



*Roxboro Steam Station
Coal Ash Impoundment Closure Plan*

Public Hearing
February 19, 2020





Current View



Roxboro Steam Station

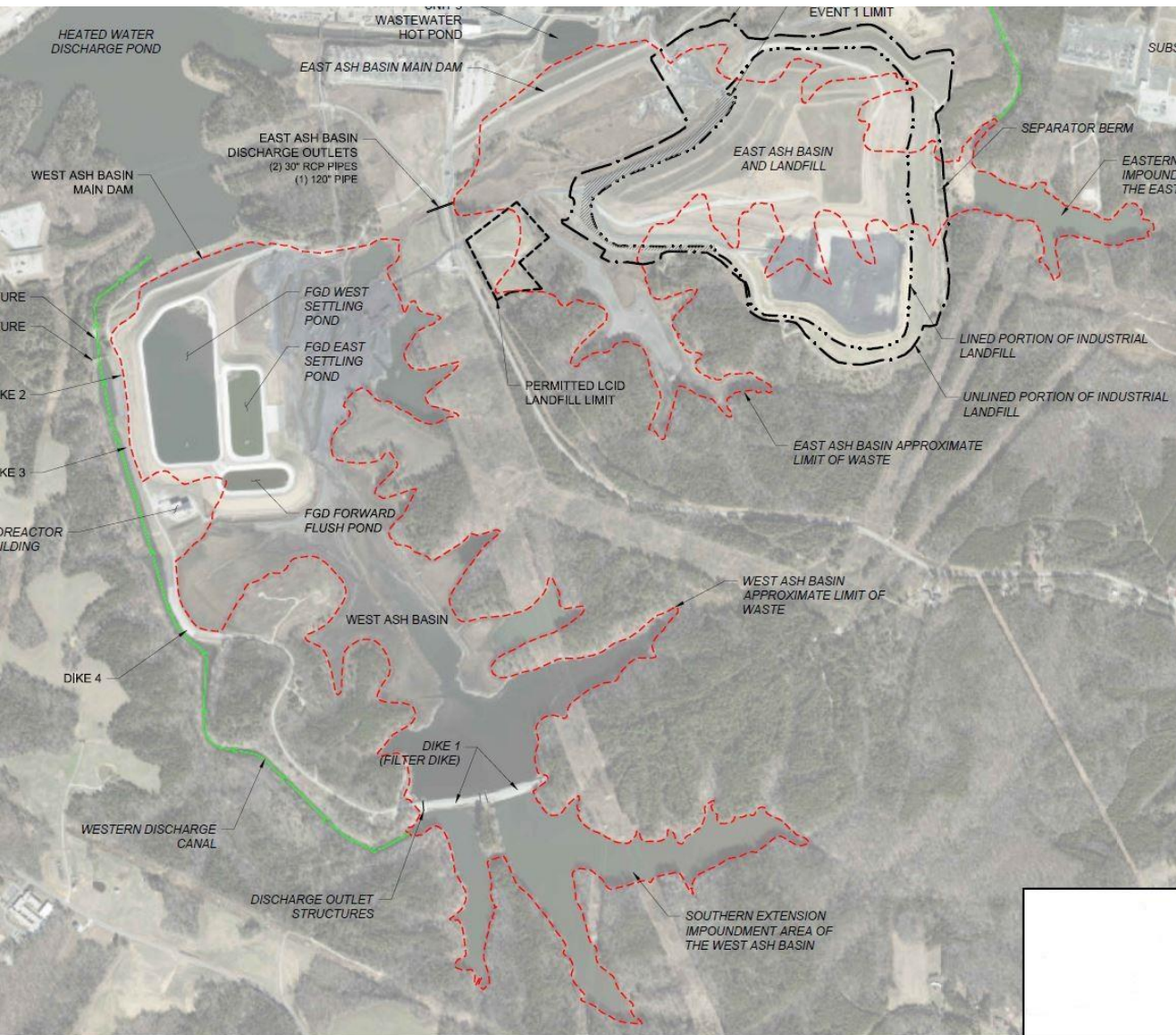
- Located in Person County
- Owned by Duke Energy Progress
- Four-unit, 2,422-megawatt coal fired plant
- Began operation in 1966
- Currently in active operation



Roxboro Ash Basins

- East Ash Basin construction completed in 1965
 - 71.3 acres
 - Currently contains 3.89 million tons of ash
 - Includes Eastern Extension Impoundment of 12.7 acres
- West Ash Basin construction completed in 1973
 - 225 acres
 - Currently contains 12.97 million tons of ash
 - Includes Southern Extension Impoundment of 42 acres
 - Includes two FGD Basins of 26.6 acres constructed on top of basin





Red dashed line depicts the boundary of the former East and West Ash Basins



Coal Ash Management Act – House Bill 630 – July 2016

- January 2019 – DEQ held public information sessions regarding closure options for the ash basins at Allen, Belews Creek, Cliffside, Marshall, Mayo and Roxboro (excavate, hybrid or cap in place)
- April 1, 2019 – DEQ directed Duke to fully excavate all the ash basins
- April 26, 2019 – Duke filed Petitions for Contested Case Hearing in the Office of Administrative Hearings challenging DEQ's decision for closure method
- December 31, 2019 – Duke submitted Closure Plans for closure by excavation
- December 31, 2019 – Duke, DEQ and several community environmental groups entered into a Settlement Agreement ending the appeal litigation
- January 31, 2020 – Consent Order incorporating the terms of the Settlement Agreement filed with Wake County Superior Court
- February 5, 202 – Consent Order entered by Judge Paul Ridgeway



Final Consent Order

- Covers coal ash impoundments at Allen, Belews Creek, Cliffside, Marshall, Mayo and Roxboro
- Identifies nine ash impoundments to be excavated
- More than 80 million tons of impoundment ash will be excavated and stored in newly constructed, onsite lined landfills
- 4 million tons of basin ash will be left in place
 - Located beneath pre-existing permitted landfills and structural fills
 - Covered with a synthetic closure cap system to prevent water infiltration
 - Stability features installed to prevent ash movement
 - Additional groundwater monitoring may be required
 - Duke must demonstrate corrective action measures will clean up groundwater by December 31, 2029



DEQ Closure Plan Action Timeline

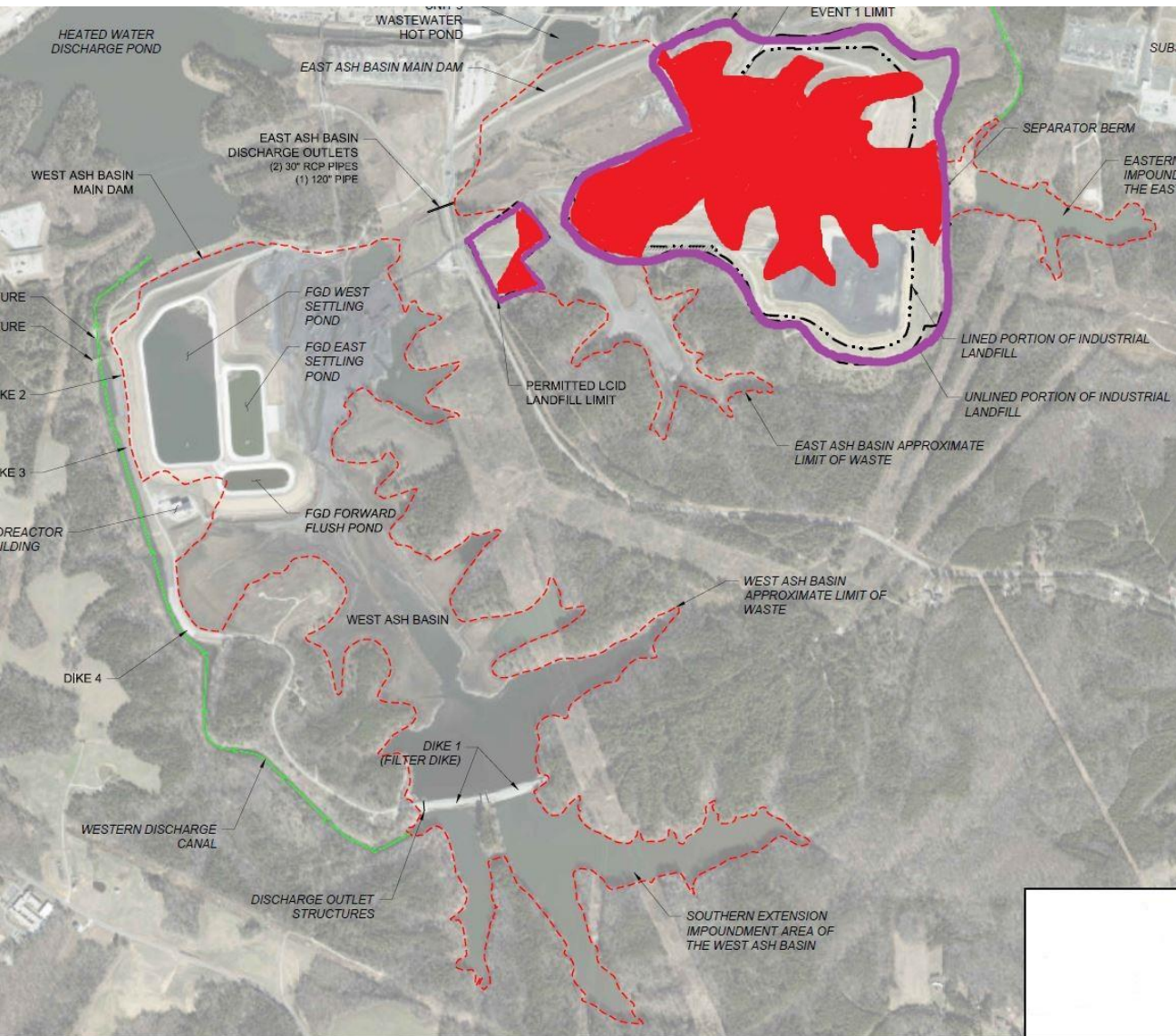
- December 31, 2019 – DEQ received proposed Closure Plans for Allen, Belews Creek, Cliffside, Marshall, Mayo and Roxboro
- CAMA requires DEQ to conduct public hearings within 60 days of receipt of proposed closure plan
- Public allowed at least 20 days after public hearings to submit written comments
- Final decision (approval or disapproval) by DEQ due 120 days of receipt of complete closure plans
- Within 60 days of approval, Duke Energy must begin implementation of the closure plan



Closure by Excavation

- Four basins and two extension impoundments will be excavated
 - 16,861,900 tons of ash
 - 15 years to complete excavation
- All the coal ash within the west ash basin will be excavated
- Portions of the east ash basin underneath the existing coal ash landfill and LCID landfill will not be excavated
- Excavated ash will be placed in a lateral expansion of the existing onsite permitted double-lined landfill (7302-INDUS-1988)
- Proposed New Landfill Details
 - Approximately 101 acres
 - Final elevation of 700 feet (180 feet above Dunnaway Road)





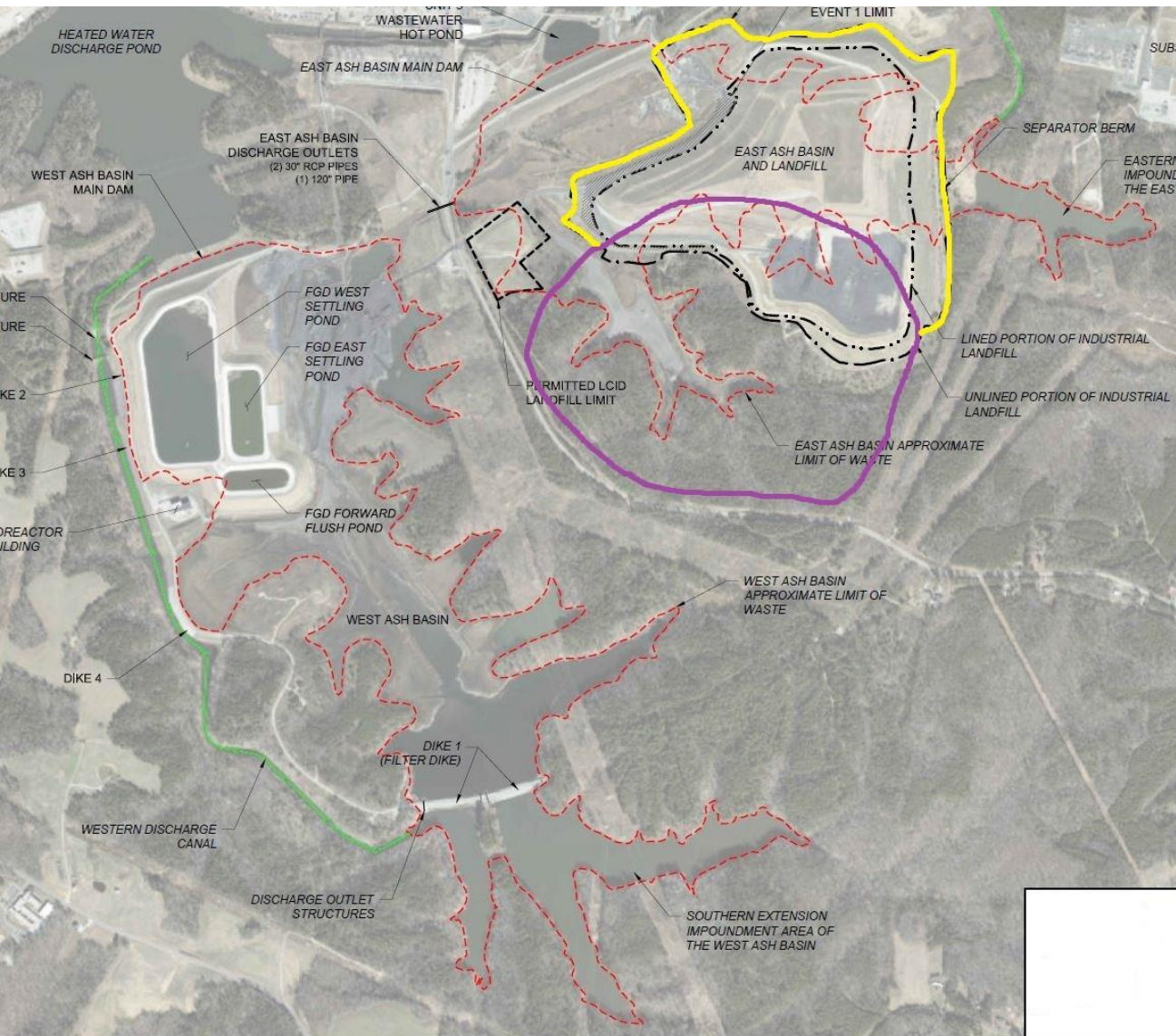
- Red dashed line depicts boundary of former ash impoundment. Most of ash within this boundary will be excavated.
- Purple line depicts boundaries of the existing operating coal ash landfill and closed LCID landfill.
- Red areas depict portions of the former east ash basin to be left in place (not excavated) because it is underneath the existing operating coal ash landfill and closed LCID landfill.



Estimated Project Schedule

- Begin landfill construction – 4th Quarter of 2021
- Begin coal ash excavation – 1st Quarter of 2023
- Complete coal ash excavation – 4th Quarter of 2035
- Complete final closure of landfill – 4th Quarter of 2036
- Complete final site vegetative cover – 4th Quarter 2037





Proposed Landfill Location

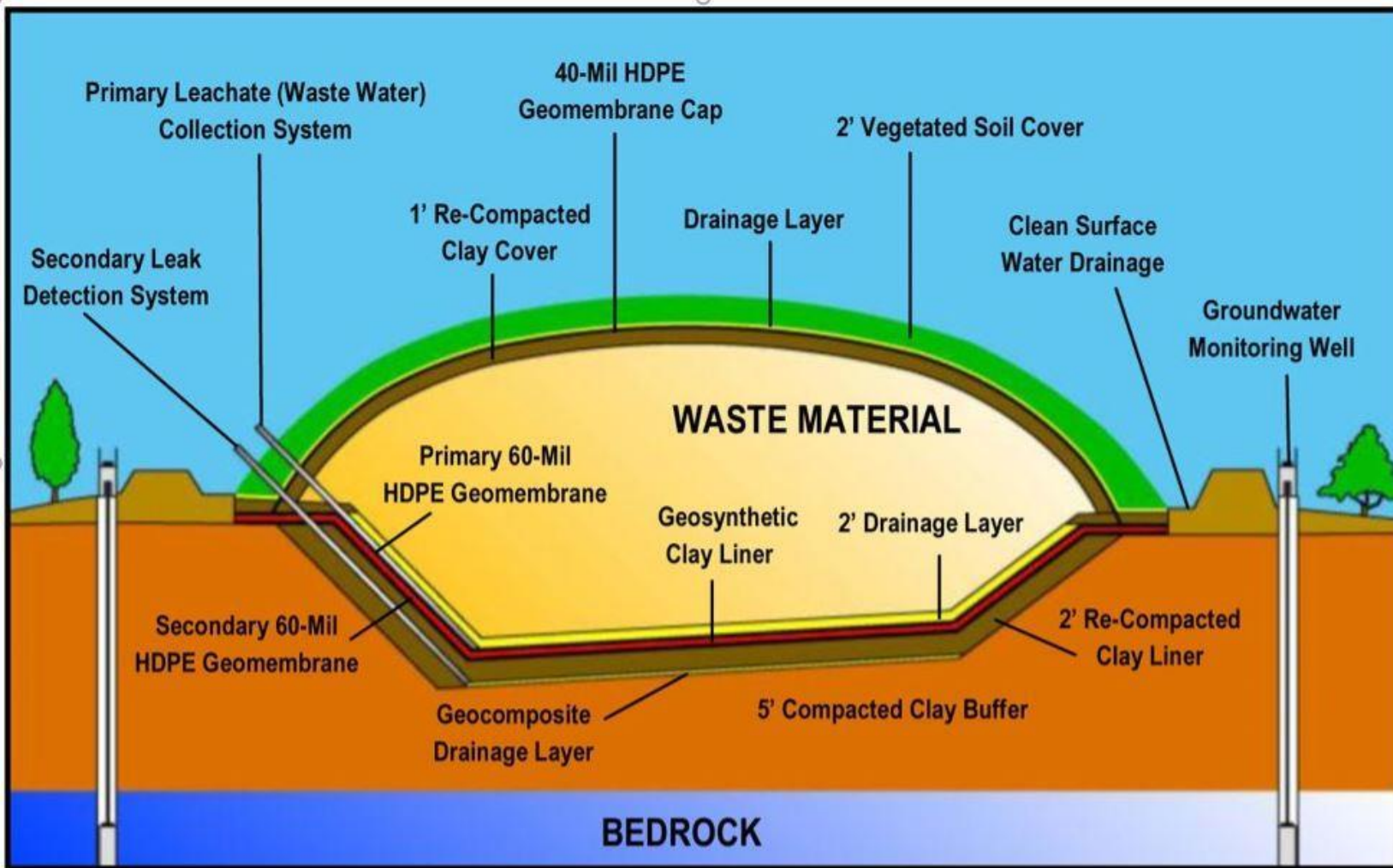
Purple line – new landfill boundary

Yellow line – existing operating landfill boundary

Red dashed line – east and west basin boundaries



Landfill Cross Section





Current View





Post Closure View



Submit comments by mail to:

Louise Hughes
N.C. Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

Submit comments by email to:

roxborocomments@ncdenr.gov - Include Closure Plan in the subject

The Closure Plan may be found at:

<https://deq.nc.gov/news/key-issues/coal-ash-excavation/roxboro-power-station-coal-ash-closure-plan>

