ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

January 10, 2025

Mr. Mark Bertram
Big Rivers Electric Corporation
201 3rd Street
Henderson, KY 42419-0024

Re: Coleman Station Ash Pond Inspections

Dear Mr. Bertram:

On December 5, 2024, Associated Engineers, Inc. completed impoundment inspections at the referenced facility. The following reports detail our findings and any recommendations. No imminent hazards were observed during the course of this inspection.

If you have any questions, please contact our office.

Respectfully,

Brandon Watts
QA Tech, AEI

Cc: Travis Sneed

Semi-Annual Impoundment Inspection
Coleman Station
Hancock County, Kentucky
December 5, 2024

Inactive Ash Pond A

Inactive Ash Pond C

Waste Water Treatment Facility

Prepared by:

ASSOCIATED ENGINEERS, INC.
ENGINEERS • GEOLOGISTS • SURVEYORS

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station: Coleman
Impoundment Name: Inactive Ash Pond A
Impoundment ID #: KY0001937 Outfall 002
12-5-2024

Weather: Fair
Temperature: 20 degrees
Inspectors: Brandon Watts
Signature: 

	ITEM	STATUS YES	STATUS NO	STATUS N/A	OBSERVATIONS	ACTION Repair	ACTION Monitor
1	TOP OF DAM						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☐	☒	☐		☐	☐
2	UPSTREAM SLOPE						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Adequate riprap/slope protection	☒	☐	☐		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☒	☐		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

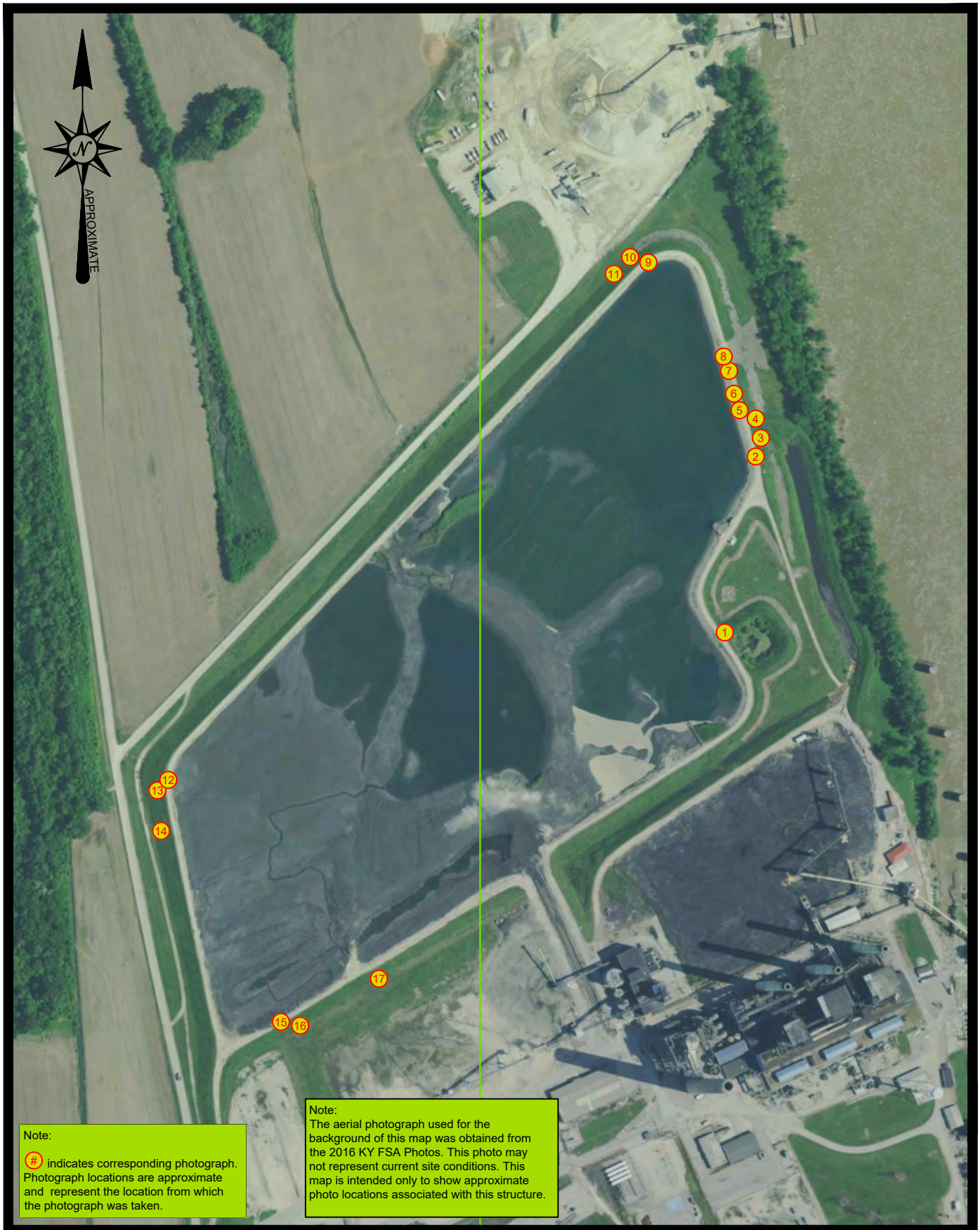
	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☒	☐	☐	Indications of minor erosion at various locations.	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☒	☐	☐	Rutting due to mowers.	☐	☒
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☐	☒		☐	☐
	Visual differential movement	☐	☐	☒		☐	☐
	Any cracks noted	☐	☐	☒		☐	☐
	Any drainage features obstructed or damaged	☐	☐	☒		☐	☐
	Are drainage features flowing	☐	☐	☒		☐	☐
	Is seepage present	☐	☐	☒		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☐	☐	☒		☐	☐
	Any signs of leakage with the structure or conduit	☐	☐	☒		☐	☐
	Weir in good condition	☐	☐	☒		☐	☐
	Pool Elevation	N/A			Dry	☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☐	☐	☒		☐	☐
	Are the valves/gates broken or bent	☐	☐	☒		☐	☐
	Are the valves/gates corroded or rusted	☐	☐	☒		☐	☐
	Have the valves/gates been maintained	☐	☐	☒		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐		☐	☐

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☒	☐	☐	Not monitored by AEI.	☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to the Plant Manager.

- Minor rutting due to mowers observed at numerous locations around the impoundment. Limit mowing activities when wet and monitor slopes for development of erosion.
- Isolated areas of minor erosion on downstream slopes. Monitor for worsening conditions.
- No immediate safety concerns observed.



Note:

(#) indicates corresponding photograph. Photograph locations are approximate and represent the location from which the photograph was taken.

Note:
The aerial photograph used for the background of this map was obtained from the 2016 KY FSA Photos. This photo may not represent current site conditions. This map is intended only to show approximate photo locations associated with this structure.

Inactive Ash Pond A

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021 | SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

1 – Top of Dam – East Leg

2 – Downstream Slope – East Leg

3 – Erosion Downstream Slope

4 – General – Upstream View

5 – General – Upstream View

6 – Top of Dam @ Spillway

7 – Downstream Slope @ Spillway

8 – Top of Dam – North Leg

9 – Downstream Slope – North Leg

10 – Erosion Downstream Slope

11 – Top of Dam – West Leg

12 – Downstream Slope – West Leg

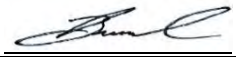
13 – Erosion Downstream Slope

14 – Top of Dam – South Leg

15 – Downstream Slope – South Leg

16 – Erosion Downstream Slope

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station:	Coleman Station	Weather:	Fair
Impoundment Name:	Inactive Ash Pond C	Temperature:	20 degrees
Impoundment ID #:	KY0001937 Outfall 002	Inspectors:	Brandon Watts
Date:	12-5-2024	Signature:	

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
1	TOP OF DAM						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☐	☒	☐		☐	☐
2	UPSTREAM SLOPE						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Adequate riprap/slope protection	☐	☐	☒		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☐	☒		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☐	☒	☐		☐	☐
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☒	☐		☐	☐
	Visual differential movement	☐	☒	☐		☐	☐
	Any cracks noted	☐	☒	☐		☐	☐
	Any drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Are drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☒	☐		☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☐	☐	☒		☐	☐
	Any signs of leakage with the structure or conduit	☐	☒	☐		☐	☐
	Weir in good condition	☐	☐	☒		☐	☐
	Pool Elevation	N/A			Dry	☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☐	☒	☐	T-handle Missing from Valve (Valve is closed)	☐	☒
	Are the valves/gates broken or bent	☐	☒	☐		☐	☐
	Are the valves/gates corroded or rusted	☐	☒	☐		☐	☐
	Have the valves/gates been maintained	☒	☐	☐		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐	Area of poor drainage/standing water near toe at South end.	☐	☒

ITEM		STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☒	☐	☐	Not monitored by AEI.	☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to the Plant Manager.

- Monitor trees growing on south dam.
- Minor rutting at various locations on the downstream slopes due to mowers. Limit mowing activities when wet and monitor areas for development of erosion.
- Erosion has developed at the top of the creek bank near the southeast corner of the impoundment. Monitor for worsening conditions.
- Area of standing water near toe at south end near spillway outlet due to poor drainage. Monitor during routine inspections.
- No immediate safety concerns or items requiring repair observed.

Note:
The aerial photograph used for the background of this map was obtained from the 2016 KY FSA Photos. This photo may not represent current site conditions. This map is intended only to show approximate photo locations associated with this structure.

Note:

(#) indicates corresponding photograph. Photograph locations are approximate and represent the location from which the photograph was taken.

Inactive Ash Pond C

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021 | SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

1 – General – Upstream View

2 – Overgrown Area

3 – Top of Dam – South Leg

4 – Spillway Inlet

5 – Spillway Outlet

6 – Top of Dam – West leg

7 – Upstream Slope – West Leg

BREC COMPREHENSIVE IMPOUNDMENT INSPECTION CHECKLIST

Generating Station:	Coleman Station	Weather:	Fair
Impoundment Name:	WWTF	Temperature:	20 degrees
Impoundment ID #:		Inspectors:	Brandon Watts
Date:	12-5-2024	Signature:	

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
1	TOP OF DAM						
	Visual settlement	☐	☒	☐		☐	☐
	Misalignment	☐	☒	☐		☐	☐
	Cracking	☐	☒	☐		☐	☐
	Access road Deterioration (potholes, rutting, etc)	☒	☐	☐	Minor rutting/potholing with puddling of rain water.	☐	☒
2	UPSTREAM SLOPE						
	Any erosion	☒	☐	☐	In areas of ash and gypsum only.	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐	Where applicable (soil slopes).	☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☒
	Adequate riprap/slope protection	☒	☐	☐		☐	☐
	Visual depressions	☐	☒	☐		☐	☐
	Visual settlement	☐	☒	☐		☐	☐
	Any stone deterioration	☐	☒	☐		☐	☐
	Debris or trash present	☐	☒	☐		☐	☐

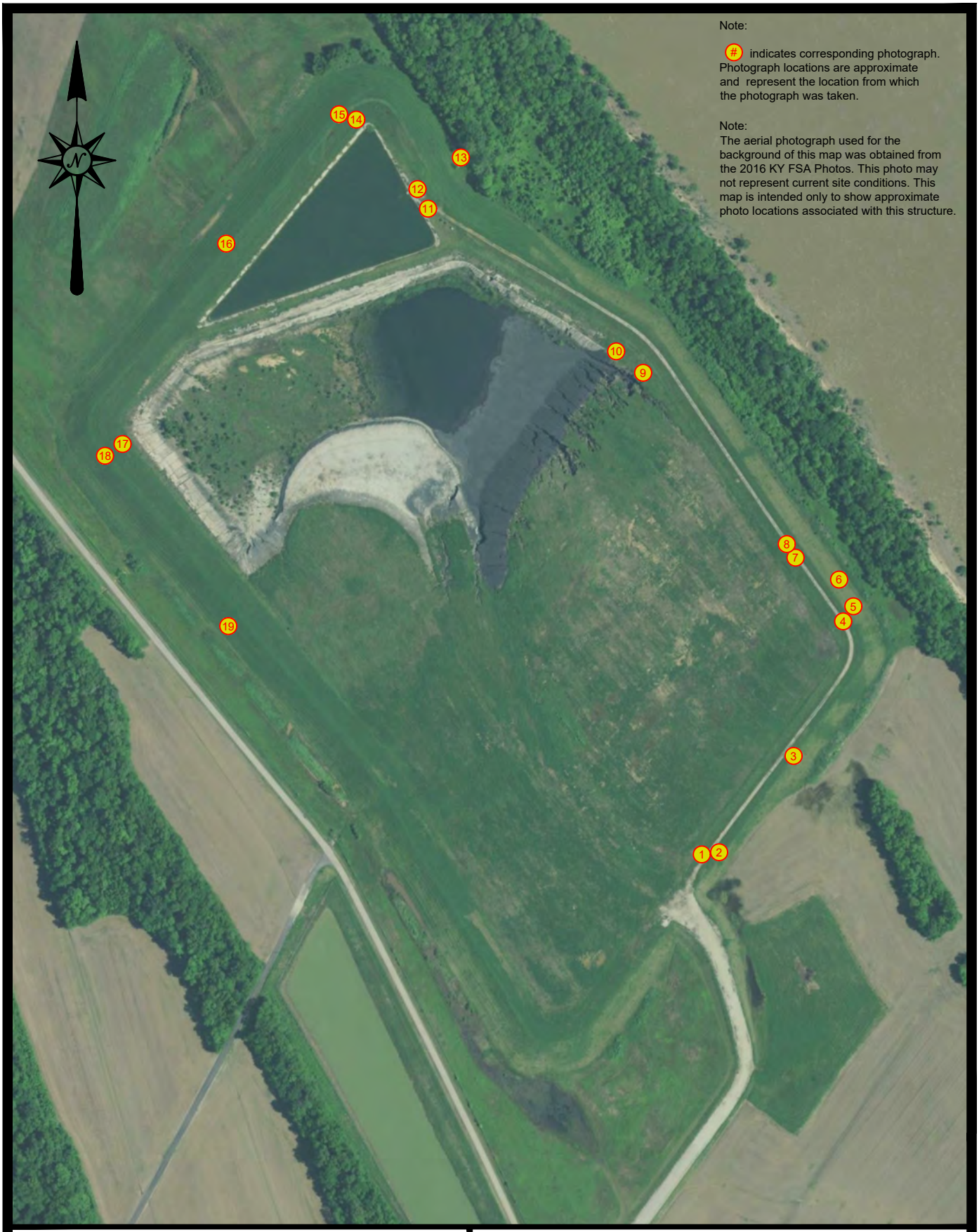
	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
3	**DOWNSTREAM SLOPE & TOE**						
	Any erosion	☒	☐	☐	Isolated minor erosion at various locations.	☐	☒
	Longitudinal cracks	☐	☒	☐		☐	☐
	Transverse cracks	☐	☒	☐		☐	☐
	Adequate vegetative cover	☒	☐	☐		☐	☐
	Are trees growing on the slope	☐	☒	☐		☐	☐
	Visual depressions or bulges	☒	☐	☐	Isolated longitudinal tracking by mowers.	☐	☒
	Visual settlement	☐	☒	☐		☐	☐
	Animal Burrows	☐	☒	☐		☐	☐
	Are boils present at the toe or slopes	☐	☒	☐		☐	☐
	Are drainage features obstructed or damaged	☐	☒	☐		☐	☐
	Area drainage features flowing	☐	☒	☐		☐	☐
	Is seepage present	☐	☒	☐		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐
	Soft or spongy zones present	☐	☒	☐		☐	☐
4	**ABUTMENTS**						
	Any erosion	☐	☐	☒		☐	☐
	Visual differential movement	☐	☐	☒		☐	☐
	Any cracks noted	☐	☐	☒		☐	☐
	Any drainage features obstructed or damaged	☐	☐	☒		☐	☐
	Are drainage features flowing	☐	☐	☒		☐	☐
	Is seepage present	☐	☐	☒		☐	☐
	Is seepage or discharge carrying sediment	☐	☐	☒		☐	☐

	ITEM	STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
5	**PRINCIPAL SPILLWAY**						
	Any deterioration of the spillway structure	☐	☒	☐		☐	☐
	Any deterioration of the spillway conduit	☐	☒	☐	No visible deterioration; internal condition not observed.	☐	☐
	Spillway clear from obstructions	☒	☐	☐		☐	☐
	Is water discharging from the pond	☐	☒	☐		☐	☐
	Trash racks or skimmer operational	☒	☐	☐		☐	☐
	Any signs of leakage with the structure or conduit	☐	☒	☐		☐	☐
	Weir in good condition	☐	☐	☒		☐	☐
	Pool Elevation	407.6’			Top of Concrete Riser: 408.9’	☐	☐
6	**EMERGENCY SPILLWAY**						
	Any deterioration of the spillway structure	☐	☐	☒		☐	☐
	Spillway clear from obstructions	☐	☐	☒		☐	☐
	Signs or erosion or slope sloughing	☐	☐	☒		☐	☐
	Adequate vegetative cover	☐	☐	☒		☐	☐
	Signs of or currently discharging water	☐	☐	☒		☐	☐
7	**VALVES/GATES**						
	Are the valves/gates operational	☒	☐	☐	Appears operational but not operated by AEI.	☐	☐
	Are the valves/gates broken or bent	☐	☒	☐		☐	☐
	Are the valves/gates corroded or rusted	☐	☒	☐		☐	☐
	Have the valves/gates been maintained	☒	☐	☐		☐	☐
8	**DOWNSTREAM AREA**						
	Recent development	☐	☒	☐		☐	☐
	Signs of seepage or wetness	☐	☒	☐		☐	☐

ITEM		STATUS			OBSERVATIONS	ACTION	
		YES	NO	N/A		Repair	Monitor
9	**INSTRUMENTATION**						
	Survey monuments	☐	☐	☒		☐	☐
	Piezometers	☐	☐	☒		☐	☐
	Inclinometer	☐	☐	☒		☐	☐
	Seepage weir(s)	☐	☐	☒		☐	☐
	Other	☐	☐	☒		☐	☐
10	**DOCUMENT REVIEW**						
	Review of plant documentation and inspections	☐	☐	☒		☐	☐
	Review of Emergency Action Plan	☐	☐	☒		☐	☐
11	**SITE SPECIFIC AREAS OF CONCERN**						
	Seepage from toe drain	☐	☐	☒		☐	☐
	Seepage from abutment drain	☐	☐	☒		☐	☐
	Seepage from blanket drain	☐	☐	☒		☐	☐
	Seepage from previously identified areas	☐	☐	☒		☐	☐
12	**COMMENTS AND OBSERVATIONS**						

Note: Report any immediate safety concerns to the Plant Manager.

- Minor rutting/potholing on access road.
- Isolated minor erosion at various locations on the downstream slopes.
- Small saplings/shrubs growing on upstream slope of water treatment pond.
- Isolated minor longitudinal tracking from mowers. Limit mowing activities when wet and monitor for development of erosion.
- Significant erosion of the ash and gypsum storage areas. Monitor to ensure erosion does not extend into the soil of the dam.
- No immediate safety concerns were noted.



Wastewater Treatment Facility

Big Rivers Electric Corp.
Coleman Facility
Hawesville, Kentucky

Inspection Map

March 26, 2021

SCALE: 1" = 400'

ASSOCIATED ENGINEERS, INC.
www.associatedengineers.com
2740 North Main Street, Madisonville, KY 42431
Phone: (270)821-7732 Fax: (270)821-7789

1 – Top of Dam - SE Leg

2 – Downstream Slope – SE Leg

3 – Erosion Downstream Slope

4 – Top of Dam – NE Leg

5 – Downstream Slope – NE Leg

6 – Rutting from Mowing Downstream Slope

7 – General – Upstream View

8 – General – Upstream View

9 – Erosion @ Pond

10 – Erosion @ Pond

11 – Fresh Water Pond

12 – Spillway Inlet

13 – Spillway Outlet

14 -- Top of Dam – NW Leg

15 – Downstream Slope – NW Leg

16 – Erosion Downstream Slope

17 – Top of Dam – SW Leg

18 – Downstream Slope – SW Leg

19 – Erosion Downstream Slope