

CCR COMPLIANCE

BOTTOM ASH BASIN POST-CLOSURE PLAN

Prepared for:



Louisiana Generating LLC, a subsidiary of NRG
Big Cajun II
10431 Cajun II Road
New Roads, LA 70760

Prepared by:



CB&I Environmental & Infrastructure, Inc.
Baton Rouge, LA 70809

October 2016



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List of Acronyms

CB&I	CB&I Environmental and Infrastructure
BC II	Big Cajun II Plant
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
CQA	Construction Quality Assurance
EPA	U.S. Environmental Protection Agency
LAC	Louisiana Administrative Code
LaGen	Louisiana Generating, LLC
MSL	Mean Sea Level
NGVD	National Geodetic vertical Datum
NRG	NRG Energy, Inc.
RCRA	Resource Conservation and Recovery Act
LPDES	Louisiana Pollutant Discharge Elimination System
SWMU	Solid Waste Management Units
yd ³	cubic yards
SWPPP	Stormwater Pollution Prevention Plan



CCR Regulatory Requirements

USEPA CCR Criteria 40 CFR 257.104	NRG Big Cajun II Power Plant Bottom Ash Basin Post-Closure Plan
<p>§257.104(a)(1) stipulates:</p> <p><i>(a) Applicability. (1) Except as provided by either paragraph (a)(2) or (3) of this section, 257.104 applies to the owners or operators of CCR landfills, CCR surface impoundments, and all lateral expansions of CCR units that are subject to the closure criteria under 257.102.</i></p>	<p>Section 1.0</p>
<p>§257.104(b)(1) stipulates:</p> <p><i>(b) Post-closure care maintenance requirements. Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:(1) Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;</i></p>	<p>Section 7.1</p>
<p>§257.104(b)(2) stipulates:</p> <p><i>(2) If the CCR unit is subject to the design criteria under §257.70, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of §257.70; and</i></p>	<p>Section 7.2</p>



<p align="center">USEPA CCR Criteria 40 CFR 257.104</p>	<p align="center">NRG Big Cajun II Power Plant Bottom Ash Basin Post-Closure Plan</p>
<p>§257.104(b)(3) stipulates:</p> <p><i>(3) Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of §§257.90 through 257.98.</i></p>	<p align="center">Sections 7.3</p>
<p>§257.104(c)(1) stipulates:</p> <p><i>(c) Post-closure care period: (1) Except as provided by paragraph (c)(2) of this section, the owner or operator of the CCR unit must conduct post-closure care for 30 years.</i></p>	<p align="center">Sections 4.0</p>
<p>§257.104(c)(2) stipulates:</p> <p><i>(2) If at the end of the post-closure care period the owner or operator of the CCR unit is operating under assessment monitoring in accordance with §257.95, the owner or operator must continue to conduct post-closure care until the owner or operator returns to detection monitoring in accordance with §257.95.</i></p>	<p align="center">Section 6.0</p>
<p>§257.104(d)(1)(i) stipulates:</p> <p><i>(d) Written post-closure plan—(1) Content of the plan. The owner or operator of a CCR unit must prepare a written post-closure plan that includes, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section. (i) A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed;</i></p>	<p align="center">Section 7.0</p>



<p align="center">USEPA CCR Criteria 40 CFR 257.104</p>	<p align="center">NRG Big Cajun II Power Plant Bottom Ash Basin Post-Closure Plan</p>
<p>§257.104(d)(1)(ii) stipulates:</p> <p><i>(ii) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and.</i></p>	<p align="center">Section 10.0</p>
<p>§257.104(d)(1)(iii) stipulates:</p> <p><i>(iii) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, and notification shall be provided to the State Director that the demonstration has been placed in the operating record and on the owners or operator's publicly accessible Internet site.</i></p>	<p align="center">Sections 4.0</p>
<p>§257.104(d)(2)(i) stipulates:</p> <p><i>(2) Deadline to prepare the initial written post-closure plan: (i) Existing CCR landfills and existing CCR surface impoundments. No later than October 17,2016, the owner or operator of the CCR unit must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section.</i></p>	<p align="center">Report submitted prior to October 17, 2016.</p>



<p align="center">USEPA CCR Criteria 40 CFR 257.104</p>	<p align="center">NRG Big Cajun II Power Plant Bottom Ash Basin Post-Closure Plan</p>
<p>§257.104(d)(2)(ii) stipulates:</p> <p><i>(ii) The owner or operator has completed the written post-closure plan when the plan, including the certification required by paragraph (d)(4) of this section, has been placed in the facility’s operating record as required by 257.105(i)(4).</i></p>	<p align="center">Will be completed after approval</p>
<p>§257.104(d)(3) stipulates:</p> <p><i>(3) Amendment of a written post-closure plan. (i) The owner or operator may amend the initial or any subsequent written post-closure plan developed pursuant to paragraph (d)(1) of this section at any time.</i></p> <p><i>(ii) The owner or operator must amend the written closure plan whenever:</i></p> <p><i>(A) There is a change in the operation of the CCR unit that would substantially affect the written post-closure plan in effect; or</i></p> <p><i>(B) After post-closure activities have commenced, unanticipated events necessitate a revision of the written post-closure plan.</i></p> <p><i>(iii) The owner or operator must amend the written post-closure plan at least 60 days prior to a planned change in the operation of the facility or CCR unit, or no later than 60 days after an unanticipated event requires the need to revise an existing written post-closure plan. If a written post-closure plan is revised after post-closure activities have commenced for a CCR unit, the owner or operator must amend the written post-closure plan no later than 30 days following the triggering event.</i></p>	<p align="center">Section 11.0</p>



<p align="center">USEPA CCR Criteria 40 CFR 257.104</p>	<p align="center">NRG Big Cajun II Power Plant Bottom Ash Basin Post-Closure Plan</p>
<p>§257.104(d)(4) stipulates:</p> <p><i>(4) The owner or operator of the CCR unit must obtain a written certification from a qualified professional engineer that the initial and any amendment of the written post-closure plan meets the requirements of this section.</i></p>	<p align="center">Section 12.0</p>
<p>§257.104(e) stipulates:</p> <p><i>(e) Notification of completion of post-closure care period. No later than 60 days following the completion of the post-closure care period, the owner or operator of the CCR unit must prepare a notification verifying that post-closure care has been completed. The notification must include the certification by a qualified professional engineer verifying that post-closure care has been completed in accordance with the closure plan specified in paragraph (d) of this section and the requirements of this section. The owner or operator has completed the notification when it has been placed in the facility's operating record as required by §257.105(i)(13).</i></p>	<p align="center">Section 8.0</p>
<p>§257.104(f) stipulates:</p> <p><i>(f) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in §257.105(i), the notification requirements specified in §257.106(i), and the Internet requirements specified in §257.107(i)</i></p>	<p align="center">Section 9.0</p>



1.0 INTRODUCTION

CB&I Environmental and Infrastructure, Inc. (CB&I) has prepared the following Post-Closure Plan at the request of Louisiana Generating, LLC (LaGen) (a subsidiary of NRG Energy, Inc. [NRG]) for the Bottom Ash Basin located at its Big Cajun II Power Plant (BC II Plant) near New Roads, Pointe Coupee Parish, Louisiana (**Figure 1**). The BC II Plant is a coal-fired and natural gas fired power plant that has been in operation since 1980. The Bottom Ash Basin has been deemed to be a regulated coal combustion residue (CCR) unit by the U.S. Environmental Protection Agency (EPA), through the Disposal of Coal Combustion Residuals from Electric Utilities Final Rule (CCR Rule) 40 CFR §257 and §261.

There are five solid waste management units (SWMUs) at the BC II Plant that are operated as industrial surface impoundments in accordance with the Louisiana Department of Environmental Quality (LDEQ), Louisiana Solid Waste Regulations (Louisiana Administrative Code [LAC] Title 33: part VII) under Permit Number P-0108R1 for Facility Identification Number GD-077-0583. Two of the five SWMUs are required to comply with the requirements of the CCR Rule, which include the Bottom Ash Basin and Fly Ash Basin. The other three LDEQ-permitted surface impoundments at the BC II Plant that are not subject to the CCR Rule requirements include the Primary Louisiana Pollutant Discharge Elimination System (LPDES) Treatment Pond, Secondary LPDES Treatment Pond, and Rainfall Surge Pond (**Figure 2**). The Post-Closure Plan for the Fly Ash Basin is under separate cover.

Following closure of the Bottom Ash Basin per §257.102 for closure of CCR material in place, LaGen intends to conduct the post-closure of the Bottom Ash Basin in line with the requirements outlined in §257.104 Post-Closure Care Requirements. The following Plan meets all the post-closure requirements outlined in the Rule, as described in Section 2.0. All post-closure processes will be established to control, minimize, and eliminate infiltration of liquids into the waste.



2.0 REGULATORY OVERVIEW OF CCR POST-CLOSURE PLAN REQUIREMENTS

On April 17, 2015, the EPA published the CCR Rule under Subtitle D of the Resource Conservation and Recovery Act (RCRA) as 40 CFR Part 257 and 261. The purpose of the CCR Rule is to regulate the management of coal combustion residuals in regulated units for landfill and surface impoundments. The Bottom Ash Basin at the BC II Plant has been deemed to be a regulated CCR unit.

Section 257.104(d) of the CCR Rule requires owners or operators of CCR landfills and surface impoundments to prepare a written post-closure plan describing the monitoring and maintenance activities, contact personnel during the post-closure care period, and the planned use of the unit during post-closure. With respect to the Bottom Ash Basin, the evaluation has directly considered the following citations from the Rule:

§257.104(d)(1) stipulates:

“The owner or operator of a CCR unit must prepare a written post-closure plan that includes, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of this section

- (i) A description of the monitoring and maintenance activities required in paragraph (b) (post-closure care maintenance requirements) of this section for the CCR unit, and the frequency at which these activities will be performed;
- (ii) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and
- (iii) A description of the planned uses of the property during the post-closure period. Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart...”



3.0 BOTTOM ASH BASIN OVERVIEW

3.1 Location, Topography, and Character

The LaGen BC II Plant is located at 10431 Cajun II Road, New Roads, Pointe Coupee Parish, Louisiana. The BC II Plant is situated in Sections 4, 5, and 37 in Township 4 South and Range 11 East. The Bottom Ash Basin is located west of the BC II Plant. The Bottom Ash Basin is bordered on the west by the Fly Ash Basin; on the north by wooded property and agricultural land; on the east by the Treatment Ponds; and on the south by wooded property and grassy fields, as detailed on **Figures 1 and 2**.

The Bottom Ash Basin currently being filled has an area of approximately 66 acres. The closure of the Bottom Ash Basin will be accomplished by leaving the bottom ash in place; therefore, the following Post-Closure Plan was developed to satisfy the CCR Rule requirements for in-place closure §257.102(b)(iii).

The Bottom Ash Basin was constructed above natural grade with a base of approximately 30 feet Mean Sea Level (MSL) and a surrounding berm with a design crest elevation of approximately 48-foot MSL. The existing site topography is depicted on **Figure 3**. The Bottom Ash Basin has an approximate capacity of 1,188 acre-feet with a permitted total ash storage capacity of 2,585,000 cubic yards [yd³]. The soils underlying the Bottom Ash Basin consist of naturally occurring and/or recompacted clayey soil that is a minimum of 3 feet thick to over 10 feet thick in some areas.

3.2 Existing Regulatory Permits

The Bottom Ash Basin has been granted and is currently operating under a Louisiana Department of Environmental Quality (LDEQ) Solid Waste Permit as an industrial surface impoundment in accordance with the Louisiana Solid Waste Regulations (LAC 33:VII) under Permit Number P-0108R1 and Facility Identification Number GD-077-0583. The Solid Waste Permit renewal was issued by the LDEQ on February 24, 2011 and allows CCR materials generated on-site at the LaGen BC II Plant to be properly disposed of within the boundaries of the Bottom Ash Basin. As part of this permit, the Bottom Ash Basin has previously approved final grades for the site, as depicted in **Figure 4**.



4.0 POST-CLOSURE OVERVIEW AND PLANNED USE

This Post-Closure Plan applies to the entire Bottom Ash Basin. Only the portion of the basin that is actually closed will require post-closure care. The post-closure care of the Bottom Ash Basin must and will be conducted for 30 years, as required by §257.104(c)(1) and the Louisiana Solid Waste Rules and Regulations for surface impoundments.

The post-closure use of the Bottom Ash Basin will be such that the use will not disturb the integrity of the final cover system or any of the monitoring systems. LaGen has proposed that the closed Bottom Ash Basin may be used as pasture.

Documentation of suitability, methodology and criteria for selecting the final cover, cover soils, erosion control layer, and any other recommended materials or structures to be constructed at the time of closure, are provided under separate cover in the CCR Rule Bottom Ash Basin Closure Plan.



5.0 INSPECTION AND MAINTENANCE ACTIVITIES

Currently, weekly (7-day) inspections and annual reporting are undertaken in line with §257.84(b) during the operational life for the site. Current inspections and reporting identify any stability and/or environmental controls which require attention. As part of the post-closure phase for the Bottom Ash Basin, it is anticipated that the current weekly (7-day) inspections will revert to quarterly inspections; annual reporting will continue for the duration of the post-closure period. The annual report will provide any recommendations for inspections and monitoring which will be undertaken as part of the post-closure phase for the Bottom Ash Basin.

The inspection of the closed Bottom Ash Basin will be conducted by LaGen personnel or their designee(s). The purpose of the visual inspections during the post-closure phase will be to detect any damage, distress, or malfunctions to the Basin final cover, cover soils, vegetation, and stormwater management systems. Any detection will be repaired to maintain the erosion control measures and prevent a breach of the containment structures.



6.0 GROUNDWATER AND SURFACE WATER MONITORING ACTIVITIES

Water quality monitoring will occur throughout the post-closure period. Groundwater monitoring will include the sampling and analyses at the designated 15 groundwater monitoring wells in accordance with the requirements in the BC II Plant's groundwater monitoring, sampling requirements methodology, and reporting procedures provided in the Sampling and Analysis Plan (SAP) for the BC II Plant site. The facility groundwater system will be sampled semi-annually and all groundwater wells shall be inspected at least annually to ensure any damage due to settlement or other means is repaired.

Should the site require an alternate groundwater monitoring frequency for sampling and analysis of the required parameters in Appendix III, as detailed in §257.94(d), any recommendation will be supported by:

- Lithology of the aquifer and unsaturated zone
- Hydraulic conductivity of the aquifer and unsaturated zone and
- Groundwater flow rates

In addition, certification from a qualified professional engineer will be provided to demonstrate an alternative groundwater frequency meets the above requirements. As required by §257.104(c)(2), if at the end of the post-closure care period and the Bottom Ash Basin is operating under assessment monitoring, in accordance with §257.95, post-closure care will continue to be conducted until it returns to detection monitoring.

No sampling of surface water runoff from the closed Bottom Ash Basin will be required. The top of the clay cap and erosion control system for the closed Bottom Ash Basin has been designed to facilitate runoff that will be sloped to a series of collection channels. The channels will collect runoff from the top of the mounded erosion control layer and divert it to an interior ditch system adjacent to the existing Basin levees. Riprap lined letdown channels will be used to discharge the runoff down the exterior dikes slopes to natural drainage paths at the discharge points.



7.0 MAINTENANCE ACTIVITIES

Per §257.104(d)(1)(i) Written Post-Closure Plan and §257.104(b) Post-Closure Care Maintenance Requirements: “Following the closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of at least the following:

1. Maintaining the integrity and effectiveness of the final cover system including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover;
2. If the CCR unit is subject to the design criteria under §257.70, maintaining the integrity and effectiveness of the leachate collection and removal system and operating the leachate collection and removal system in accordance with the requirements of §257.70; and
3. Maintaining the groundwater monitoring system and monitoring groundwater in accordance with the requirements of §257.90 through §257.98”.

7.1 *Final Cover System Maintenance and Repair Plan*

Since bottom ash is non-organic in nature and is compacted during placement, most of the settlement will be compression and occur shortly after placement of the material in the Basin. It is expected that settlement rates for the final cover over the closed Bottom Ash Basin will be small and the amount of settlement will be progressively monitored over time. In the event that non-uniform settlement or subsidence occurs, minor regrading and repair of the 6-inch thick topsoil layer and possibly the underlying 24-inch thick re-compacted clay cap component may be required.

Erosion control measures such as dikes, berms, riprap, erosion control blankets, and turf reinforcing mats will be used to minimize erosion in the perimeter drainage channels and throughout the closed Bottom Ash Basin. Other erosion control measures will include a relatively shallow slope of the final cover and the designed runoff features which will control surface runoff rates on and around the Bottom Ash Basin. Should any erosion damage occur to the erosion control layer on the final cover system, material will be regraded when the erosion channels are approximately 6 inches deep.

Routine maintenance of run-on and run-off control structures includes the cleaning of sediment from drainage features/structures such as ditches/channels and culverts. Repair of these



structures will typically be performed by outside contractors who will bring in heavy equipment such as backhoes, dump trucks, dozers, and scrapers. Materials such as silt fence, straw bales, and soil will be kept onsite to implement short-term repairs while waiting for permanent repairs. By maintaining the system of perimeter stormwater berms and channels, run-on/run-off will be prevented from eroding or damaging the final cover system.

7.2 Maintain Leachate Collection and Removal System

As the Bottom Ash Basin is an existing and operational waste management unit prior to the promulgation of the CCR Rules, there is no leachate collection and removal system for the Bottom Ash Basin; therefore, no maintenance will need to be performed.

7.3 Maintenance of Groundwater Monitoring System

Routine maintenance of groundwater monitoring wells such as replacing locks and regrading of soil areas around the wells will be performed by LaGen personnel or their designee(s). Other maintenance work such as protective casing repair and/or well replacement will be performed by specialty contractors.

7.4 Maintenance of Site Roads

Routine maintenance will be performed on site roads if settlement, subsidence, or displacement has occurred. This may include the area being filled with additional fly ash or soil.



8.0 NOTICE OF COMPLETION OF POST-CLOSURE CARE

LaGen will complete a Notice of Completion of post-closure care period within 60 days of completion of post-closure of the Bottom Ash Basin. The notification will include the certification by a registered professional engineer as required by §257.104(e).



9.0 RECORD KEEPING/NOTIFICATION AND INTERNET REQUIREMENTS

LaGen maintains a facility operating record which will include the required documents specified in §257.105(i), in addition to the following documents:

- Copies of the Solid Waste Permit application and all supporting documents.
- Copy of the current operating permit and any subsequent addenda.
- Groundwater sampling and analysis results for the Bottom Ash Basin and related permitted basins/impoundments, records of by-product material recycled, major operational problems, complaints or difficulties, records associated with corrective measures, and employee training records.
- A copy of the Storm Water Pollution Prevention Plan (SWPPP).
- Closure and post-closure plans, as well as closure CQA certification and post-closure inspection documentation.
- Proof of financial assurance.

Additionally per §257.104(f), LaGen will comply with the notification requirements specified in §257.106(i). This includes submitting the following notification documents and any amendments to these documents to the regulatory authority:

- Intent to initiate closure
- Availability of annual progress reports of closure implementation
- Availability of the written closure plan
- Availability of demonstrations for a time extension
- Intent to close a CCR unit
- Completion of closure of a CCR unit
- Deed notation
- Alternative closure requirements



- Availability of post-closure plan and
- Completion of post-closure plan

Internet requirements specified in §257.107(i) will be placed on owner and operator's publicly accessible website, per §257.104(f). These documents include any notification on the closure or post-closure intent or completion, annual progress reports, the written closure and post-closure plans and any amendments, demonstrations for time extensions, and the record of the deed.

All records that are relevant within the past 5 years will be maintained at the BC II Plant and/or by LaGen. The records are available to the regulatory authority representatives for review upon request.



10.0 KEY CONTACT INFORMATION

In accordance with §257.104(e), the name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period are shown below.

Name: Gary Ellender
Environmental Manager

Address: Big Cajun II Power Plant
Louisiana Generating, LLC
10431 Cajun II Road
New Roads, LA 70760

Phone Number: Big Cajun II (225) 638-4161

Email Address: gary.ellender@nrg.com



11.0 PROCEDURES FOR PLAN ASSESSMENT AND AMENDMENTS

This Post-Closure Plan will continue to undergo review as the Bottom Ash Basin continues phased construction activities. The Plan will be amended if there is a situation stated in §257.104(d)(3)(i-iii), which includes any change in operation of the CCR unit that would affect the Plan. The Plan would also be amended 60 days prior to a planned change of the facility or Unit, or no later than 60 days after an unanticipated event that would necessitate a revision and no later than 30 days after an unanticipated event after post-closure activities have commenced.

Any amended Plan will be reviewed and recertified by a registered professional engineer and will be placed in LaGen's facility operating record as required per §257.105(i)(4). Amended Plans will supersede and replace any prior versions. Availability of an amended Plan will be noticed to the regulatory authority per §257.106(i) and posted to the publicly accessible internet site per §257.107(i).



12.0 PROFESSIONAL ENGINEER CERTIFICATION

The undersigned registered professional engineer is familiar with the requirements of §257.104 and has visited and examined the BC II Plant Bottom Ash Basin or has supervised examination of the Big Cajun II Bottom Ash Basin by appropriately qualified personnel. The undersigned registered professional engineer attests that this CCR Post-Closure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and meets the requirements of §257.104, and that this Plan is adequate for the Big Cajun II Plant. This certification was prepared as required by §257.104(d)(4).

Name of Professional Engineer: Glen R. Landry

Company: CBI Environmental, Inc

Signature: Glen R. Landry

Date: 10/5/16

PE Registration State: Louisiana

PE Registration Number: 18931

Professional Engineer Seal:





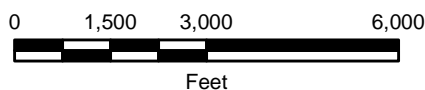
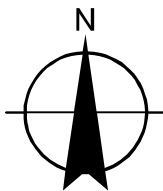
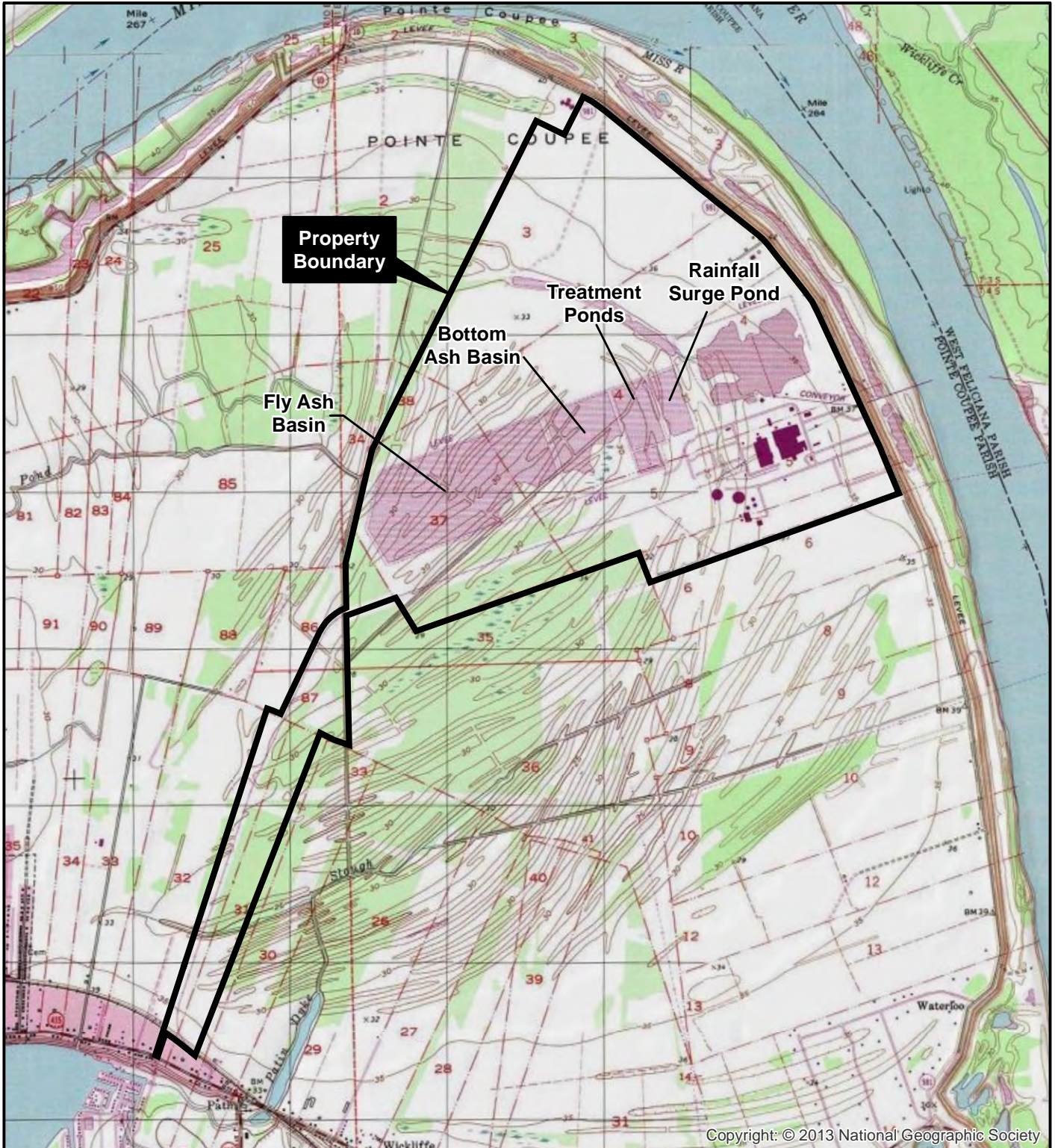
13.0 REFERENCES

Louisiana Department of Environmental Quality, November 2014, Louisiana Discharge Pollutant Elimination System, Water Discharge Permit No. LA0054135, prepared for Louisiana Generating, LLC, Big Cajun II Power Plant, New Roads, Pointe Coupee Parish, Louisiana.

Shaw Environmental and Infrastructure, Inc. November 2011, Type I Solid Waste Facility Permit Renewal and Modification Application, Permit No. P-0108, Volumes 1 and 2, prepared for Louisiana Generating, LLC, Big Cajun II Power Plant, New Roads, Pointe Coupee Parish, Louisiana.

United States Environmental Protection Agency, April 2015, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities, 40 Code of Federal Regulations Parts 257 and 261.

FIGURES



LOUISIANA GENERATING, LLC
BIG CAJUN II POWER PLANT
NEW ROADS, LOUISIANA

BIG CAJUN II POWER PLANT
BOTTOM ASH BASIN POST-CLOSURE PLAN

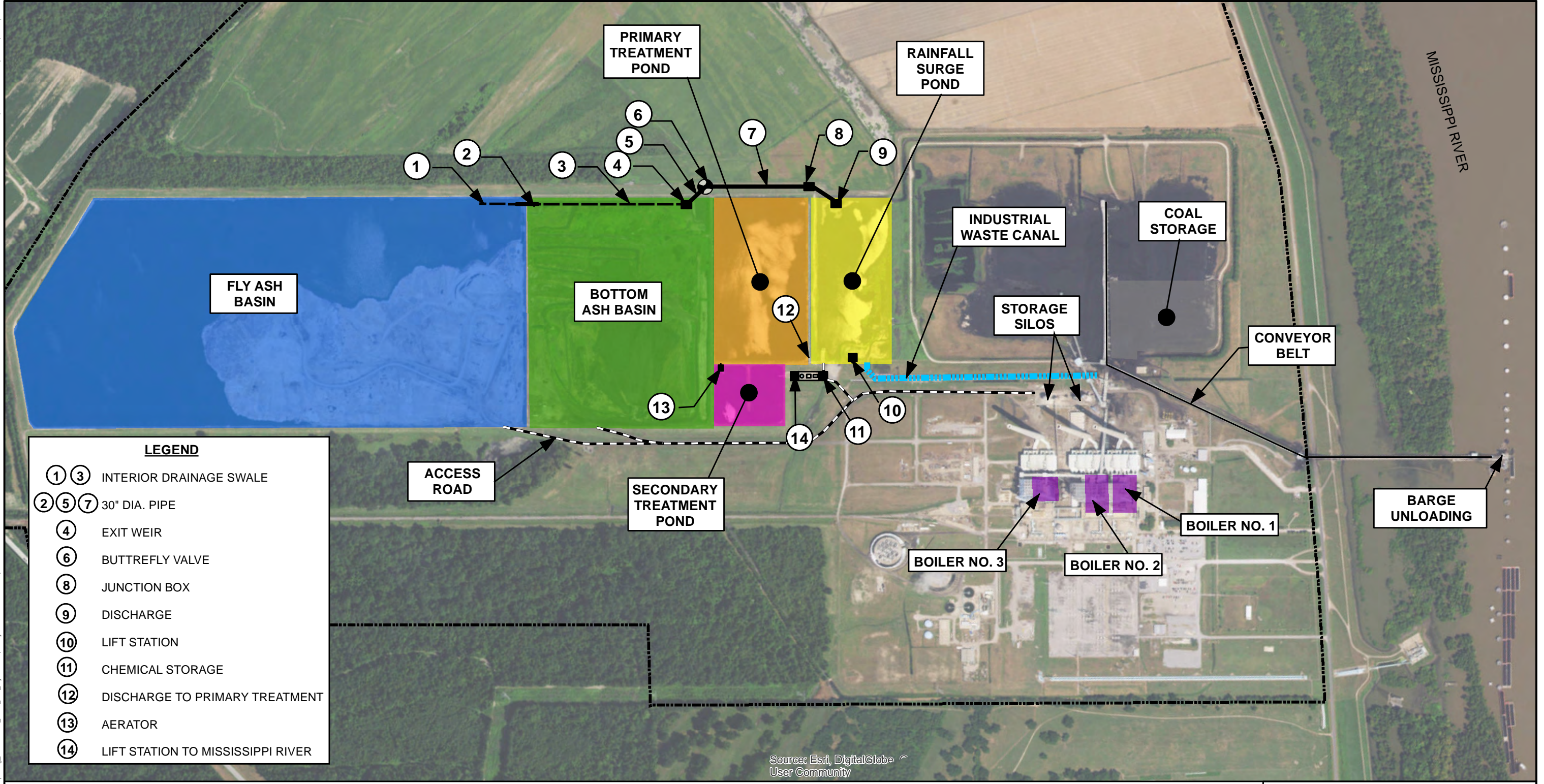
FIGURE
NUMBER

1

SITE LOCATION



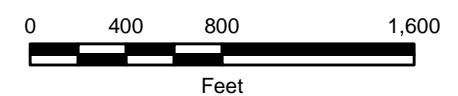
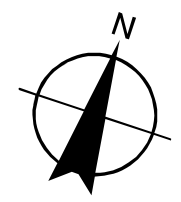
CB&I Environmental & Infrastructure, Inc.
4171 Essen Lane
Baton Rouge, Louisiana 70809




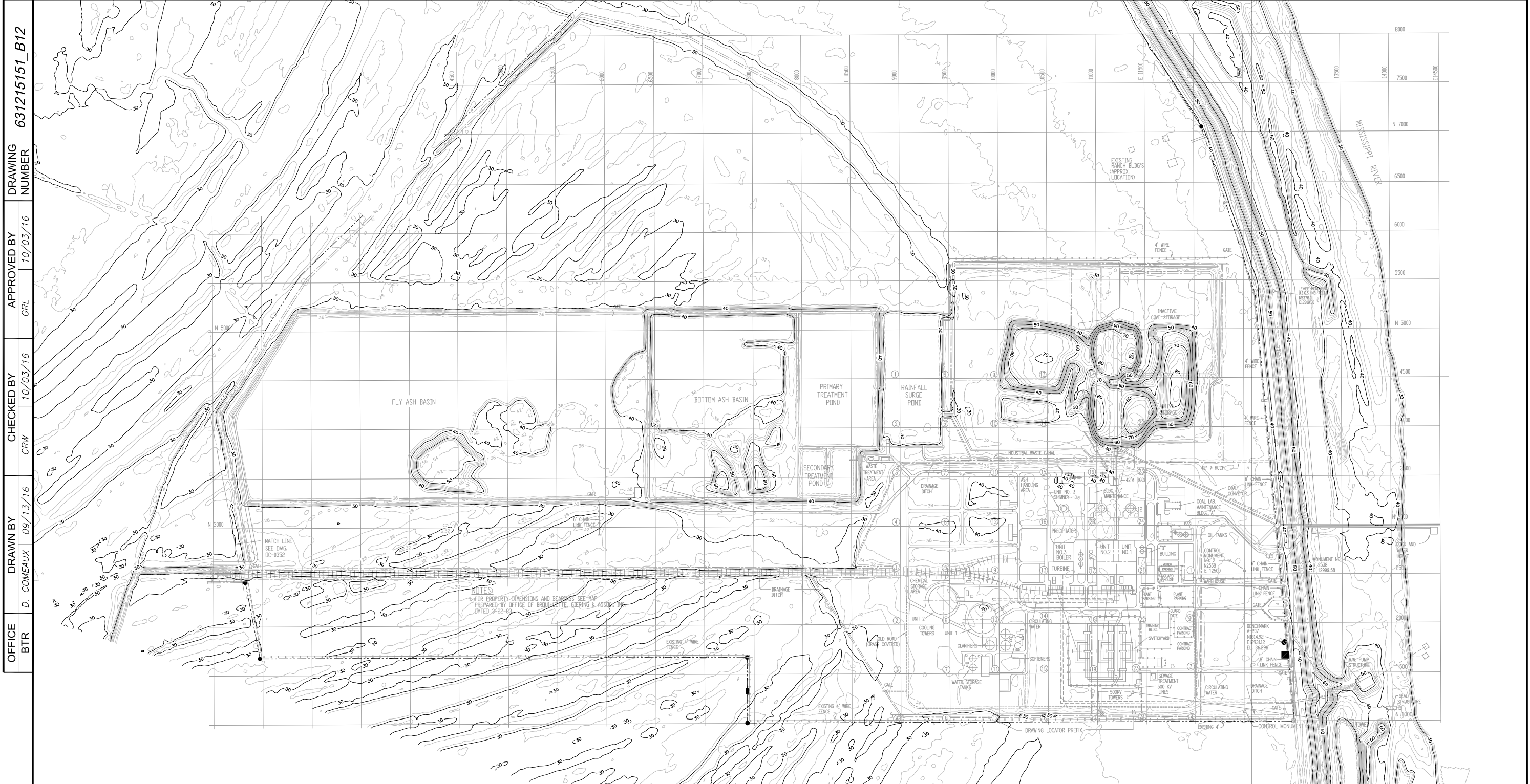
LEGEND

① ③	INTERIOR DRAINAGE SWALE
② ⑤ ⑦	30" DIA. PIPE
④	EXIT WEIR
⑥	BUTTERFLY VALVE
⑧	JUNCTION BOX
⑨	DISCHARGE
⑩	LIFT STATION
⑪	CHEMICAL STORAGE
⑫	DISCHARGE TO PRIMARY TREATMENT
⑬	AERATOR
⑭	LIFT STATION TO MISSISSIPPI RIVER

Source: Esri, DigitalGlobe, User Community



LOUISIANA GENERATING, LLC BIG CAJUN II POWER PLANT NEW ROADS, LOUISIANA	
BIG CAJUN II POWER PLANT BOTTOM ASH BASIN POST-CLOSURE PLAN	
FIGURE NUMBER 2	SITE LAYOUT
 CB&I Environmental & Infrastructure, Inc. 4171 Essen Lane Baton Rouge, Louisiana 70809	



OFFICE BTR
 DRAWN BY D. COMEAUX 09/13/16
 CHECKED BY CRW 10/03/16
 APPROVED BY GRL 10/03/16
 DRAWING NUMBER 631215151_B12

LOUISIANA GENERATING, L.L.C.
 BIG CAJUN II POWER PLANT
 NEW ROADS, LOUISIANA

BIG CAJUN II POWER PLANT
 BOTTOM ASH BASIN POST-CLOSURE PLAN

FIGURE NUMBER
3

EXISTING SITE TOPOGRAPHY

CBI CB&I Environmental & Infrastructure, Inc.
 4171 Essen Lane
 Baton Rouge, Louisiana 70809

REFERENCE: Louisiana Oil Spill Coordinator's Office (LOSCO), LIDAR Digital Elevation Map (DEM) of Louisiana, 2009.

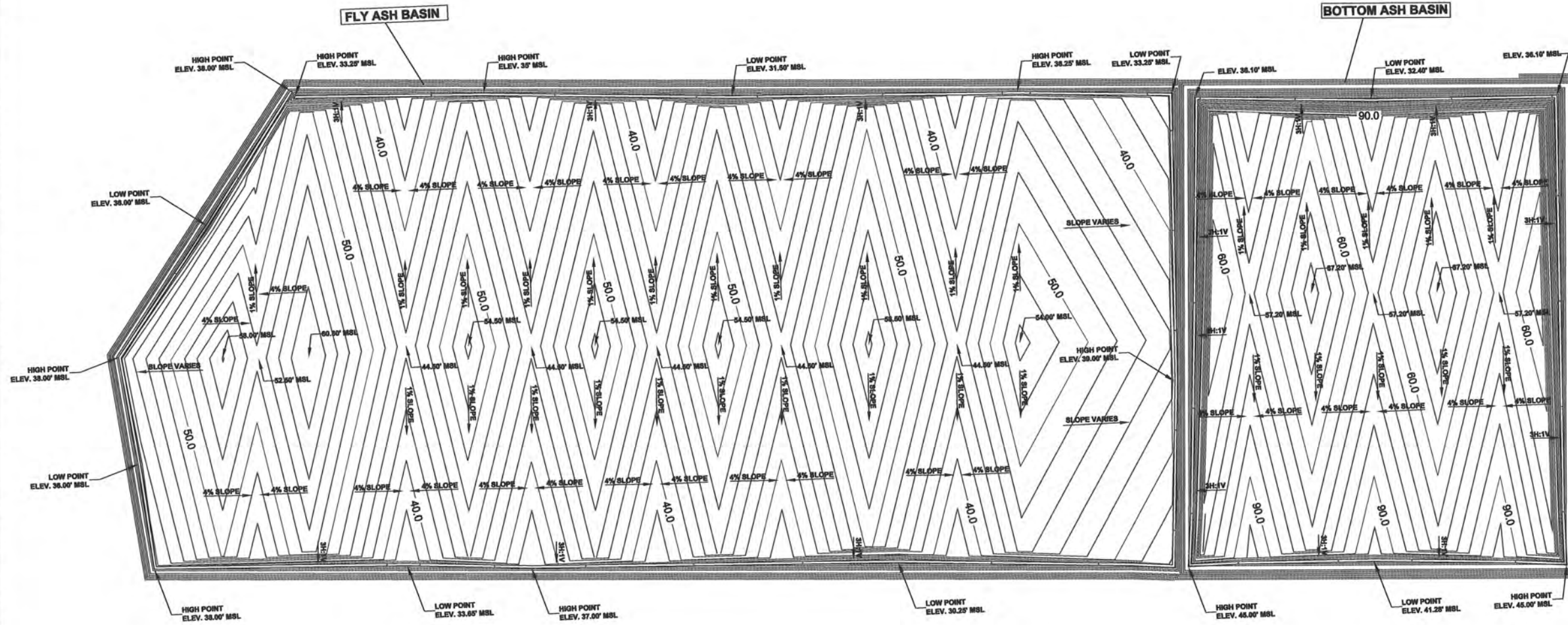
DRAWING NUMBER 631215151_B13

APPROVED BY GRL 10/03/16

CHECKED BY CRW 10/03/16

DRAWN BY D. COMEAUX 09/13/16

OFFICE BTR




NOTES:

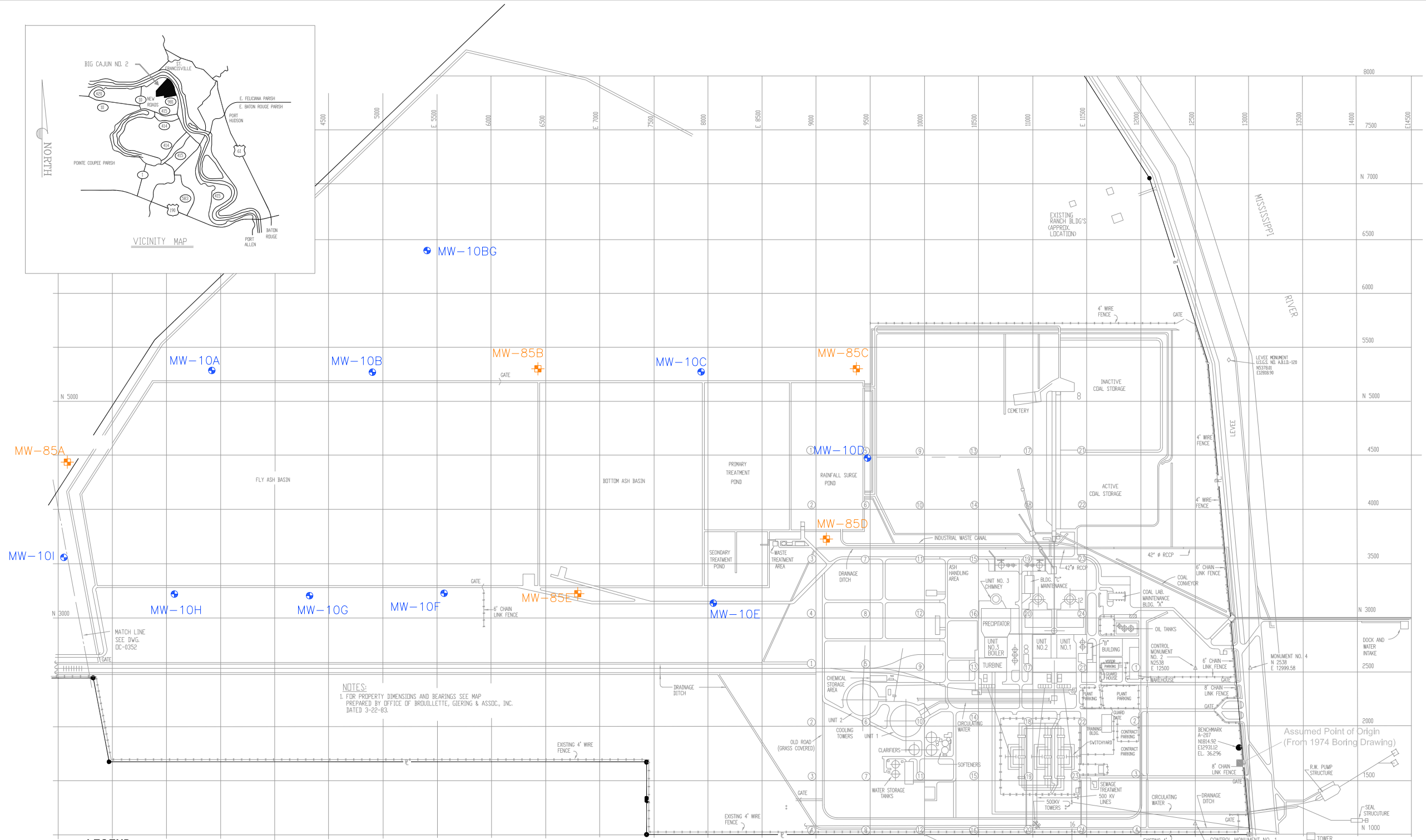
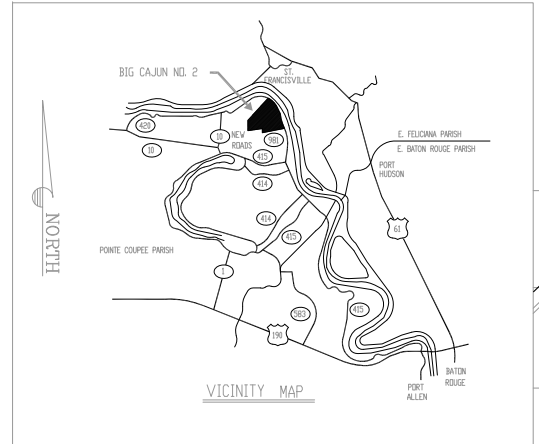
- DRAWING IS ADAPTED FROM THE FOLLOWING SOURCES:
 - ASH MANAGEMENT PLAN / POND CLOSURE PLAN, DRAWING NO. SK-1C, BURNS & MCDONNELL, DATED DECEMBER 1998.
 - SURFACE IMPOUNDMENT CROSS SECTION DRAWING SET, CROSS SECTIONS A-A' THROUGH D-D', C-K ASSOCIATES, DRAWING NOS A05-268 02-06, C-K ASSOCIATES, INC., DATED JANUARY 20, 1994.
- THIS DRAWING IS INTENDED FOR VISUAL PURPOSES ONLY. ACTUAL DESIGN GRADES IN THE SOLID WASTE STANDARD PERMIT APPLICATION MAY DIFFER FROM SHOWN.
- ELEVATIONS, GRADES, AND LOCATIONS ARE APPROXIMATE AS SHOWN. THIS DRAWING IS NOT INTENDED FOR CONSTRUCTION PURPOSES.
- SURFACE IMPOUNDMENTS MAY BE CONSTRUCTED DIFFERENTLY THAN SHOWN.
- GRADES SHOWN REPRESENT FINAL CAP.
- THE COMPACTED CLAY LINER SHALL CONSIST OF A MINIMUM THICKNESS OF 2 FEET WITH A PERMEABILITY OF LESS THAN OR EQUAL TO 1×10^{-7} CM/SEC.

REFERENCE: Louisiana Oil Spill Coordinator's Office (LOSCO), LIDAR Digital Elevation Map (DEM) of Louisiana, 2009.



LOUISIANA GENERATING, L.L.C. BIG CAJUN II POWER PLANT NEW ROADS, LOUISIANA	
BIG CAJUN II POWER PLANT BOTTOM ASH BASIN POST-CLOSURE PLAN	
FIGURE NUMBER 4	BOTTOM ASH BASIN PROPOSED CAP FINAL GRADE
 CBI Environmental & Infrastructure, Inc. 4171 Essen Lane Baton Rouge, Louisiana 70809	

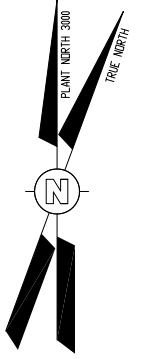
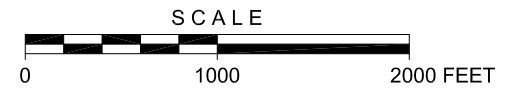
OFFICE BTR
 DRAWN BY D. COMEAUX 09/14/16
 CHECKED BY CRW 10/03/16
 APPROVED BY GRL 10/03/16
 DRAWING NUMBER 631215151_B14



NOTES:
 1. FOR PROPERTY DIMENSIONS AND BEARINGS SEE MAP PREPARED BY OFFICE OF BROUILLETTE, GIERING & ASSOC., INC. DATED 3-22-83.

LEGEND

- PROPERTY LINE
- ⊕ MONITORING WELL LOCATION (INSTALLED 1985)
- ⊕ MONITORING WELL LOCATION (INSTALLED 2011)



LOUISIANA GENERATING, L.L.C.
 BIG CAJUN II POWER PLANT
 NEW ROADS, LOUISIANA

BIG CAJUN II POWER PLANT
 BOTTOM ASH BASIN POST-CLOSURE PLAN

FIGURE NUMBER	5	SITE PLAN WITH MONITOR WELL LOCATIONS

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 Baton Rouge, Louisiana 70809