

CLOSURE PLAN

**NEW CASTLE STATION NORTH ASH POND
WEST PITTSBURGH, LAWRENCE COUNTY, PENNSYLVANIA**

Prepared for:



**NRG POWER MIDWEST LP
NEW CASTLE GENERATING STATION
2189 STATE ROUTE 168 SOUTH
WEST PITTSBURGH, PENNSYLVANIA 16160**

Prepared by:



**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
333 BALDWIN ROAD
PITTSBURGH, PA 15205**

CEC Project 154-531.0004

October 2016



Civil & Environmental Consultants, Inc.

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CLOSURE PLAN
NEW CASTLE STATION NORTH ASH POND

1.0 PURPOSE

On behalf of NRG Power Midwest LP (NRG), Civil & Environmental Consultants, Inc. (CEC) has prepared this Closure Plan for the North Ash Pond in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule 40 CFR 257.102 (§257.102) dated April 17, 2015. This Closure Plan has been prepared to describe the steps necessary to close the ash pond at any point during the active life consistent with recognized and generally accepted good engineering practices.

For existing CCR impoundments, the plans must be prepared no later than October 17, 2016 and placed in the facility's operating record. The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the design meets the requirements of this section. The professional engineer certification is provided in Appendix A.

2.0 BACKGROUND

The New Castle Generating Station (Station) is located in West Pittsburg, Lawrence County, Pennsylvania. Refer to Figure 1 in Appendix B for the Site Location Map. The Station ceased operations using coal to generate power on March 23, 2016. The Station previously used the North Ash Pond and South Ash Pond for bottom ash management. The South Ash Pond was decommissioned and cleaned of CCR prior to the effective date of the CCR Rule, and is not considered in this Closure Plan. Refer to Figure 2 in Appendix B for the Existing Conditions Plan.

The North Ash Pond was used for bottom ash management for the Station. Bottom ash was sluiced from the Station to the North Ash Pond. Water routed through the Pond was discharged through an outlet structure back into the Beaver River. This discharge is permitted under National Pollutant Discharge Elimination System (NPDES) Permit No. PA0005061. CCR

settled from the sluiced water into the North Ash Pond. The North Ash Pond is considered a CCR impoundment by the CCR Rule. The North Ash Pond is currently used for non-CCR waste. The North Ash Pond will be decommissioned and cleaned of CCR in accordance with §257.102 and this Closure Plan.

3.0 COMPLIANCE WITH §257.102 – CRITERIA FOR CONDUCTING THE CLOSURE OF CCR UNITS.

The following sections address the information required by §257.102.

3.1 NARRATIVE OF CLOSURE - §257.102(b)(1)(i)

The North Ash Pond will be closed by removing CCR in accordance with §257.102(c). CCR removal will be completed as described in the following section.

3.2 CCR REMOVAL AND DECONTAMINATION – §257.102(b)(1)(ii)

Closure of the North Ash Pond will generally include the following activities:

- Obtain all necessary Federal, State and Local permits;
- Prepare construction bid specifications and contract work;
- Dewater Pond in accordance with NPDES Permit No. PA0005061;
- Remove CCR based on visual assessment. Excavated CCR will be dewatered using current operations techniques and hauled to the New Castle Plant Ash Landfill (Landfill) for disposal;
- Remove visibly impacted soils beneath the bottom ash;
- Install erosion and sedimentation controls as needed;
- Remove or decontaminate and leave in-place the Pond inlet and outlet structures. Inlet and outlet structures include pipe, concrete boxes, steel grates, manholes, etc.
- Dispose of removed structures in accordance with applicable regulations;

- Seed and mulch disturbed areas.

NRG may elect to retrofit the closed Pond for an alternate use.

Refer to Figure 3 in Appendix B for the Final Conditions Plan, which shows the general closure procedures for the Pond.

3.3 FINAL COVER REQUIREMENTS – §257.102(b)(1)(iii)

CCRs will be removed from the Pond in accordance with §257.102(c); therefore, a final cover system is not required.

3.4 MAXIMUM CCR INVENTORY - §257.102(b)(1)(iv)

The North Ash Pond capacity is approximately 16 acre-feet (approximately 26,000 cubic yards). The North Ash Pond is dredged on an annual basis to remove accumulated CCR and restore impoundment capacity. The maximum volume of CCR currently in the North Ash Pond is approximately 5,000 cubic yards.

3.5 MAXIMUM AREA REQUIRING FINAL COVER – §257.102(b)(1)(v)

CCRs will be removed from the Pond in accordance with §257.102(c); therefore, a final cover system is not required.

3.6 CLOSURE SCHEDULE – §257.102(b)(1)(vi)

The Station ceased operations using coal to generate power on March 23, 2016 and ceased using the North Ash Pond for bottom ash management at that time. The North Ash Pond is currently used for non-CCR waste. In accordance with §257.102(e)(1)(i), closure activities will commence no later than 30 days after the date on which the CCR unit receives the final receipt of waste, either CCR or any non-CCR waste stream unless an extension is requested. Closure

activities may include dewatering, decommissioning inlet and outlet structures, removal of inlet and outlet structures. All necessary permits will be obtained prior to construction activity. Additionally, in accordance with §257.102(f)(1)(ii) closure activities will be completed within five years of commencing closure activities. Once the North Ash Pond is closed, a professional engineer will verify and certify that closure has been completed in accordance with §257.102(c) in accordance with §257.102(f)(3). Within 30 days of completing closure of the North Ash Pond, a notification of closure will be prepared by NRG and will include the professional engineer's certification of completion §257.102(h).

4.0 CONCLUSION

The Closure Plan demonstrates compliance with §257.102 of the CCR Rule. The certification statement by a qualified professional engineer is provided in Appendix A. Supporting documents are provided in Appendix B. The North Ash Pond is not required to meet the Post-Closure Care requirements as stated in §257.104(a)(2).

This demonstration will be placed in the operating record by October 17, 2016. Based on site conditions, the Closure Plan may be amended at any time.

APPENDIX A

PROFESSIONAL ENGINEER CERTIFICATION STATEMENT

PROFESSIONAL ENGINEER CERTIFICATION

This Closure Plan fulfills the CCR Rule requirements (40 CFR Parts 257 and 261) dated April 17, 2015. This Closure Plan will be placed in the operating record by October 17, 2016.

I, Angela M. Ramirez, P.E., a registered professional engineer in the State of Pennsylvania, certify that the Closure Plan for the New Castle Station North Ash Pond fulfills the requirements of §257.102. This certification is based on my review of the Closure Plan for New Castle Station North Ash Pond.

Angela M. Ramirez, P.E.

Printed Name of Professional Engineer

Angela M Ramirez

Signature

PE082317

Registration No.

Pennsylvania

Registration State

10-14-2016

Date

Stamp/Seal:

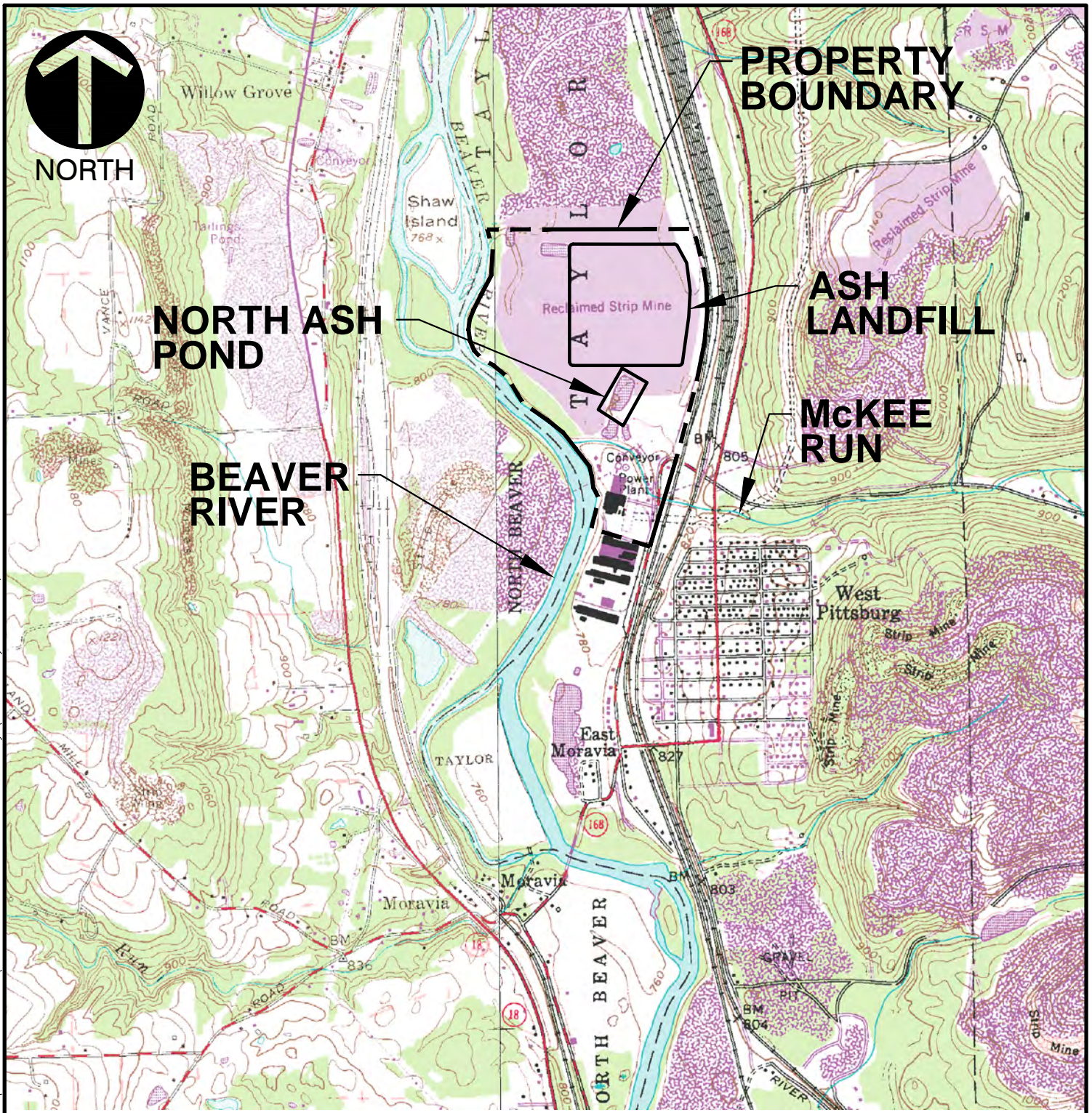


October 2016

APPENDIX B

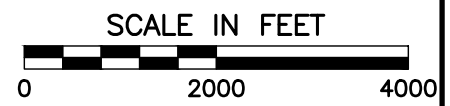
FIGURES

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REFERENCE

U.S.G.S 7.5 MIN. TOPOGRAPHIC QUADRANGLE NEW CASTLE SOUTH, PA (PHOTOREVISED 1990) BESSEMER, PA (PHOTOREVISED 1990)



* HAND SIGNATURE ON FILE

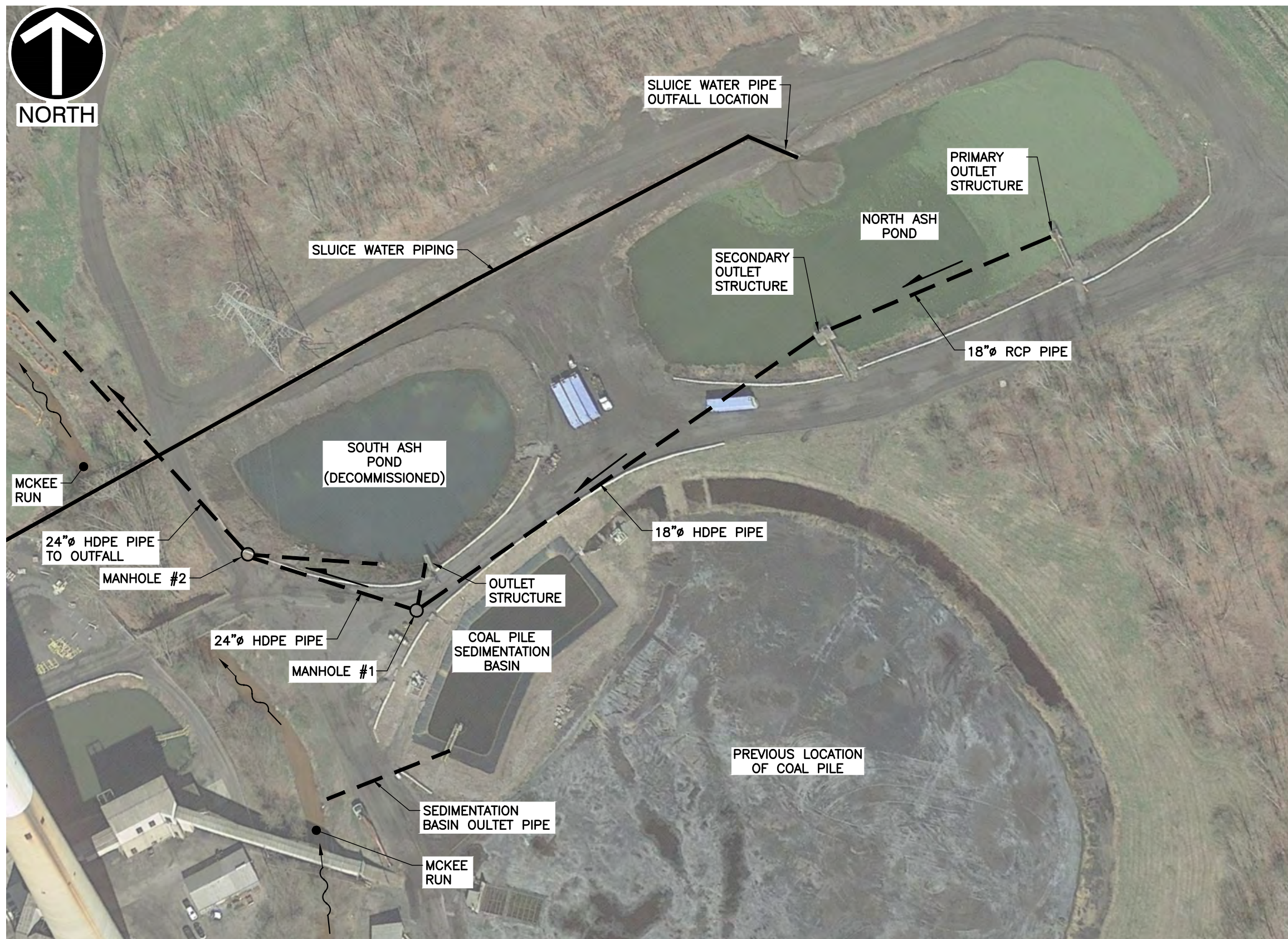


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 NEW CASTLE STATION NORTH ASH POND
 WEST PITTSBURG
 LAWRENCE COUNTY, PENNSYLVANIA

SITE LOCATION MAP

| | | | | | | | |
|-----------|-----------|-------------|----------|--------------|--------------|-------------|----------|
| DRAWN BY: | DWD | CHECKED BY: | AMR | APPROVED BY: | RJB* | FIGURE NO.: | 1 |
| DATE: | 9/23/2016 | DWG SCALE: | 1"=2000' | PROJECT NO: | 154-531.0004 | | |



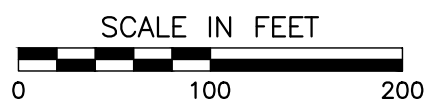
GENERAL NOTES

1. THE SOUTH ASH POND WAS DECOMMISSIONED AND CLEANED OF CCR PRIOR TO THE EFFECTIVE DATE OF THE CCR RULE.

*HAND SIGNATURE ON FILE

REFERENCE

1. FEATURE ITEMS DERIVED FROM O'BRIEN & GERE ENGINEERS, INC. FIGURE 2 "SITE AERIAL PHOTOGRAPH AND PHOTOGRAPH LOCATION MAP" DATED, JANUARY 2014.
2. AERIAL PHOTOGRAPHY COPYRIGHT GOOGLE EARTH PRO VERSION 6.2, IMAGERY DATE 04-15-2016.



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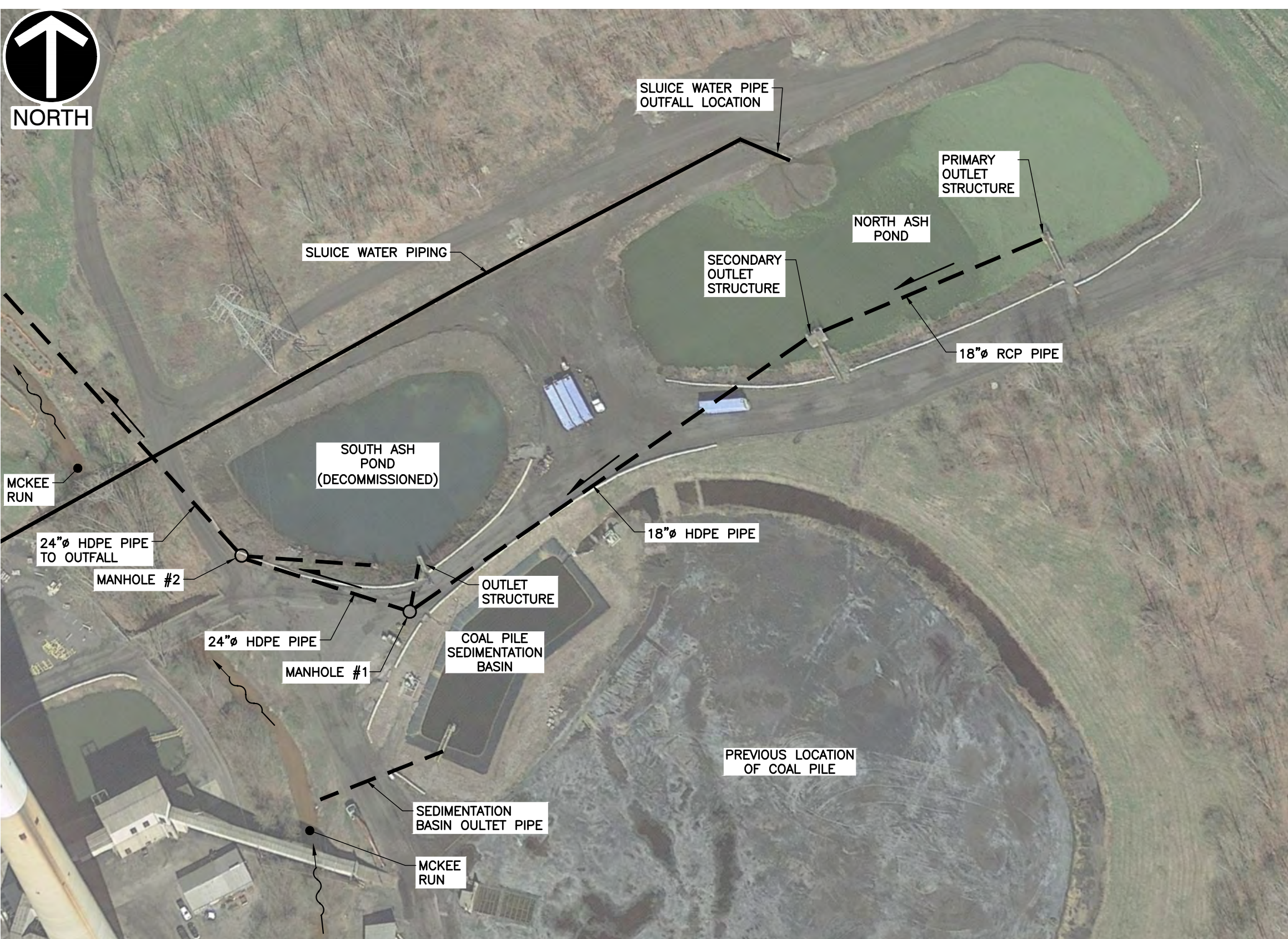
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 LAWRENCE COUNTY, PENNSYLVANIA

**NORTH ASH POND
 EXISTING CONDITIONS PLAN**

| | | | | | | | |
|-----------|-----------|-------------|---------|--------------|--------------|-------------|---|
| DRAWN BY: | RJB | CHECKED BY: | AMR | APPROVED BY: | RJB* | FIGURE NO.: | 2 |
| DATE: | 9/23/2016 | DWG SCALE: | 1"=100' | PROJECT NO.: | 154-531.0004 | | |

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CLOSURE NOTES

1. NRG WILL OBTAIN ALL NECESSARY PERMITS.
2. CONSTRUCTION BID SPECIFICATIONS WILL BE PREPARED AND WORK WILL BE CONTRACTED.
3. THE POND WILL BE DEWATERED IN ACCORDANCE WITH THE NPDES PERMIT.
4. CCR WILL BE REMOVED BASED ON VISUAL ASSESSMENT. EXCAVATED CCR WILL BE DEWATERED, AND HAULED TO THE LANDFILL FOR DISPOSAL.
5. ALL VISIBLY IMPACTED SOILS BENEATH THE BOTTOM ASH WILL BE REMOVED.
6. EROSION AND SEDIMENTATION CONTROLS WILL BE INSTALLED AS NEEDED.
7. ALL INLET AND OUTLET STRUCTURES FOR THE POND WILL BE REMOVED OR DECONTAMINATED AND LEFT IN-PLACE.
8. STRUCTURES WILL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE REGULATIONS.
9. ALL DISTURBED AREAS WILL BE SEEDED AND MULCHED.

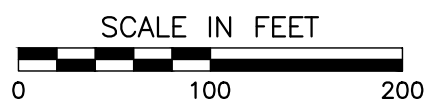
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**NORTH ASH POND
 FINAL CONDITIONS PLAN**

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|-----------|-----------|-------------|---------|--------------|--------------|-------------|
| DRAWN BY: | RJB | CHECKED BY: | AMR | APPROVED BY: | RJB* | FIGURE NO.: |
| DATE: | 9/23/2016 | DWG SCALE: | 1"=100' | PROJECT NO: | 154-531.0004 | 3 |

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