



South Carolina Department of Health and Environmental Control

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# **Philip Services Corporation Site**

**AKA ThermalKEM**

Community Meeting

Carol L. Crooks, Project Manager

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## Community Meeting

- Introduction
- Site History
- Current Environmental Status
- Update on the Proposed Settlement Agreement
- What work to expect in the future?
- Question and Answer Session

## The Site



**Figure 2-1**  
**Current Site Plan**  
 Feasibility Study Report  
 October 2008  
 Former PSC Site - Rock Hill, SC

**Legend**

- Fences
- Railroad
- Roads and Parking
- Creeks

100 0 100 200 Feet

Aerial photograph from 2005  
 (source: York County Online GIS Data)



## Operational History

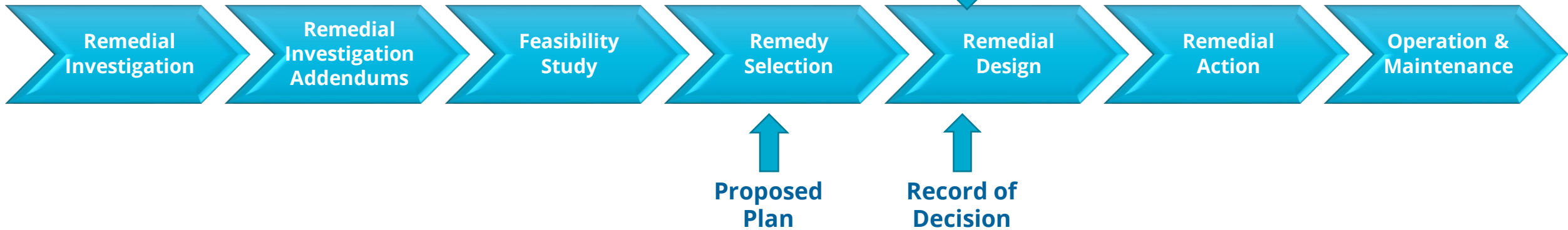
- 1966 -Began as Quality Drum -waste storage, treatment, and recycling.
- 1981 -Hazardous waste incinerator
- 1983 -Stablex Inc
- 1987 -ThermalKEM
- 1995 -Philip Services Corp (PSC)
- 1998 -Incinerator Closure Plan Submitted

## Post Operational History

- June 2003 PSC files for bankruptcy protection
- Dec 2003 Bankruptcy Settlement
  - Established Trustee – Restoration & Redevelopment Solutions, LLC
  - Established Trust Account
  - DHEC assigned as the Lead Agency in agreement with USEPA

# Superfund Process

We Are Here



## DHEC's Actions as Lead Agency

- Continued operation and maintenance of the groundwater treatment system (2003 to present)
- 2004 Removal of the incinerator building and start of the Remedial Investigation (RI)
- Upgrades to the groundwater treatment system and expansion of the groundwater monitoring network
- 2008 RI Report
- 2011 Feasibility Study (FS)
- 2014 Proposed Plan and Meeting
- 2016 Record of Decision



## Summary of Contamination

- The investigation phase included sampling soil, groundwater, sediment, and surface water.
  - Primary groundwater contamination found was volatile organic compounds (VOCs)
  - Primary soil contamination founds was VOCs and some metals greater than background levels
  - Sediment and surface water samples did not indicate any samples that exceeded standards requiring remediation

# Soil Areas of Concern



# Groundwater Areas of Concern



# Record of Decision (ROD)

- Remedies Selected:

- Excavation and offsite disposal of metals contaminated soil outside the VOC treatment area
- Multi-Phase Extraction (MPE) in Fuel Oil Area
- In situ thermal treatment in select areas to treat VOCs in soil and groundwater
- Hydraulic containment of groundwater outside of treatment areas for deeper contamination (if necessary)
- Groundwater and surface water monitoring
- Institutional controls

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## Update on Proposed Settlement and Consent Decree (Settlement Agreement)

- Document negotiated between the Department and the numerous potentially responsible parties (PRPs)
  - Payment of \$4.4 million for past response costs and certain future response costs to the Department
  - Requires \$24 million to be set aside in a special account for the funding and performance of cleanup activities by the PRPs. The Department will provide oversight during the cleanup
  - Formalization of this document will allow the cleanup actions documented in the ROD to be completed.
  - Statement of Work included in the Settlement agreement provides the procedure and requirements for conducting the Remedial Action.

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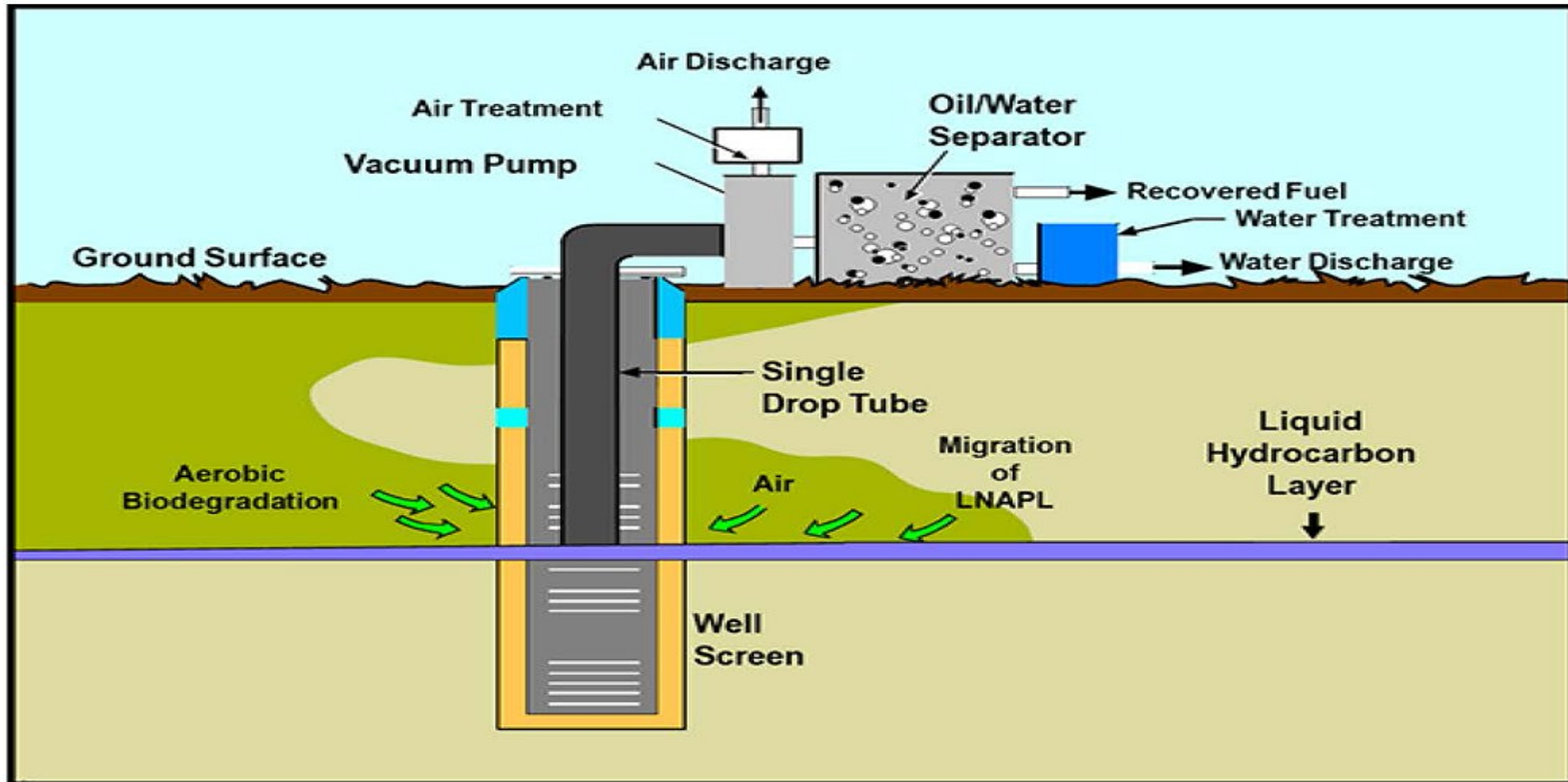
## What to Expect from the Remedial Design and Remedial Action Activities

- The first phase of activities will be the development of a Remedial Design for the clean up
  - This phase will include all necessary development of plans, specifications, and schedules for the remediation
  - Additional sampling will be conducted to refine treatment areas.
- The second phase of activities will be the Remedial Action when implementation of the remedies will occur

# Soil Removal

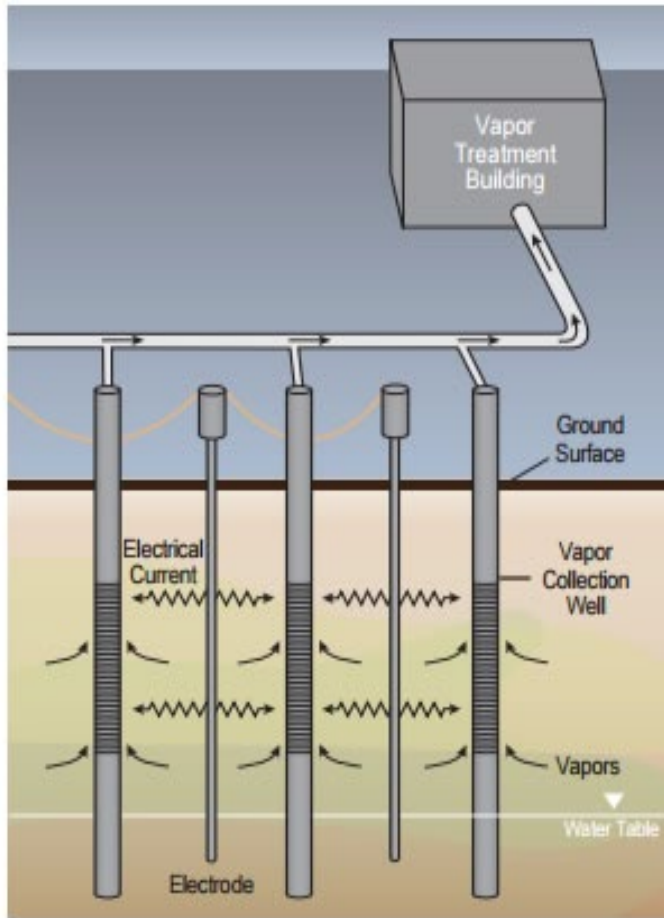


# Multi-Phase Extraction

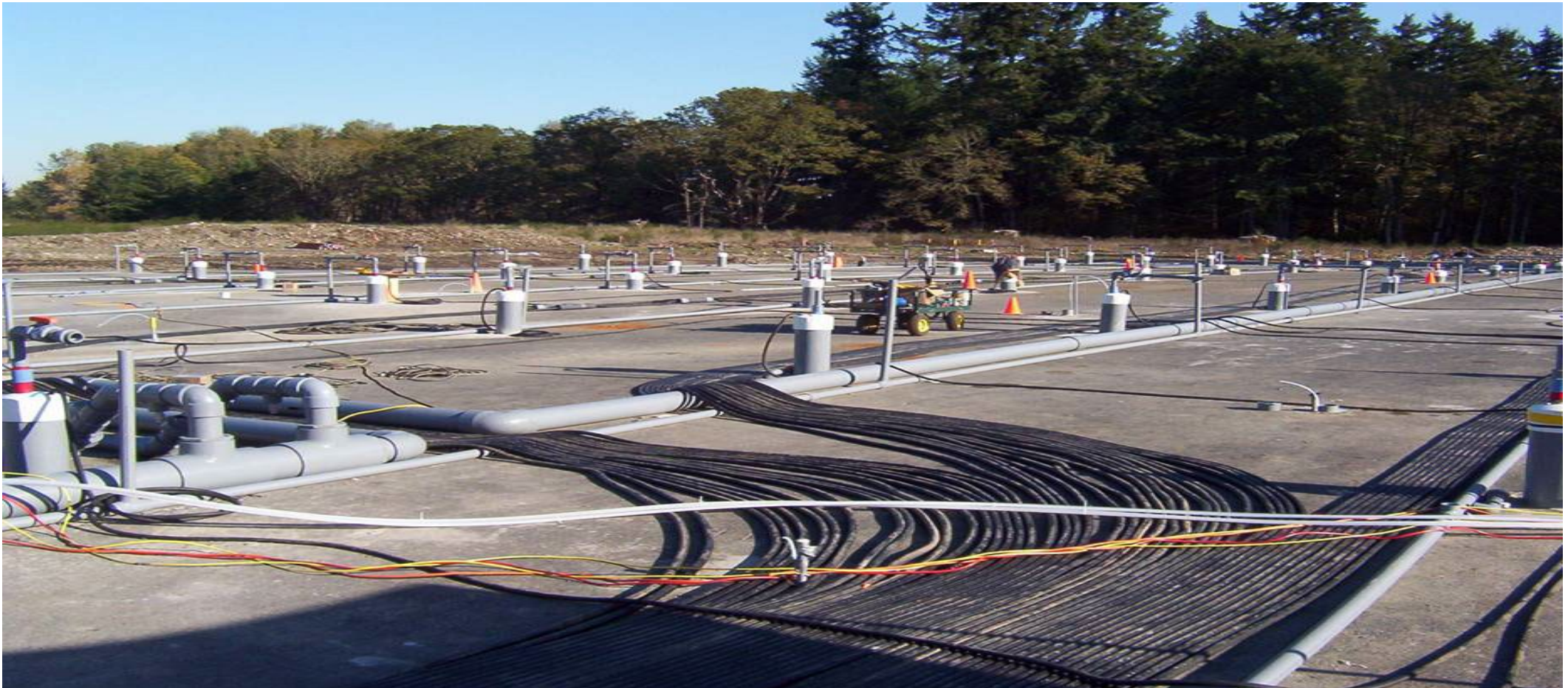




# In-Situ Thermal Remediation



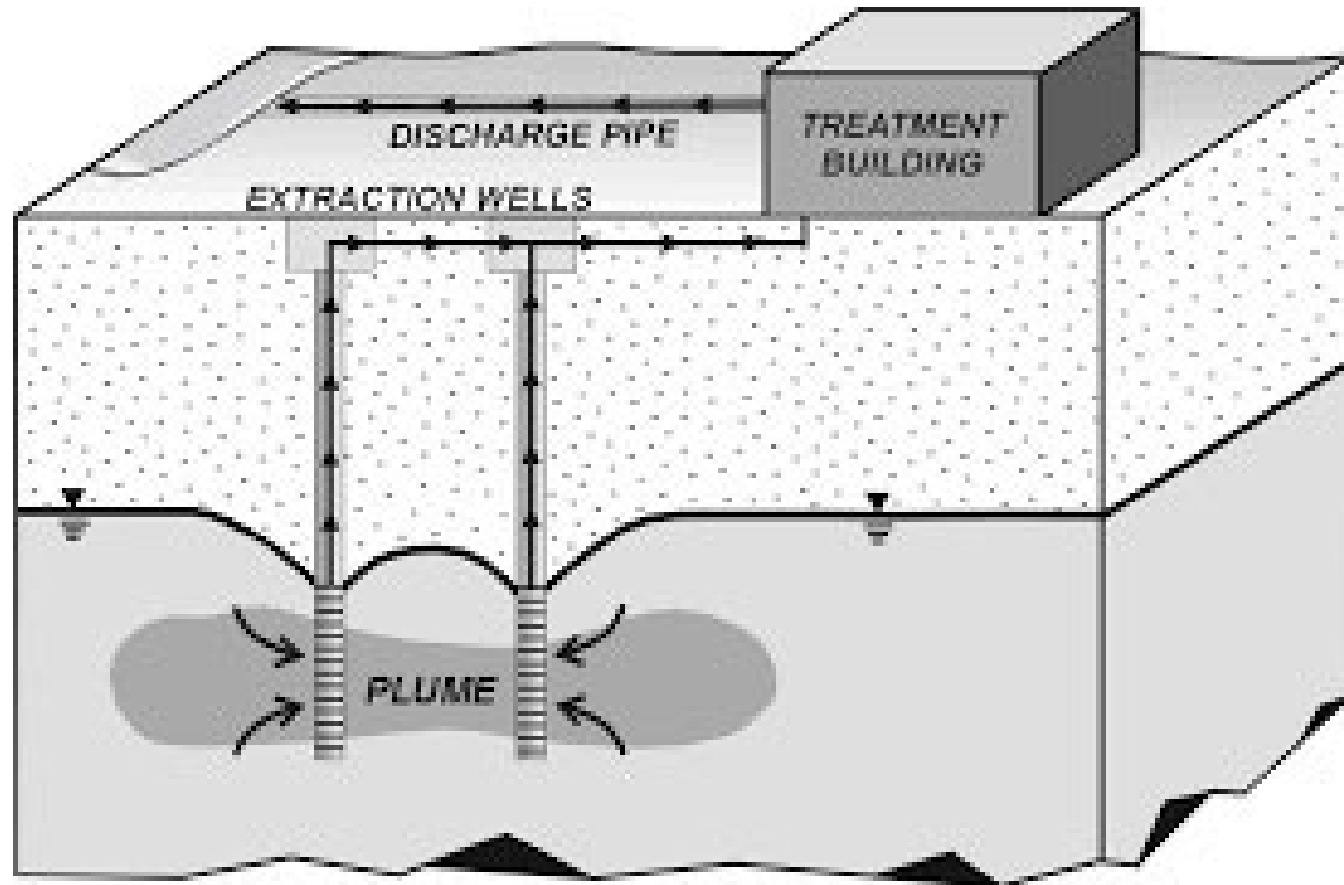
# Thermal Image



# Approximate Thermal Treatment Areas



# Hydraulic Containment



# Groundwater and Surface Water Monitoring



# Surface Water Sampling



# Institutional Controls

- Deed Restrictions
- Fencing





## Question and Answer Session

- Project Manager: Carol Crooks
- (803) 898-0810
- [crookscl@dhec.sc.gov](mailto:crookscl@dhec.sc.gov)
- [www.scdhec.gov/PhilipServices](http://www.scdhec.gov/PhilipServices)