2022 VISUAL INSPECTION OF ASH POND EMBANKMENTS
AES PETERSBURG ASH POND SYSTEM

AES INDIANA PETERSBURG GENERATING STATION
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA 47567

ATLAS PROJECT NO. 170LF01359

DECEMBER 23, 2022

PREPARED FOR:

AES INDIANA
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA 47567

ATTENTION: MR. WILL TEAGUE

Atlas Technical Consultants

7988 Centerpoint Dr.
Suite 100
Indianapolis, IN 46256

Phone **+1 317 849 4990**
Fax +1 317 849 4278

www.oneatlas.com

December 23, 2022

Mr. Will Teague
Senior Scientist
AES Indiana
6925 North State Road 57
Petersburg, Indiana 47567-0436

Re: 2022 Visual Inspection of Ash Pond Embankments
Petersburg Ash Basin Pond System
AES Indiana
Petersburg Generating Station
Petersburg, Indiana
ATLAS Project No. 170LF01359

Dear Mr. Teague:

Atlas Technical Consultants is pleased to present the findings of the November 17, 2022, Visual Site Inspection of the AES Petersburg Generating Station Ash Pond Embankments of the Ash Ponds A, A', B, C and D. This visual inspection and report were done in accordance with guidelines established by the Coal Combustion Residuals (CCR) Rule published by the Environmental Protection Agency (EPA) on April 17, 2015.

The scope of this inspection was limited to an examination of readily observable surficial features of the ash pond embankments and its appurtenant structures, and a review of information that you provided. Please note that the inspection did not include any test drilling, testing of materials, precise physical measurements of ash pond system features, detailed calculations to verify slope stability, or other engineering analyses. Although the inspection was conducted by competent personnel in accordance with generally accepted methods for ash pond systems, it should not be considered as a warranty or guaranty of the future performance/safety of the ash pond embankments.

The AES Petersburg Generating Station Ash Basin Pond System is located about four (4) miles north of the City of Petersburg in Pike County, Indiana west of State Road 57 (Figure 1). The ash pond system encompasses an area of approximately 157.9 acres (Figure 2).

The ash pond embankments inspection was completed by Bill Paraskevas and Pedro Avellaneda of Atlas Technical Consultants. The weather condition during the inspection were between 33°F and 38°F and sunny. Contained herein is a summary of the engineering observations of the ash pond embankments including condition of the pond embankment side slopes, grading and erosion, vegetation, haul roads, perimeter ditches, downdrain channels, riprap areas, culverts, and other

adjacent structures. A vicinity map and the ash pond limits are shown in Figures 1 and 2 of this report for reference.

The 2022 Annual Inspection was performed to address the standards and guidelines required by the CCR Rule instituted by the Environmental Protection Agency on April 17, 2015. As a result, CCR ash ponds are now required to meet the requirements of 40 C.F.R. §257 to conduct annual inspections of the landfill in accordance with 40 C.F.R. §257.83(b). Listed below are requirements specified within the CCR Rule and the observations made by Bill Paraskevas and Pedro Avellaneda during the annual inspection:

i. A review of available information regarding the status and condition of the CCR Unit;
ii. A visual inspection of the CCR Unit to identify signs of distress or malfunction;
iii. A visual inspection of any hydraulic structures underlying the base of the CCR unit;

Inspection Summary

A site inspection grid map for the ash pond system at the AES Petersburg station is presented in Figure 3. The area occupied by Ash Pond D has been repurposed with the construction of a wastewater treatment plant, Ash Ponds B and C are closed, and Ash Pond A is in the closure process as in-place closure. Ash Pond A' is largely dewatered and will soon be regraded and closed as part of the Ash Pond A closure.

Engineering observations performed on November 17, 2022 are shown in Figure 3, 2022 Visual Site Inspection Grid Map. Atlas visually inspected the embankments for Ash Ponds A, A', B, C, and D and found no areas of instability. However, there were few areas with concerns relating to minor erosion on the east side of Ash Pond A (Figure 3) and missing trash racks in some of the drop inlets of Ash Pond B (locations H-9 and D-7 of Figure 4).

A description of the inspection findings are presented in sections below.

Changes in Geometry of Ash Pond

Observed geometry changes during the 2022 Petersburg ash basin embankment inspection consisted mainly of grading measures within the limits of Ash Pond A and A' which are in the process of being closed in place. There were no changes to the observed geometry of Ponds B, C & D.

Ash Pond A and A'

Ash Pond A & A' are approximately 70.1 acres in size and are in the process of being closed in place. Active construction activities were on-going within the limits of the ash pond to regrade and install the approved geocomposite final cover system. The east side of Ash Pond A had been recently stabilized and new vegetation was growing and being established at the date of the inspection. Some observations and areas with minor erosion are noted below.

1. New erosion controls have been installed along the east and south sides of Ash Pond A (locations H-13, I-16, I-19, G-23 of Figure 4).

    - Recommendation: Overseed and add fertilizer as necessary to help establish a full vegetative cover.

2. Minor erosion rills were observed along the east section of Ash Pond A (locations H-14, G-16, H-17 of Figure 4).

    - Recommendation: Repair the soil cover and overseed these areas to establish a protective grass cover.

Ash Pond B

Ash Pond B is approximately 33.1 acres and was closed with a geomembrane final cover except for the south side slope which was closed with an approved soil final cover. As part of the closure work on Pond A, located to the south of Pond B, the soil final cover along the south slope of Pond B is being replaced with a geomembrane cover. Ash Pond B does not receive ash anymore. In general, this pond has a good soil cover and is well-vegetated along the side slopes and top of the former ash pond basin.

1. Trash racks are missing on drop inlets located on the east side of Ash Pond B (location H-9 of Figure 4) and the northeast side of Ash Pond B (location D-7 of Figure 4).

    - Recommendation: Repair or install new trash rack on the tops of the drop inlets.

Ash Pond C

Ash Pond C is approximately 45.7 acres. It has been recently closed with a geomembrane final cover and does not receive ash anymore. The former ash pond has a good soil cover and vegetation established along the side slopes and upper cover. A minor erosion issue was observed on the west side of Ash Pond C.

1. The riprap-lined stormwater channel, located on the west side of Ash Pond C and the north side of Ash Pond B. has lost portions of its riprap and eroded (location G-3 of Figure 4). The affected area is the outlet for the valley drain between Ash Pond B and C.

    - Recommendation: Repair the damaged area and replace the riprap material in the channel to prevent erosion.

Ash Pond D

The area for Ash Pond D has been repurposed and does not receive ash sluicing anymore. In general, this area has been paved with asphalt and is now entirely occupied by a wastewater treatment plant and a parking facility.

Structural Integrity

All ash pond embankment slopes appear to be stable with no visual indications or signs of sloughing or subsidence were detected during this inspection.

Stability and Operation

The ash pond embankments are generally in good condition and the slopes are well vegetated in most places. Areas of localized surficial erosion were found around a few areas of Ash Pond A. Those erosional features did not appear to penetrate through the soil cover, but they should be refilled and revegetated to prevent further damage to the cover or embankments. No other significant deficiencies were noted and operation of the ash pond system at this time is not expected to be adversely affected by any items detected during the 2022 inspection.

We appreciate the opportunity to assist you with this project. If you have any questions concerning information contained in this report, please do not hesitate to call either of the undersigned at 317.849.4990.

Sincerely,
Atlas Technical Consultants L.L.C.

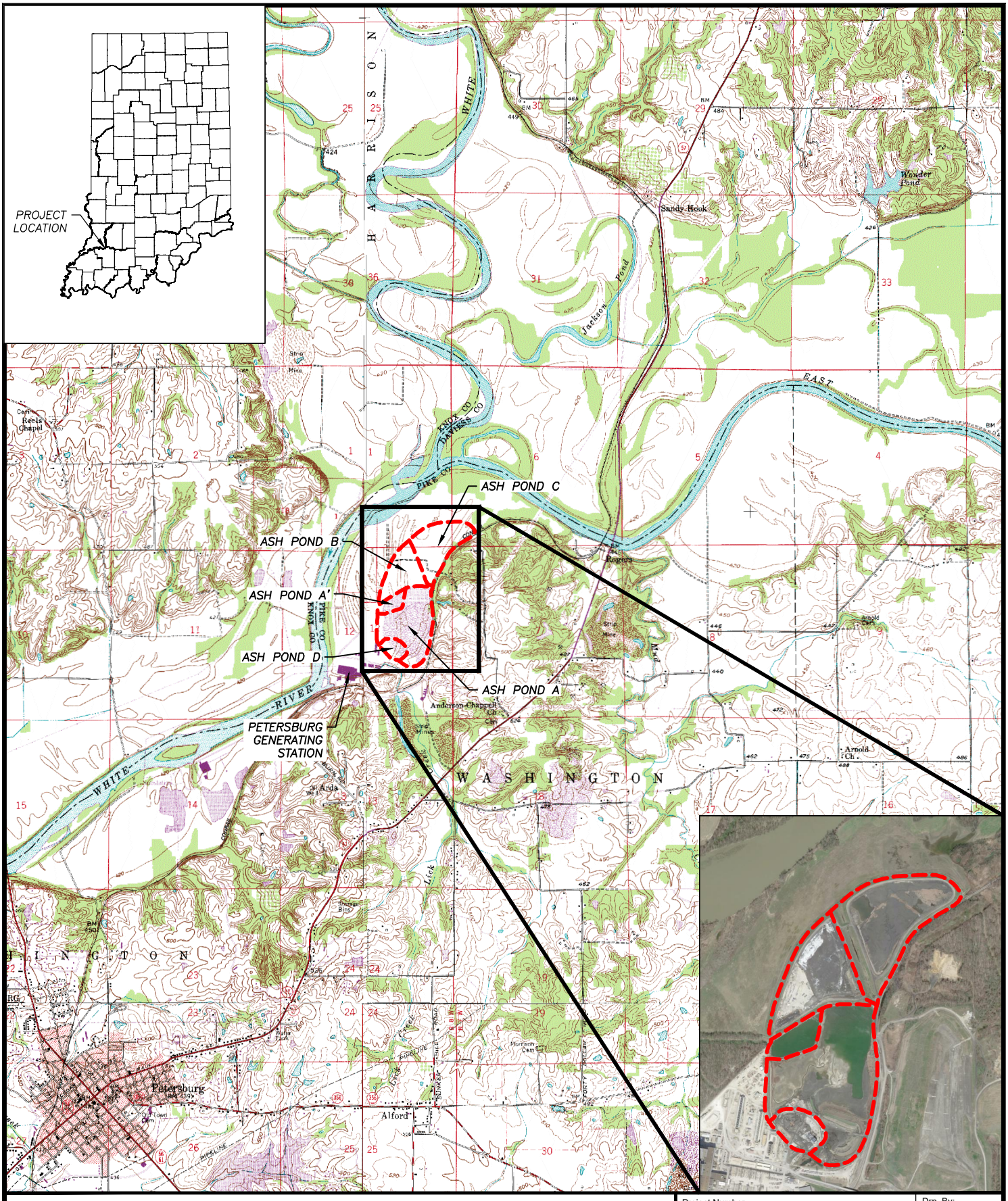
William Paraskevas, P.E.
Principal Engineer

Copies: Will Teague

Attachments:

Figure 1	Vicinity Map
Figure 2	CCR Disposal Facilities
Figure 3	Visual Site Inspection Grid Map
Figure 4	Site Plan for Photo Locations

Attachment A: Dam Inspection Report

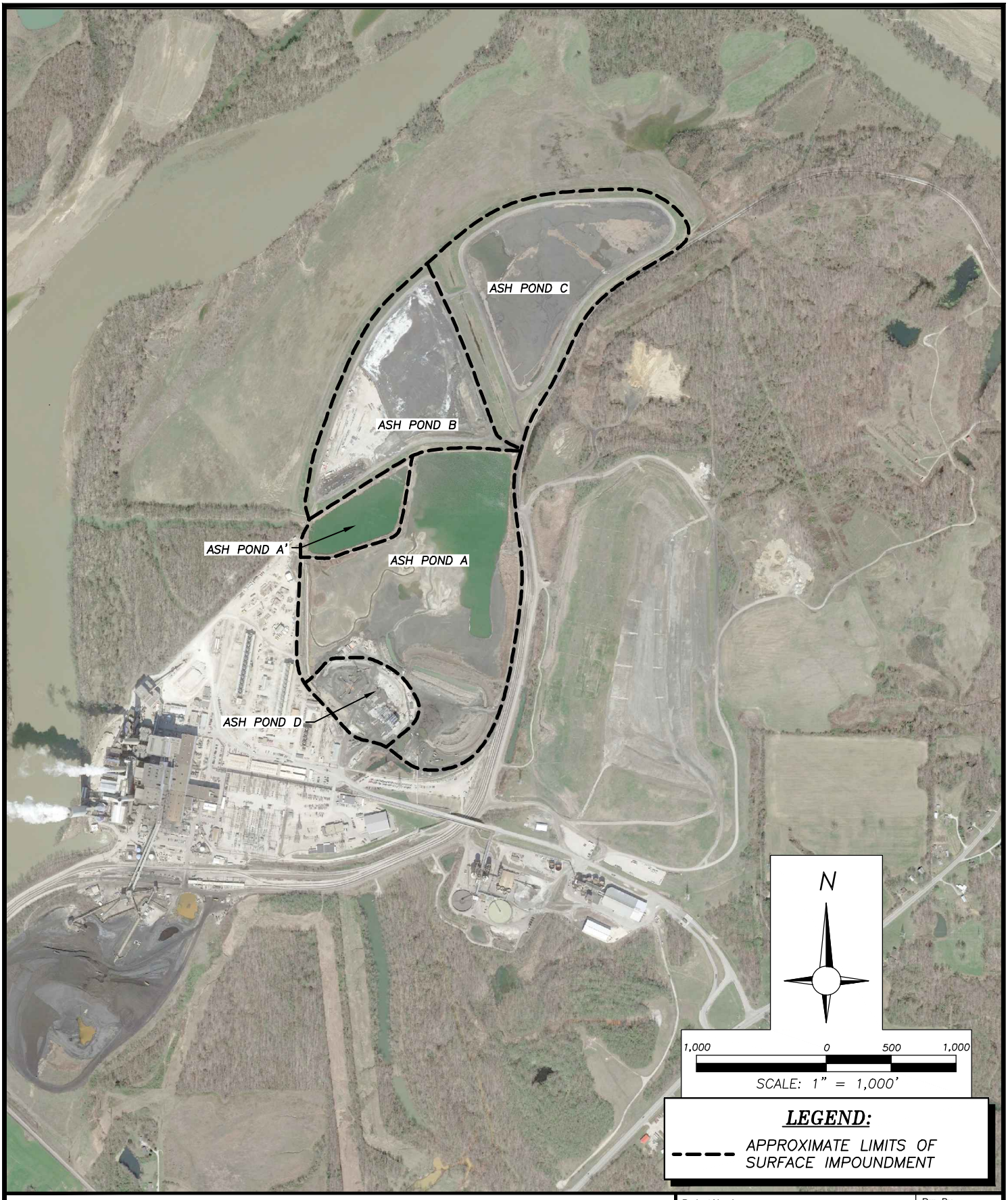


VICINITY MAP

AES PETERSBURG ASH POND SYSTEM
AES INDIANA
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA

Project Number: 170LF01359		Drn. By: BH
Drawing File: SEE LOWER LEFT		Ckd. By: MB
Date: 12/19/2022	Scale: 1"= 4,000'	App'd By:
ATC		Figure: 1

H:\2022\AES INDIANA\PETERSBURG\170LF01359\170LF01359-VIC.DWG, VIC



CCR ASH POND SYSTEM
CCR ASH POND EMBANKMENT ANNUAL INSPECTION REPORT

AES PETERSBURG ASH POND SYSTEM
AES INDIANA
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA

Project Number: 170LF01359		Drn. By: BH
Drawing File: SEE LOWER LEFT		Ckd. By: MB
Date: 12/19/2022	Scale: ASH SHOWN	App'd By:
ATC		Figure: 2

H:\2022\AES INDIANA\PETERSBURG\170LF01359\170LF01359-FACILITY SITE.DWG, FIG2

H:\2022\AES INDIANA\PETERSBURG\170LF01359\170LF01359-ASH POND INSPECTION.DWG, 11X17P

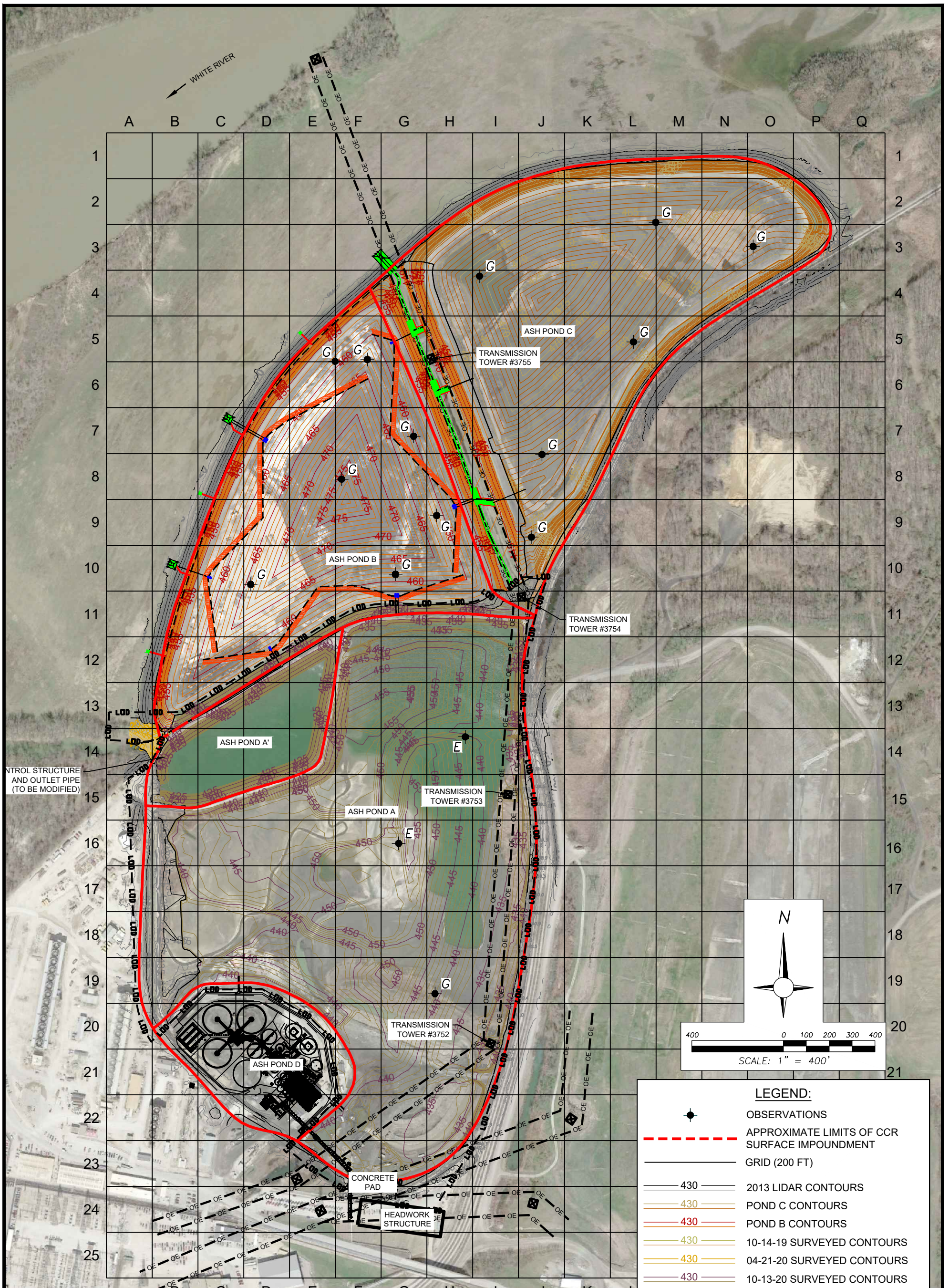


Figure: 3

Scale: AS SHOWN

Date: 12/20/2022

2022 VISUAL SITE INSPECTION GRID MAP

AES PETERSBURG ASH POND SYSTEM
AES INDIANA
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA

Project Number: 170LF01359	Drn. By: BH
Drawing File: SEE LOWER LEFT	Ckd. By: MB
ATC	App'd By:
	Ckd. Date:

H:\2022\AES INDIANA\PETERSBURG\170LF01359\170LF01359-ASH POND PHOTO LOCATION.DWG, 11X17P

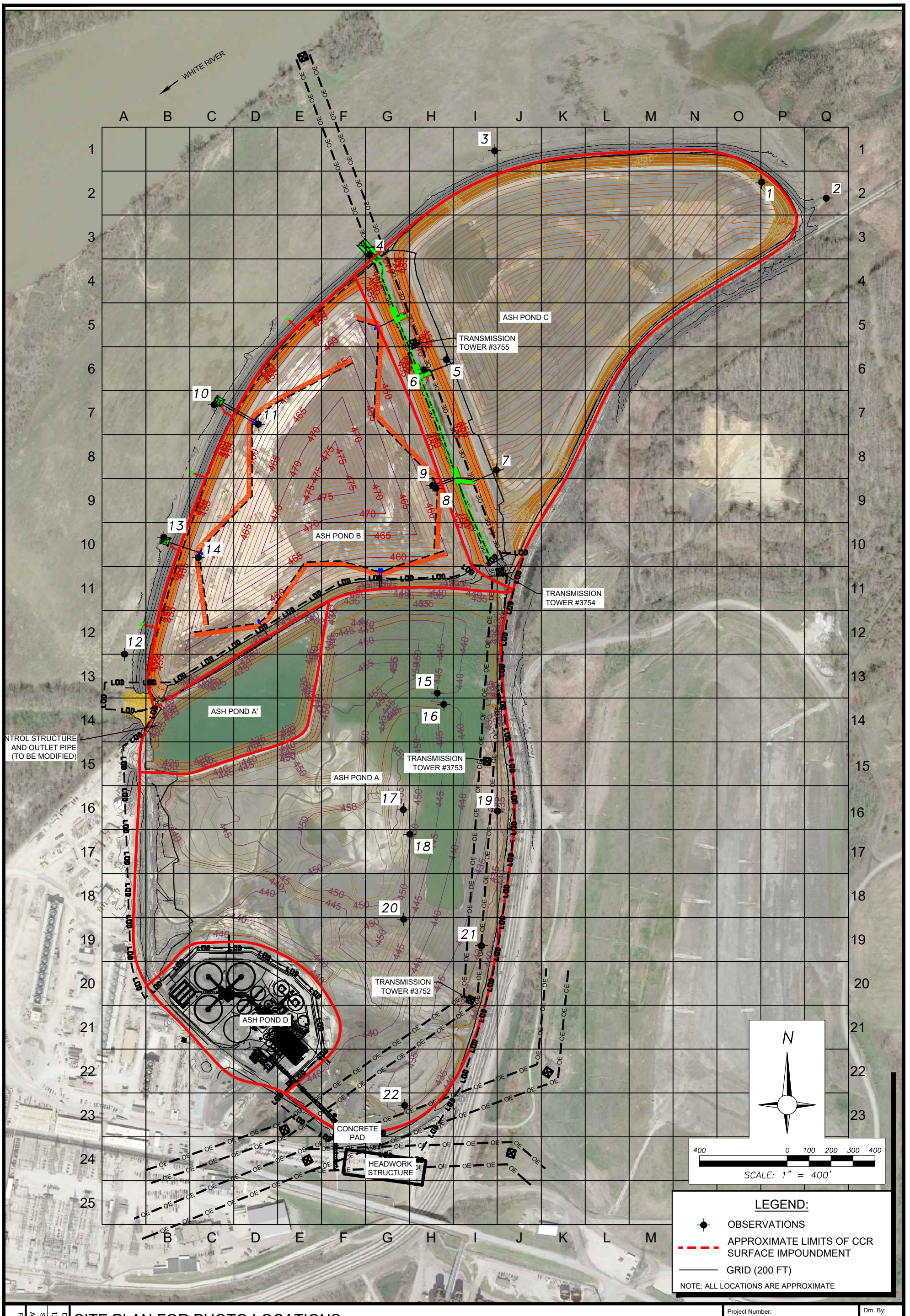


Figure: 4

Scale: AS SHOWN

Date: 12/19/2022

SITE PLAN FOR PHOTO LOCATIONS

NOVEMBER 17, 2022

AES PETERSBURG ASH POND SYSTEM
AES INDIANA
6925 NORTH STATE ROAD 57
PETERSBURG, INDIANA

Project Number: 170LF01359	Drn. By: BH
Drawing File: SEE LOWER LEFT	Ckd. By: MB
ATC	App'd By:
	Ckd. Date:

Grid ID	**Photo ID**
P-2	1

Date
November 17, 2022

Description:

Vegetation well established on the top northeast side of Ash Pond C. Photo looking south.

Grid ID	**Photo ID**
Q-2	2

Date
November 17, 2022

Description:

Splash pad for drainage on the northeast section of Ash Pond C. Photo looking north.

Grid ID	Photo ID
I-1	3

Date
November 17, 2022

Description:

Monitoring wells (AP-6A, 6B) on the northwest side of Ash Pond C. Photo looking west.

Point ID	Photo ID
G-3	4

Date
November 17, 2022

Description:

Displaced rip rap at the outlet drainage pipes on the northwest side of Ash Pond C. Photo looking south.

Point ID	**Photo ID**
H-6	5

Date
November 17, 2022

Description:

Drop inlets on the top west side of Ash Pond C. Photo looking south.

Point ID	**Photo ID**
H-6	6

Date
November 17, 2022

Description:

Drainage outlet pipes on the northeast side of Ash Pond B. Photo looking east.

Point ID	**Photo ID**
I-8	7

Date
November 17, 2022

Description:

Drop inlets on the top south corner of Ash Pond C. Photo looking east.

Point ID	**Photo ID**
H-9	8

Date
November 17, 2022

Description:

Drop inlets on the top northeast side of Ash Pond B. A trash rack is missing. Photo looking north.

Point ID	**Photo ID**
H-9	9

Date
November 17, 2022

Description:

Drop inlets on the top of northeast side of Ash Pond B. Photo looking north.

Point ID	**Photo ID**
C-7	10

Date
November 17, 2022

Description:

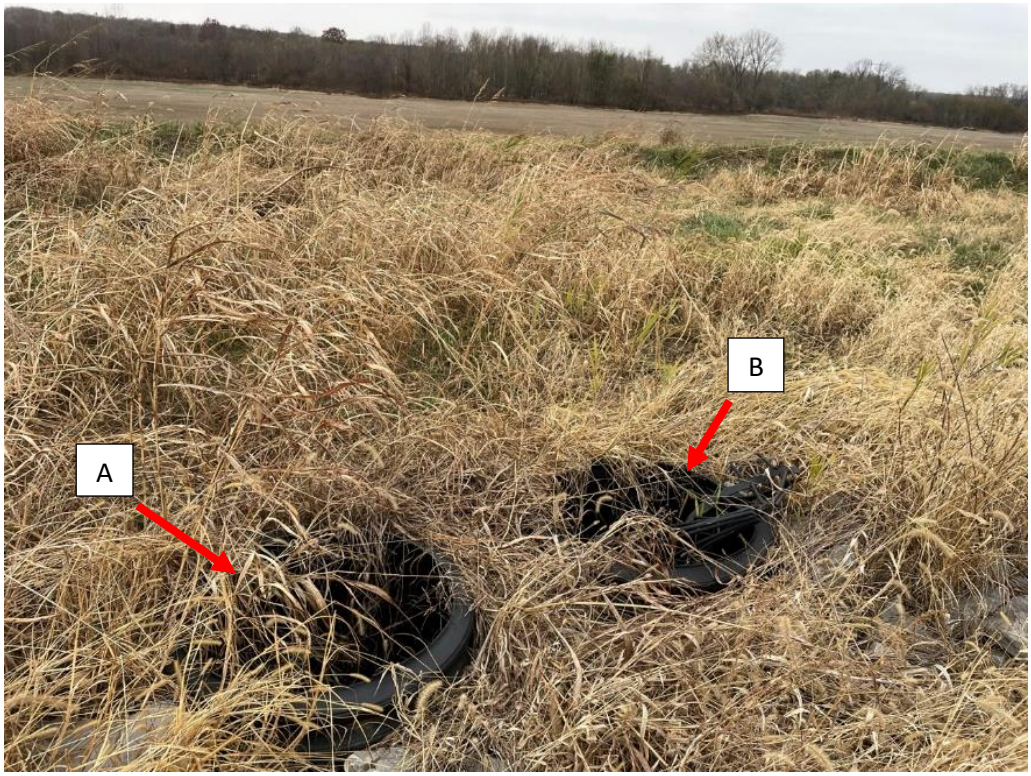
Drainage outlet pipes on the northeast side of Ash Pond C. Photo looking east.

Point ID	Photo ID
D-7	11

Date
November 17, 2022

Description:

Drop inlets on the top northwest side of Ash Pond B. A trash rack (A) is missing, and another is damaged (B). Photo looking north.



Point ID	Photo ID
A-12	12

Date
November 17, 2022

Description:

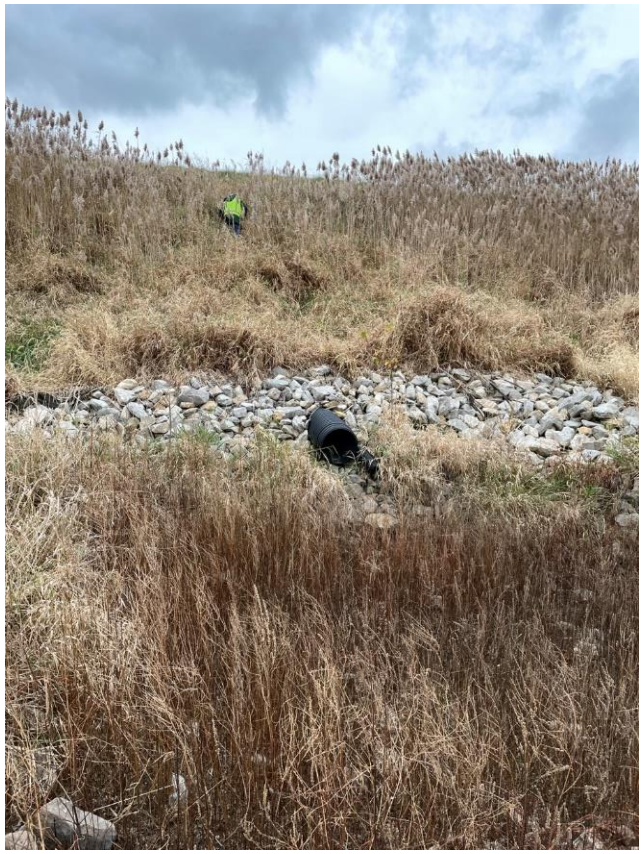
Monitoring wells AP-3 and AP-3A on the southwest side of Ash Pond B. Photo looking northwest.

Point ID	**Photo ID**
B-10	13

Date
November 17, 2022

Description:

Drainage outlet pipe on the west side of Ash Pond B. Photo looking east.



Point ID	**Photo ID**
C-10	14

Date
November 17, 2022

Description:

Vegetation well established on the top southwest corner of Ash Pond B. Photo looking north.

Point ID	**Photo ID**
H-13	15

Date
November 17, 2022

Description:

New vegetation on the top northeast section of Ash Pond A. Photo looking west.

Point ID	**Photo ID**
H-14	16

Date
November 17, 2022

Description:

Erosion rills formed on the northeast section of Ash Pond A. Photo looking west.

Point ID	**Photo ID**
G-16	17

Date
November 17, 2022

Description:

Erosion rills formed on the top of Ash Pond A. Photo looking west.

Point ID	**Photo ID**
H-17	18

Date
November 17, 2022

Description:

Erosion rills formed on the top of Ash Pond A. Photo looking west.

Point ID	**Photo ID**
I-16	19

Date
November 17, 2022

Description:

Erosion controls and new vegetation on the east side of Ash Pond A. Photo looking northeast.

Point ID	**Photo ID**
G-18	20

Date
November 17, 2022

Description:

Drop inlets on top of Ash Pond A. Photo looking southwest.

Point ID	**Photo ID**
I-19	21

Date
November 17, 2022

Description:

Drainage outlet pipe and erosion controls on the southeast side of Ash Pond A. Photo looking west.

Point ID	**Photo ID**
G-23	22

Date
November 17, 2022

Description:

Newly vegetated area near drop inlets on the south side of Ash Pond A. Photo looking south.

Attachment A: Dam Inspection Report

Print Form

SUGGESTED DAM INSPECTION REPORT (Refer to pages 5 and 6 for instructions.)

Name of Professional Conducting Inspection	Professional License No. (Indiana)
William Paraskevas	PE60020880
Business Address	**Phone: (day) 317 - 849 - 4990**
7988 Centerpoint Dr, Suite 100, Indianapolis, IN 46256	(evening) ___ - ___ - ___

Company Name: Atlas Technical Consultants

INSPECTION PREPARATION: Reviewed all pertinent technical documentation related to this dam and site in the State's and the Owner's files: Yes ☒ No ☐ Comment

MULTIDISCIPINARY:I am experienced in the technical disciplines or I am working with other professionals experienced in the technical disciplines to properly inspect this dam and appurtenant works. Technical disciplines, in additional to the general civil engineering, may include geotechnical, geological, hydrologic, structural, and mechanical. Yes ☒ No ☐ Comment

Dam Name	Quad.	Date of Inspection
AES Petersburg Ash Pond A	Petersburg	11 / 17 / 2022

State Dam ID	Permit (if unapproved see pg. 6)	County	Sec.	T.	R.	Last Inspection
N/A	N/A	Pike	13	1 N	8 W	11 / 16 / 2021

Owners Name	Owner's Phone
AES Indiana	(812) 601-7115

Address/Zip Code: 6925 North State Road 57, Petersburg, IN 47567

Contact's Name	Contact's Phone	Spillway Width	Ft. FBD.
Wil Teague	(day) 812 - 601 - 7115 (evening) 812 - 582 - 9797	Top N/A Bot. N/A	N/A

Hazard	Drainage Area	Surface Area	Height	Crest Length	Crest Width	Inlet Below Crest	Slope
Low	0.16 MI^2	81 AC	20 FT	6900 FT	20 FT	N/A FT	Up 2.5 Down 2.5

FIELD CONDITIONS OBSERVED

Water Level - Below Dam Crest >20 Ft.

Ground Moisture Condition: Dry ☒ Wet ☐ Snowcover ☐ Other

DRAWDOWN STRUCTURE

☐ Yes ☒ None

Comment Taken out of service

MONITORING ☐ Yes ☒ None [☐ Gage Rod ☐ Piezometers ☐ Seepage Weirs ☐ Survey Monuments ☐ Other]

Comments

A UPSTREAM SLOPE

GOOD	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

PROBLEMS NOTED: ☒ (A-1) None ☐ (A-2) Riprap - Missing, Sparse, Displaced, Weathered ☐ (A-3) Wave Erosion-with Scarps ☐ (A-4) Cracks-with Displacement ☐ (A-5) Sinkhole ☐ (A-6) Appears Too Steep ☐ (A-7) Depressions or Bulges ☐ (A-8) Slides ☐ (A-9) Animal Burrows ☐ (A-10) Trees, Brush, Briars ☐ (A-11) Other

Comments:

B CREST

GOOD	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

PROBLEMS NOTED: ☒ (B-1) None ☐ (B-2) Ruts or Puddles ☐ (B-3) Erosion ☐ (B-4) Cracks with Displacement ☐ (B-5) Sinkholes ☐ (B-6) Not Wide Enough ☐ (B-7) Low Area ☐ (B-8) Misalignment ☐ (B-9) Inadequate Surface Drainage ☐ (B-10) Trees, Brush, Briars ☐ (B-11) Other

Comments:

Spillway Width refers to the open channel (typically the emergency or auxiliary spillway) at the control section.
Ft. FBD. refers to the vertical distance from the emergency (auxiliary) spillway control section to the lowest point of the crest of the dam.
Inlet Below Crest refers to the vertical distance from the inlet of the principal spillway to the crest of the dam.

C DOWNSTREAM SLOPE

GOOD	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

PROBLEMS NOTED: ☒ (C-1) None ☐ (C-2) Livestock Damage ☐ (C-3) Erosion or Gullies ☐ (C-4) Cracks with Displacement ☐ (C-5) Sinkholes ☐ (C-6) Appears too Steep ☐ (C-7) Depression or Bulges ☐ (C-8) Slide ☐ (C-9) Soft Areas ☐ (C-10) Trees, Brush, Briars ☐ (C-11) Animal Burrows ☐ (C-12)Other_____
Comments:

D SEEPAGE

GOOD (NONE)	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

PROBLEMS NOTED: ☒ (D-1) None ☐ (D-2) Saturated Embankment Area ☐ (D-3) Seepage Exits on Embankment ☐ (D-4) Seepage Exits at Point Source ☐ (D-5) Seepage Area at Toe ☐ (D-6) Flow Adjacent to Outlet ☐ (D-7) Seepage Clear/Muddy
[**DRAIN OUTFALLS SEEN**____No____Yes ☐ (D-8) Flow Clear/Muddy ☐ (D-9) Dry/Obstructed]
☐ (D-10) Other_____Describe location of drains and indicate amount and quality of discharge.
Comments:

E PRINCIPAL SPILLWAY

GOOD	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

DESCRIPTION:

PROBLEMS NOTED: ☒ (E-1) None ☐ (E-2) Deterioration ☐ (E-3) Separation ☐ (E-4) Cracking ☐ (E-5) Inlet, Outlet Deficiency ☐ (E-6) Stilling Basin Inadequacies ☐ (E-7) Trash Rack ☐ (E-8) Other_____
Comments:
Being removed from service as ash pond is closed.

F AUXILIARY SPILLWAY

GOOD	☐
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

DESCRIPTION: N/A

PROBLEMS NOTED: ☐ (F-1) None ☐ (F-2) No Auxiliary Spillway Found ☐ (F-3) Erosion-with Backcutting ☐ (F-4) Crack with Displacement ☐ (F-5) Appears to be Structurally Inadequate ☐ (F-6) Appears too Small ☐ (F-7) Inadequate Freeboard ☐ (F-8) Flow Obstructed ☐ (F-9) Concrete Deteriorated/Undermined ☐ (F-10) Other _____
Comments:

G MAINTENANCE AND REPAIRS

GOOD	☒
ACCEPTABLE	☐
DEFICIENT	☐
POOR	☐

PROBLEMS NOTED: ☒ (G-1) None ☐ (G-2) Access Road Needs Maintenance ☐ (G-3) Cattle Damage ☐ (G-4) Spillway Obstruction ☐ (G-5) Brush, Weeds, Tall Grass, on Upstream Slope, Crest, Downstream Slope, Toe ☐ (G-6) Trees on Upstream Slope, Crest, Downstream Slope ☐ (G-7) Rodent Activity on Upstream Slope, Crest, Downstream Slope, Toe ☐ (G-8) Deteriorated Concrete-Facing, Outlet, Spillway ☐ (G-9) Gate and/or Drawdown Need Repair ☐ (G-10) Other _____
Comments:

H OVERALL CONDITIONS

Based on this inspection and recent file review, the overall surficial condition is determined to be: ☒ (H-1) Satisfactory ☐ (H-2) Fair ☐ (H-3) Conditionally Poor ☐ (H-4) Poor ☐ (H-5) Unsatisfactory

IMPORTANT: IF THIS RATING IS DIFFERENT THAN PREVIOUS IDNR RATING, PLEASE ATTACH EXPLANATION AND REASONS FOR CHANGE ON PAGE 4.

DAM NAME AES Petersburg Ash Pond A STATE DAM I.D. N/A DATE 11 / 17 / 22

RECOMMENDATIONS AND ITEMS REQUIRING ACTION BY OWNER TO IMPROVE THE SAFETY OF THE DAM

MAINTENANCE-MINOR REPAIR-MONITORING

❒ (1) Provide Additional Erosion Protection: _____

❒ (2) Mow: _____

❒ (3) Clear Trees and/or Brush From: _____

❒ (4) Initiate Rodent Control Program and Properly Backfill Existing Holes: _____

❒ (5) Repair: _____

❒ (6) Provide Surface Drainage For: _____

❒ (7) Monitor: _____

❒ (8) Other: _____

❒ (9) Other: _____

ENGINEERING-EMPLOY AN ENGINEER EXPERIENCED IN DESIGN AND CONSTRUCTION OF DAMS TO:

(Plans & Specifications must be approved by State prior to construction.)

❒ (10) Prepare Plans and Specifications for the Rehabilitation of the Dam: _____

❒ (11) Prepare As-Built Drawings of: _____

❒ (12) Perform a Geotechnical Investigation to Evaluate the Stability of the Dam: _____

❒ (13) Perform a Hydrologic Study to Determine Required Spillway Size: _____

❒ (14) Prepare Plans and Specifications for an Adequate Spillway: _____

❒ (15) Set up a Monitoring Program: _____

❒ (16) Refer to Unapproved Status of Dam: _____

❒ (17) Develop an Emergency Action Plan: _____

❒ (18) Other: _____

❒ (19) Other: _____

Recommended schedule for upgrades/comments (Please prioritize and note importance of each item.)

Photographs ❒ Attachments ❒

ENGINEER'S INSTRUCTION Instructed owner on the safety concerns with the structure and how to monitor and inspect the dam and appurtenant works in the interim period between the regulatory two-year inspections. Yes ❒ No ☒

Comment Further inspections as a dam facility will not be needed when ash pond is closed.

Professional Engineer's Signature William Parashivoiu Date 12/22/2022

Reviewed By _____ Date

Owner/Owner's Representative

EXPLANATION FOR CHANGE IN RATINGS (Describe all repairs, upgrades or improvements made if dam conditions and rating have improved since the last inspection. Describe deteriorating conditions if ratings have worsened.)

REASONS FOR RATING CHANGE:

Ash Pond A is being removed from service and is being permanently capped with geomembrane final cover.

PREVIOUS RECOMMENDATIONS FOR MAINTENANCE, REPAIRS, AND UPGRADES:

HAVE THEY BEEN PERFORMED ☒ YES ❒ NO (If no, please explain:)

Supporting Documentation

Photographs ❒ Attachments ❒ Calculations ❒ Drawings ❒ Other ❒

Comments:

INSTRUCTIONS FOR COMPLETING DAM VISUAL INSPECTION REPORT

1. Complete all items that are applicable; if not applicable, write in "N/A". For concrete dams, complete all applicable items and use "comments" section to cover items not included in the check boxes. Also indicate that the dam is concrete in the comments section.

2. Use page 6 to determine ratings of each dam component (items A through G) and for Overall Conditions (Item H).

3. Please write legibly and concisely.

4. Inspector must be knowledgeable with the type of dam, materials, and components being inspected. If not, qualified assistance shall be engaged.

5. The inspector shall review the dam owner's and IDNR project files prior to the inspection. Previous inspection reports shall be closely reviewed for previous problems and deficiencies.

6. If the ratings of the components (items A through G) or the Overall Conditions (item H) of the dam have changed since the last inspection, please complete page 4. If a rating has improved, dam repairs, improvements, analyses, or maintenance must have been performed and documented on page 4.

7. For a dam to have a satisfactory "Overall Conditions" rating, it must have no existing or potential dam safety deficiencies recognized. Safe performance is expected under all anticipated loading conditions, including infrequent hydrologic events (PMP for high hazard dams) and seismic events. The dam owner's project files must contain hydrologic and hydraulic analyses of the dam and its spillways to verify performance. The files must also contain slope stability analyses to verify embankment stability under full reservoir conditions and rapid-draw down conditions. The dam and all of its components must meet current IDNR and design standards. "Normal" deficiencies such as minor erosion, minor seepage, or normal concrete aging may not make a dam unsatisfactory or unacceptable. For a satisfactory "Overall Conditions" rating to be assigned, items A through G generally should all have a "good" rating; however, in some cases an "acceptable" rating may be satisfactory if the "Problems Noted" are minor, or "normal" conditions, such as minor erosion rills, small puddles on crest, or if grass needs mowed, but is in good condition.

8. An inspection report form must be submitted to IDNR along with a formal technical inspection report as described in Chapter 4.0 of Part 3 of the Indiana Dam Safety Inspection Manual.

9. Please sign and date this page in the space below to verify that you have read and understand these instructions.

Inspector's Signature: _____ Date: _____

GUIDELINES FOR DETERMINING CONDITIONS

CONDITIONS OBSERVED - APPLIES TO UPSTREAM SLOPE, CREST, DOWNSTREAM SLOPE, PRINCIPAL SPILLWAY, AUXILIARY SPILLWAY

GOOD	ACCEPTABLE	DEFICIENT	POOR
In general, this part of the structure has a good appearance, and conditions observed in this area do not appear to threaten the safety of the dam.	Although general cross-section is maintained, surfaces may be irregular, eroded, rutted, spalled, or otherwise not in new condition. Conditions in this area do not currently appear to threaten the safety of the dam.	Continued deterioration and/or unusual loading may threaten the safety of the dam.	Conditions observed in this area appear to threaten the safety of the dam. Conditions observed in this area are unacceptable.

CONDITIONS OBSERVED - APPLIES TO SEEPAGE

GOOD (NONE)	ACCEPTABLE	DEFICIENT	POOR
No evidence of uncontrolled seepage. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions do not appear to threaten the safety of the dam.	Some seepage exists at areas other than the drain outfalls, or other designed drains. No unexplained increase in flows from designed drains. All seepage is clear. Seepage conditions observed do not currently appear to threaten the safety of the dam.	Excessive seepage exists at areas other than drain outfalls and other designed drains. Seepage needs to be evaluated. Increased flow and/or continued deterioration in seepage conditions may threaten the safety of the dam.	Excessive seepage conditions observed appear to threaten the safety of the dam and is unacceptable. Examples: 1) Designed drain or seepage flows have increased without increase in reservoir level. 2) Drain or seepage flows contain sediment. i.e., muddy water or particles in jar samples. 3) Widespread seepage, concentrated seepage or ponding appears to threaten the safety of the dam.

CONDITIONS OBSERVED - APPLIES TO MAINTENANCE AND REPAIR

GOOD	ACCEPTABLE	DEFICIENT	POOR
Dam appears to receive effective on-going maintenance and repair, and only a few minor items may need to be addressed.	Dam appears to receive maintenance, but some maintenance items need to be addressed. No major repairs are required.	Level of maintenance of the dam needs significant improvement. Major repairs may be required. Continued neglect of maintenance may threaten the safety of the dam.	Dam does not receive adequate maintenance. One or more items needing maintenance or repair has begun to threaten the safety of the dam. Level of maintenance is unacceptable.

OVERALL CONDITIONS

SATISFACTORY - No existing or potential dam safety deficiencies recognized. Safe performance is expected under all anticipated loading conditions, including such events as infrequent hydrologic and/or seismic events. Project Files contain necessary hydrologic, and other engineering calculations to verify dam safety and performance.

FAIR - No existing dam safety deficiencies are recognized for normal loading conditions. Infrequent hydrologic and/or seismic events would probably result in a dam safety deficiency.

CONDITIONALLY POOR - A potential safety deficiency is recognized for unusual loading conditions which may realistically occur during the expected life of the structure. CONDITIONALLY POOR may also be used when uncertainties exist as to critical analysis parameters which identify a potential dam safety deficiency; further investigations and studies are necessary.

POOR - A potential dam safety deficiency is clearly recognized for normal loading conditions. Immediate actions to resolve the deficiency are recommended; reservoir restrictions may be necessary until problem resolution.

UNSATISFACTORY - A dam safety deficiency exists for normal conditions. Immediate remedial action is required for problem resolution.

HAZARD CLASSIFICATIONS OF DAMS (STRUCTURE)

LOW HAZARD- A structure the failure of which may damage farm buildings, agricultural land, or local roads

SIGNIFICANT HAZARD- A structure the failure of which may damage isolated homes and highways, or cause the temporary interruption of public utility services.

HIGH HAZARD-A structure the failure of which may cause the loss of life and serious damage to homes, industrial and commercial buildings, public utilities, major highways, or railroads.

UNAPPROVED STATUS OF DAM

A dam that has been given an unapproved status (see entry for permit) means that plans, construction specifications, hydraulic analyses, and/or a geotechnical investigation on your dam, proving the safety of the structure, have not been received and approved by the Indiana Department of Natural Resources (IDNR). IDNR records indicate that no progress has been made to secure this approval. The fact that the dam is inspected under the Regulation of Dams Act (IC 14-27-7.5) in no way alters the illegal status of the structures.

If your dam is indicated to be unapproved, it is requested that your engineer contact the Indiana Department of Natural Resources,