

D Area Ash Project

Robert S. (Bob) Aylward
Environmental Compliance & Area Completion Projects

SRS Citizens Advisory Board

September 21, 2015

Purpose

The purpose of this presentation is to fulfill a 2015 Facilities Disposition & Site Remediation Committee Work Plan.



Acronyms

FFA – Federal Facility Agreement

GCL – Geosynthetic Clay Layer

GDL – Geosynthetic Drainage Layer

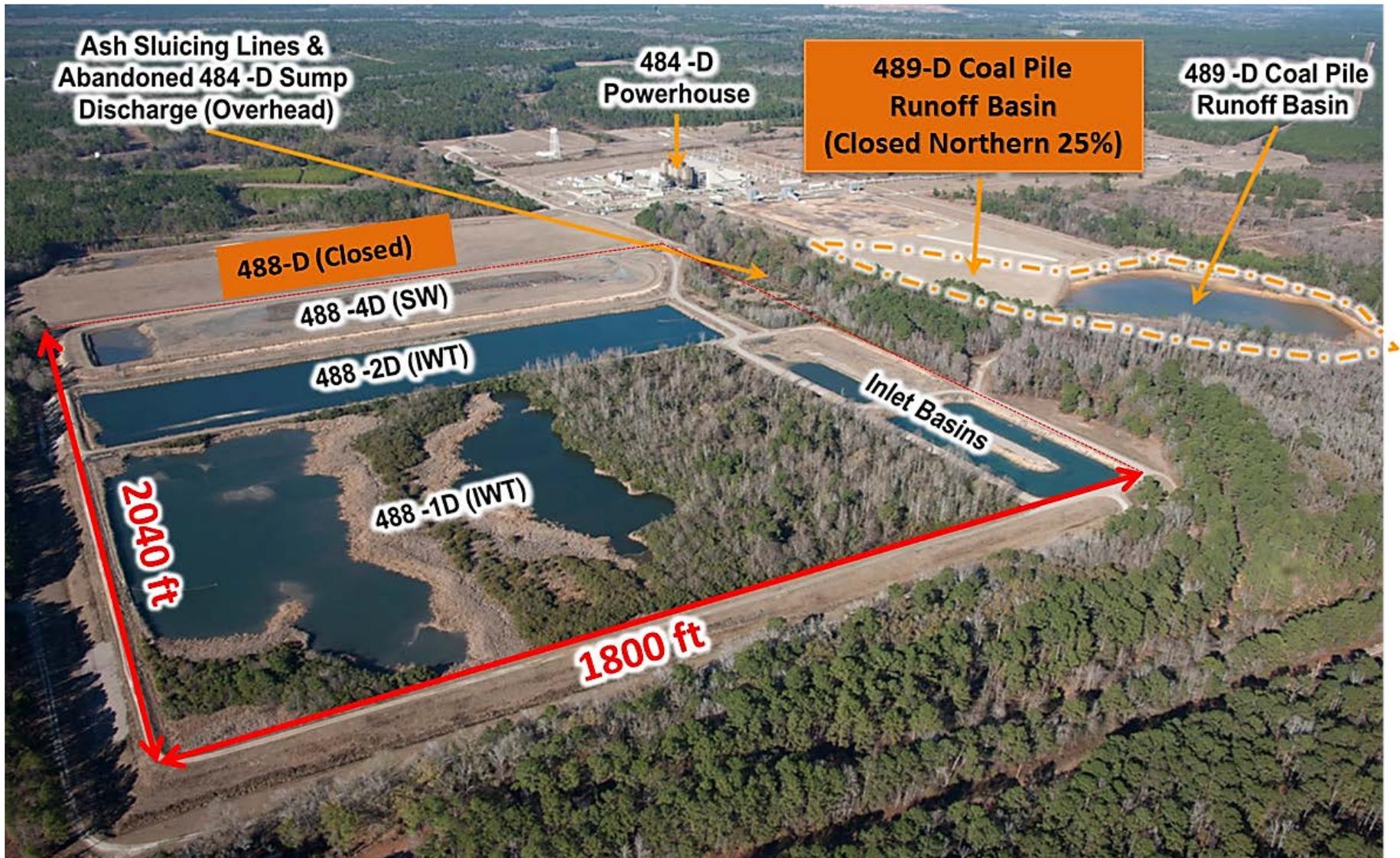
IWT – Industrial Waste Water Permit

SCDHEC – South Carolina Department of Health
& Environmental Control

SW – Solid Waste Landfill Permit

USEPA – United States Environmental Protection Agency – Region 4

D Area Ash Basins & Landfill



Background

- **D Area Ash Basins (488-2D & -1D) & Landfill (488-4D) supported the operations of the powerhouse (shutdown April 2012):**
 - Ash basins are permitted by Industrial Waste Water and Construction Permit (IWT)
 - Ash landfill is permitted under Class Two Solid Waste Landfill permit
 - Permits require closure 180 days after powerhouse shutdown
- **D Area Coal Pile Runoff Basin (489-D) partially closed under American Recovery & Reinvestment Act (2011)**
- **In 2011, USEPA and SCDHEC agreed to close the basins & landfill under Federal Facility Agreement (FFA):**
 - DOE led negotiations to allow closure flexibility to meet potential budget forecast
 - Allows closure to occur over 5 years vs 6 months

D Area Ash Project

- Closure of the landfill and basins will be implemented through a series of removal actions and early final actions to accommodate the FFA milestone schedule.
- D Area Ash Project includes:
 - Dewatering and Clean Closure of the 488-2D Ash Basin; to remain open as a detention structure
 - Geosynthetic Cap Installation over the 488-4D Ash Landfill
 - Geosynthetic Cap Installation over the east end of the 488-1D Ash Basin
 - Clean Closure of the remaining portion of the 489-D Coal Pile Runoff Basin

D Area Ash Project

D Area Ash Project Material Requirements (original estimate)

- **Soil - 277,000 Cubic Yards**

Compacted Soil to be brought into project site. Includes top soil and fill material for covers and berms. Assuming 13 cubic yards per load of loose materials, this equates to 25,570 truckloads.

- **Material to be Moved and/or Consolidated - 248,000 Cubic Yards**

Ash/Contaminated Soil to be consolidated and/or moved within the project site. Assuming 13 cubic yards per load of loose material this equates to 22,900 truck loads. (Additional ash has been discovered in locations in and around the basin berms).

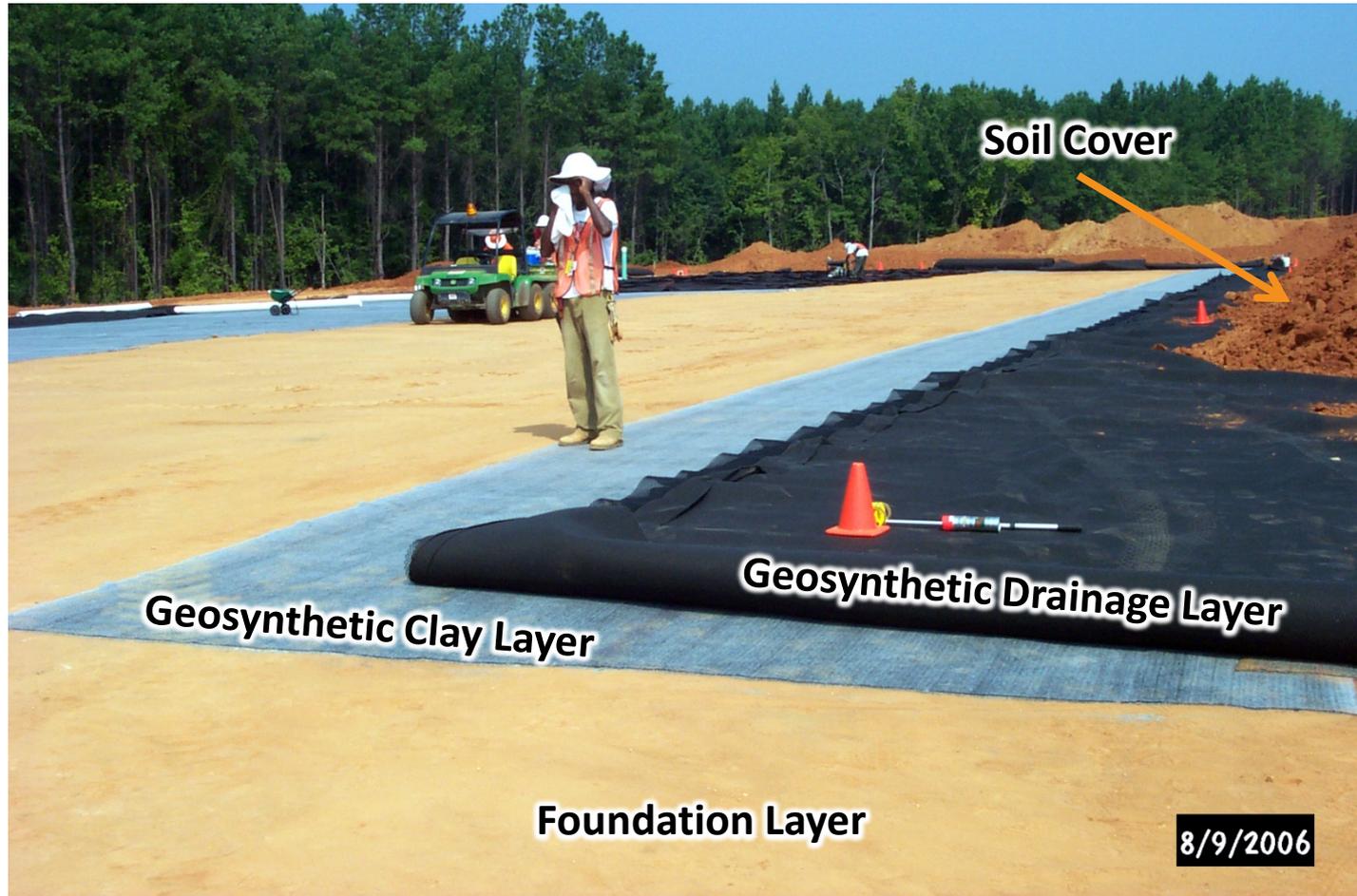
- **Geosynthetic Material - 41 Acres/1.8 Million Square Feet**

Includes both the geosynthetic clay liner and geosynthetic drainage layer.

D Area Ash Project

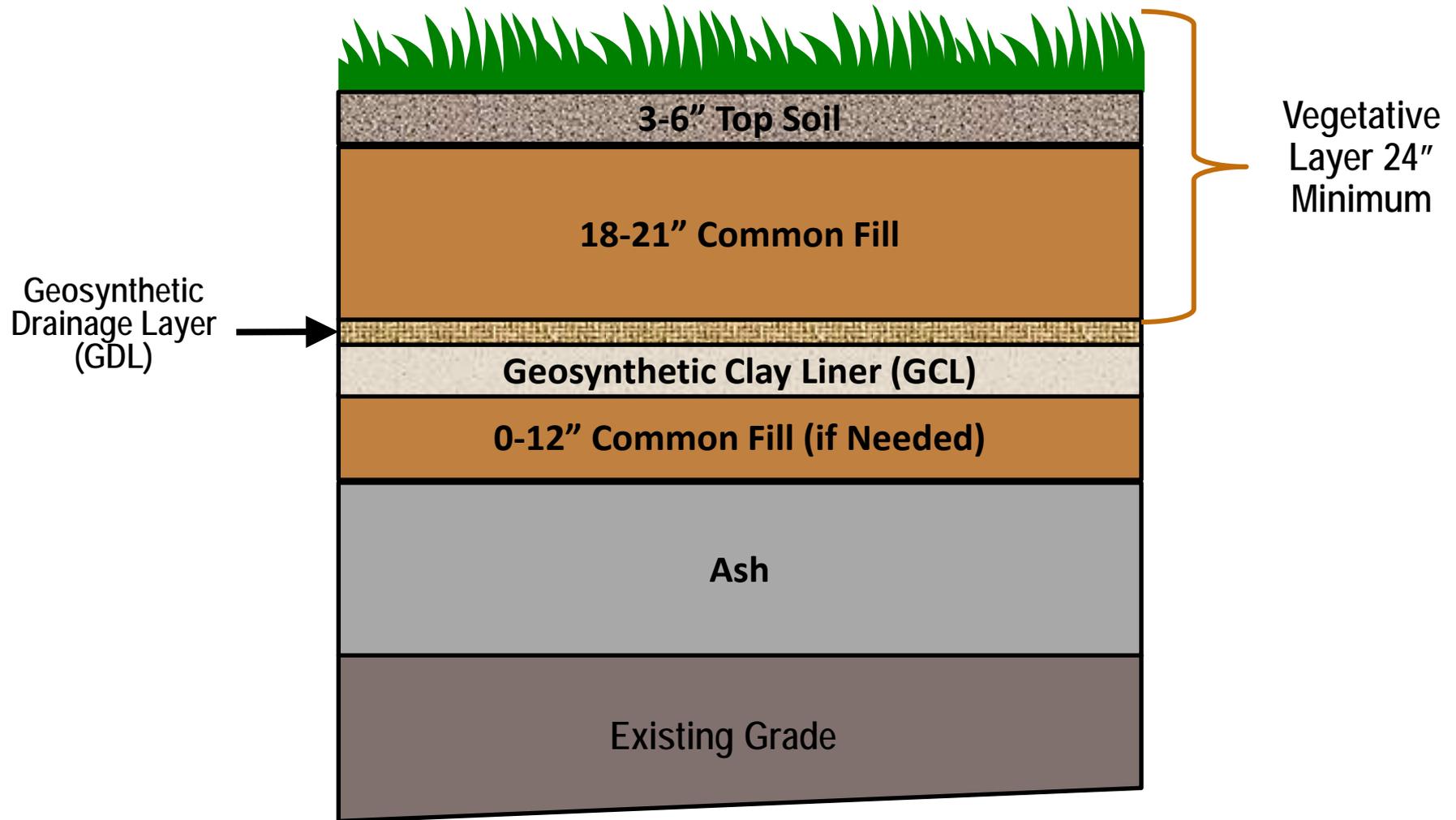
- Estimated Cost: \$74.2 Million
- FFA Removal Action Start Milestones
 - September 2014 Removal Action start for 488-4D (10/1/2014 FFA date)
 - October 2014 Removal Action start for 488-2D (10/1/2015 FFA date)
 - September 28, 2015 Removal Action start for Coal Pile Runoff Basin
 - October 3, 2016 Removal Action start for 488-1D
- Removal of ash from 488-2D, confirmation sampling and placement/compacting of ash in 488-4D progressing
- Construction Complete: 2019

Typical Geosynthetic Cover



**Typical Installation of Geosynthetic Cover Bottom to Top:
Foundation, Geosynthetic Clay Layer and Geosynthetic Drainage layer, Soil Cover**

D Area Ash Project Cover System



Typical Cover System

Summary

- D Area Closure Activities achieved an early start in September 2014 (FFA Milestone was October 1, 2014)
- Closure Activities include geosynthetic caps and clean closure of facilities
- Activities in 488-2D and 488-4D well underway
- Removal Action starts for Coal Pile Runoff Basin and 488-1D in September 2015 and October 2016, respectively
- Construction Complete is scheduled for 2019

Questions?

