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To: Mr. Thomas Woosley, PE Safe Dams Program Manager GA Department of Natural Resources

2 Martin Luther King Drive SE Suite 1362 Atlanta, GA 30334-9074 Copies:

DeKalb County Department of Watershed Management (DWM):

Georgina Lockett, Sandy Smith, John Patterson, Jr., Jeff Winters, Kerry Williams

Arcadis:

Michael Diaz, Benjamin Moss, Wiley Helm

From:

George F. McMahon, Ph.D., PE, Georgia Safe Dams Engineer of Record (EOR) National Expert, Water Management, Arcadis

Date:

February 25, 2021

Arcadis Project No.:

30080999

Subject:

Dekalb County Scott Candler Water Treatment Plant Reservoirs1 and 2 – 2021 Safe Dams Inspection

Dear Mr. Woosley,

Please find attached the Embankment Dam Inspection Form (EDIF) for the 2021 inspection cycle for the Scott Candler Water Treatment Plant Reservoirs 1 and 2. The Plant is located at 4830 Winters Chapel Road, Atlanta, GA 30360. An aerial view of the reservoirs is shown in **Figure 1**.

In addition to the inspection report and as required by the Georgia Safe Dams Program office, color time, and date stamped photographs are attached for your review.

This report documents observations made during multiple inspections of the dams, the first conducted by Dekalb County Department of Watershed Management (DWM) on **February 4, 2021.**

On February 19, 2021, an additional preliminary inspection was performed by two Georgia Professional Engineers representing Arcadis: - Mr. Benjamin Moss, PE and Mr. Michael Diaz, PE, both of whom are also familiar the plant infrastructure. The original inspection materials were provided during this preliminary visit. Preliminary inspection items were developed for a subsequent visit to the site with Dr. George McMahon. Arcadis prepared a request for documents prior to the second inspection that included previous inspection reports, monitoring reports, operations and maintenance information, and drawings.



Figure 1: Reservoirs 1 and 2 location map

On February 24, 2021, Dr. George McMahon in his capacity as EOR, visited the site for a final inspection accompanied by Mr. Moss and Mr. Diaz of Arcadis and Mr. Jeff Winters with DWM. This report documents the findings of the February 24 inspection, which, together with the EDIF, constitute the 2021 Inspection Report to be submitted by DWM to the Georgia Safe Dams Program office.

DAM CRESTS

During the inspection the crests of both dams were inspected. The crests are grassed with an asphalt driveway that wraps around both reservoirs. There are minor cracks in the asphalt that appear to be due to temperature changes or pavement shrinkage, but there were no depressions or deterioration that could be attributed to movement or settling of the embankment. Representative pictures of the crests are provided in the Photographs section of the report.

UPSTREAM (INSIDE) SLOPES

The normal full pool elevation is 1050' for both reservoirs. Levels at the time of inspection were approximately 1048.5' for Reservoir 1 and 1049' for Reservoir 2. The upstream slopes of both dams are armored by riprap for wave protection around the perimeter that extends to the crest, leaving no area for grass on the inside slopes. The condition of the riprap was good, with no gaps or damage visible, and no inappropriate vegetation, depressions, erosion, or cracks along the upstream slope were observed.

DOWNSTREAM (OUTSIDE) SLOPES

The downstream slopes and benches of both dams were examined thoroughly during the inspection. The downstream slopes had not been recently mowed at the time of the inspection due to seasonal grass dormancy. The grass cover on both reservoirs was adequate, though sparse in some locations. Plant staff acknowledged this and indicated that they were planning to hydroseed soon. No high grass, shrubs, or

trees were found on the downstream slope of either dam. Small depressions were found on the Reservoir 2 slope, but did not appear to be related to seepage. We recommend that operators periodically inspect (i.e. monthly) downstream embankments for inappropriate vegetation and monitor any changes, depressions, boils, seepage areas, bare slope, or surface erosion so that corrective measures if needed can be taken in a timely manner. Embankment inspections should be performed in dry weather conditions and on dry ground..

Some evidence of seepage of Reservoir 1 was observed in the form of rust-colored flow and ponding below a toe drain discharging on the southeast slope of Reservoir 1 and to the south of the common embankment dividing Reservoirs 1 and 2 (see **Figure 2**).



Figure 2: Area of New Seepage

This appears to be a newly observed seepage location. We have recommended to DWM staff that the discharge be measured and sampled to determine if the rust color is iron bacteria caused by seepage through the embankment. We have recommended that the origin and path of the drain be identified to enable closer monitoring for depressions that might lie along the flow path, and that future monitoring, inspections, and potential seepage reduction measures follow Georgia Safe Dams Program guidelines.¹

Toe drains were also inspected around the two reservoirs, and their discharge was examined. The toe drains appeared to be in good condition and, other than the Reservoir 1 drain described above, flowed clear. Some of the toe drains were exposed at the surface and should be covered with soil as a corrective action. Soft soils and residual moisture were identified at the discharge and downstream of one of the toe drain outlets for Reservoir 2, shown in **Figure 3**. This area was determined to be a result of not properly managing discharge from the toe drain. A temporary fix of additional piping was implemented between the

¹ Georgia Department of Natural Resources, Safe Dams Program (July 2015). *Engineer Guidelines Version 4.0.*



first and second visits, and the area showed signs of significant improvement. A permanent solution to properly channel this discharge is recommended as a corrective action.

Figure 3: Soft Soil and Residual Moisture Area

PLUNGE POOLS

The plunge pool for each of four outlet structures consists of a concrete box and wingwalls at pipe outlets. Below the mass of concrete is an area for water to pool and dissipate energy from high-velocity pipe discharge before exiting the structure. Riprap or concrete-lined channels collect water discharged by the outlets and concrete structures, all of which appear to be in good physical condition and in good working order.

PRINCIPLE AND EMERGENCY SPILLWAYS

The two dams have a combined emergency spillway located between the two dams, which discharges to a concrete energy dissipation structure similar to the plunge pool structures described above. The emergency overflow for each reservoir is located on the concrete gate control structure within the reservoir, accessible only by boa100t. There are four weirs located on the concrete structure with an elevation equal to the maximum storage of the reservoir.

Additionally, there is an additional overflow emergency spillway device between the two dams at the maximum allowable elevation. If either or both of the reservoirs reach the maximum allowable pool elevation, all three spillways would discharge water to the plunge pool area shown in the spillway and plunge pool photos.

EMERGENCY DRAINS

Each dam has a gated low-level outlet that can be operated from the gate control structure in the reservoir. To the best of Mr. Winters' knowledge, the low-level outlets have not been and are not exercised on a regular basis out of concern that, once opened, the gates could jam in an open position and draining could not be stopped as a result. Mr. Winter suggested that installation of Howell-Bunger valves at the outlets may provide a backup allowing the drains to be closed at the outlet if the inlet gates jammed. In any case, we have recommended that, due to the dam safety function of the low-level outlet, each low-level outlet gate should be fully opened and closed at least once on an annual basis to maintain them in working order.

INSTRUMENTATION

Piezometers were located around the perimeter of both reservoirs to continuously monitor water pressure in the embankment. Based on visual inspection, all piezometers appeared to be in good condition and covered, though some appeared to be unlocked. Facility monitoring data is included as an attachment to the inspection forms included in **Attachment B**.

PHOTOGRAPHS

See Attachment A of this document for required photographic documentation of inspection.

Sincerely,

George McMahon, Ph.D, PE, PH, D.WRE Georgia Engineer of Record (EOR) Vice President, National Expert, Water Management Arcadis U.S., Inc.



ATTACHMENT A - PHOTOGRAPHS



Crest and Upstream Slope, Reservoir 1 (left) and Reservoir 2 (right) (2/24/21 4:30pm) Left – Reservoir 1 Right – Reservoir 2



Downstream slope, Reservoir 2 (2/25/21 – 5:30 pm) Top Left – Reservoir 1 (Reservoir 2 in distance) Top Right – Reservoir 2 Bottom Left – Reservoir 2 (Reservoir 1 in distance) Bottom Right – Reservoir 2





Plunge Pool and Emergency Spillway (5/24/21 – 5:00pm) Left – Plunge pool for Reservoir 2 Right – Combined emergency overflow (near) – Plunge Pool for Reservoir #2 (far)



Toe drain discharge Area (5/25/21 5:00pm)Top Left – Reservoir 2 west toe drain outlet and collection pipeTop Right – Low point that is collecting surface water along wall.Bottom Left – View of stormwater from building and stormwater from dam collecting together.Bottom Right – View of discharge pipe running to rip-rap stormwater collection area.

ATTACHMENT B – EMBANKMENT (EARTH) DAM INSPECTION FORMS & PIEZOMETER DATA

Embankment (Earth) Dam Ins	pection	Form
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Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #1 Date: 02/24/2021 Location of Dam (County): Dekalb County - 4830 Winters Chapel Road, Atlanta Weather: Sunny Inspected by (Print Name): George F. McMahon, pH. D, PE Veather: Sunny
If an inspection item requires further action on your part, place a check mark to the left of the number of the item
A. <u>Crest</u> (refer to Glossary for description)
 1. How would you describe the vegetation on the crest? (Check all that apply) Recently Mowed Overgrown Good Cover_ Z 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_X 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? YesNoX If yes, describe (length and width, location, direction of cracking, etc.)/Corrective Action: Minor asphalt cracking that does not appear to be related to dam structure.
6. Other observations on the crest/Corrective Action:
 B. <u>Upstream Slope</u> (refer to Glossary for description) 1. What is the reservoir level today? At Normal Pool Above Normal Pool Feet Below Normal Pool<u>1048.5</u>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
5. Are there any eroded areas on the slope (such as wave erosion along the shoreline)? Yes No_X If yes, describe (size of area, location, severity, etc.)/Corrective Action:

Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #1 Date: 02/24/2021
 ☐ 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:
 7. Is there any type of slope protection along the shoreline (such as riprap)? Yes <u>No</u> No If yes, describe what type and its condition (for example, riprap - adequate, inadequate, sparse)/Corrective Action: In good condition covering the water line.
8. Other observations on the upstream slope/Corrective Action:
 C. <u>Downstream Slope</u> (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): Some sparse areas. Recommended hyroseeding during growing season.
 □ 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
 ☐ 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: New area located between two dams. Recommend to continue to monitor. See cover sheet for more details
 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: Area between the two dams has rust colored water. Recommend to continue to monitor
9. Other observations on the downstream slope/Corrective Action:

Name of Dam:_Dekalb County Watershed Scott Candler WTP Reservoir #1 Date:_02/24/2021
D. <u>Plunge Pool</u> (refer to Glossary for description)
1. Is there any type of erosion protection around the plunge pool (such as riprap)? Yes_X No
If yes, describe the type of protection and its condition (for example, riprap - adequate, riprap -insufficient, overgrown
with vegetation)/Corrective Action: Concrete - In good condition.
□ 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:
E. <u>Principal and Emergency Spillways</u> (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)?
Emergency Spillway Pipe with concrete dissipation structure.
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 spinways, what is the condition of any trash facks (for example, adequate, madequate, damaged)? /Corrective Action:
\square 5 For pipe spillways, are there any visible creaks, separations or holes in the pipe(s) (intake or outlet)? Ves \square
If yes, describe (location, width of creak or separation, etc.)/Corrective Action:
If yes, describe (location, with of clack of separation, etc.)/Confective Action.
\sim 6 For nine shillways are there any apparent leaks in the nine(s)? Ves No
If yes describe (location, rate of flow from leak, atc.)/Corrective Action:
If yes, describe (location, rate of now nom leak, etc.)/Confective 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
8 For concrete or earth channel spillways is the entrance or channel obstructed in any way? Ves No
If yes, describe (type of obstruction, location, etc.)/Corrective Action:
If yes, describe (type of obstruction, focation, etc.)/confective 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:

Embankment (Earth) Dam In	spection	Form
		/		

Name of Dam: Dekalb County Watershed S	cott Candler WTP Res	ervoir #1 Date:	02/24/2021
☐ 10. For earth channel spillways, are there ar If yes, describe (type of vegetation, s	ny trees or other inapprop size, location, etc.)/Corre	oriate vegetation in the spill ctive Action:	way? Yes No_ 🛛
11. For earth channel spillways, are there ar If yes, describe (size of area, location	ny eroded areas in the spi n, severity, etc.)/Correcti	llway? Yes ve Action:	No
12. For concrete channel spillways, are then If yes, describe (width of crack or ho	e any cracks or holes in t ole, location, etc.)/Correc	he spillway? Yes tive Action:	No
☐ 13. For concrete channel spillways, are there If yes, describe (location, rate of flow	e any leaks or evidence o w from leak, indicators o	of undermining (flow under f undermining, etc.)/Correc	the concrete)? Yes No
 Principal and Emergency Spillways (continue) 14. For earth or concrete channel spillways, Functioning Normally Not Funct ☐ 15. Other observations on the spillways/Control 	inued) how would you describ ional Deteriorated rrective Action:	e the overall condition of th	e spillway? (Check all that apply) dequate X Inadequate
 F. <u>Instrumentation</u> (refer to Glossary for desc 1. Are there any toe drains at the downstrea If yes, describe the condition (for ex Free flowing, one location had rust 	ription) m toe or any other seepa ample, clogged, free flow colored sediment and sh	ge drains on the dam? Ye ving, deteriorated, good cor	es_XNo ndition) /Corrective Action:
2. For drains, is an animal guard installed at	the outlet of each drain:	Yes X No	·
□ 3. For drains, measure the rate of flow from	each drain and record be	elow (use additional pages i	if necessary): Turbidity of Flow
DO-1 / P1-2B	0.4 L	0.106	Clear
TO-1 / P1-3A	5 L	1.32	Clear
DO-1-2 / P1-4C	1 L	0.264	Clear
DO-3 / East of DO-1	0.4 L	0.106	Clear, Minor Sediment
☐ 4. Are there any piezometers on the dam?	Yes_XNo		

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

Appear to be in good condition with stainless steel stick-ups and locks. Data was provided by Dekalb personnel.

Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #1	Date: 02/24/2021
☐ 5. For piezometers, does each piezometer have a cap with a lock? Yes_⊠	No (to prevent tampering)? /Corrective
Action: 6. For piezometers, are you able to take a measurement (depth to water) in each piezome If yes, record depth to water (in feet) in each piezometer, record on a separate page	eter? Yes No
☐ 7. Are there any other monitoring devices on the dam? Yes No If yes, describe what type and the condition (for example, monitoring wells - goo	- d condition, damaged) /Corrective Action:
8. Other observations on instrumentation/Corrective Action:	
G. <u>Photographs</u> At a minimum, photographs should be taken of the crest, upstream slope, downstream slo	ope and any other notable features

including areas where corrective action is noted.

List of photographs (be sure to date stamp the photos): Please see cover sheet for representative photos.

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

				2020											
Signature	Hall														
Res Level	1045.4						1049	1049.52	1049	1045	1048.2	1049.5			
Date	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20			
SAMDIE SITE	DEPTH to	DEPTH to	DEPTH to	DEPTH to			Average								
SAWIFLESTIE	WATER LEVEL	WATER	WATER LEVEL	WATER LEVEL			Average								
4A	32.9	33.0	32.6	33.3	33.0	33.2	33.5	34.3	34.0	34.0	34.0	32.5			33.40666667
4B	26.9	26.9	26.3	26.2	26.4	26.5	26.7	26.5	26.4	25.4	26.1	25.7			26.41333333
4C	6.9	7.1	7.0	6.8	6.9	6.8	6.9	7.0	7.3	6.7	6.7	6.7			6.886666667
4D	5.5	5.5	5.5	5.5	5.4	5.4	5.5	5.5	5.5	4.5	4.4	4.1			5.156666667
3A	13.8	13.8	13.8	14.6	14.2	15.7	16.4	16.7	16.5	15.7	15.4	15.2			15.26
2A	28.4	28.5	27.2	28.2	28.1	28.6	28.7	28.6	28.7	28.0	28.0	28.6			28.32666667
2B	10.4	10.4	10.7	11.0	10.5	11.6	12.1	12.5	12.1	11.2	11.5	10.9			11.3
1A	12.0	12.1	12.5	12.0	12.7	13.8	14.4	14.5	14.3	13.4	13.4	13.2			13.4
Comments															

Embankment (Earth) Dam Ins	pection	Form
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Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #2 Dekalb County : Dekalb County - 4830 Winters Chapel Road, Atlanta Location of Dam (County): Dekalb County - 4830 Winters Chapel Road, Atlanta Dekalb County - 4830 Winters Chapel Road, Atlanta Inspected by (Print Name): George F. McMahon, pH. D, PE	Date: 02/24/2021 Weather: Sunny				
If an inspection item requires further action on your part, place a check mark to the left of	the number of the item				
A. <u>Crest</u> (refer to Glossary for description)					
 1. How would you describe the vegetation on the crest? (Check all that apply) Recently Mowed Overgrown Good Cover_ Other/Corrective Action (describe): 	Sparse				
2. Are there any trees or other inappropriate or excessive vegetation on the crest? Y If yes, describe (type of vegetation, size, location, etc.)/Corrective Action:	Yes No				
3. Is there a paved road or driveway on the crest? Yes_X No If yes, describe the condition (for example, good condition, numerous cracks, new)	y 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 Minor asphalt cracking that does not appear to be related to dam struct 	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 □ 2. How would you describe the vegetation on the upstream slope? (Check all that apply) Recently Mowed Overgrown Good Cover_ ☑	_Feet Below Normal Pool <u>1049</u> Feet Sparse				
Other/Corrective Action (describe):					
3. Are there any trees or other inappropriate or excessive vegetation on the slope? If yes, describe (type of vegetation, size, location, etc.)/Corrective Action:	Yes No_				
 4. Are there any depressions, bulges, ruts or holes (such as animal burrows) on the slope If yes, describe (size, location, etc.)/Corrective Action: 	? Yes No_				
 5. Are there any eroded areas on the slope (such as wave erosion along the shoreline)? If yes, describe (size of area, location, severity, etc.)/Corrective Action: 	Yes No_				

Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #2 Date: 02/24/2021
 ☐ 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:
 7. Is there any type of slope protection along the shoreline (such as riprap)? Yes <u>No</u> No If yes, describe what type and its condition (for example, riprap - adequate, inadequate, sparse)/Corrective Action: In good condition covering the water line.
8. Other observations on the upstream slope/Corrective Action:
 C. <u>Downstream Slope</u> (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): <u>Some sparse areas. Recommended hyroseeding during growing season.</u>
 □ 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 <u>No</u>. If yes, describe (size, location, etc.)/Corrective Action: <u>A couple possible depression points near the center of the</u> dam. It is recommended to monitor the area for signs of continued deterioration.
☐ 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 <u>No</u> No If yes, describe (size of area, location, etc.)/Corrective Action: <u>There is a moist area near the center of the dam at the</u> toe drain outlet. A low point is collecting seepage. It is recommended to properly route seepage to allow area to dry.
 ☐ 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: New area located between two dams. Recommend to continue to monitor. See cover sheet for more details
 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: Area between the two dams has rust colored water. Recommend to continue to monitor
9. Other observations on the downstream slope/Corrective Action:

Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #2 Date: 02/24/2021
D. <u>Plunge Pool</u> (refer to Glossary for description)
1. Is there any type of erosion protection around the plunge pool (such as riprap)? Yes X No
If yes, describe the type of protection and its condition (for example, riprap - adequate, riprap - insufficient, overgrown
with vegetation)/Corrective Action: Concrete - In good condition.
□ 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:
E. <u>Principal and Emergency Spillways</u> (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 None Emergency Spillway Pipe with concrete dissipation structure.
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:
\Box 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_ <u></u> 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:

Embankment (Earth) Dam In	spection	Form
		/		

Name of Dam: Dekalb County Watershed S	cott Candler WTP Res	ervoir #2 I	Date: 02/24/2021	
☐ 10. For earth channel spillways, are there an If yes, describe (type of vegetation, s	ny trees or other inapprop size, location, etc.)/Correc	riate vegetation in the ctive Action:	spillway? Yes	No_
☐ 11. For earth channel spillways, are there an If yes, describe (size of area, locatio	ny eroded areas in the spil n, severity, etc.)/Correctiv	lway? Yes ve Action:	No	
☐ 12. For concrete channel spillways, are then If yes, describe (width of crack or he	e any cracks or holes in the total t	ne spillway? Ye. ive Action:	s No	
☐ 13. For concrete channel spillways, are then If yes, describe (location, rate of flow	e any leaks or evidence of w from leak, indicators of	f undermining (flow u undermining, etc.)/C	under the concrete)? Yes orrective Action:	No
 14. For earth or concrete channel spillways Functioning Normally Not Funct 15. Other observations on the spillways/Co F. <u>Instrumentation</u> (refer to Glossary for desc 1. Are there any toe drains at the downstreat 	, how would you describe cional Deteriorated rrective Action: cription) m toe or any other seepag	the overall condition Damaged ge drains on the dam?	of the spillway? (Check a Adequate _ Inadeq Yes _ No	ll that apply) uate
If yes, describe the condition (for ex Free flowing, one location had rust	ample, clogged, free flow colored sediment and she	en on surface.	d condition) /Corrective A	ction:
☐ 2. For drains, is an animal guard installed at If no, which drains lack animal guar	t the outlet of each drain? ds? /Corrective Action:	Yes 🛛	No	
☐ 3. For drains, measure the rate of flow from Designation/Location of Drain	each drain and record be	low (use additional pa	ages if necessary): Turbidity of Fl 2M* (describe – clear mud	low
DO-2-1 / P2-1C	0.5 L	0.132	Clear	ay, etc.)
*Next to DO-2-1	0 L	0		
TO-2/Behind Forklift Storage	1 L	0.264	Clear	
\Box 4. Are there any piezometers on the dam?	Yes No			

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

Appear to be in good condition with stainless steel stick-ups and locks. Data was provided by Dekalb personnel.

Name of Dam: Dekalb County Watershed Scott Candler WTP Reservoir #2 Date: 02/24/2021
□ 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. <u>Photographs</u>

including areas where corrective action is noted.

List of photographs (be sure to date stamp the photos): Please see cover sheet for representative photos.

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

						2020							
						2020							
Signature	Hall												
Res Level	1041.4						1049	1050	1049	1049	1050	1048	
Date	Jan-18	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	
SAMPLE	DEPTH to	DEPTH to	DEPTH to	DEPTH to	A./								
SITE	WATER LEVEL	WATER	WATER LEVEL	WATER LEVEL	Average								
2A	30.9	31.1	30.8	33	31	30.6	30.4	30.3	30.4	30	29.8	30.3	30.7
2B	14.6	14.6	14.5	26.4	14.5	14.7	14.5	14.5	14.5	13.9	14	13.9	15.4
1B	216	21.8	23.3	6.9	23.1	23	23.1	22.8	22.6	21.9	21.9	21.6	37.3
1C	1	1	1	5.4	1.3	1.2	1.1	1.6	1.4	1.4	1.2	1.4	1.6
1A	35.6	35.5	35.5	14.2	35.5	35.2	34.4	35.8	35.2	35	35	35.5	33.5
5A	15.2	15.2	15	28.1	16.1	17.2	16.9	18.2	17.9	17.4	16.3	10.9	17.0
3A	10.8	10.8	10.8	14.2	10.6	11.2	11.4	12.7	12.5	12.5	11	12.2	11.7
2C	14.3	14.2	14	28.1	14.3	14.3	14.3	15.6	14.4	14.2	14.1	14.4	15.5
4B	12.6	12.5	12.5	10.5	13	13.2	13.6	14.3	14.2	14.1	14	13.5	13.2
6B	12.1	12.1	12	12.7	12.2	13.2	12.5	13.6	13.6	13.5	13.3	13.1	12.8
Comments													