



North Carolina Environmental Review Commission

December 10, 2014

**John Elnitsky
Senior Vice President
Ash Strategy**

Ash Basin Strategic Action Team (ABSAT)

Overview

- In response to Dan River we accelerated the closure planning that was underway and are in alignment with Executive Order 62 and the Coal Ash Management Act (CAMA) of 2014 requirements
- We are meeting our commitments and are ready to execute the next steps following regulatory approval
- We are continuing our strong commitment to the safety of the environment and the communities that we serve

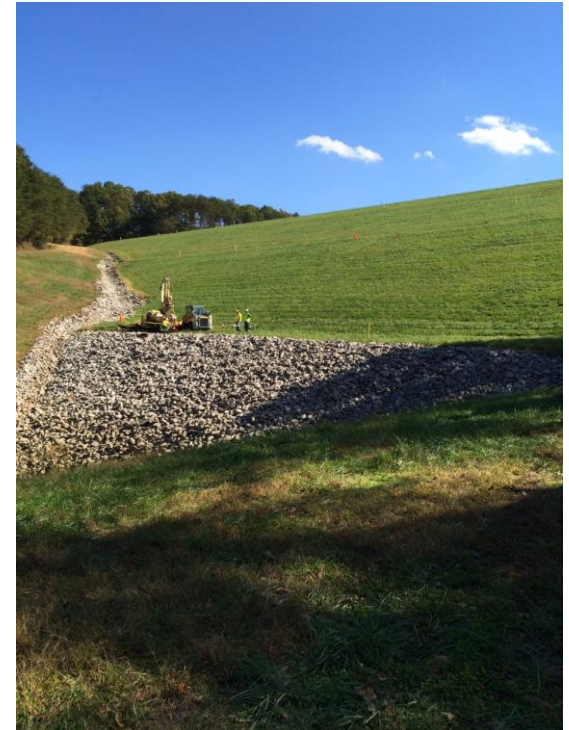
Near term actions following the Dan River event

- Identified and implemented key work streams:

Area	Status
Independent Engineering Facility Review	✓
Comprehensive Engineering Assessment	✓
Reliability Improvements and Repairs	Ongoing
Programmatic Review	✓
Management and Operations Improvements	Ongoing
National Ash Management Advisory Board	✓
Comprehensive Long Range Closure Strategy	Ongoing

Actions following issuance of Executive Order 62

- Duke Energy took actions per NCDENR's directives that were issued to comply with EO 62:
 - Updated 14 National Pollution Discharge Elimination System (NPDES) permit applications
 - Developed 14 Groundwater Assessment Plans
 - Commenced weekly and annual dam inspections
 - Submitted excavation plans for four priority sites

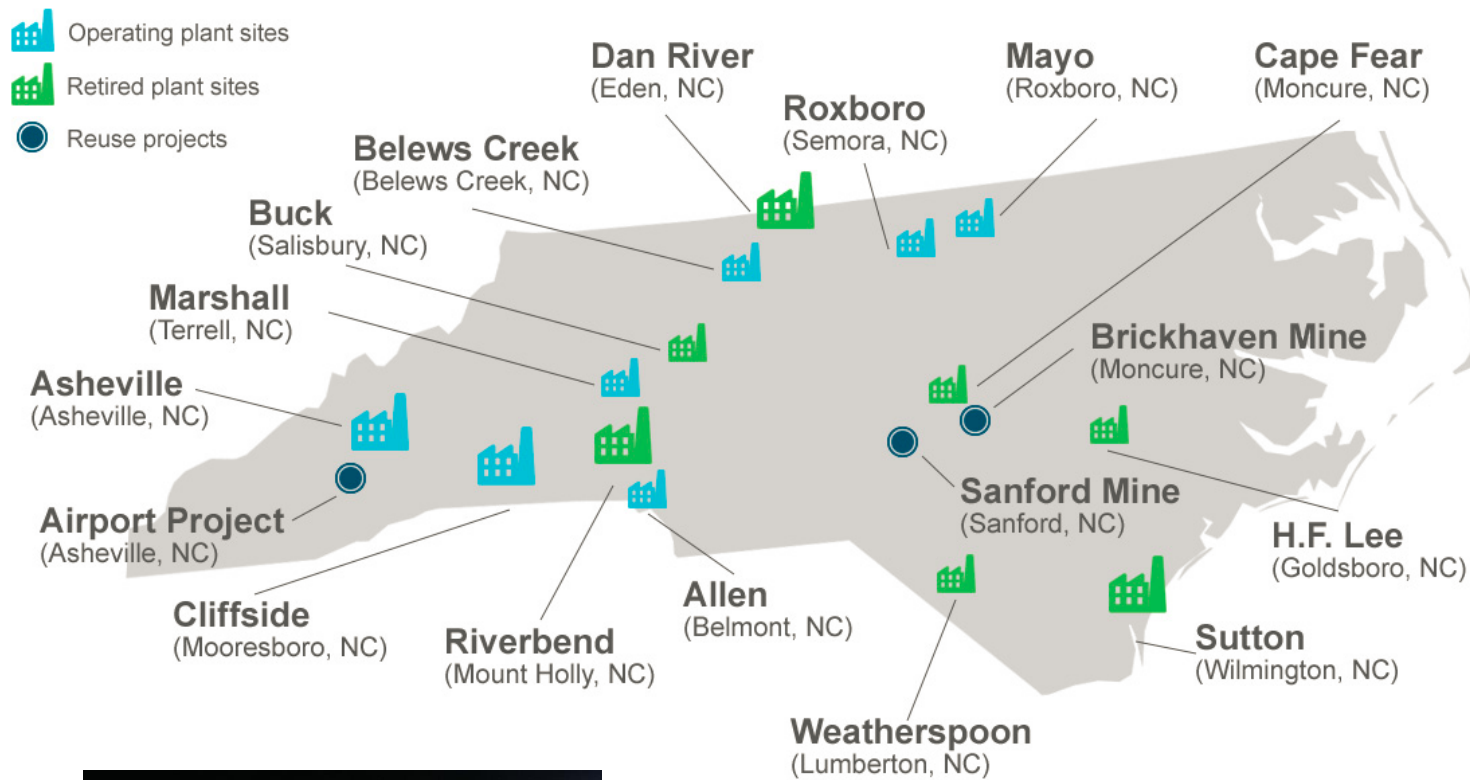


Cliffside Active Basin

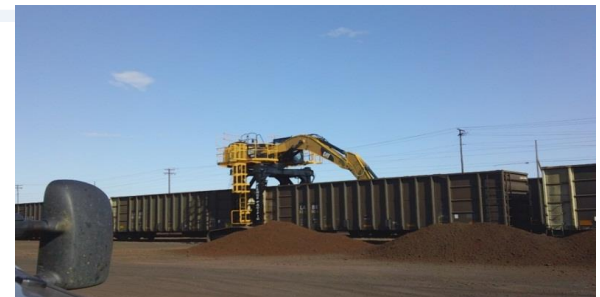
Excavation Plan status

- **Plans for Asheville, Dan River, Sutton and Riverbend were submitted on November 13, 2014:**
 - Plans cover the first 12-18 months (Phase I) of basin excavation activities, including permitting requirements, site preparation, initiation of basin dewatering, excavation sequence, transportation, and disposal sites
 - Phase I will move about 5.1 million tons of ash from the four sites, approximately 30 percent of the total ash stored on these sites
 - Major contractor selections complete; ash removal to begin within 60 days of NCDENR approval, including all permits
 - Initial use of off-site solutions is necessary to meet legislatively mandated deadlines for high-priority sites; if pursued, timely receipt of landfill permits will enable expeditious transition from off-site storage to on-site landfills at Dan River and Sutton

Site locations



On-loading



Off-loading

CAMA of 2014 – Near Term Commitments

Action	Due	Status	Source
Plan for identification of new discharges	1-Oct-14	✓	130A-309.210(d)
Survey to identify drinking water supply wells	1-Oct-14	✓	130A-309.209(c)
Annual summary of coal ash production, use, beneficially use and disposal	1-Oct-14	✓	130A-309.204(c)
Identify all discharges from CCR surface impoundments	Not specified	✓	130A-309-210(a)(1)
Topographic map of discharge identification	31-Dec-14		130A-309-210(a)(2)
Discharge Assessment Plan	31-Dec-14		130A-309-210(b)(1)
Groundwater Assessment Plan	31-Dec-14	✓	130A-309.209(a)(1)
ID and take action to prevent unpermitted discharges	30 days after notification		130A-309.210(c)(2)
Submit RFPs for beneficial reuse	31-Dec-14	12-Dec-14	PART III. SECTION 4.(e)
Sampling and water quality analysis of drinking water supply wells	1-Jan-15		130A-309.209(c)
Annual Groundwater Protection and Restoration Report	31-Jan-15		130A-302.209(d)
Annual Surface Water Protection and Restoration Report	31-Jan-15		130A-309-210(e)
Emergency Action Plans for high and medium hazard dams	1-Mar-15	✓	Section 8.(b)

CAMA of 2014 – Longer Term Commitments

Action	Due	Source
Engineering work in progress		
Overview report of beneficial reuse RFP responses	1-Aug-16	PART III. SECTION 4.(e)
End stormwater discharge to impoundments at retired plants	31-Dec-18	130A-309-208
All dry fly ash or retire	31-Dec-18	130A-309-208
Riverbend, Dan River, Asheville and Sutton impoundments closed	1-Aug-19	PART II. SECTION 3.(b)
End stormwater discharge to impoundments at active plants	31-Dec-19	130A-309-208
All dry bottom ash or retire	31-Dec-19	130A-309-208
Closure strategy development in progress		
Closure Plans for High Risk Impoundments	31-Dec-16	130A-309.212(a)
Closure Plans for Intermediate Risk Impoundments	31-Dec-17	130A-309.212(a)
Closure Plans for Low Risk Impoundments	31-Dec-18	130A-309.212(a)
High Risk Impoundments closed	31-Dec-19	130A-309.212(a)
Intermediate Risk Impoundments closed	31-Dec-24	130A-309.212(a)
Low Risk Impoundments closed	31-Dec-29	130A-309.212(a)

Guiding principles of our closure strategy

- **Ensure containment of ash storage in a manner that mitigates any hazard to public health, safety, or welfare and ensures the ongoing safety of our communities and environment:**
 - Ensure the safety and ongoing stability of ash storage areas (including seismic effects)
 - Ensure storage areas will maintain containment effectiveness during the applicable storm and flooding event
 - Ensure groundwater impacts are effectively mitigated
 - Leverage on-site landfills when excavation is required
 - Prioritize beneficial reuse and consolidated storage when offsite excavation is required
 - Comply with the Coal Ash Management Act and pending Environmental Protection Agency (EPA) Coal Combustion Residual (CCR) regulations
 - Seek solutions that address net environmental impact and balance stakeholder interests

Next steps

- **Support CAMA of 2014 impoundment risk ranking process**
 - Beginning the development of site specific closure plans and continuing community outreach as closure planning advances
- **Staff a standalone Coal Combustion Products Organization to manage day to day operations and maintenance**
- **Implement Groundwater Assessment Plans**
- **Support NCDENR's residential water sampling**
- **Secure NCDENR's approval of permits and excavation plans**

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