



February 20, 2012

Mr. Jim Zelenak
U.S. Fish and Wildlife Service
West Virginia Field Office
694 Beverly Pike
Elkins, WV 26241

Dear Mr. Zelenak:

Subject: Indiana Bat Habitat Assessment and Cave/Mine Portal Survey
Proposed Mitchell Landfill Project
Phase II Haul Road Additional Limits of Disturbance
American Electric Power Company, Inc.
Cresap, Marshall County, West Virginia
CEC Project No. 110-416

On behalf of American Electric Power Company, Inc. (AEP), Civil & Environmental Consultants, Inc. (CEC) has prepared this letter report to document the results of an Indiana bat (*Myotis sodalis*) desktop habitat assessment and cave/mine portal survey of the proposed Phase II haul road study area (Study Area) in association with the proposed landfill. The cave/mine portal survey for this federally endangered species was conducted within the Study Area, which is located west of Gatts Ridge Road near the town of Cresap in Marshall County, West Virginia. The field survey was completed by Ryan Slack and a CEC field crew on February 9 and 10 and February 14 and 15, 2012. Mr. Slack is approved by the U.S. Fish and Wildlife Service (USFWS) to conduct these types of surveys.

1.0 SITE BACKGROUND

The haul road limits of disturbance include a linear site located north and west of Gatts Ridge Road and south of an existing fly ash reservoir (Conner Run) in Marshall County, West Virginia (Figure 1). The proposed haul road will link AEP's existing Mitchell Power Plant to the proposed coal combustion byproducts landfill (Mitchell Landfill). CEC conducted an Indiana bat mist net survey within the proposed Mitchell Landfill project area in July 2011. No Indiana bats were captured during the mist net surveys and a letter of concurrence stating that the

Civil & Environmental Consultants, Inc.

Cincinnati	4274 Glendale Milford Road Cincinnati, Ohio 45242 Ph: 513/985-0226 / Fx: 513/985-0228 Toll Free: 800/759-5674 E-mail: Cincinnati@cecinc.com	Pittsburgh	800/365-2324	Cleveland	866/507-2324	Nashville	800/763-2326
		Austin	512/329-0006	Columbus	888/598-6808	North Central PA	877/389-1852
		Boston	866/312-2024	Detroit	866/380-2324	Phoenix	877/231-2324
		Charlotte	980/224/8104	Export	800/899-3610	St. Louis	866/250-3679
		Chicago	877/963-6026	Indianapolis	877/746-0749	Toledo	888/598-6808

Corporate Web Site: <http://www.cecinc.com>



proposed landfill project is not likely to adversely affect Indiana bats was issued by the USFWS on August 19, 2012 (see attached letter).

The proposed haul road limits of disturbance were not included in the original mist net survey area (Figure 2). The concurrence letter states that if project plans change, the effects determination could be reconsidered. The haul road project will require the clearing of an additional approximately 39 acres of trees, an area greater than USFWS's "small project" threshold of 17 acres. By exceeding this threshold level and considering the distance from the original mist net survey because of the linear nature of the project area, it was determined by the USFWS that, in order to avoid "incidental take," the timber removal operations for the haul road must be completed between November 15 and March 31 (i.e., within the timeframe that Indiana bats are in hibernation). If this condition cannot be met, an additional summer season mist net survey would need to be conducted. AEP prefers the option of clearing trees for the haul road prior to March 31, 2012. A determination of "may affect, but not likely to adversely affect" Indiana bats must be made by the USFWS in order to proceed with the project and allow tree clearing to be conducted prior to March 31.

As part of their considerations, the USFWS requested the following information:

- Calculate the percentage of suitable Indiana bat summer roosting habitat that would remain after haul road construction within 0.25 mile (0.4 km) on each side of the proposed haul road limits of disturbance for the entire length of the project.
- Conduct a field survey for existing cave/mine portal openings within the haul road limits of disturbance and within a 100-meter buffer zone surrounding the haul road limits of disturbance boundary, and conduct a desktop GIS analysis of karst topography and mine land operations within 1 kilometer of the haul road disturbance boundary.

2.0 DESKTOP AND ON-SITE RECONNAISSANCE

CEC created a 1-kilometer radius buffer zone around the haul road disturbance boundary, and a 0.25-mile radius buffer based on each side of the proposed right of way of the project area (Figures 3 and 4). Using current aerial photography and visible indications of forested



conditions, the forested, suitable summer habitat acreage within the 0.25-mile buffer zone was estimated at 380 acres. The loss of approximately 39 acres of forest as a result of the haul road construction activities represents a loss of only approximately 10 percent of potential Indiana bat suitable summer habitat within this area. The 0.25-mile buffer zone and forested area within the buffer zone are depicted in Figure 4. It should be noted that a portion of the 0.25-mile buffer zone around the haul road disturbance boundary is within the Mitchell Landfill limits of disturbance area where the Indiana bat mist net survey was completed in July 2011. That portion of the 0.25-mile buffer zone accounts for another approximate 68 acres of forested habitat that will be cleared, as shown on Figure 4.

The following GIS layers were obtained and depicted on Figure 3:

- Karst areas
- Mineral operations
- Abandoned mine lands
- Office of Mining Reclamation (OMR) permits
- Mine permit boundaries
- Underground mine limits

CEC's biologist Ryan Slack and field crew conducted a pedestrian survey of the haul road cave/mine portal survey area shown on Figure 3 on February 9 and 10 and 14 and 15, 2012, to search for and record the locations of surface evidence of caves or abandoned mine portals within the haul road limits of disturbance and within a 100-meter buffer zone around that area (Figure 3).

A handheld Trimble GeoXT GPS unit (with sub-meter accuracy) was used to track CEC's survey path during the cave/mine portal field surveys to verify thorough coverage of the haul road mine/portal survey area. No surface evidence of caves or mine portals was found within the haul road limits of disturbance or in 100 meter buffer zone. The results of the GIS layer assessment show a linear area of past or present mining within 1 kilometer of and beneath a portion of the



haul road limits of disturbance and some OMR permits with the buffer zone, but are inconclusive as to whether or not mine portals exist. Based on the results of the field survey and GIS data, CEC assumes that no cave/abandoned mine portals exist within the haul road limits of disturbance or within 100 meters of it.

3.0 CONCLUSIONS

Based on the above findings, it is CEC's conclusion that no caves or abandoned mine portals exist within the haul road limits of disturbance or within the accessible portions of the 100-meter buffer zone. Moreover, the proposed tree clearing represents a loss of only about 10 percent of potentially suitable summer Indiana bat habitat in the area and negative mist net survey results have recently been found adjacent to the haul road limits of disturbance. As a result, it is CEC's opinion that removal of the 39 acres of forest between November 15 and March 31 should result in a "may affect, not likely to adversely affect" the Indiana bat effect determination for conducting the haul road construction and tree clearing activities as currently designed. CEC respectfully requests your concurrence with this effect determination.

Should you need to discuss the details of this letter or require additional information, please contact me at (317) 655-7777 or via email at rslack@cecinc.com.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Ryan A. Slack ^{DTE}

Ryan A. Slack
Project Manager

James E. Zentmeyer
James E. Zentmeyer
Principal

Attachments: USFWS Mist Net Survey Concurrence Letter
Figures



USFWS INDIANA BAT MIST NET SURVEY CONCURRENCE LETTER



United States Department of the Interior



FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241

Concurrence Form for Indiana Bat Mist Net Reports

Contact Name: Daniel Godec, Civil and Environmental Consultants, Inc.

Email Address or Fax Number: dgodec@cecinc.com, Fax: 513-985-0228

Project: AEP Mitchell Landfill Project Marshall County, West Virginia

The U.S. Fish and Wildlife Service has reviewed the report on the bat survey conducted in the proposed project area and submitted on August 1, 2011. The survey followed the protocol outlined in the Draft Indiana Bat Recovery Plan. The survey covered approximately 152 acres of potential bat habitat and was conducted at 2 net sites from July 13-16, 2011. No federally-listed bats were captured. Mist net surveys are considered current for 5 years (the summer they are completed and the following four summer seasons). In this case, the survey will expire on May 15, 2016. If a significant amendment is proposed to change or expand this project, or if timber will be removed after that date, a new survey may be necessary and the Service should be contacted.

The entire project area was searched on foot to evaluate for the potential presence of caves and abandoned mine portals. No caves or portals were observed in the project area.

Based on the information provided to us, the Service has concluded that no federally-listed endangered or threatened bats are expected to be impacted by the project. Therefore, this project is not likely to adversely affect federally-listed species, and no further consultation under section 7(a)(2) of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required with the Service. Should project plans change or amendments be proposed, or if additional information on listed and proposed species becomes available, this determination may be reconsidered.

If you have any questions regarding these comments, please contact Jim Zelenak at (304) 636-6586 or at the letterhead address.

James R. Zelenak
Biologist

Date: 8/19/2011

Deborah Carter
Deborah Carter, Field Supervisor

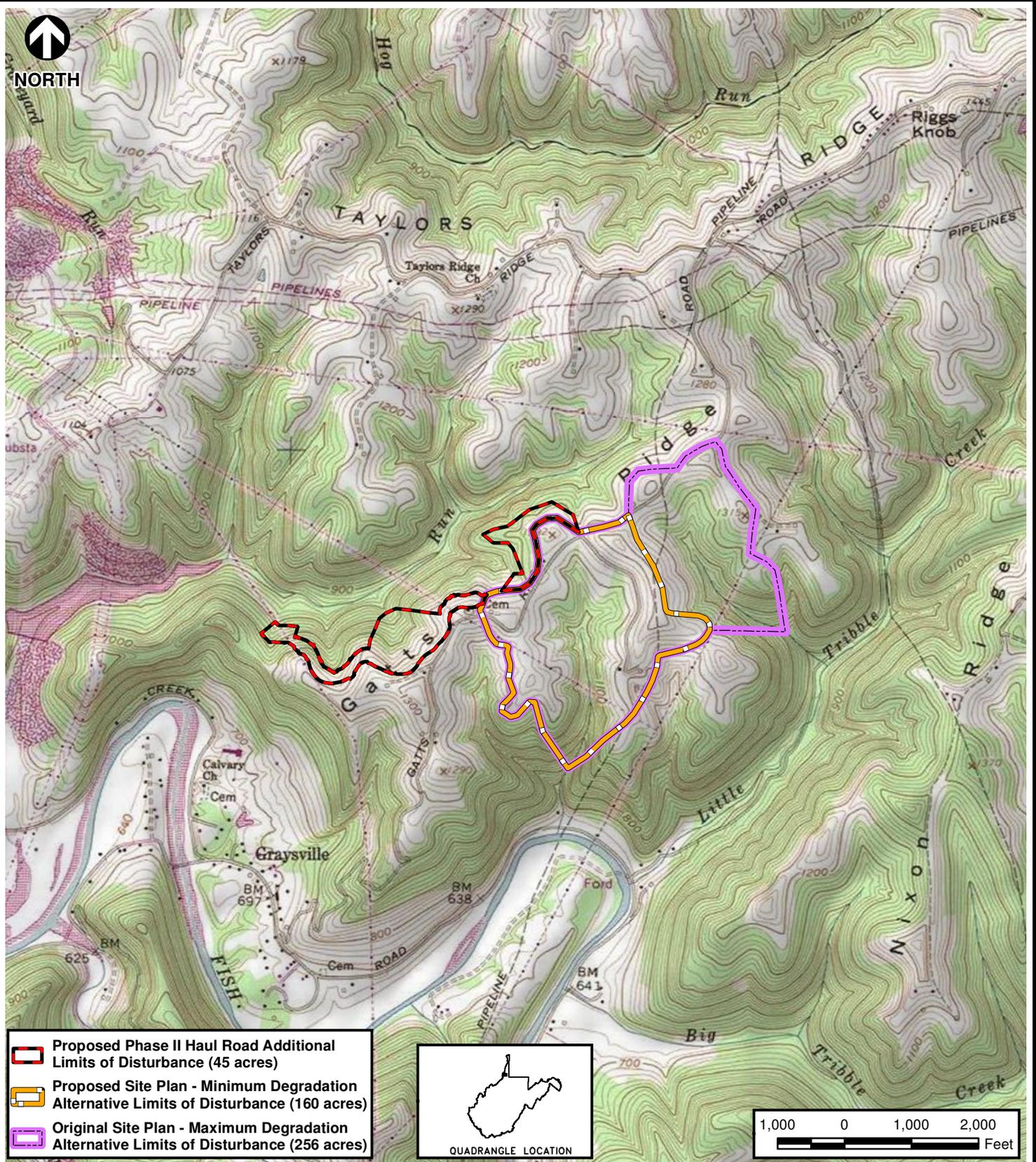
Date: 8/19/2011



FIGURES



NORTH



-  Proposed Phase II Haul Road Additional Limits of Disturbance (45 acres)
-  Proposed Site Plan - Minimum Degradation Alternative Limits of Disturbance (160 acres)
-  Original Site Plan - Maximum Degradation Alternative Limits of Disturbance (256 acres)



SOURCE: PORTION OF THE USGS 7.5-MINUTE SERIES TOPOGRAPHIC QUADRANGLE MAP - GLEN EASTON, WV - 1978 AND POWHATAN POINT, WV - 1978.



Civil & Environmental Consultants, Inc.

4274 Glendale-Milford Road - Cincinnati, OH 45242
 513-985-0226 - 800-759-5614
 www.cecinc.com

AMERICAN ELECTRIC POWER CO., INC.
 MITCHELL LANDFILL PROJECT
 GATTS RIDGE ROAD
 CRESAP, MARSHALL CO., WEST VIRGINIA

SITE LOCATION MAP

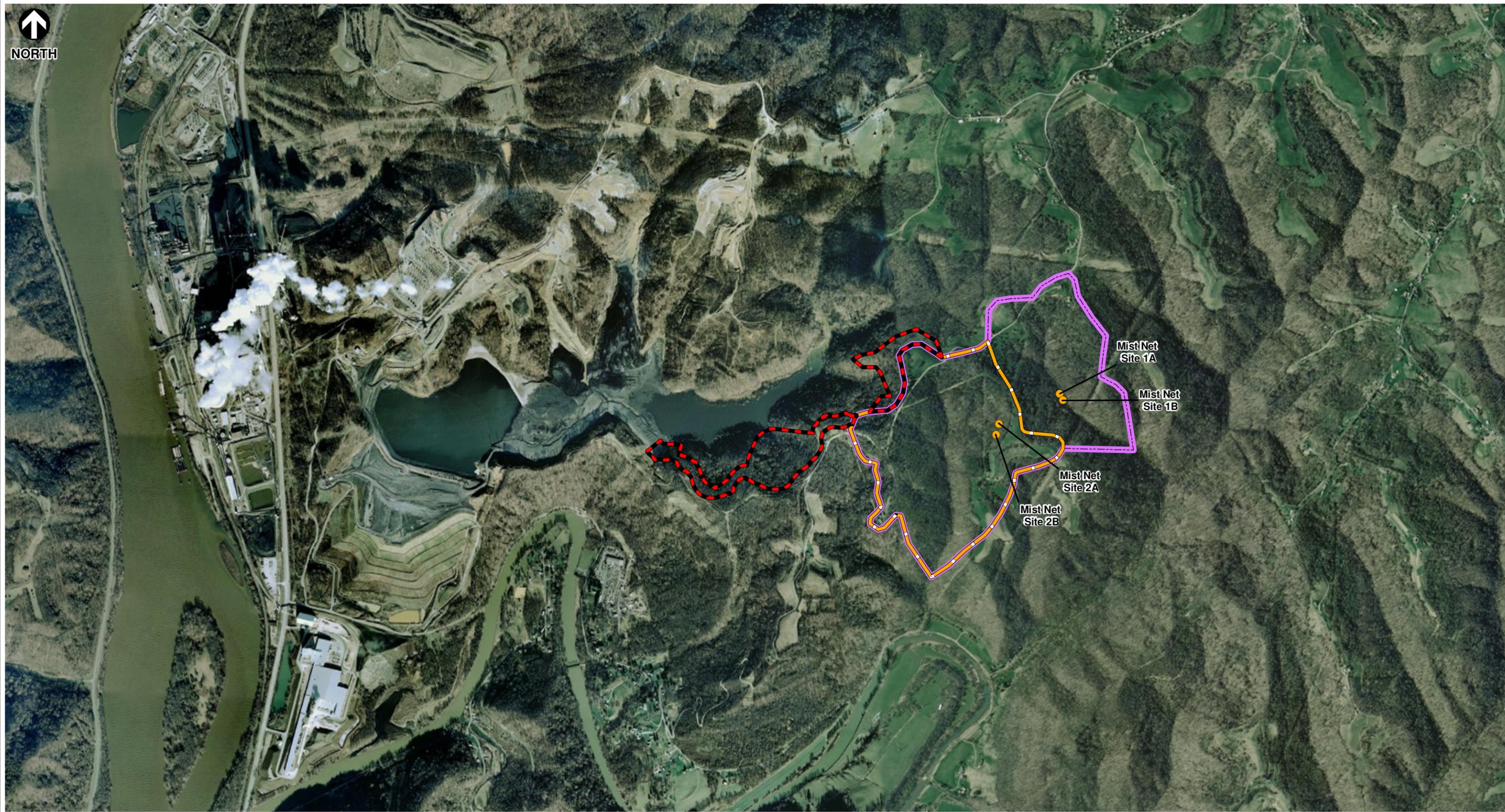
DRAWN BY: MJB	CHECKED BY: RAS	APPROVED BY: JEZ*	FIGURE NO: 1
DATE: FEBRUARY 16, 2012	DWG SCALE: 1" = 2,000'	PROJECT NO: 110-416.8200	

Signature on File *

P:\2011\110-416-GIS\Maps\Haul_Rd\Fig_1.mxd - 2/17/2012 - 1:08:07 PM



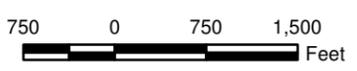
NORTH



SOURCE: PORTION OF THE ESRI ARCGIS ONLINE MAPPING SERVICE - "WORLD_IMAGERY" - AERIALS EXPRESS - "NORTHERNWV2010" COLOR AERIAL MOSAIC, 2010.

P:\2011\110-416-GIS\Maps\Haul_Road\Fig_2.mxd - 2/17/2012 - 1:09:21 PM

-  Approximate 2011 Mist Net Site Locations
-  AEP Phase II Haul Road Limits of Disturbance (45 acres)
-  Proposed Site Plan - Minimum Degradation Alternative Limits of Disturbance (160 acres)
-  Original Site Plan - Maximum Degradation Alternative Limits of Disturbance (256 acres)



Civil & Environmental Consultants, Inc.

4274 Glendale-Milford Road - Cincinnati, OH 45242
513-985-0226 - 800-759-5614
www.cecinc.com

AMERICAN ELECTRIC POWER CO., INC.
MITCHELL LANDFILL PROJECT
GATTS RIDGE ROAD
CRESAP, MARSHALL CO., WEST VIRGINIA

PROJECT OVERVIEW MAP

DRAWN BY: MJB	CHECKED BY: RAS	APPROVED BY: JEZ*	FIGURE NO: 2
DATE: FEBRUARY 16, 2012	DWG SCALE: 1" = 1,500'	PROJECT NO: 110-416.8200	

Signature on File *



NORTH

McELROY BELT
CONVEYOR & HARBOR

Mine Air
Monitoring
Borehole

McElroy Mine

McELROY REFUSE
DISPOSAL AREA

SOURCE: PORTION OF THE ESRI ARCGIS ONLINE MAPPING SERVICE - "WORLD_IMAGERY" - AERIALS EXPRESS - "NORTHERN WV 2010" COLOR AERIAL MOSAIC, 2010.
MINING DATA - DIVISION OF MINING AND RECLAMATION - "HTTP://GIS.DEP.WV.GOV/DATA/OMR.HTML"

P:\2011\110-416-GIS\Maps\Haul_Road\Fig_3.mxd - 2/17/2012 - 1:14:12 PM

-  OMR Permits
-  Underground Mine Limit
-  Cave/Mine Portal Survey Area (100-meter buffer)
-  Additional 900-meter buffer
-  AEP Phase II Haul Road
-  Limits of Disturbance (45 acres)
-  Mine Permit Boundary



Civil & Environmental Consultants, Inc.

4274 Glendale-Milford Road - Cincinnati, OH 45242
513-985-0226 - 800-759-5614
www.cecinc.com

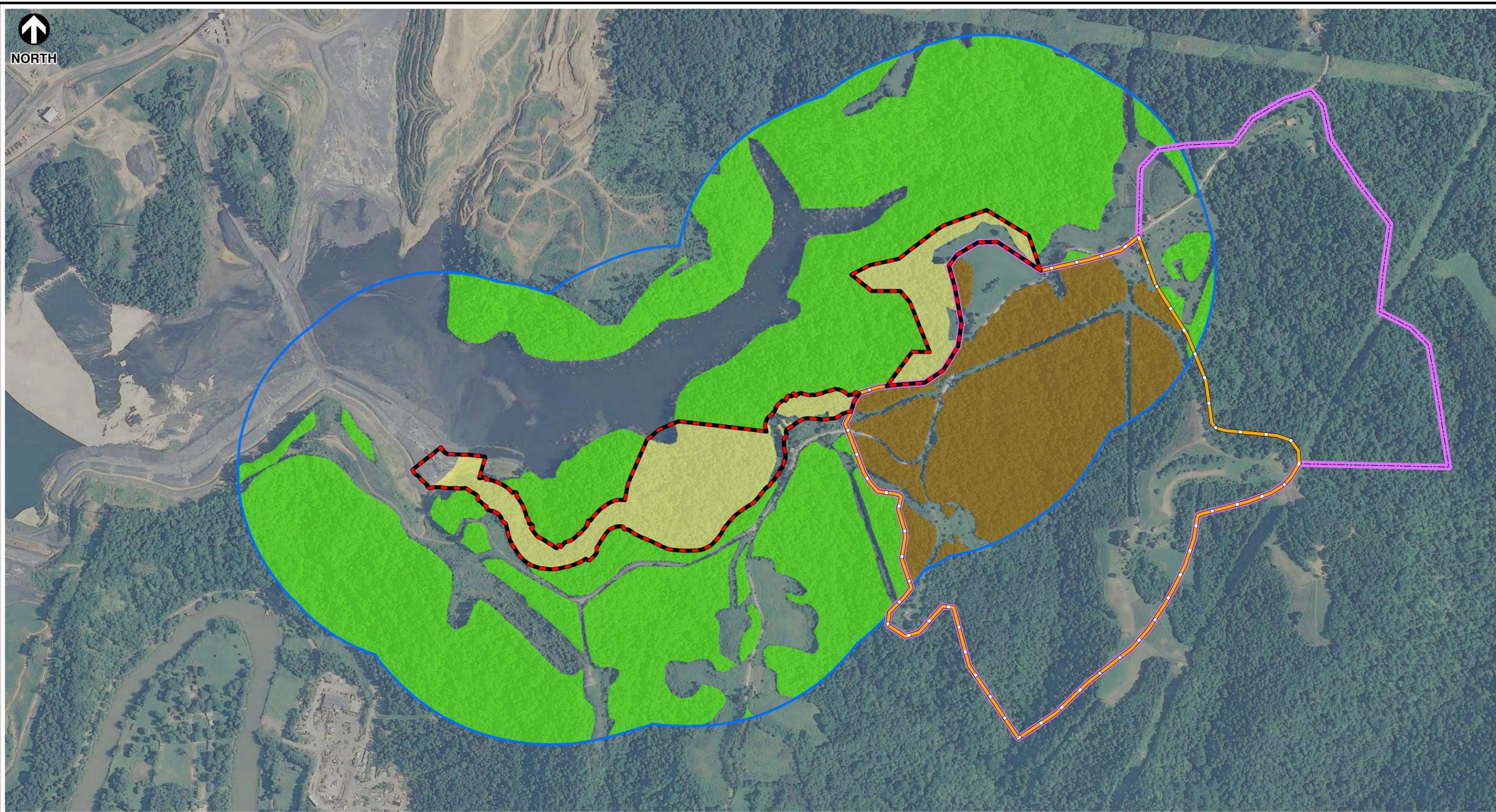
AMERICAN ELECTRIC POWER CO., INC.
MITCHELL LANDFILL PROJECT
GATTS RIDGE ROAD
CRESAP, MARSHALL CO., WEST VIRGINIA

CAVE/MINE PORTAL SURVEY MAP

DRAWN BY: MJB	CHECKED BY: RAS	APPROVED BY: JEZ*	FIGURE NO: 3
DATE: FEBRUARY 16, 2012	DWG SCALE: 1" = 1,500'	PROJECT NO: 110-416.8200	Signature on File *



NORTH



SOURCE: PORTION OF THE ESRI ARCGIS ONLINE MAPPING SERVICE - "WORLD_IMAGERY" - AERIALS EXPRESS - "NORTHERNWV2010" COLOR AERIAL MOSAIC, 2010.

P:\2011\110-416-GIS\Maps\Haul_Road\110416_Haul_Rd_Fig_4.mxd - 2/17/2012 - 1:15:15 PM

- Forested Areas (Total = 380 acres)
- Outside Limits of Disturbance (273 acres)
- Inside Phase II Haul Road Limits of Disturbance (39 acres)
- Within Proposed Site Plan Limits of Disturbance (68 acres)
- Quarter Mile Buffer

- AEP Phase II Haul Road Limits of Disturbance (45 acres)
- Original Site Plan - Maximum Degradation Alternative Limits of Disturbance (256 acres)
- Proposed Site Plan - Minimum Degradation Alternative Limits of Disturbance (160 acres)



Civil & Environmental Consultants, Inc.

4274 Glendale-Milford Road - Cincinnati, OH 45242
513-985-0226 - 800-759-5614
www.cecinc.com

AMERICAN ELECTRIC POWER CO., INC.
MITCHELL LANDFILL PROJECT
GATTS RIDGE ROAD
CRESAP, MARSHALL CO., WEST VIRGINIA

FORESTED HABITAT IMPACT MAP

DRAWN BY: MJB CHECKED BY: RAS
DATE: FEBRUARY 16, 2012 DWG SCALE: 1" = 700'

APPROVED BY: JEZ* FIGURE NO: 4
PROJECT NO: 110-416.8200

Signature on File *