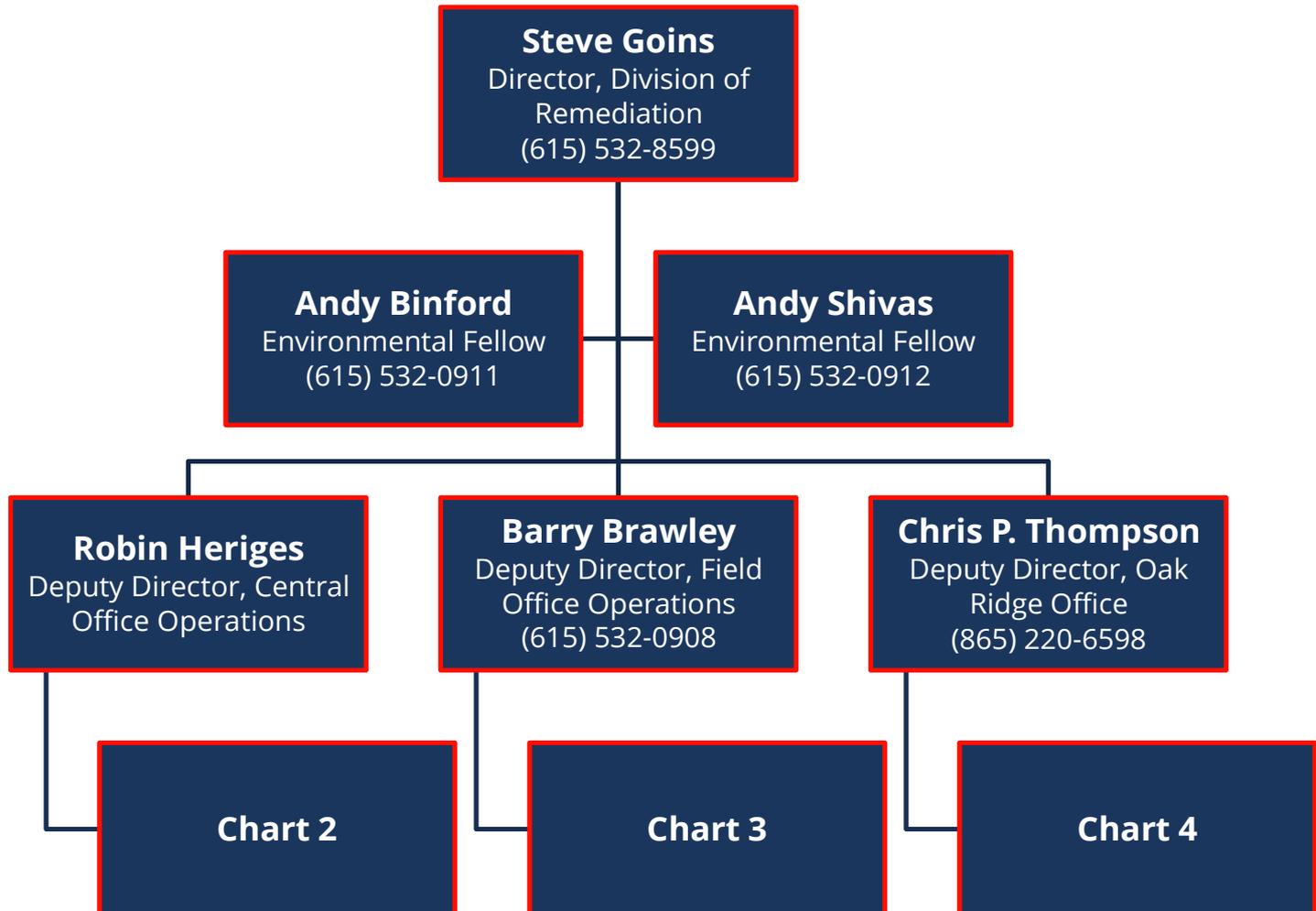




Department of  
**Environment &  
Conservation**

# 2016 Environmental Show of the South Division of Remediation

# Organizational Changes



# Staff Additions

- Cathleen Dennison – Clerk 3
- Shannon Gray – TDEC Env Sci 3
- Ken Johnson – TDEC Env Mgr 3
- Jennifer Jones – ASA 3
- Hannah Klein – TDEC Env Sci 1
- Patti Loring – Clerk 3
- Justin Meredith – TDEC Env Con 2
- Dana Ohren – Grants Analysis 3
- Beth Rowan – TDEC Env Con 2
- Brad Stephenson – TDEC Env Con 3



# Division of Remediation

- DoR implements:
  - The Hazardous Waste Management Act of 1983, Part 2 (TCA 68-212-201 et seq.)
  - Property Where Methamphetamine Manufactured (TCA 68-212-501 et seq.)
  - The Drycleaner's Environmental Response Act (TCA 68-217-101 et seq.)
  - The Tennessee Oversight Agreement between the US Department of Energy and the State of Tennessee, concerning the Oak Ridge Reservation.
- DoR uses these Acts and Agreement to investigate and address sites to minimize the human health and environmental risk they pose from releases of chemical and radiological contaminants.

# Former Chisca Hotel - Memphis

The Chisca Hotel has been a fixture in the Memphis skyline for over 100 years. Notably, it was the broadcast center where Elvis Presley's voice first hit the airwaves, broadcasted on WHBQ radio by DJ Dewey Phillips on July 7, 1954. Starting in 2013, the 300,000 square foot property began undergoing remediation and rehabilitation efforts, as developers prepared to turn the historic landmark into a mixed-use building with apartments and retail space. On December 21, 2015, the Chisca reopened with 161 apartment units, lofts and penthouses and ground-floor commercial space. An EPA BF Community Wide Assessment Grant funded two Phase I Environmental Site Assessments on the property in 2012. DoR staff provided technical oversight for the EPA grant awarded to Shelby County.



# Former Baptist Hospital Complex, Knoxville

The former Baptist Hospital Complex is along the Tennessee River, just south of downtown Knoxville, and is currently under redevelopment to be transformed into a multi-purpose riverfront complex. The property sat vacant since 2008, with potential and unknown contamination hindering its redevelopment. The City received an EPA BF Community Wide Assessment Grant in 2009 to provide six Phase I Environmental Site Assessments (ESAs) and three Phase II ESAs for the parcels in the complex. Approximately \$150,000 was spent characterizing this property. With approximately \$160 million in private investment, the plans for redevelopment include 300 apartment units overlooking the Tennessee River, 225 student housing suites, a 150 room waterfront hotel and approximately 40,000 square feet of retail and office space.



# University Commons, Knoxville



The former Robert Shaw/Fulton Bellows and Components manufacturing plant site has been reborn as the new University Commons Retail Center. The plant shut down in 2005 and left a property contaminated with metals and solvents in both soil and groundwater. DoR worked with the developers to address contamination through a combination of remediation, land use restrictions, and unique building design elements.



# Ascend Amphitheater and Riverfront Landing - Nashville



Metro Nashville, in coordination with DoR, has redeveloped the 12-acre property along the downtown Cumberland riverfront formerly utilized by the Nashville Thermal Plant into the Ascend Amphitheater. The 6,800 capacity amphitheater features a large stage providing panoramic views and terrific sight-lines from every seat in the venue. Certain impacted soils were removed for off-site disposal and other soils were covered with a 24-inch clean cap or buildings and sidewalks. Nashville will continue redevelopment on the east bank with construction of a riverfront landing as part of a new 4.5-acre park in front of Nissan Stadium to include new green space, pedestrian and bike paths, and attractive, easy access to the river for boaters.

# Alcoa High School - Alcoa

## \$33M school built on 26 acre portion of former Alcoa Aluminum Co. West Plant

The City of Alcoa and the Alcoa School District entered into a Brownfield Voluntary Agreement with the Department outlining the steps needed to address the contamination at the site. Clean up efforts focused mainly on the 2.5 acre Storm Water Management Area that had been impacted with PCBs and hydrocarbons. Infrastructure that included an oil water separator, associated piping, and two settling ponds were removed. Approximately 104,000 gallons of rain diluted sludge was hauled off site for proper treatment and disposal.



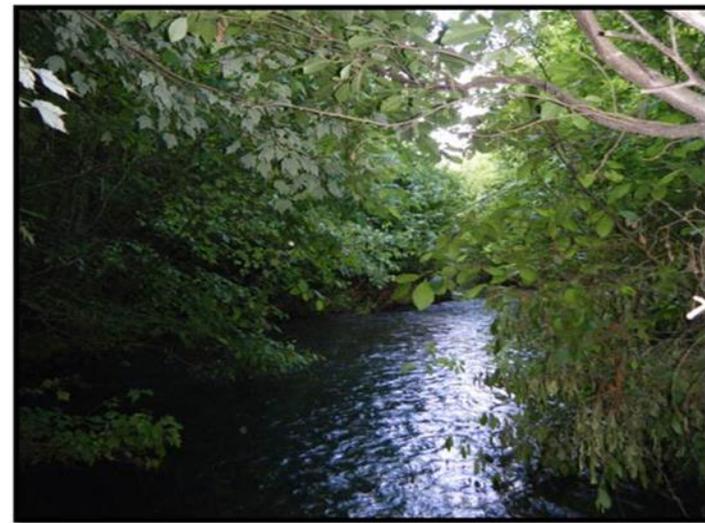
# Copper Basin Project, Lower North Potato Creek



Dating back to the 1850s, the Lower North Potato Creek watershed, part of the Copper Basin in Polk County, was a site of extensive copper mining and processing. To improve water quality, biological integrity, and diversity, Glenn Springs Holdings Inc. removed and isolated waste materials, constructed passive and active water treatment systems, captured poor quality water for treatment, diverted water of good quality, enhanced vegetation and wildlife habitat, and restored stream segments and wetlands. In 2014, modifications were made to allow North Potato Creek to flow directly to the Ocoee River without treatment. This was the first time since the 1800s that North Potato Creek has flowed to the Ocoee River without polluting it.



Before



After



# Department of Energy - Oak Ridge Reservation



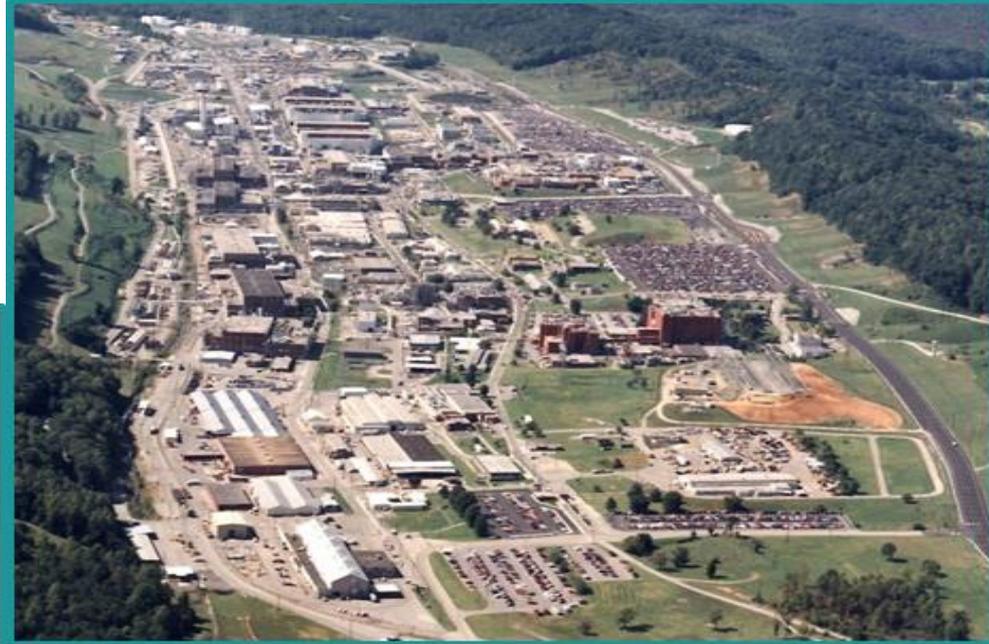
***K-25 Gaseous  
Diffusion  
Plant***

TN

Department of  
Environment &  
Conservation

# Department of Energy - Oak Ridge Reservation

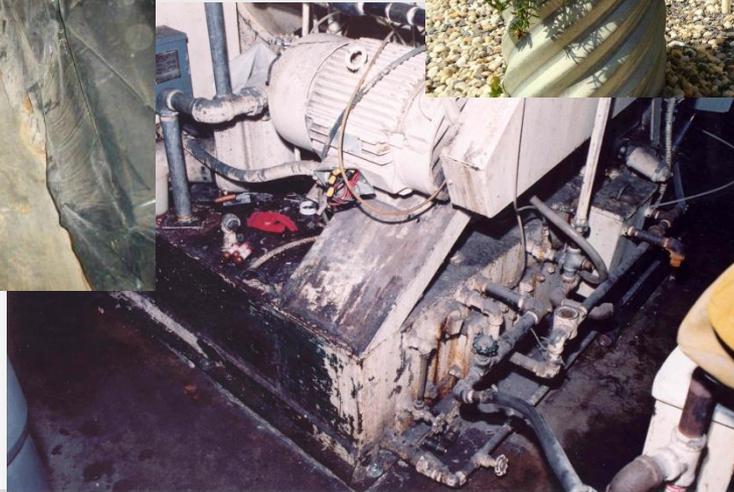
## *Y-12 National Security Complex*



## *Oak Ridge National Laboratory*

# Drycleaner Program

- Facility Registration
- BMP Compliance Inspections
- Site Investigation/Remediation
- Vapor Intrusion Mitigation
- Site Redevelopment



# Methamphetamine



DoR is responsible for:

- developing standards, rules and guidance for property cleanup
- providing training and authorization for contractors and hygienists
- maintaining and publishing registry of contaminated properties

# EPA SSC Commitments

## Velsicol Hardeman County Landfill NPL Site

Approximately 130,000 to 300,000 drums of waste containing pesticides, carbon tetrachloride and other pollutants were disposed of in ten to fifteen foot deep, unlined trenches at the Velsicol Hardeman County Landfill site near the town of Toone. A soil vapor extraction (SVE) system along with access restrictions, cap extension and cap maintenance should be effective in controlling the source area. The remedy is expected to reduce surface water, air and groundwater pollution by removing an estimated 5,000,000 to 6,000,000 pounds of carbon tetrachloride and other VOCs.

The Department negotiated two SSCs with EPA on the Velsicol Hardeman County Landfill, with total capital, remedial action treatment and monitoring costs of \$55,378,775. EPA will fund 90% of these costs and the State will fund the remaining 10% (about \$5,537,877).



# U.S. EPA National Priorities List (NPL) Sites in TN

County	City	Site
Anderson	Oak Ridge	Oak Ridge Reservation
Carroll	Milan	Milan Army Ammunition
Crockett	Alamo	Alamo Contaminated Groundwater
Fayette	Rossville	Ros Metals
Hamilton	Chattanooga	Tennessee Products
Hardeman	Toone	Velsicol
Hickman	Wrigley	Wrigley Charcoal
Knox	Knoxville	Smokey Mountain Smelters
Lawrence	Lawrenceburg	Murray- Ohio
Madison	Jackson	American Creosote
Shelby	Arlington	Arlington Blending
Shelby	Memphis	Carrier
Shelby	Memphis	Memphis Defense Depot
Shelby	Collierville	Smalley-Piper
Shelby	Collierville	Walker Machine Products
Wayne	Waynesboro	Mallory Capacitor

# Accomplishments

- \$21,557,977** -- Expenditures reported paid by Responsible Parties with 38 parties reporting
- 3,040,718,265 gallons** -- Contaminated surface and ground water
- 141,609 pounds** -- Hazardous substances treated and disposed
- 106** -- Number of sites entered the Voluntary Program
- 396** -- Number of sites worked in a Voluntary Program
- 32** -- Number of No Further Action Letters issued by a Voluntary Program
- 29** -- Number of sites supported by Division's Brownfield Grant Assistance Program
- \$500,000** -- Dollars awarded through the U.S. EPA Brownfield Grants to Tennessee entities
- 1206** -- Quarantined properties in the Methamphetamine inventory
- 300** -- Dry Cleaners registered in DCERP
- 61** -- Dry Cleaners participating in DCERP Environmental Response Activity
- 407** -- Hazardous Substance sites the Division worked on this year not included above.

# Legislation

## SB2228/HB2169

Seeks to redefine liability in the Tennessee superfund statute, TCA 68-212-202(a)(4)(E) by importing the exemption contained in federal Comprehensive Environmental Response Compensation and Liability Act (CERCLA) law at 42 USC 9627 added by the Superfund Recycling Equity Act (SREA). SREA was added to the CERCLA statute in 1999. This bill would affect the status of businesses that are currently liable parties by definition by excluding liability not of the owners and operators of recycling operations but of generators arranging recycling transactions and transporters of materials intended for recycling.

## SB2177/HB2484

Proposes an amendment to TCA 67-4-20 and 67-4-21 to add additional tax credits for business who create at least 10 qualifying jobs at a Brownfield site. The bill requires that the Brownfield site be at least 2.5 acres, has been the subject of an investigation or remediation as a brownfield project under a voluntary agreement or consent order pursuant to TCA 68-212-224 since January 1, 2000 and located in a county having a population in excess of 300,000. The credit is limited to two qualified businesses per authorized county.

# Division Initiatives

- **Funding Stability**
  - HWRAF
  - DCERP
  - ORR Grants
- **Oak Ridge Reservation – Remediation and Restoration**
  - EMDF (On-Site Landfill)
  - OF200 (Mercury Treatment Plant)
  - Offsite Ground Water
- **SSC Commitments on EPA Fund Lead Sites**
- **Meth Rule Amendments**
- **Succession Planning – Knowledge Transfer**

# What Motivates Me !!!!

