

Emergency Action Plan

40 CFR 257.73(a)(3)

East Fly Ash Pond and Bottom Ash Pond Complex

Kanawha River Plant Site

Glasgow, WV

May, 2026

Prepared for: Appalachian Power Company

Prepared by: American Electric Power Service Corporation

1 Riverside Plaza

Columbus, OH 43215

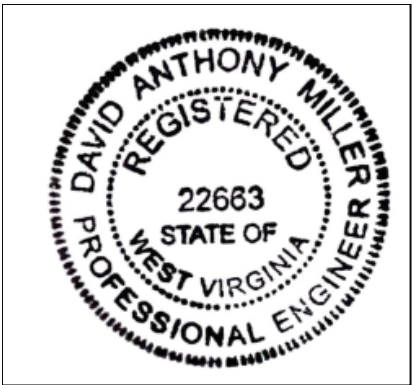


Kanawha River Plant Site – East Fly Ash Pond and Bottom
Ash Pond Complex
Emergency Action Plan

PREPARED BY _____ DATE _____
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I certify to the best of my knowledge, information, and belief the information contained in this report meets the requirements of 40 CFR § 257.73(a)(3).

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Introduction

The “Hazardous and Solid Waste Management System: Disposal of Coal Combustion Residuals From Electric Utilities; Legacy CCR Surface Impoundments”, 89 Fed. Reg. 38950 (May 8, 2024) (amending 40 C.F.R. §257) requires owners and operators of facilities with a legacy coal combustion residual (CCR) surface impoundment to prepare an Emergency Action Plan document for each legacy CCR surface impoundment at the facility that meet hazard potential requirements. The East Fly Ash Pond and Bottom Ash Pond Complex at the Kanawha River Plant Site is subjected to this rule.

Statement of Purpose

An Emergency Action Plan (EAP) is a formal document that identifies potential emergency conditions at a dam and specifies preplanned actions to be followed to minimize property damage and loss of life, if applicable. The Legacy CCR rule does not require a specific format, so this EAP was generated to comply with the requirements of the rule and incorporate applicable elements from other EAPs, including Interagency Committee on Dam Safety (ICODS) format, State Dam Safety formats, and other AEP operating facilities. The scope may vary across the Legacy CCR sites depending on the complexity and risk of the individual facility.

Project Description & Location

The Kanawha River Site is located approximately 0.5 miles southeast of Glasgow, West Virginia.

The latitude/longitude of the East Fly Ash Pond is: 38° 12' 16" N / 81°24' 47" W. The latitude/longitude of the Bottom Ash Pond Complex is 38° 12' 33.34"N / 81° 25' 25.52"W.

The facility address is: 1 AEP Way, Glasgow, WV, 25086.

The site can be reached from the West or South via 1-64, turning on to US-60 E. From the East take US-60 E towards Glasgow. From SR 60 turn onto AEP Way to reach the site. Pull up to the guard shack for further directions.

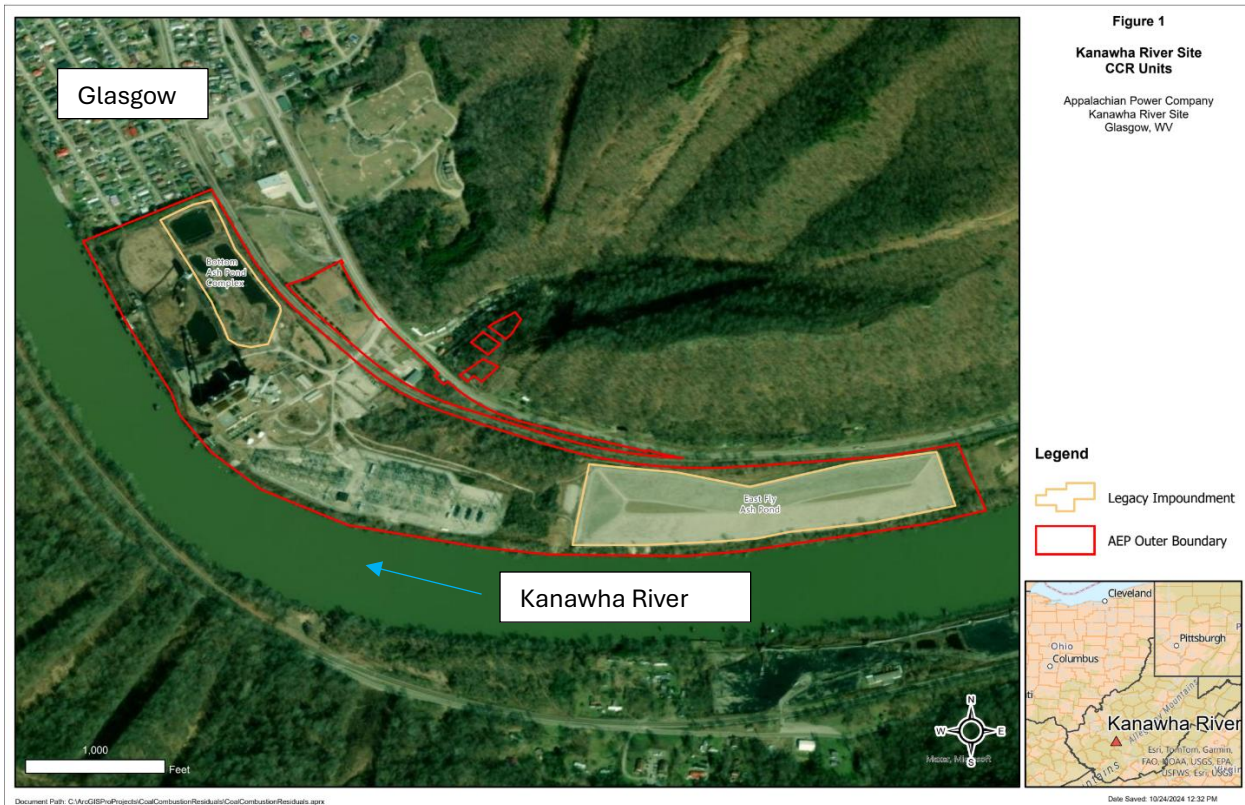


Figure 1: Site Vicinity Map

Construction of the Kanawha River Plant began in October of 1950 and the plant reached commercial operation in August of 1953. The Kanawha River Plant ceased operating in May 2015.

American Gas and Electric Corporation designed the East Ash Pond in the 1950's. The East Fly Ash Pond is located on the eastern side of the plant property and encompasses roughly 22 acres. The East Fly Ash Pond is contained by a 2000-foot-long earthen dike along the Kanawha River.

The BAP consists of the North Bottom Ash Pond, the South Bottom Ash Ponds, and the Clearwater Pond. The site is bounded by the Kanawha River on the west, the town of Glasgow on the North, and the railroad on the east.

The BAP is generally an incised surface impoundment with only the west portion of the Clearwater Pond contained by an 8-foot-tall dike built up above original grade. The water level of the Clearwater Pond is operated and maintained below the exterior toe. The exterior slope of the western Clearwater Pond dike is 2 Horizontal to 1 Vertical (2H: 1V) with interior slopes of 2.5H: 1V. The remainder of the pond complex is incised, with a surrounding ground elevation of 623 ft-msl. This grading scheme is a function of the powerplant grades being

elevated for flood protection to elevation 623 ft-msl and the BAP area being a main borrow area, and the proximity of the western property line to the Clearwater Pond.

The BAP discharges through a concrete riser in the northwest corner of the Clearwater Pond (Outfall 001) that ties into a stormwater sewer which flows under the BAP.

Emergency Action Plan (EAP)

40 CFR 257.73 (a) (3) (i) Development of the plan.

40 CFR 257.73 (a) (3) (i) (A) Define the events or circumstances involving the CCR unit that represent a safety emergency, along with a description of the procedures that will be followed to detect a safety emergency in a timely manner;

The preamble to the 2015 CCR final rule provides examples of potential indicators of structural weaknesses (Operating Criteria- Inspection Requirements for CCR Surface Impoundments Section). These signs of potential structural weaknesses may range from minor items that will be added to the routine maintenance plan to deficiencies that could have the potential to disrupt the operation and safety of the structure.

1. Excessive, turbid, or sediment-laden seepage
2. Signs of piping and other internal erosion
3. Transverse, longitudinal, and desiccation cracking
4. Slides, bulges, boils, sloughs, scarps, sinkholes, or depressions
5. Abnormally high or low pool levels
6. Excessive or lacking vegetative cover
7. Slope erosion
8. Debris

During normal operation of the facility inspections at least every 7 days. Facility inspections are reviewed along with instrumentation readings every 30 days. Annual inspections are performed by a professional engineer. These inspections ensure potential safety emergencies are detected in a timely manner.

This EAP will follow the alert levels as established by the Interagency Committee on Dam Safety Format. Specifically, three alert levels of increasing urgency are identified as 1- Monitor, 2- Watch and 3- Warning.

- Monitor = Unusual event, slowly developing, not an immediate threat to the dam.
- Watch = Unsafe situation that may lead to failure of the dam but not an immediate threat.

- Warning = Urgent situation. Failure is occurring or about to occur. Or, areas downstream are flooding due to spillway flow. Evacuation of downstream area necessary.

The alert level table included in this document can be used as a general guide to determining the proper alert level. Additional consultation with AEP Ash Management Services engineer for subject matter expertise.

Alert Level Table		
Event	Situation	Alert Level
Embankment Overtopping	No overtopping flow but water level in lake within 6 inches of crest or backflow through outlet structure.	Monitor
	Minor river overtopping/toe scour	Watch
	Major overtopping flow eroding the embankment slope	Warning
Seepage	New seepage areas in or near the dam with clear flow	Monitor
	New seepage areas with cloudy discharge or increasing flow rate	Watch
	Heavy seepage with active erosion. Muddy flow and/or sand boils.	Warning
Sinkholes	Observation of new sinkhole in reservoir area or on embankment.	Watch
	Rapidly enlarging sinkhole on the embankment with visible flow or whirlpool in the lake.	Warning
Embankment Cracking	New cracks in the embankment greater than 1/4-inch wide without seepage	Monitor
	Cracks in the embankment with seepage	Watch
Embankment Movement	Visual movement/slippage of the embankment slope	Monitor
Earthquake	Measurable earthquake felt or reported on or within 50 miles of the dam	Monitor
	Earthquake resulting in visible damage to the dam or appurtenances	Watch
	Earthquake resulting in uncontrolled release of water from the dam	Warning
Security Threat	Verified bomb threat that, if carried out, could result in damage to the dam	Watch
	Detonated bomb that has resulted in damage to the dam or appurtenances	Warning
Sabotage	Damage to dam or appurtenances with no impacts to the functioning of the dam	Monitor
	Damage to dam or appurtenances that has resulted in seepage flow	Watch
	Damage to dam or appurtenances that has resulted in uncontrolled water release	Warning

40 CFR 257.73 (a) (3) (i) (B) Define responsible persons, their respective responsibilities, and notification procedures in the event of a safety emergency involving the CCR unit;

<u>Action</u>	<u>Responsibility</u>
Alert level determination	AMS Engineer
Emergency notifications	AEP
Notify impacted residents	AEP, EMA, and Local Law Enforcement
Establish incident command	AEP, EMA
Traffic control and security	Local Law Enforcement
Evacuation	EMA

Notification Procedures

AEP will consult with subject matter experts in Ash Management Services to determine the alert level at the dam according to this EAP and notify emergency responders and AEP Stakeholders.

Notification chart is included within this emergency action plan.

40 CFR 257.73 (a) (3) (i) (C) Provide contact information of emergency responders.

See notification chart.

Notification Flowchart

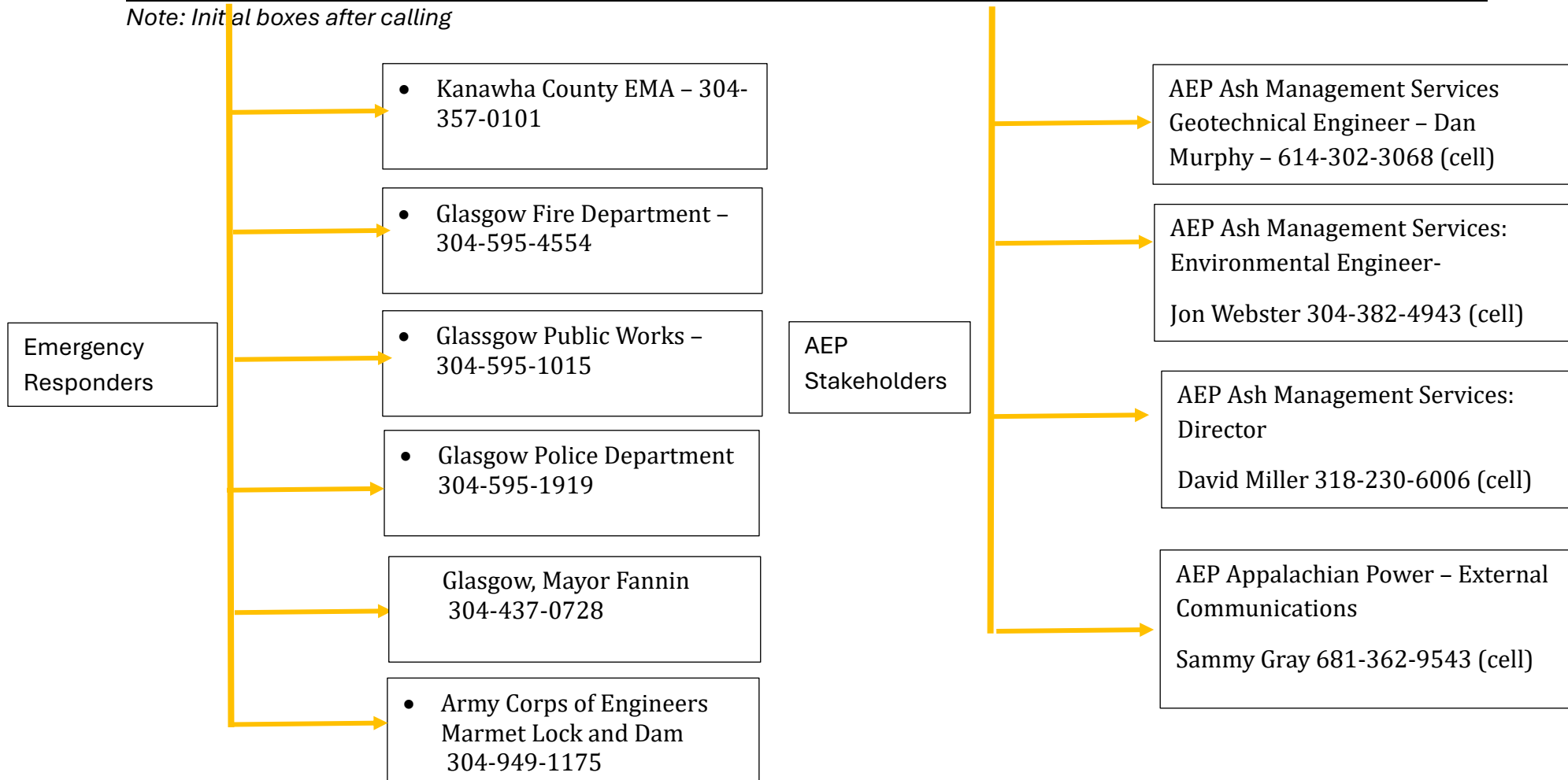
Watch or Warning Alert Level

Kanawha River Plant Site
East Fly Ash Pond Dam and Bottom Ash Complex

AEP/Appalachian Power Company

Title	Name	Work Phone	Cell Phone	Email
Maintenance Superintendent Senior	Bill Cummings		740-645-6992	
Alternate contact: Plant Coordinator	Josh Coulter		681-552-3152	

Note: Initial boxes after calling



PERSONNEL SHOULD NOT DEVIATE FROM THIS SCRIPT TO PREVENT THE PASSAGE OF INCORRECT OR MISLEADING INFORMATION

Use this script for notifications to emergency responders: "This is ____ (name and position). A ____ (Watch or Warning) level situation exists involving a ____ (Describe Situation) of the (Specify the Dam Name and Type) at the Kanawha River Plant Site. We will advise when the situation is resolved or if conditions change. I can be contacted at the following number _____. My alternate phone number is _____.

(Select one):

We DO need offsite assistance, and this is what we need _____. Please relay this information to your Emergency Management Director as soon as possible." OR

We DO NOT need any offsite assistance at this time, we are just calling to keep you informed. However, please relay this information to your Emergency Management Director as soon as possible." Ask Operator to repeat message back for confirmation.

Use this script for notifications to AEP Stakeholders: "This is ____ (name and position). A ____ (Watch or Warning) level situation exists at ____ the Kanawha River Plant Site due to ____ (Describe Situation). A status call will occur at ____ (time and date). Please notify appropriate staff to join the call for additional information."

40 CFR 257.73 (a) (3) (i) (D) Include a map which delineates the downstream area which would be affected in the event of a CCR unit failure and a physical description of the CCR unit; and

See appendix A for inundation maps.

The East Fly Ash Pond is immediately adjacent to the Kanawha River and does not impound water. It is expected that an impoundment dam breach or failure would be immediately attenuated within the Kanawha River. The inundation area is assumed to be no larger than the length of the pond dike along the river extending to the centerline of the river.

The Bottom Ash Pond Complex is incised on the western, southern, and eastern sides. An 8 ft tall dike separates the pond from the Town of Glasgow on the northern side. A breach analysis determined that a failure of the dike would result in inundation of the adjacent neighborhood.

40 CFR 257.73 (a) (3) (i) (E) Include provisions for an annual face-to-face meeting or exercise between representatives of the owner or operator of the CCR unit and the local emergency responders.

AEP is required to hold an annual face-to-face meeting with local responders or ensure their participation in an EAP exercise. To address this requirement, AEP will have documented annual meeting with local emergency responders. The form in Appendix B must be filled out to provide the necessary documentation of this annual meeting. The meeting could take the form of one of the following:

- Orientation Seminar
- Table top exercise
- Full- Scale exercise

40 CFR 257.73 (a) (3) (ii) Amendment of the plan.

(A) The owner or operator of a CCR unit subject to the requirements of [paragraph \(a\)\(3\)\(i\)](#) of this section may amend the written EAP at any time provided the revised plan is placed in the facility's operating record as required by [§ 257.105\(f\)\(6\)](#). The owner or operator must amend the written EAP whenever there is a change in conditions that would substantially affect the EAP in effect.

(B) The written EAP must be evaluated, at a minimum, every five years to ensure the information required in [paragraph \(a\)\(3\)\(i\)](#) of this section is accurate. As necessary, the EAP must be updated and a revised EAP placed in the facility's operating record as required by [§ 257.105\(f\)\(6\)](#).

AEP is required to review and update the Emergency Action Plan. To address this requirement the Emergency Action Plan will be reviewed annually and documented by filling out the form in Appendix C.

40 CFR 257.73 (a) (3) (iii) Changes in hazard potential classification.

If the hazard potential classification changes for this site, then the EAP will be updated accordingly.

40 CFR 257.73 (a) (3) (v) Activation of the EAP.

The EAP must be implemented once events or circumstances involving the CCR unit that represent a safety emergency are detected, including conditions identified during periodic structural stability assessments, annual inspections, and inspections by a qualified person.

AEP will document any activation of the Emergency Action Plan using the form in Appendix D. The form will document any unusual or emergency events including any event progression or deescalation of the event.

Termination Responsibilities

When the impoundment is closed or hazard classification changes such that an EAP is no longer required, the operating record will be updated noting the change and termination of the EAP.

Emergency Preparedness

The following preparedness plan is a general starting point for emergency response at the site. Details may vary depending on the circumstances.

- Potential Emergency Response Contractors
 - United Construction Contractors Inc (UCCI) (304) 422-2141

- Plant personnel, Construction Coordinator, AMS Engineer, and Environmental Representative for the site will provide coverage for necessary site surveillance.
- A TEAMS channel or similar will be established for file sharing, meeting setup, and general notifications of developments.
- An example daily meeting schedule could be:
 - 8:00 AM Internal call
 - 9:00 AM External call with emergency response or incident command
 - 10:00 AM Public/Media Briefing
- Emergency Resources available
 - Security Cameras – Stallion (480) 620-2307
 - Sand and gravel – Shamblin Stone (304) 542-6684
 - Riprap – Shamblin Stone (304) 542-6684
 - Sand bags –
 - Equipment rental – Sunbelt Rentals 304-342-5000
 - Pumps – Sunbelt Rentals 304-342-5000
 - Turbidity curtains – Ferguson Waterworks (740) 373-3456
 - Concrete – Smith Concrete (304) 342-1930

Controlled Copy Distribution List

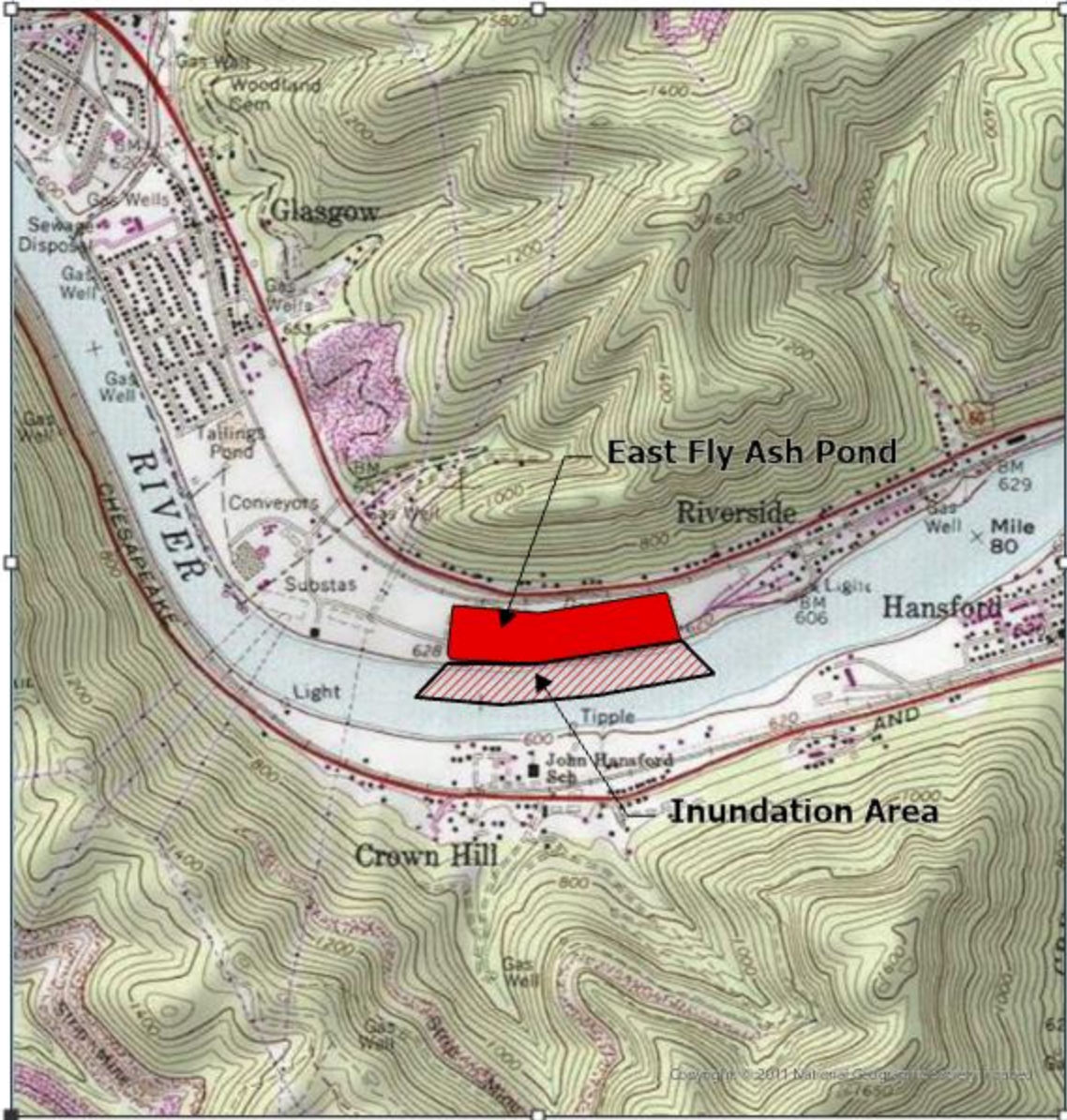
- AEP
 - David Miller, PE – Director AMS
 - Dan Murphy, PE – Geotechnical Engineer
 - Bill Cummings - Maintenance Supt Sr
 - Jon Webster- Environmental Engineer
 - Sammy Gray- Appalachian Power External Affairs
- Kanawha County EMA
- Mayor of Glasgow
 - Don Fannin

Log of Revisions

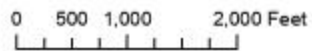
Date	Revision Number	Summary of Change
May 8, 2026	0	Initial publication

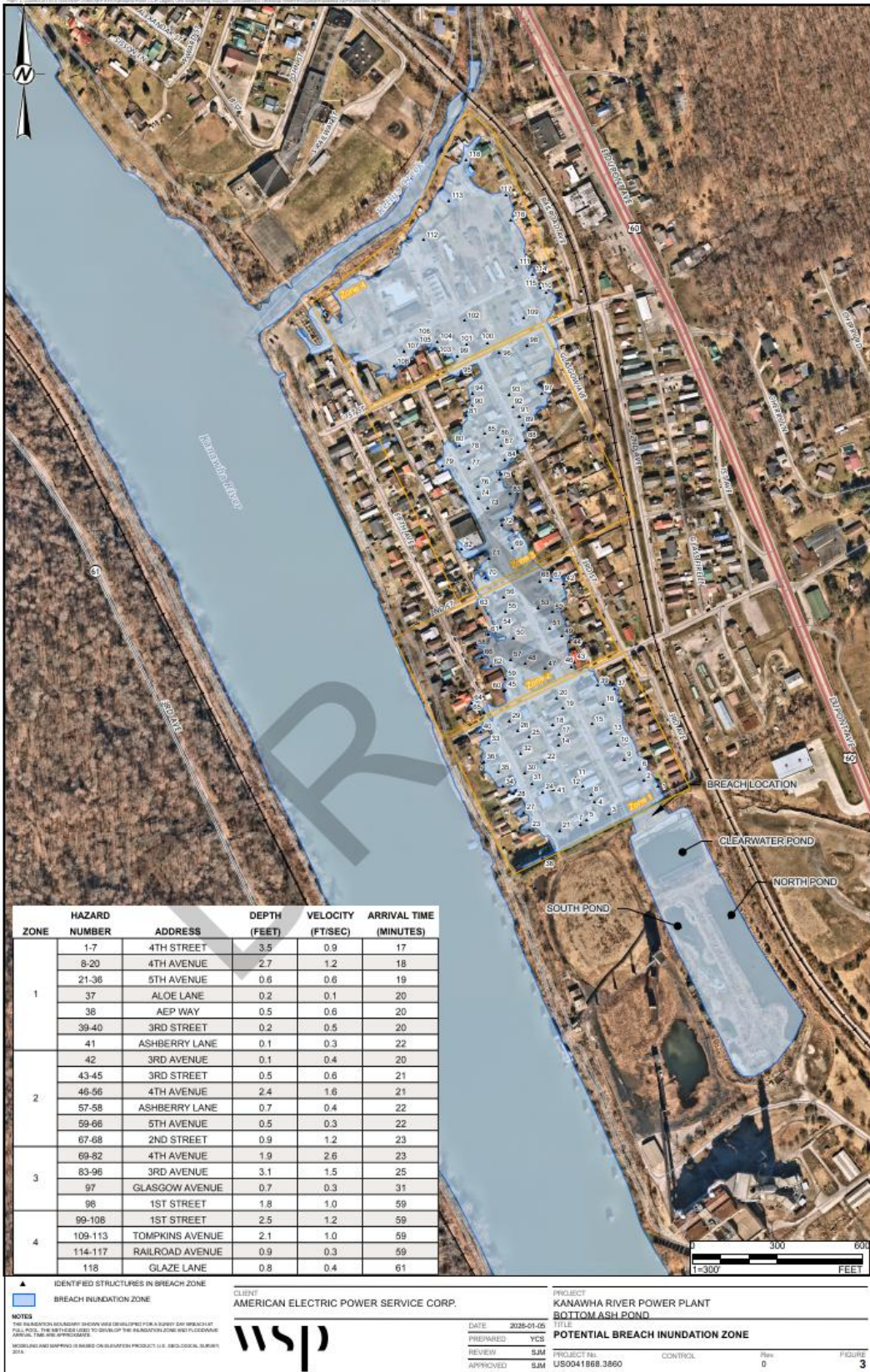
Appendix A – Inundation Map

Kanawha River Plant East Fly Ash Pond



Inundation Map





ZONE	HAZARD NUMBER	ADDRESS	DEPTH (FEET)	VELOCITY (FT/SEC)	ARRIVAL TIME (MINUTES)
1	1-7	4TH STREET	3.5	0.9	17
	8-20	4TH AVENUE	2.7	1.2	18
	21-36	5TH AVENUE	0.6	0.6	19
	37	ALOE LANE	0.2	0.1	20
	38	AEP WAY	0.5	0.6	20
	39-40	3RD STREET	0.2	0.5	20
	41	ASHBERRY LANE	0.1	0.3	22
2	42	3RD AVENUE	0.1	0.4	20
	43-45	3RD STREET	0.5	0.6	21
	46-56	4TH AVENUE	2.4	1.6	21
	57-58	ASHBERRY LANE	0.7	0.4	22
	59-66	5TH AVENUE	0.5	0.3	22
	67-68	2ND STREET	0.9	1.2	23
3	69-82	4TH AVENUE	1.9	2.6	23
	83-96	3RD AVENUE	3.1	1.5	25
	97	GLASGOW AVENUE	0.7	0.3	31
	98	1ST STREET	1.8	1.0	59
4	99-108	1ST STREET	2.5	1.2	59
	109-113	TOMPKINS AVENUE	2.1	1.0	59
	114-117	RAILROAD AVENUE	0.9	0.3	59
	118	GLAZE LANE	0.8	0.4	61

▲ IDENTIFIED STRUCTURES IN BREACH ZONE
 ■ BREACH INUNDATION ZONE

NOTES
 THE INUNDATION BOUNDARY SHOWN WAS DEVELOPED FOR A SURVEY DAY BREACH AT FULL POOL. THE SERVICES USED TO DETERMINE THE INUNDATION ZONE WERE FLOODING ARRIVAL TIME AND APPROXIMATE.

MODELING AND MAPPING IS BASED ON LUMBERPORT PRODUCT, I.E. 3RD-CENTURY SURVEY DATA.

CLIENT: AMERICAN ELECTRIC POWER SERVICE CORP.



PROJECT: KANAWHA RIVER POWER PLANT
 BOTTOM ASH POND

DATE: 2025-01-05
 PREPARED: YCS
 REVIEW: SJM
 APPROVED: SJM

TITLE: POTENTIAL BREACH INUNDATION ZONE

PROJECT No. US0041968.3860
 CONTROL: Rev: 0

FIGURE 3

Appendix B – Annual Meeting Documentation

CCR Emergency Action Plan Annual Meeting Documentation

Use this form to document the CCR Rule required annual face to face meeting.

Meeting was held to discuss the Emergency Action Plan for the following CCR unit(s): _____

Plant Personnel conducting the meeting: _____

Date: _____ Time Held: _____

Attending Organization: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Attending Organization: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Attending Organization: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Attending Organization: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Print Name: _____ Sign: _____

Use multiple pages to document additional organizations or attendees.

Appendix C – Annual Review Form

CCR Emergency Action Plan Annual Review

CCR unit Emergency Action Plan designation: _____

The Emergency Action Plan above was reviewed and there were no changes identified to any part of the Plan that required revision or modification to the Plan. This will serve as the operating record that such a review has been conducted for the year _____.

Date review was concluded: _____

Certified by: _____ Date: _____

Position Title: _____

Appendix D – EAP Activation Form

