriorated to the point of having holes in them, then note that an EOR must be hired to determine how to repair the pipes.

2. Animal guards are installed on the ends of toe drains to prevent animals from climbing into the pipe, while at the same time allowing water to freely flow out of the drains. All toe drain outlets should have animal guards installed on them. CORRECTIVE ACTION: Note if all toe drain outlets have animal guards installed. If the drains do not have animal guards, note which toe drains are missing them. Also, note that these toe drains must have animal guards installed on them.

3. Measurements of the flow from each drain are very important to understanding your dam. The flow from the toe drains, when looked at over time, can be indicative of potential problems within the dam. It is good to plot the flow of water over time on a graph to see if there is a sudden change in the flow.

   To measure the flow from a toe drain, choose a container for which you know the volume. Place the container under the toe drain, and time how long it takes for the container to fill. Divide the volume of the container by the amount of time necessary to fill it, and that is the flow rate. For example, if you have a one gallon bucket, and it takes two minutes to fill it, then your flow rate would be (1 gallon)/(2 minutes), or 0.5 gallons per minute (gpm). If your container is measured in ounces or milliliters, then measure the time taken to fill the container in seconds. Divide the container volume (in ounces or milliliters) by the time taken to fill it (in seconds.) If your flow is in ounces/second, then multiply the flow by 0.4688 to get the flow in gallons per minute. If your flow is in milliliters/second, then multiply the flow by 0.01585 to get the flow in gallons per minute.

   In addition to the flow, it is important to look at how clear the flow is. This gives an indication of the amount of erosion within the dam.

   CORRECTIVE ACTION: Take the flow measurement at each toe drain, and convert it to gallons per minute, if necessary. Note the location, flow measurement, and how clear the water is on the inspection form. Compare the flow with previous flows from the toe drains. If the flow has significantly dropped, note that the drains should be cleaned out. If the flow has significantly increased, contact the Safe Dams Program to discuss.

4. Piezometers are usually found on the slope of the dam, and can occasionally be found beyond the toe of the dam. They are used to measure how far the water level in the dam is below the surface of the dam. CORRECTIVE ACTION: Note if there are any piezometers located on or near the dam. Note if the piezometers have been damaged (broken, bent, etc.) If the piezometers have been damaged, note that an EOR must be hired to determine if the piezometer can be repaired.

5. Since the piezometers are used to measure the water level inside the dam, it is important that outside water not be introduced. Therefore, all piezometers must have caps to prevent rain water from entering the pipe. Also, if the piezometers are accessible to the public, the caps should have locks to prevent tampering with them. CORRECTIVE ACTION: Note if the piezometers all have caps with locks. If the piezometers do not have caps, note that caps must be installed. If the piezometers do not have locks and they are accessible to the public, then note that locks must be installed on the caps.

6. It is important that the piezometers be read regularly to ascertain the depth of the water within the dam. Much as the flow from toe drains, the depth of water below the surface of the dam should be looked at over time to watch for any drastic changes. This is best done by plotting the values on a graph over time. It is best to also note the reservoir level on the graph as lake level can impact the readings. CORRECTIVE ACTION: Note the values for the water level at each piezometer and compare it to previous readings. If there has been a drastic change in the level of the water within the dam, contact the Safe Dams Program to determine what steps should be taken. If you do not know how to read the piezometers, please contact an EOR either to take the readings for you, or to show you how to read them.

7. Other monitoring devices may exist on the dam, including monitoring wells and settlement plates. These will vary from dam to dam. CORRECTIVE ACTION: Note any additional monitoring devices located on the dam. Provide readings for the monitoring devices if available. Note the condition of the monitoring device.

8. Note any issues with the instrumentation which are not mentioned elsewhere in this section.

G. Photographs

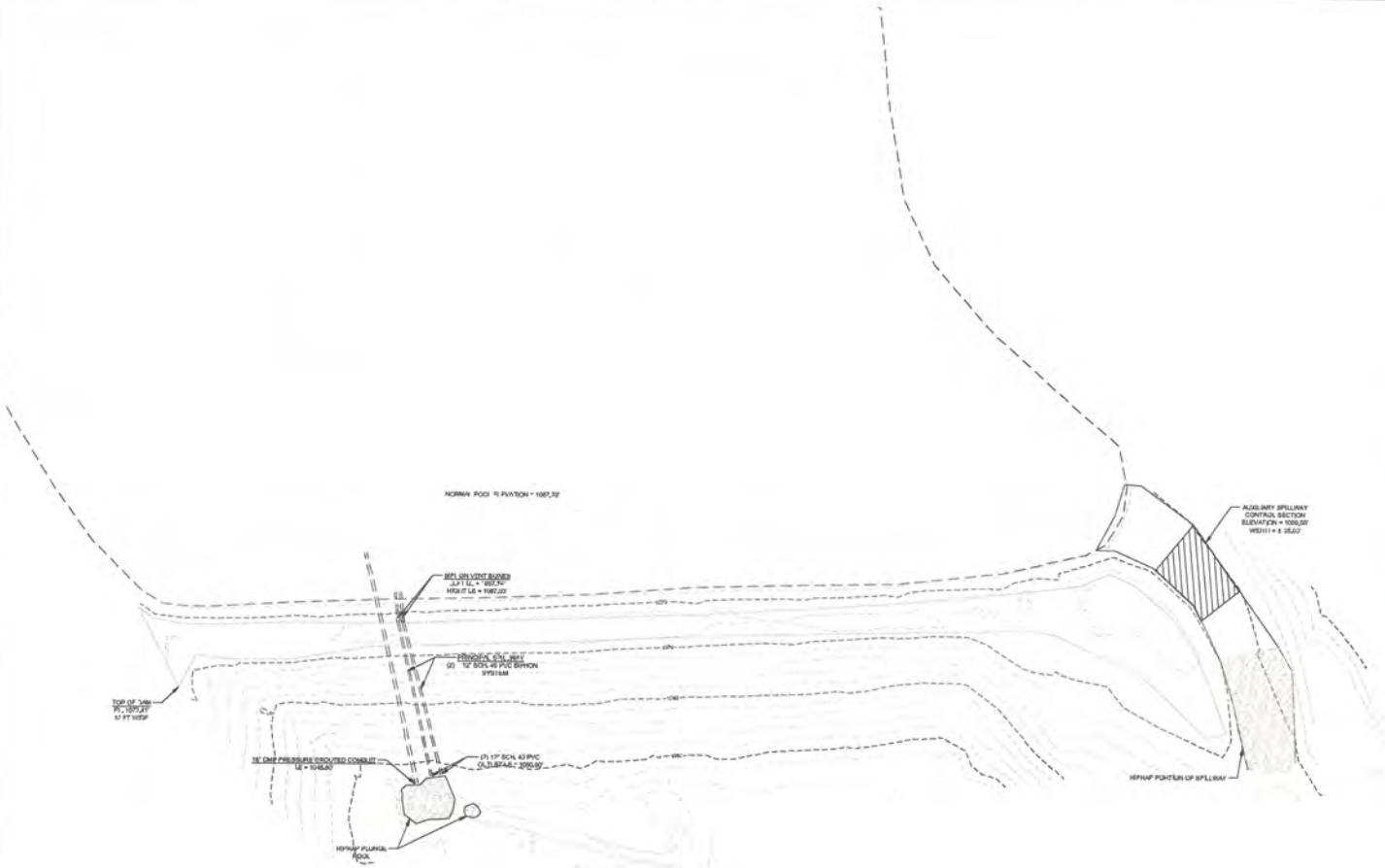
Photographs provide a good way for the health of the dam to be monitored from inspection to inspection. Often changes will be noticed in photographs that may not be noticed otherwise. Photographs should be taken of the crest, upstream slope, and downstream slope. Additionally, photographs should be taken of any problems which are noted (erosion, cracks, etc.), and an item of a generally known size (a piece of paper, ruler, shoe, clipboard, etc.) should be included in these photographs to provide a perspective on the size of the problem. All photographs should be date stamped. Additionally, it is a good idea to take pictures from the same general area during each inspection, as this allows for easier comparison of photographs between inspections. List the photographs taken, and attach color copies of the photos to the report.

APPENDIX B

Past Inspection Reports

EXHIBIT "E"

Bob Mitchell Lake Dam Survey



PROJECT GEOGRAPHICAL INFORMATION

PROJECT PROJECTION & DATUM:

HORIZONTAL DATUM: NAD83 (GEORGIA STATE PLANES, WEST ZONE, US FOOT
VERTICAL DATUM: NORTH AMERICAL VERTICAL DATUM OF 1988 (NAVD88)

BOUNDARY SURVEY:

BOUNDARY SURVEY NOT PERFORMED BY CARTER ENGINEERING

TOPOGRAPHIC SURVEY:

SURVEYOR NAME: MICHAEL HOLLY
DATE OF SURVEY: 06/ 2/2024
TRACT OR PARCEL: DAM AREA
HORIZONTAL DATUM: NAD83 (GEORGIA STATE PLANES, WEST ZONE, US FOOT
VERTICAL DATUM: NORTH AMERICAL VERTICAL DATUM OF 1988 (NAVD88)

GEOGRAPHICAL INFORMATION SYSTEMS (GIS) DATA UTILIZED:

TOPOGRAPHIC DATA: CHEROKEE COUNTY GIS DATA
PARCEL DATA: CHEROKEE COUNTY GIS DATA
ADDITIONAL DATA: USGS GIS DATA

GEORGIA COMP. R. & REGS. R. 180-6-.09:

THE TOPOGRAPHIC AND ELEVATION DATA SHOWN HEREON WAS OBTAINED FROM A FIELD RUN SURVEY OF THE DAM ON Y. USERS OF THIS DATA DO SO AT THEIR OWN RISK.

ASBUILT CERTIFICATION

AS CONTRACTED: _____ DATE: 04/09/2024
J. Brian Kinney, PE GA26705

PROPOSED DAM INFORMATION

GENERAL INFORMATION	
DAM NAME:	BOB MITCHELL LAKE DAM
GA STATE ID:	028-045-02906
COORDINATES:	N 34.206056°, W 84.324° 67"
COUNTY:	CHEROKEE COUNTY
HAZARD CLASSIFICATION:	CATEGORY II
PHYSICAL CHARACTERISTICS	
BASIN AREA:	408.80 ACRES
DAM HEIGHT:	29.27 FEET
NORMAL POOL ELEVATION:	1067.50 FEET
NORMAL POOL STORAGE:	131.92 ACRE-FEET
CREST OF DAM ELEVATION:	1072.41 FEET
MAXIMUM DAM STORAGE:	191.40 ACRE-FEET
PRINCIPAL SPILLWAY:	(2) 12" SCH. 40 PVC SIPHON SYSTEMS
AUXILIARY SPILLWAY:	EARTHEN, OPEN CUT CHANNEL

HYDROLOGIC & HYDRAULIC SUMMARY

SCS TYPE II STORMS

STORM EVENT (24 HOUR)	RAINFALL DEPTH (INCHES)	PEAK INFLOW (CFS)	PEAK OUTFLOW (CFS)	MAX WATER SURFACE ELEVATION (FEET)
1 YEAR	3.39	113.73	35.93	1068.26
2 YEAR	3.84	171.24	53.20	1068.71
5 YEAR	4.60	288.02	98.27	1069.63
10 YEAR	5.23	390.96	66.59	1070.10
25 YEAR	6.11	533.03	158.01	1070.58
50 YEAR	6.79	661.73	243.46	1071.01
100 YEAR	7.46	798.01	341.23	1071.43

GEORGIA811
Utilities Protection Center, Inc.
Know what's below
Call before you dig

GRID NORTH

30' 15' 0 30' 60' 90'
GRAPHIC SCALE
SCALE: 1" = 30'

REVISION BLOCK

ISSUE	REVISION DATE & DESCRIPTION
1	04/09/2024 - ASBUILT SUBMITTAL
2	
3	
4	
5	
6	
7	
8	

GEORGIA REGISTERED ENGINEER No. 28703 J. BRIAN KINNEY

GIS-HCC Level 3 Certification No. 00000000.0007

CARTER ENGINEERING

CARTER ENGINEERING
1010 COMMERCE DRIVE
DOGANT, GA 30622
P: 770.775.1700
F: 770.725.1204
www.carterengineering.com

ASBUILT PLANS
OF
BOB MITCHELL LAKE DAM
028-045-02906 - 34.206056°, -84.324167°

SHEET TITLE: ASBUILT CERTIFICATION

PROJECT NAME: MITCHELL FARMS RESERVOIR

SHEET NUMBER: C 1.0

PROJECT NUMBER: 21001MFN

DATE: 04/09/2024