INFLOW DESIGN FLOOD CONTROL PLAN

40 CFR 257.82

Ash Pond

Former Breed Power Plant
Fairbanks, IN

December 2025

Prepared for: Indiana Michigan Power Company – Former Breed Power Plant

Fairbanks, IN

Prepared by: American Electric Power Service Corporation

1 Riverside Plaza

Columbus, OH 43215

INFLOW DESIGN FLOOD CONTROL PLAN
CFR 257.82
FORMER BREED POWER PLANT

Ash Pond

PREPARED BY Blake Arthur DATE 04-10-2026
Blake Arthur, P.E.

REVIEWED BY *Daniel J. Eurich* DATE 04.10.2026
Dan Eurich, P.E.

APPROVED BY David Anthony Miller DATE **04.10.2026**
David Anthony Miller, P.E.
Director – Ash Management Services

I certify to the best of my knowledge, information, and belief that the information contained in this Inflow Design Flood Control Plan meets the requirements of 40 CFR § 257.82

Table of CONTENTS

1.0 OBJECTIVE

This report was prepared by AEP Ash Management Services, in part, to fulfill requirements of 40 CFR 257.82 for the legacy CCR surface impoundments to determine if the Ash Pond adequately manages peak discharge of the inflow into and from the impoundment.

2.0 DESCRIPTION OF THE CCR UNIT

The former Breed Power Plant is located at 8818 W. County Road 925 N. Fairbanks, Indiana 47849 (39.226922, -87.571045). It is owned and operated by Indiana Michigan Power Company. The facility operated 1 surface impoundment for storing CCR materials called the Ash Pond.

The Breed Power Plant has not been in service since 1994, and the Ash Pond embankment was breached as part of the site reclamation. The Ash Pond is now incised. The Ash Pond is approximately 47 acres in size, and its embankments are generally small dikes. The watershed of the pond is limited to the area of the pond and the immediate area (50-100 ft) around the pond. The pond lies adjacent to the Wabash River, and river flood waters can enter and leave the pond through the breach in the dike.

The breach section now serves as the outfall for the pond. It is approximately 6' wide, 10' deep, flat bottom at 440' ft-msl elevation, with 2:1 side slopes. Top of dike is 450' ft-msl.

3.0 INFLOW DESIGN FLOOD 257.82(a)(3)

The facility is an incised CCR surface impoundment. The Inflow Design Flood is the 25-year storm event which is 5.15 inches during a 24-hour period.

4.0 FLOOD CONTROL PLAN 257.82(c)

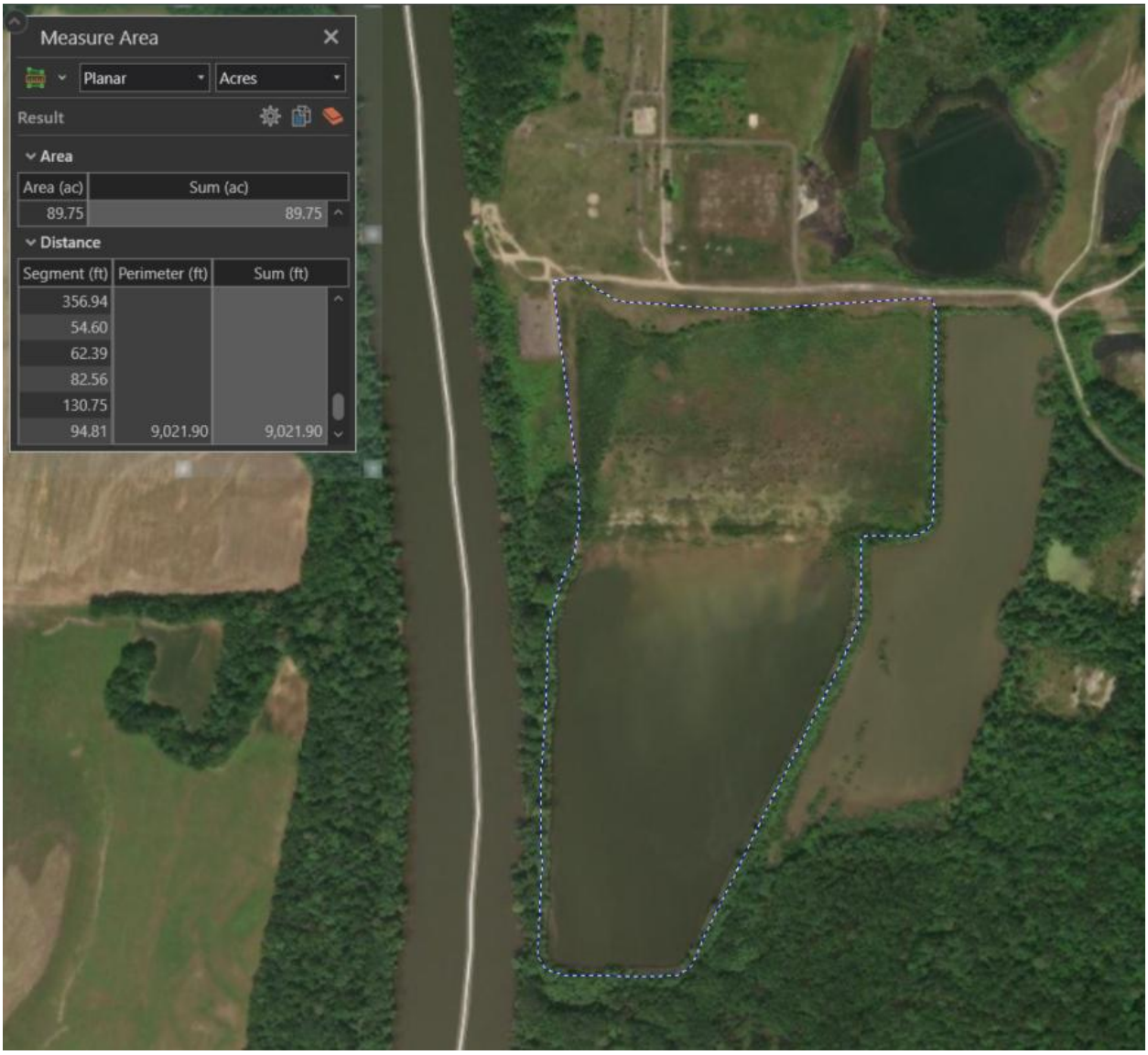
The inflow to the ash pond includes watershed area directly to the north of the ash pond (the former coal storage area), and direct rainfall within the pond's dikes. The design to safely pass the inflow design flood without overtopping the crest of the dike is based on the normal pool being at the base of the dike breach section, and utilizing the breach as the primary spillway and emergency spillway to handle the 25-year design storm without overtopping the crest of the dike. The ash pond is immediately adjacent to the Wabash River, and subject to inflows back through the breach during flooding of the river. For the purposes of this analysis, it is assumed no river backwater is present.

A conservative initial check was used to verify the capacity of the dike and breach section, which assumes all of the design storm is stored within the dikes, not accounting for infiltration/abstraction or flow capacity of the breach as a wide crested weir. NOAA Atlas 14 was used to select the rainfall estimates for the design storm.

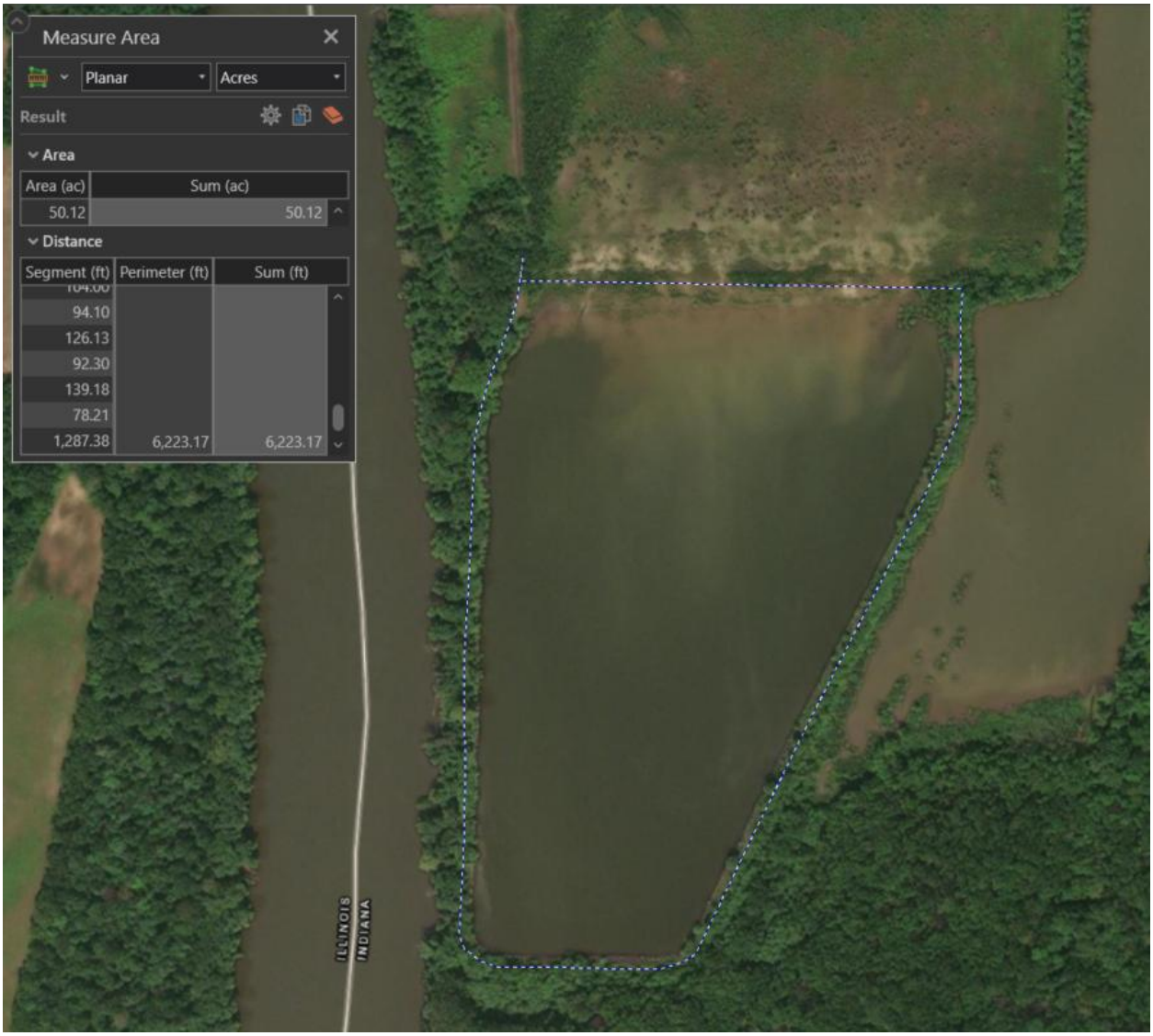
The calculations show that the facility has the capacity to manage the inflow design flood without overtopping the dike.

ATTACHMENT A

Hydrologic Calculations

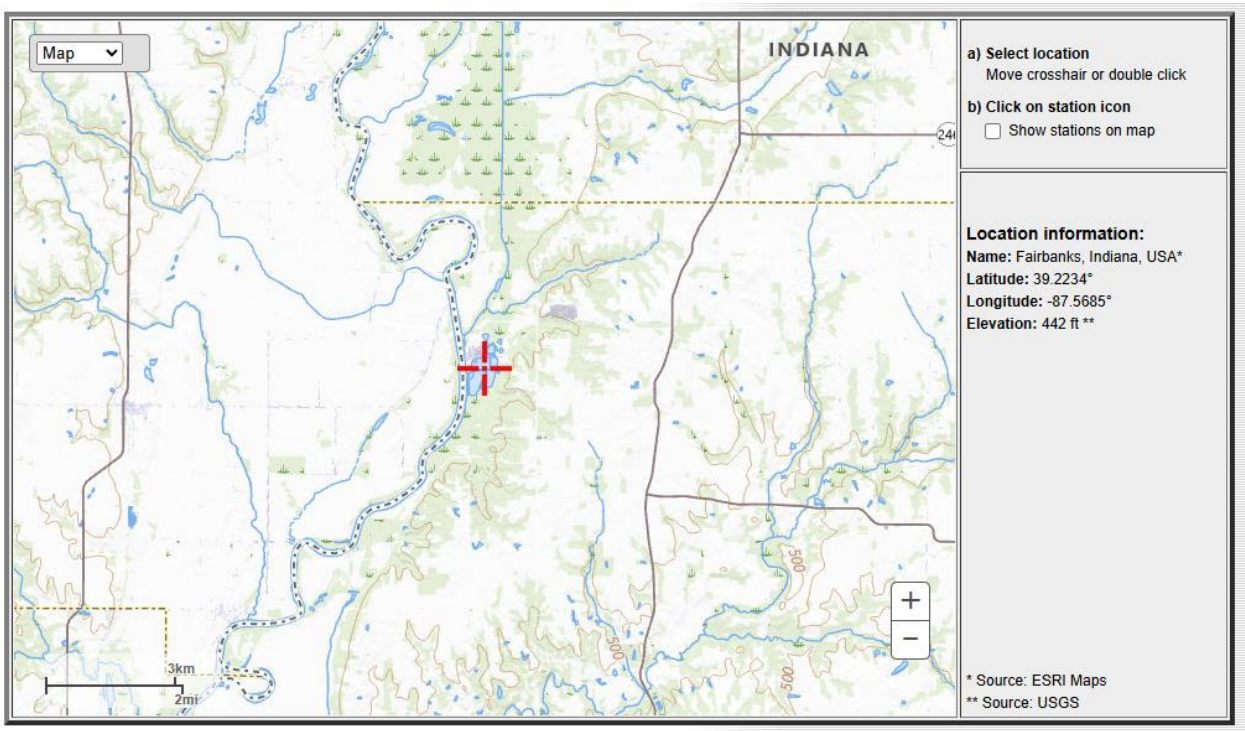


Drainage Area = 90 acres



Pool Area = 50 acres

Calculate Direct Runoff (Q).



POINT PRECIPITATION FREQUENCY (PF) ESTIMATES
WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 2, Version 3

POINT PRECIPITATION FREQUENCY (PF) ESTIMATES

WITH 90% CONFIDENCE INTERVALS AND SUPPLEMENTARY INFORMATION
NOAA Atlas 14, Volume 2, Version 3

PF tabular | PF graphical | Supplementary information | Print page

PDS-based precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.396 (0.361-0.434)	0.468 (0.427-0.513)	0.555 (0.506-0.608)	0.624 (0.568-0.683)	0.713 (0.646-0.780)	0.782 (0.704-0.856)	0.849 (0.759-0.929)	0.918 (0.816-1.00)	1.01 (0.889-1.11)	1.08 (0.940-1.19)
10-min	0.615 (0.562-0.674)	0.730 (0.667-0.801)	0.862 (0.787-0.945)	0.963 (0.877-1.05)	1.09 (0.987-1.19)	1.18 (1.07-1.30)	1.28 (1.14-1.40)	1.37 (1.22-1.50)	1.48 (1.31-1.63)	1.57 (1.37-1.73)
15-min	0.753 (0.688-0.826)	0.893 (0.816-0.980)	1.06 (0.966-1.16)	1.18 (1.08-1.30)	1.35 (1.22-1.47)	1.47 (1.32-1.61)	1.59 (1.42-1.74)	1.70 (1.51-1.87)	1.85 (1.63-2.04)	1.96 (1.71-2.16)
30-min	0.997 (0.911-1.09)	1.20 (1.09-1.31)	1.45 (1.32-1.59)	1.64 (1.50-1.80)	1.90 (1.72-2.08)	2.10 (1.89-2.30)	2.29 (2.05-2.51)	2.49 (2.21-2.72)	2.75 (2.42-3.02)	2.94 (2.56-3.24)
60-min	1.22 (1.11-1.33)	1.47 (1.34-1.61)	1.82 (1.66-1.99)	2.09 (1.91-2.29)	2.47 (2.23-2.70)	2.76 (2.49-3.02)	3.06 (2.74-3.35)	3.38 (3.00-3.70)	3.80 (3.34-4.17)	4.13 (3.60-4.55)
2-hr	1.44 (1.32-1.58)	1.74 (1.60-1.91)	2.17 (1.98-2.37)	2.51 (2.29-2.75)	2.99 (2.72-3.27)	3.38 (3.05-3.69)	3.80 (3.40-4.14)	4.23 (3.76-4.62)	4.83 (4.25-5.29)	5.33 (4.63-5.85)
3-hr	1.53 (1.41-1.68)	1.85 (1.70-2.03)	2.31 (2.11-2.53)	2.68 (2.44-2.93)	3.21 (2.91-3.50)	3.65 (3.28-3.98)	4.11 (3.67-4.49)	4.61 (4.08-5.03)	5.31 (4.63-5.82)	5.89 (5.07-6.47)
6-hr	1.85 (1.69-2.04)	2.22 (2.04-2.46)	2.77 (2.53-3.06)	3.22 (2.93-3.55)	3.86 (3.48-4.24)	4.39 (3.94-4.82)	4.95 (4.41-5.44)	5.56 (4.90-6.11)	6.43 (5.58-7.08)	7.14 (6.14-7.87)
12-hr	2.17 (2.00-2.39)	2.61 (2.40-2.87)	3.22 (2.95-3.54)	3.72 (3.40-4.08)	4.42 (4.02-4.85)	5.00 (4.52-5.48)	5.61 (5.04-6.14)	6.26 (5.58-6.86)	7.17 (6.31-7.87)	7.91 (6.88-8.69)
24-hr	2.60 (2.42-2.80)	3.11 (2.89-3.35)	3.81 (3.54-4.10)	4.37 (4.06-4.70)	5.15 (4.76-5.55)	5.78 (5.30-6.23)	6.43 (5.87-6.95)	7.11 (6.44-7.70)	8.04 (7.20-8.77)	8.79 (7.78-9.63)
2-day	3.07 (2.87-3.28)	3.67 (3.43-3.92)	4.46 (4.17-4.77)	5.08 (4.74-5.43)	5.91 (5.49-6.33)	6.56 (6.06-7.04)	7.21 (6.63-7.78)	7.87 (7.19-8.53)	8.76 (7.92-9.56)	9.44 (8.45-10.4)
3-day	3.26 (3.05-3.49)	3.90 (3.64-4.17)	4.74 (4.42-5.07)	5.39 (5.03-5.77)	6.27 (5.82-6.73)	6.97 (6.44-7.49)	7.66 (7.04-8.27)	8.37 (7.64-9.07)	9.32 (8.42-10.2)	10.0 (8.99-11.0)
4-day	3.45 (3.23-3.69)	4.12 (3.86-4.42)	5.01 (4.68-5.37)	5.71 (5.32-6.11)	6.64 (6.16-7.12)	7.38 (6.82-7.94)	8.12 (7.46-8.76)	8.87 (8.10-9.61)	9.87 (8.92-10.8)	10.6 (9.53-11.7)
7-day	4.03 (3.78-4.31)	4.82 (4.52-5.16)	5.83 (5.45-6.23)	6.58 (6.15-7.04)	7.57 (7.04-8.10)	8.31 (7.71-8.92)	9.04 (8.35-9.72)	9.76 (8.96-10.5)	10.7 (9.73-11.6)	11.4 (10.3-12.4)
10-day	4.58	5.47	6.56	7.36	8.40	9.19	9.94	10.7	11.6	12.3

40 CFR 257.82(a)(3)(iv) - For a 25 year 24 hour storm, precipitation = 5.15 inches

Runoff Volume = 5.15 in * 90 acres = 463.5 ac-in

Required storage in pond = 463.5 ac-in / 50 acres = 9.27 inches

9.27 inches < 10 ft --> Adequate storage is available in diked pond to store entire 25-year storm volume.

Stored volume will be drawn down by breach section acting as broad crested weir.

ATTACHMENT B

Drawings

PLAN

SCALE: 1"=200'

TOPSOIL BORROW AREAS:

TOPSOIL BORROW AREA 1

BORROW AREA 1 AT NORTH SIDE OF ENTRANCE ROAD WILL HAVE 3:1 SLOPE FROM WOODS LINE, 3:1 SLOPE FROM EXISTING BOTTOM OF SLOPE AT ROAD AND A 2% SLOPE FROM THE WEST END INCREASING TO THE EAST END.

TOTAL AVAILABLE TOPSOIL AT NORTH SIDE OF ENTRANCE ROAD ASSUMING FULL DEPTH TOPSOIL = 38,770 CY

TOPSOIL BORROW AREA 2

BORROW AREA 2 AT SOUTH SIDE OF ENTRANCE ROAD WILL HAVE 3:1 SLOPE FROM WOODS LINE, 3:1 SLOPE FROM EXISTING BOTTOM OF SLOPE AT ROAD AND THE ENTIRE LENGTH OF THE BORROW AREA WILL HAVE A 2.0% SLOPE FROM THE WEST END INCREASING TO THE EAST END.

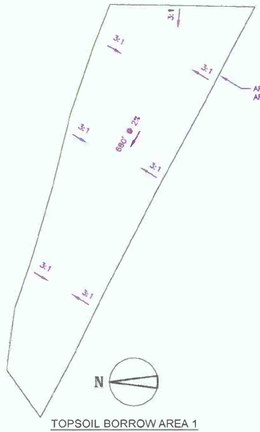
TOTAL AVAILABLE TOPSOIL AT SOUTH SIDE OF ENTRANCE ROAD ASSUMING FULL DEPTH TOPSOIL = 3,360 CY

TOTAL TOPSOIL AVAILABLE	42,130 CY

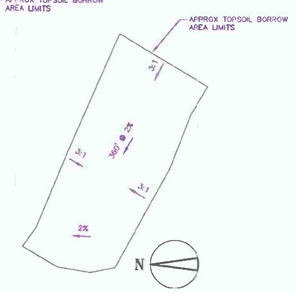
TOPSOIL REQUIRED 6" DEPTH:

MAIN PLANT BUILDING	1,070 CY
COAL STORAGE & BOTTOM ASH POND	32,700 CY
BREECH @ SOUTH BERM BOTTOM ASH POND	20 CY
COAL ASH PILE UNDER POWER LINES	5,700 CY
TOTAL TOPSOIL REQUIRED	39,490 SAY 39,500 CY

NOTE:
CONTRACTOR WILL BE REQUIRED TO STRIP TOP 6" OF TOPSOIL FROM TOPSOIL BORROW AREA AND STOCKPILE FOR TOPSOIL BORROW AREA RESTORATION. RESTORATION WORK TO INCLUDE GRADING OF BORROW AREAS TO A 2.0% MINIMUM GRADE, PLACEMENT OF 6" MINIMUM TOPSOIL OVER ENTIRE DISTURBED AREA AND SEEDING WITH APPROPRIATE SEED MIX.



TOPSOIL BORROW AREA 1
SCHEMATIC GRADING PLAN
SCALE: 1"=100'



TOPSOIL BORROW AREA 2
SCHEMATIC GRADING PLAN
SCALE: 1"=100'

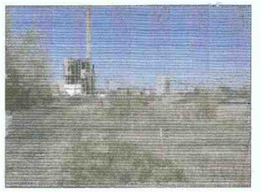


PHOTO 1
VIEW NORTH FROM C3

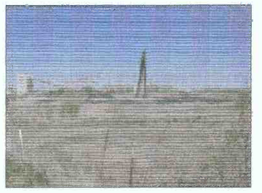


PHOTO 2
VIEW NORTH EAST FROM C3

PHOTO 3
VIEW SOUTH FROM C3

MAIN PLANT BUILDINGS BACKFILL:

BLDG FOOTPRINT = 56,756 SF
EXIST GRADE ELEV @ BLDG = 455.5
BLDG BASEMENT FLR ELEV = 409.00

BASEMENT DEPTH = 46.5'

56,756 SF x 46.5' = 2,639,154 CF
2,639,154 CF/27 = 97,747 CY

TOTAL FILL REQ FOR PLANT BLDG BACKFILL	97,747 CY

FILL MATERIAL ON SITE:

CONCRETE FILL AVAILABLE	10,000 CY
COAL STORAGE AREA SURPLUS MATERIAL AFTER GRADING	87,369 CY
SOUTH BERM BREECH TO RIVER	378 CY
TOTAL FILL AVAILABLE	97,747 CY

LEGEND

EXISTING ELEVATION	460.00
PROPOSED ELEVATION	447.5 x
EXISTING TOPO (FROM EXIST MAP)	
EXISTING TOPO SURVEYED 4/06 (SUPERCEDES TOPO FROM EXIST MAP)	
PROPOSED WORK	
APPROXIMATE SEEDING LIMITS	
PROPOSED FLOW ARROW	

RECEIVED
JUN 19 2006
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF LAND QUALITY

GENERAL NOTES:

1. ALL TOPSOILED AREAS TO BE SEEDED WITH APPROPRIATE SEED MIX.
2. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS AND PROFILES ARE APPROXIMATE. ADDITIONAL UTILITIES MAY BE ENCOUNTERED. THE CONTRACTOR SHALL VERIFY THE ACTUAL LOCATIONS OF ALL UTILITIES BY WHATEVER MEANS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION.

NO.	DATE	DESCRIPTION
2	6-6-06	GENERAL NOTES REVISION
1	5-24-06	MIN GRADE TO 0.5% COAL STORAGE AREA

REVISIONS

SUPV.	KM
DESIGN	DP
DRAWN	DP
CHECKED	KM
DATE	5/06

STATE OF NEW YORK BETH D. MARQUIS LICENSED PROFESSIONAL ENGINEER License No. 075424

Marquis Engineering, P.C.
6556 East Quaker Street
Orchard Park, New York 14127
Phone : (716) 667-1373 Fax : (716) 667-0833
e-mail : marquiseng@aol.com

AMERICAN ELECTRIC POWER
BREED PLANT 77-00
DEMOLITION AND DECOMISSIONING
FAIRBANKS, INDIANA

DRAWING PREPARED FOR CONTRACT 912374X132 BETWEEN INDIANA MICHIGAN POWER COMPANY AND ONTARIO SPECIALTY CONTRACTING

PROPOSED GRADING PLAN

PROJ. No.	DWG. NAME	SCALE	SHEET 1
200625	GRADING PLAN	1"=200'	OF 2

PARTIAL TOPOGRAPHIC SURVEY

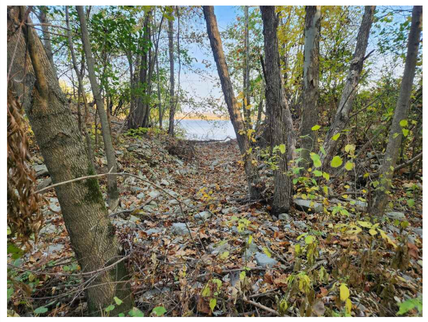
IN THE SOUTHWEST QUARTER OF SECTION 18, TOWNSHIP 9 NORTH, RANGE 10 EAST
FAIRBANKS TOWNSHIP, SULLIVAN COUNTY, INDIANA

HORIZONTAL DATUM: NAD83
INDIANA STATE PLANE, WEST
ZONE, US SURVEY FOOT

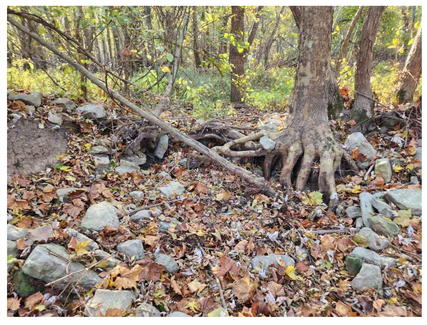
VERTICAL DATUM: NAVD 88

0 10 15 20
1 inch = 10 ft.

MIDDLE OF BREECH LOOKING SOUTH



OUTLET SIDE OF BREECH LOOKING NORTH



OUTLET SIDE OF BREECH LOOKING SOUTH

LEGEND

= MAJOR CONTOUR
= MINOR CONTOUR
= PROPERTY BOUNDARY LINE
100.00 = SPOT ELEVATION
= WATER

VICINITY MAP
NOT TO SCALE

SURVEY NOTES

1. CONTROL POINTS SHOWN HEREON ARE TO BE USED FOR CONSTRUCTION LAYOUT PURPOSES.
2. VERTICAL DATUM: NAVD88.
3. HORIZONTAL DATUM: INDIANA STATE PLANE COORDINATE SYSTEM, WEST ZONE, U.S. SURVEY FEET.
4. PER INFORMATION OBTAINED FROM NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAP, MAP NUMBER 1804100001A, EFFECTIVE DATE MARCH 23, 1979, NO DIGITAL DATA AVAILABLE.
5. ALL GRADES AND CONTOURS ARE FINISHED GRADES UNLESS OTHERWISE NOTED.

SURVEYOR'S CERTIFICATE

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF AARON D. SMITH FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED ON OCTOBER 30, 2024 AND THAT THIS PLAT, MAP OR DIGITAL MEDIA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

AARON D. SMITH — LS-21900006

AARON D. SMITH REGISTERED No. LS21900006 STATE OF INDIANA LAND SURVEYOR

01/29/2025
DATE

WIGHTMAN
www.gowightman.com
WAI #241926

OLD DWG:	REV:	STD DWG:	REV:

AMERICAN ELECTRIC POWER — BOUNDLESS ENERGY

FAIRBANKS — INDIANA

BREED STATION ASH POND
INDIANA MICHIGAN TRANSMISSION COMPANY

PROPERTY PLAT / SURVEY
TOPOGRAPHIC SURVEY

SCALE: 1" = 10' | VOLTAGE: 765kV

INTERNAL REF: | DWG: 1 OF 1 | REV:

ENERGY DELIVERY — AEP D (24 x 36)

P:\241926 AEP Breed Plant Sullivan Co INB50 AutoCAD\241926 Breed Plant_Ash Pond Breech.dwg
BY: SHERRY ROBERTS
AT: 4:12:32 PM
PLOTTED DATE: 29/01/2025