Asheville Steam Electric Generating Plant

Coal Ash Excavation Plan

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I. Statement of Purpose

Duke Energy (Company) is required by Section 3(b) of the Coal Ash Management Act of 2014 to close in accordance of Section 3(c) the coal combustion residuals (CCR) surface impoundments located at the Asheville Steam Electric Generating Plant Buncombe County (Asheville or Plant) as soon as practicable, but not later than August 1, 2019.

This Coal Ash Excavation Plan (Plan) for Asheville documents key activities as requested by North Carolina Department of Environment and Natural Resources (NC DENR), Division of Water Resources (DWR) stated in a letter to Duke Energy dated August 13th, 2014 (NC DENR Letter). The Plan represents Phase I and subsequent phase(s) to satisfy the requirements outlined in Section 3(b) and 3(c) Subparagraphs 1&2 of the Coal Ash Management Act of 2014.

In general, Phase 1 of the Plan addresses the first 12 – 18 months of ash basin excavation activities. For Subsequent Phase(s), this document will be revised for any modifications to the Plan. The Plan will be updated and submitted to NC DENR at least annually or earlier as required by Subsequent Phases.

The NC DENR Letter specifically requests that the Plan includes 1) a schedule for soil and sedimentation erosion control measures, 2) dewatering, and 3) the proposed location(s) of the removed ash. These requirements are found in Section V. Level 1 Schedule, Section VI. Erosion and Sedimentation Control Plan, Section VII. Dewatering Plan, and Section VIII. Proposed Location(s) for Removed Ash.

The Plan covers some of the work required by Sections 3(b) and 3(c) of the Coal Ash Management Act of 2014 (Session Law 2014-122) (Coal Ash Act, or Act). The Act requires the closure of the ash basins as soon as practicable, but no later than August 1, 2019. However, the Act contains no requirement for the submittal of an excavation plan of the kind presented here. Thus, while the formulation, submittal, and review of this Plan will assist in Duke Energy's work to close the ash basins, its ultimate approval is an action not specifically required by statutory, regulatory or other applicable authority. Additionally, it may become necessary for the Company to modify the Plan to address other legal requirements or factors that develop during ash basin excavation. Any changes will be included in annual updates to the Plan that Duke Energy will submit to NC DENR.

The precise scope of work in excavating the ash basins will be determined by applicable laws, rules, permits, and approvals that control the activities to be performed under the Plan. For example, the United States Environmental Protection Agency (EPA) is considering issuing rules regarding the management of coal ash (proposed EPA Coal Ash Rules). Similarly, the water quality permit for the discharge from the basins

(National Pollutant Discharge Elimination System Permit No. #NC0000396 Buncombe County) or its reissuance or amendment (NPDES Permit) could contain terms that control or affect the scope of that work. DENR filed legal cases in Superior Court (DENR Cases), which could be resolved through decision or settlement. DENR also sent Duke Energy Notices of Violation (NOVs) regarding surface water and groundwater quality issues at the Plant.

All of the above (Coal Ash Act, NC DENR Letter, NPDES Permit, DENR Cases, NOVs and the proposed EPA Coal Ash Rules) are illustrative of actions that could potentially affect the precise scope of the work to be performed under the Plan. As a consequence, neither the submittal of this Plan nor its approval by DENR should be taken as requiring actions different from other such applicable requirements. Thus, Duke Energy submits this Plan to DENR based on the understanding that it may be necessary to make changes in the Plan in the future to reflect any such actions and reserves the right to make such changes after DENR's approval of the Plan.

II. General Facility Description

The Plant is located in Arden, NC, approximately eight (8) miles south of Asheville, NC. Asheville Plant's Unit 1 was constructed in 1964 with a second coal burning unit (Unit 2) added in 1971. Current generation capacity of the plant is 376 megawatts (MW) from two (2) coal fired units. In 1999 and 2000, two (2) natural gas and oil combustion turbines (CT) with an additional output of 324 MW were added.

UNIT	TYPE	COMMERCIAL YEAR	RATING (net MW)	COMBINED
1	Coal Fired Steam	1964	191	376
2		1971	185	
3	Natural Gas and Oil Combustion	1999	162	324
4		1999	162	
			Total	**700**

The Plant has two (2) ash storage basins. The first basin was created in 1964 when the plant began operations. In 1982 a second basin was constructed and placed into operation directly adjacent to the 1964 basin's south retention dam.

1964 Ash Basin

The 1964 Ash Basin Dam (Bunco-097) was constructed in 1964 to serve as a wastewater treatment facility for the treatment of ash sluice water. The surface area of the basin is approximately 45 acres. The basin does not retain a permanent pool with the exception of a three (3) acre unlined retention pond known as the "Duck Pond". In 2005, engineered and lined wetlands were constructed within the 1964 basin footprint to treat flue gas desulfurization (FGD) process wastewater.

Currently, production ash is sluiced to a concrete rim ditch system that is located within the footprint of the 1964 basin. The rim ditch system also receives plant stormwater drainage and low volume wastewater. Coal combustion residuals are dredged from the rim ditch, dewatered, and transported offsite to a structural fill project at the Asheville Regional Airport approximately two (2) miles from the plant. The wastewater from the rim ditch process is treated in the lined rim ditch system and then routed to the Duck Pond area within the 1964 basin for further treatment prior to discharge to a small settling pond outside of the 1964 dam. This settling pond serves as the monitoring point for Outfall 001 of the plant's NPDES permit (NC0000396). Treated water discharged from this settling pond is routed directly to the French Broad River.

The 1964 Ash Basin is estimated to contain approximately 2.3 million tons of ash.

1982 Ash Basin

In response to the filling of the 1964 ash basin in the late 1970s, a second basin was constructed in 1982 with the establishment of a dam (Bunco-089) in the adjacent valley of the 1964 ash basin. The 1982 ash basin reached capacity in the early 2007 timeframe. In an effort to continue plant operations an ash harvesting plan was developed to increase ash storage capacity. The 1982 basin has been dewatered and is currently being excavated in accordance with the Asheville Plant's ash reuse permit (Distribution of Residual Solids (503 Exempt) Permit Number WQ0000020). The harvested ash is transported to the Asheville Regional Airport for a structural fill project for its taxiway infrastructure.

Currently, inflows into the 1982 ash basin consist of stormwater that collects naturally on the basin. Stormwater collected at the combustion turbine area of the Asheville Plant, adjacent to the coal-fired units, is also pumped into the basin. Water collected in the basin is pumped to the head of the rim ditch system where it is treated prior to discharge via Outfall 001.

As of September 30, 2014, the 1982 Ash Basin contains approximately 867 thousand tons of ash remaining from an original inventory of approximately 3.7 million tons.

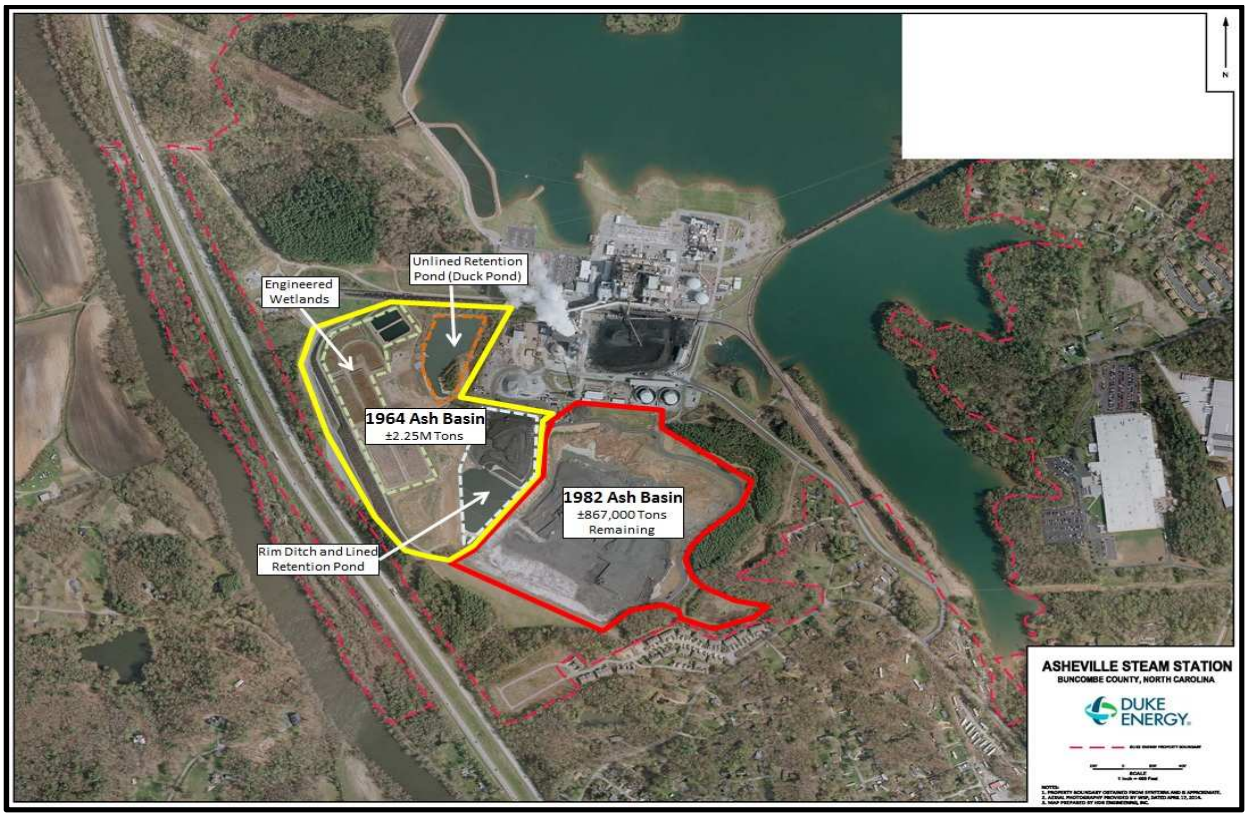

Figure 1: Asheville Steam Electric Generating Plant

III. Project Charter

As a further commitment, Duke Energy has formed an internal team, the Ash Basin Strategic Action Team (ABSAT). This team is dedicated to executing a comprehensive strategy for increased oversight and excavation of all of the Company's ash basins.

Dewatering of the ash basins and the removal of ash from the site will be performed within project phases, Phase I and Subsequent Phase(s). Phase I will include the removal of remaining ash in the 1982 basin, dewatering of the rim ditch system and engineered wetlands that lie within the footprint of the 1964 ash basin, and completion of any subsequent permitted activities.

During Phase I, the Company will continue to perform the pre-construction and planning activities for the Subsequent Phase(s). These activities include project planning, development of new disposal or beneficial reuse options, and completion of the required permitting for the ash removal from the ash basins. Knowledge and opportunities for program improvement obtained during Phase I of the project will be applied to the Subsequent Phase(s).

Project Charter Objectives

Phase I Objectives

1. Complete removal of ash in the 1982 Ash Basin
2. Identify disposition of rim ditch, lined retention pond, and engineered wetlands in the 1964 Ash Basin
3. Submit and obtain permits for Phase I activities
4. Evaluate, procure, design, construct and commission alternative waste water treatment methodologies to replace the wetlands and rim ditch system within the 1964 basin
5. Evaluate, select, design, build and commission an alternate treatment method to treat FGD process water to replace engineered wetlands process
6. Decommission, dewater, and demolish existing rim ditch system and wetlands in the 1964 Ash Basin
7. Plan activities for Subsequent Phase(s)
8. Continue developing option(s) for proposed location(s) for removed ash for the Subsequent Phase(s)
9. Validate production rates to meet project requirements
10. Gain knowledge and opportunities for program improvement that can be applied to the Subsequent Phase(s)

Subsequent Phase(s) Objectives

1. Dewater the unlined retention pond (Duck Pond)
2. Remove ash from the 1964 basin

3. Decommission, dewater, and demolish the rim ditch system in the 1982 Ash Basin
4. Perform ash basin closure activities

Project Charter Scope

Phase I Scope

1. Continue excavation of ash from the 1982 Ash Basin to the permitted structural fill project at the Asheville Regional Airport utilizing current contractor
2. Obtain all applicable permits for work in Phase I
3. Determine the contents of the engineered wetlands to determine disposal options for the spoil materials
4. Engineer, build and commission a new rim ditch and primary and secondary lined retention pond in the 1982 Ash Basin
5. Engineer, build and commission an alternate treatment methodology to replace the engineered wetlands outside of the ash basins
6. Decommission, dewater and demolish rim ditch system and wetlands in the 1964 Ash Basin
7. Initiate excavation of ash in the 1964 Ash Basin
8. Finalize planning for the dewatering of the unlined retention pond
9. Continue developing beneficial reuse opportunities and placement alternatives for subsequent phase ash removal of the 1964 basin
10. Finalize decision for need of onsite landfill in 1982 ash basin
11. Submit and/ or obtain all remaining required permit applications for ash removal activities for Subsequent Phase(s)

Subsequent Phase(s) Scope

1. Prepare all remaining required permit applications for next Subsequent Phase for ash removal activities (if applicable)
2. Finalize and/or develop additional location(s) for removed ash (if applicable) including obtaining all required permits
3. Excavate and transport the remaining ash from Asheville to an approved landfill or structural fill location
4. Decommission, dewater and demolish the rim ditch and primary and secondary lined retention ponds in the 1982 Ash Basin
5. Complete closure activities as outlined in in Sections 3(b) and 3(c) Subparagraphs 1&2 of the Coal Ash Management Act of 2014

IV. Critical Milestone Dates

Critical Milestones within the Plan are summarized in the table below. These milestones have been added to the Level 1 Schedule.

MILESTONES	NO LATER THAN DATE
Submit Excavation Plan	November 15, 2014
Complete comprehensive engineering review	November 30, 2014
Receive Dam Safety Permit to excavate 1982 Ash Basin dam face	December 12, 2014
Receive updated DORS Permit	February 28, 2015
Receive NPDES permit modification for Rim Ditch System	July 2, 2015
Commission new 1982 rim ditch, primary and secondary retention ponds	July 17, 2015
1964 Rim Ditch demolished and begin excavation of 1964 basin	September 1, 2015
Complete removal of ash from 1982 basin (except interim storage of production ash)	September 15, 2015
Decommission Engineered Wetlands and Commission alternate FGD Wastewater Treatment system	November 3, 2015
Dewater and Demolish Engineered Wetlands	March 2, 2016
Submit Updated Excavation Plan for Subsequent Phase(s)	Annually
Convert Units 1 & 2 to “dry” fly ash handling	December 31, 2018
Impoundments closed per Sections 3.(b) and 3.(c) of the Coal Ash Management Act of 2014	August 1, 2019
Convert Units 1 & 2 to “dry” bottom ash handling	December 31, 2019
At facilities actively producing CCR, end storm-water discharge into impoundments	December 31, 2019

V. Level 1 Schedule

Asheville Ash Relocation

ASHEVILLE EXCAVATION PLAN
LEVEL 1.5 SCHEDULE

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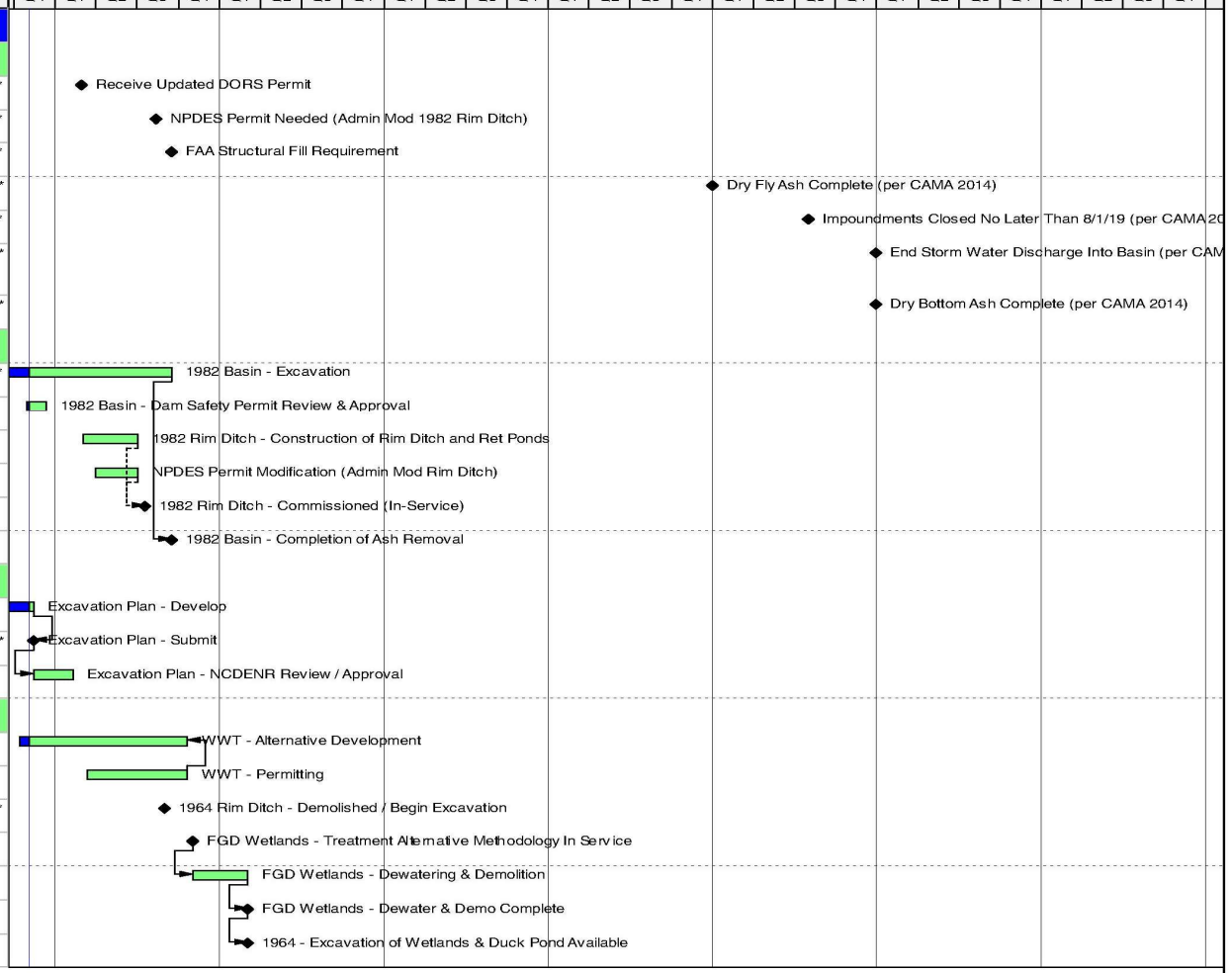
Activity Name	Orig Dur	Start	Finish
ASHEVILLE			
GENERAL			
Receive Updated DORS Permit	0.0d		28-Feb-15*
NPDES Permit Needed (Admin Mod 1982 Rim	0.0d		12-Aug-15*
FAA Structural Fill Requirement	0.0d		15-Sep-15*
Dry Fly Ash Complete (per CAMA 2014)	0.0d		31-Dec-18*
Impoundments Closed No Later Than 8/1/19 (per	0.0d		01-Aug-19*
End Storm Water Discharge Into Basin (per CAMA 2014)	0.0d		31-Dec-19*
Dry Bottom Ash Complete (per CAMA 2014)	0.0d		31-Dec-19*
1982 ASH BASIN			
1982 Basin - Excavation	500.0d	05-Jan-08 A	16-Sep-15*
1982 Basin - Dam Safety Permit Review & Approval	45.0d	28-Oct-14 A	12-Dec-14
1982 Rim Ditch - Construction of Rim Ditch	121.0d	03-Mar-15	02-Jul-15*
NPDES Permit Modification (Admin Mod	93.0d	31-Mar-15	02-Jul-15*
1982 Rim Ditch - Commissioned	0.0d		17-Jul-15*
1982 Basin - Completion of Ash Removal	0.0d		16-Sep-15
EXCAVATION PLAN			
Excavation Plan - Develop	60.0d	11-Aug-14 A	12-Nov-14
Excavation Plan - Submit	0.0d		12-Nov-14*
Excavation Plan - NCDENR Review /	90.0d	12-Nov-14	10-Feb-15
1964 ASH BASIN			
WWT - Alternative Development	315.0d	13-Oct-14 A	20-Oct-15
WWT - Permitting	223.0d	11-Mar-15	20-Oct-15
1964 Rim Ditch - Demolished / Begin	0.0d		01-Sep-15*
FGD Wetlands - Treatment Alternative	0.0d		03-Nov-15
FGD Wetlands - Dewatering & Demolition	120.0d	03-Nov-15	02-Mar-16
FGD Wetlands - Dewater & Demo Complete	0.0d		02-Mar-16
1964 - Excavation of Wetlands & Duck Pond	0.0d		02-Mar-16



Note: This Level 1 Schedule is a living element of this Plan. Dates and durations are based on known information at the date of this Plan.

VI. Erosion and Sedimentation Control Plan

Current excavation is being performed under the Distribution of Residual Solids (503 Exempt) Permit (WQ0000020) issued by the NCDENR Division of Water Quality. The permit, in Section II.7, provides "*Adequate provisions shall be taken to prevent wind erosion and surface runoff from conveying ash from stockpile/storage areas onto adjacent property or into any surface waters prior to distribution and use. The Permittee shall provide to the recipient of the ash a copy of the most-recent version of the Material Safety Data Sheet (MSDS) for the ash as well as the most-recent version of the Permittee's Document No. EVC-FGDC-00101 "Ash Utilization Plan" so that the recipient of the ash is aware of guidance regarding how to take adequate provisions to prevent wind erosion and surface runoff from conveying ash from the location of use onto adjacent property or into any surface waters.*"

Asheville Plant site conditions allow for the excavation and transport of ash on existing paved roads. No new construction is anticipated for continued ash excavation for either the 1982 or the 1964 ash basins. Should any construction be needed that disturbs more than one acre, the appropriate permits will be obtained.

VII. Dewatering Plan

The 1982 Ash Basin is currently void of free-standing water. However, current water inflows into the ash basin continue as described earlier. Water is captured and pumped to the head of the rim ditch wastewater treatment system within the footprint of the 1964 Ash Basin.

The focus of dewatering of the 1964 Ash Basin consists of removing the current wastewater streams in the engineered wetlands that treat FGD process water, the rim ditch system, and the unlined retention pond (Duck Pond area) that serves as the permitted wastewater treatment system for the plant's production ash. These elements must cease to treat wastewater, be decommissioned, and be demolished in order to facilitate ash excavation of the 1964 ash basin.

During Phase I, an evaluation of alternatives to treat all waste water streams will inform needed permitting activities specifically related to the existing NPDES permit. Once any needed permits are obtained, the alternate treatment system must be commissioned in order to abandon the current rim ditch and engineered wetlands systems. Phase 1 will culminate in decommissioning and demolition of the rim ditch and engineered wetlands system. The unlined retention pond will then be dewatered through current operational processes. All water will be treated prior to discharge through an updated NPDES permit.

VIII. Proposed Location(s) for Removed Ash

Phase I: Ash Disposition Site

Phase I of ash removal from the Asheville Plant will include excavation and removal of the remaining 867 thousand tons of ash from the 1982 Ash Basin. The ash will be transported approximately two (2) miles from the Plant to the Asheville Regional Airport where it will continue to be placed into a permitted lined structural fill area developed and managed by the excavating contractor, Charah.

DISPOSITION SITE	LOCATION	ESTIMATED CAPACITY (Tons)	USE
Asheville Regional Airport (Area 3)	Arden, NC	±1.17M	Structural Fill

Should the structural fill opportunity become unavailable, alternate ash disposition sites, including disposal in permitted municipal landfills, will be identified during Phase I. These sites, to date, have not been determined. Currently, a study has been commissioned to identify potential areas of ash disposal within a 25 mile radius of the Asheville Plant. This study will be finalized in November 2014. This study will also inform potential disposal locations for all, or a portion of, the 2.3 million tons of ash in the 1964 basin.

Subsequent Phase(s): Ash Disposition Sites

Currently, two potential beneficial reuse opportunities have been identified for ash disposition during the subsequent phase(s) of ash excavation. Duke Energy, and their vendor Charah, have identified another structural fill opportunity at the airport and are working toward finalizing details of the project. The opportunity will not provide adequate capacity for all of the ash in the 1964 Ash Basin. However, the beneficial use opportunity may be utilized as an element of the overall ash basin excavation strategy.

The second opportunity, construction of a lined structural fill or landfill in the soon-to-close 1982 Ash Basin, will be evaluated with other potential placement sites that will be identified during Phase I.

DISPOSITION SITE	LOCATION	ESTIMATED VOLUME (Tons)	USE
Asheville Regional Airport	Arden, NC	±1.7M	Structural Fill
On-Site Structural Fill or Lined Landfill	Asheville Plant	550k – 2.25M	Lined Landfill or Structural Fill

IX. Transportation Plan

Phase I

Ash from the 1982 basin will continue to be transported by Charah from the plant to the Asheville Regional Airport via double-axle trucks. The haul is approximately two (2) miles each way and the current tonnage equates to approximately 200 truckloads per day. At peak of excavation in spring and summer 2015, tonnage hauled would equate to approximately 280 truckloads per day.

Current transportation policies and standards will remain in place through final excavation and will continue to meet Department of Transportation (DOT) and other applicable federal, state, and local regulations. All drivers will follow all DOT regulations pertaining to the trucking, including DOT bridge laws.

Subsequent Phase(s)

For subsequent phase(s), the transportation plan will be evaluated and reviewed to provide any improvements discovered in Phase I or the previous Subsequent Phase. These options may include continued trucking or moving ash by rail.

X. Environmental Permitting Plan

Phase I

Phase 1 will include continued excavation and removal of ash from the 1982 ash basin to the Asheville Airport. Phase 1 will also include removal of the 1964 Basin Engineered FGD Wetlands. Implementation for Phase I will continue under the current DORS and NPDES permit. Phase I will include permitting activities for subsequent phases.

Through the Excavation Plan approval process, Duke Energy is seeking to confirm that all necessary approvals have been identified for subsequent phase(s). The Excavation Plan is intended to authorize the excavation and movement of ash once the identified permits have been obtained.

Excavation of ash creates potential for stormwater impacts. The facility holds an NPDES stormwater permit and a stormwater pollution prevention plan (SWPPP). Future modifications to the permit/plan will be managed as necessary.

Throughout the project, all necessary Dam Safety approvals will be obtained to cover activities on or around jurisdictional dams. During Phase I, it is anticipated that ash removal along the 1982 Ash Basin dam interior face will require review by the Division of Energy, Mineral and Land Resources. Subsequent phases will assume the same review for excavation work along the 1964 Ash Basin dam face.

There are no jurisdictional wetlands/streams associated with the removal of ash in the 1982 ash basin and the 1964 ash basin in Phase I. Future jurisdictional determinations will be managed through the US Army Corps of Engineers with particular attention paid to the difference between jurisdictional wetlands/streams under Section 404 and those arising from Section 402 waters.

Subsequent Phase(s)

Subsequent Phases will include dewatering (once NPDES permit modification complete) and excavation and removal of ash from the 1964 ash basins.

Excavation of ash creates potential for stormwater impacts. The facility holds an NPDES Stormwater permit. The primary method to manage stormwater discharges is the use of best management practices (BMPs), which are incorporated in the NPDES permit and the stormwater pollution prevention plan (SWPPP). Future modifications to the permit/plan will be managed as necessary.

Based on suggestion from NC DENR and US EPA, modification of the NPDES wastewater permit may be necessary to initiate removal of free-standing water from inactive ash basins. Removal of other water (sometimes referred to as pore water) is likely to require NPDES permit modification.

Future jurisdictional determinations will be managed through the US Army Corps of Engineers with particular attention paid to the difference between jurisdictional wetlands/streams under Section 404 and those arising from Section 402 waters. Any Section 404 permitting will require Section 401 Water Quality Certification by DENR.

If the Company pursues an on-site landfill solution for ash placement during subsequent phase(s), site suitability approvals (Site Suitability Report, Required Public Comment, DWM Approval of Site Suitability), Permit-to-Construct (Construction Plan Application, Receive Permit-to-Construct from DWM), and Permit-to-Operate (Construction Quality Assurance Report, Receive Permit-to-Operate) will be obtained.

If the Company chooses to utilize a mine reclamation solution for ash placement during subsequent phase(s), an individual structural fill permit will need to be obtained by the mine reclamation project owner/operator. It is anticipated that the mining permit will be transferred from the existing mine owner to a mine reclamation contractor. Once the permit is transferred, the mine reclamation contractor will submit an individual structural permit application and mine reclamation plan to the Division of Mining. It is anticipated that the Division of Mining will then forward the reclamation plan to the Division of Water Resources, Division of Waste Management, and other divisions as necessary for comments. Subject to any changes from Division of Mining, the revised reclamation plan would be approved and an individual Structural Fill Permit will be issued.

If used, before shipping ash to a third-party Subtitle D landfill, waste characterization and approval will be completed. All necessary Dam Safety approvals will be obtained to cover activities on or around jurisdictional dikes. Breaching of the dikes will require Dam Safety approval. Any impacted wells or piezometers will be properly abandoned and dispositioned with NC DENR. Fugitive dust will be managed to mitigate impacts to neighboring areas. Impacts to threatened and endangered species will be avoided.

Subsequent Phases Permit Matrix

Media	Permit	Milestone/Target Date	Reasoning
Water	Industrial Stormwater Permit	5/29/2015	Excavation of ash creates potential for stormwater impacts. The facility holds an NPDES Stormwater permit. The primary method to control stormwater discharges is the use of best management practices (BMPs) which are incorporated in the NPDES permit and the stormwater pollution prevention plan (SWPPP). Future modifications to the permit/plan will be managed as necessary.
	Wastewater NPDES Permit Modification	12/31/2015	DENR has indicated dewatering activities, including free water removal, may require NPDES wastewater permit modification. Based on this, Duke is submitting proposed dewatering permit conditions in its pending NPDES permit application.
	Jurisdictional Wetland and Stream Impacts/404 Permitting and 401 WQC	10/30/2015	Identify if project scope results in impacts to jurisdictional wetlands or streams. Obtain JD and pursue 404 permit for impacts from the ACOE. Also, 404 permits are required for working below the ordinary high water mark. If Federal permitting is required, obtain 401 WQC. There are no identified jurisdictional wetland/stream impacts in Phase I.
Waste	Individual Structural Fill Permit	5/29/2015	Mine Reclamation Owner/Operator to obtain a structural fill permit as set forth in Subpart 3 of Part 2I of Article 9 of the Coal Ash Management Act
	Dam Safety Approvals	10/30/2015	Hauling and excavation activities must not impact a jurisdictional dam or dike. Activities are initially staying 50 ft away from the jurisdictional dike. Breaching of dike will require Dam Safety approval.
	Site Suitability Report	9/30/2016	Site Suitability anticipated for offside landfill must go through public comment
	Permit-to-Construct	2/24/2017	Must receive permit to begin construction and corresponding E&SC approval to cover approved Construction design
	Permit-to-Operate	1/26/2018	Must provide Construction Quality Assurance Report and then receive permit before operation
Local Ordinances	Site specific Nuisance/Noise/Odor/Other Requirements including DOT and FERC Requirements	N/A	No local nuisance requirements identified.

XI. Contracting Strategy

Phase I

Duke Energy has contracted with Charah since 2007 for excavation of ash in Asheville's 1982 Ash Basin on a firm, fixed price per ton price basis. Duke Energy will continue to manage the contract with Charah through final excavation of the 1982 Ash Basin as indicated in Phase I of the Excavation Plan.

For the dewatering elements of phase 1, Duke Energy will engage multiple contractors to drive competition, system-wide innovation, and the collection of best practices.

Subsequent Phases

During the subsequent phase(s) of ash removal, the Company will award the excavation, transportation, and disposal of the ash to a single contractor. The contracting strategy may shift for subsequent phases as the Company recognizes enhancements that may drive costs lower, such as the use of incentives or risk sharing to drive productivity and unit cost. The Company's core values of safety and quality are non-negotiable and will not be compromised in order to increase productivity or generate cost savings.

In summary, The Company's contracting strategy will provide the most effective combination of ash removal, transportation, disposition, and beneficial use options while balancing safety, scope adherence, cost and schedule.

XII. Environmental, Health, and Safety Plan

Protecting workers, the public, the community and the environment

Duke Energy is committed to the health, safety and welfare of employees, contractors and the public; and to protecting the environment and natural resources. During all phases of the project work, Duke Energy and its contractors will follow the Duke Energy Safe Practices; the ABSAT Environmental, Health, and Safety (EHS) supplement document, and any additional requirements. Occupational health and safety expectations include oversight and continuous improvement throughout the project.

The project will include comprehensive environmental, health and safety plans encompassing all aspects of the project work including at the plant, in transit and at the final destination as needed.

In addition to adhering to all applicable environmental, health and safety rules and regulations, Duke Energy and contractors will focus on ensuring the safety of the public and environment during each phase of the project.

XIII. Communications Plan

Many different external stakeholders including neighbors, government officials and media have an interest in this project. For example, there is the potential for facility neighbors and the general public to see or experience construction-related impacts such as truck traffic, landscape changes, or noise. The Company is committed to providing information by proactively communicating about the Project activities to potentially affected parties and responding to inquiries in a timely manner.

The Project team will coordinate with Duke Energy's Corporate Communications Department to develop a comprehensive external communications plan tailored to the specific needs of each phase of the project.

XIV. Glossary

TERM	DEFINITION
ABSAT	Duke Energy organization acronym for Ash Basin Strategic Action Team
ABSAT Project Controls	Duke Energy organization acronym for Ash Basin Strategic Action Team responsible for financial reporting, scheduling and management reporting
Ash Basin	Synonymous with Coal Combustion Residual Impoundment. A topographic depression, excavation, or dammed area that is primarily formed from earthen materials; without a base liner approved for use by Article 9 of Chapter 130A of the General Statutes or rules adopted thereunder for a combustion products landfill or coal combustion residuals landfill, industrial landfill, or municipal solid waste landfill; and an Area that is designed to hold accumulated coal combustion residuals in the form of liquid wastes, wastes containing free liquids, or sludge, and that is not backfilled or otherwise covered during periods of deposition.
Beneficial Re-use Opportunities	Beneficial use of coal combustion residuals, or byproducts, removed from the site in compliance with the requirements of Section .1700 of 31 Subchapter B of Chapter 13 of Title 15A of the North Carolina 32 Administrative Code (Requirements for Beneficial Use of Coal 33 Combustion By-Products) and Section .1205 of Subchapter T of 34 Chapter 2 of Title 15A of the North Carolina Administrative Code 35 (Coal Combustion Products Management
Bottom Ash	The agglomerated, angular ash particles formed in pulverized coal furnaces that are too large to be carried in the flue gases and collect on the furnace walls. Bottom Ash falls through open grates to an ash hopper at the bottom of the furnace.
CCR	Coal Combustion Residuals. Residuals include fly ash, bottom ash, boiler slag produced by a coal fired generating unit
Coal Ash Excavation Plan	Plan required by NC DENR letter dated August 13, 2014 including a schedule for soil and sedimentation erosion control measures, dewatering, and the proposed location of the removed ash
Coal Ash Management Act of 2014	North Carolina Session Law 2014-122

TERM	DEFINITION
Decanting	The act of removing water from ash
Dewatering	The act of removing bulk and entrapped water from the ash basin
Dewatering Plan	Engineered plan and the associated process steps necessary to dewater an ash basin
Duke Safe Work Practices	Document detailing the Duke Energy safety guidelines
Engineer of Record	Duke Energy or 3rd party contracted engineer responsible for final verification of specific plan actions and documents
Excavation Activities	Tasks and work performed related to the planning, engineering and excavation of ash from an ash basin
Excavation Plan	Refer to Coal Ash Excavation Plan
Fly Ash	Very fine, powdery material, composed mostly of silica with nearly all particles spherical in shape, which is a product of burning finely ground coal in a boiler to produce electricity and is removed from the plant exhaust gases by air emission control devices.
Level 1 Schedule	Schedule view that shows the main milestones to complete the project
NPDES	National Pollutant Discharge Elimination System
NPDES Permit	A permit that regulates the direct discharge of wastewater to surface waters
Off-Site Facility	A structural fill or mine reclamation for the long term storage of coal combustion residuals
Permit	Federal, state, county or local government authorizing document
1964 Ash Basin	Ash pond created in 1964 for wastewater treatment of industrial wastewater produced by coal combustion for electric steam generation (#BUNCO-097)
1982 Ash Basin	Ash pond created in 1982 for wastewater treatment of industrial wastewater produced by coal combustion for electric steam generation (#BUNCO-089)

XV. Reference Documents

Ref	Document	Date
1	Letter to Duke Energy, Request for Excavation Plans	August 13, 2014
2	Coal Ash Management Act of 2014	September 20, 2014