

# Status of Orphaned Inactive Hazardous Substance or Waste Disposal Sites

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# Status of Orphaned Inactive Hazardous Substance or Waste Disposal Sites

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- Review of HB 45 (2011 Session) implementation
- Overview of orphaned sites under the Inactive Hazardous Sites Response Act

# Risk-Based Remediation of Industrial Sites

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- HB 45 (2011 Session) establishes option for risk-based remediation of industrial sites
- Pre-Existing risk-based remediation programs: Underground Storage Tank, Dry Cleaner Solvent Cleanup Act, & Pre-Regulatory Landfill Programs
- Risk-based remediation already available for soils
- What's new: Groundwater

# Risk-Based Remediation of Industrial Sites

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## ◉ Remediation under:

- Inactive Hazardous Sites Response Act
- Resource Conservation & Recovery Act sites
- National Priorities List sites
- 15A NCAC 2L groundwater corrective action requirements
- Oil Pollution and Hazardous Substances Control Act (excluding petroleum underground storage tank releases)

# HB 45 Eligibility Criteria

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- Property is or has been primarily used for manufacturing of commercial products
- Contaminant release reported to the DENR prior to March 1, 2011
- No soil or groundwater contamination off property at time remedial action plan is submitted
- No contaminant will migrate to adjacent properties above unrestricted use standards

# Risk-Based Remediation of Industrial Sites

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- Eligibility guidance on DENR web site  
*<http://portal.ncdenr.org/web/wm/quick-links>*
- DENR setting up contracts to assist in review of data provided by those applying for alternate cleanup levels under HB45
- Several inquiries, but no parties seeking alternate cleanup levels yet



# Inactive Hazardous Sites Response Act

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- Inactive Hazardous Sites Response Act addresses properties contaminated with hazardous substances
- Prior to the 1980s, virtually no regulations on disposal of solid and hazardous wastes
- Thus old disposals/discharges of various chemical-containing wastes
- Also, newly occurring spills of products containing hazardous substances

# Sites include:

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- Abandoned chemical wastes
- Spills and disposal of various chemicals on manufacturing and other properties
- Residential properties with contaminated soils/groundwater from previous uses or discharges by homeowner



# Inventory of Sites Contaminated With Hazardous Substances

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- Currently 1930 open contaminated site cases
- 62 new sites on average discovered each year
- 14 sites completed and assigned “No Further Action Status” on average each year
- 453 sites currently assigned “No Further Action Status”
- Staff are able to work on about 150-160 high risk sites with and without responsible parties at a time

# What Makes a Site “Orphaned”?

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- ◉ Discharger is bankrupt or out of business
- ◉ Discharger does not have sufficient funds to address
- ◉ Cannot determine what party discharged the contamination

# Difficulties in Determining Responsibility

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- Not required to keep records of spills and disposal prior to the 1980s
- Many operators in succession may have used same chemicals
- High cost of cleanup (thousands to millions of \$) an incentive not to be forthcoming with facts

# Orphaned Sites

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- Currently 323 known orphaned hazardous substance contaminated sites
- 283 high risk orphaned hazardous substance contaminated sites

# High-Risk Orphaned Contaminated Sites

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- Contaminated water supply wells from:
  1. unknown source
  2. homeowner discharge
  3. migration of contaminated groundwater from adjoining facility where no responsible party could be identified
- Contaminated soil or wastes on residential property
- Abandoned waste

# High-Risk Orphaned Site Exposure Concerns

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- Contaminated drinking water supplies
- Direct contact with contaminated soils on residential property
- Vapors from contaminated groundwater entering homes and other buildings

# High-Risk Orphaned Sites: Sites With Affected or Threatened Wells (1 or more wells affected at each site)

# Sites with Wells Above Fed Drinking Water Limits (MCLs)	18
Detectable Contamination Below MCLs	124
Additional Sites Wells Less Than 500 ft From Known Source	83
Total	225 Sites



# Other High-Risk Orphaned Sites

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- 174 sites where residential property is the primary source site
- Sites affecting parks, schools and other sensitive use properties and no responsible party
- Groundwater contaminant vapors entering homes and businesses and no responsible party

# Recent Orphaned Site Case Actions

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- ◉ Crowders Mountain State Park (Gastonia)
- ◉ Oak Haven Mobile Home Park (Salisbury)
- ◉ Texfi (Fayetteville)
- ◉ Phoenix Resources (Havelock)

# Crowders Mountain State Park

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# Crowders Mountain State Park

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- \$141,706 State cleanup funds expended
- \$930,000 USEPA cleanup funds expended
- Total cost of sampling and contaminated soil and waste removal - \$1,071,706
- Some groundwater contamination remains



# Oak Haven Mobile Home Park



# Oak Haven Mobile Home Park

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- \$298,501 State cleanup funds expended
- Approx. \$500,000 USEPA cleanup funds expended
- Total cost of sampling and contaminated soil and waste removal – Approximately \$800,000
- Site assigned “No Further Action Status”



# Texfi-Fayetteville



# Texfi-Fayetteville





# Texfi-Fayetteville



# Texfi-Fayetteville



# Texfi-Fayetteville

## Funds Obtained/Expended

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- Approx. \$700,000 from the Inactive Hazardous Sites Cleanup Fund expended
- \$941,214.65 obtained from state's bankruptcy claim against Texfi
- Four special appropriations from the General Assembly, totaling \$250,000 expended



# Texfi-Fayetteville Remaining Funds

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- ◉ \$218,746 remains of bankruptcy funds
- ◉ \$50,000 special legislative transfer for FY11-12

# Phoenix Recycling-Havelock

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# Recent/Ongoing Orphaned Site Projects

## Providing Alternate Water (installation)

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- Atkinson Street Contamination-Hamlet/Richmond
- Brekenwood Subdivision-Pleasant Garden/Guilford
- Busick Road-Reidsville/Rockingham
- Clontz Residence-Marshville/Union
- Country Club Lane-Roxboro/Person
- Durwood Grocery-Willard/Pender
- Fairland Lane-Lincolnton/Lincoln
- Painter Well
- Pawley Drive Contamination-Charlotte/Mecklenburg
- Priddy-Lawsonville/Stokes
- Scercy Wells-Charlotte/Mecklenburg
- Spectrum Yarns-Kings Mountain/Cleveland
- Staley PCE-Liberty/Randolph
- Tom Sadler Road Wells/Mingus-Charlotte/Mecklenburg
- Woodleaf Road Solvent Site-Salisbury/Rowan

# Recent/Ongoing Orphaned Site Projects

Contaminant Assessment to Determine Risk/ Responsibility

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- Alkalai Screen Printing-Wilmington/New Hanover
- Atkinson Street Contamination-Hamlet/Richmond
- Boyette Property-Wilson/Wilson
- Cox Mobile Home Park-Asheboro/Randolph
- Hollingsworth Property-Fayetteville/Cumberland
- Mary Chappell Residence-Hamlet/Richmond
- Paziuk Warehouse-Wilmington/New Hanover
- Pender Plating-Burgaw/Pender
- Phoenix Recycling-Havelock/Craven
- Rochelle Street Wells-Durham/Durham
- Walker Drum Disposal-Gold Hill/Rowan



# Recent/Ongoing Orphaned Site Projects

## Source Removals/Remedial Action

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- Cheeseman Property-Rockwell/Cabarrus
- Crowders Mountain State Park-Gastonia/Gaston
- G&B/Farmer Property-Scotland Neck/Halifax
- Levi Watts Property-Tabor City/Columbus
- Oak Haven Mobile Home Pk-Salisbury/Rowan
- Texfi-Fayetteville/Cumberland
- Villa Mobile Home Park-Kannapolis/Cabarrus
- Vinegar Hill-Tabor City/Columbus

# Funding Sources for High Risk Orphaned Sites

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- US EPA
- Bernard Allen Memorial Drinking Water Fund
- Inactive Hazardous Sites Cleanup Fund
- Bankruptcy Claims

# Bernard Allen Memorial Drinking Water Fund

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- Received total of \$915K appropriations in 2006 and 2007
- Has been receiving 2.5% of Scrap Tire Tax since Nov 2009 (approx. \$390K annually)
- Used to sample wells and to provide alternate drinking water to affected wells



## Bernard Allen Memorial Drinking Water Fund

### Alternate Water for Contaminated Water Supply Wells

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- For wells with hazardous substance contamination and other pollutants
- Can be from natural conditions or normal application of pesticides
- Contaminant must be greater than Fed. drinking water standard
- Owner income must be less than 3X US poverty guidelines
- Fund can pay no more than 1/3 of water line cost and no more than \$10K/residence

# Bernard Allen Memorial Drinking Water Fund



# Inactive Hazardous Sites Cleanup Fund

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- Can only be used for hazardous substance releases
- IHSRA and most federal and state contaminant remediation law excludes contamination from natural sources or due to normal application of pesticides

# Inactive Hazardous Sites Cleanup Fund Income- Appropriations and Legislative Transfers

Year	Amount	Source	Notes
FY87-88	\$100,000	Appropriations	
FY88-89	\$500,000	Appropriations	
FY04-05	\$50,000	NPL Cost Share	For Texfi Only
FY05-06	\$50,000	NPL Cost Share	For Texfi Only
FY06-07	\$100,000	Appropriations	For Texfi Only
FY07-08	\$400,000	Dry Cleaner Solvent Cleanup Fund	
FY10-11	\$50,000	Solid Wst Mgt Trust Fund	For Texfi Only
FY11-12	\$50,000	Solid Wst Mgt Trust Fund	For Texfi Only

# Inactive Hazardous Sites Cleanup Fund-Other Income

Year	Amount	Source	Notes
FY87/88 to FY95/96	\$2,741,864	Solid & Hazardous Waste Penalties	No longer receive. Includes interest. Data from program rpt to the legislature.
FY96/97 – FY10/11	\$1,160,793	Interest	Prior to FY96/97, included above.
FY97/98- Current	\$32,915	Overflow of Emergency Response Fund	Only when fund exceeds cap. Fund has no income outside interest.
FY09/10- Current	\$978,209	Scrap Tire Tax	2.5% of tax. Began FY09/10.
FY97/98- FY10/11	\$28,794	No Further Action Review Fees	Fee began FY97/98.



# Inactive Hazardous Sites Cleanup Fund-Other Income

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- \$237,266 in recovered expenses
- Recovery limited as fund primarily used for orphaned cases

# Inactive Hazardous Sites Cleanup Fund

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- February 2012 Balance: \$700,885  
\$218,434 (Texfi Only Funds)  
\$482,451 for Orphaned Sites
- FY10/11 Income: \$401,963 plus \$50K for Texfi
- FY11/12: \$50K for Texfi
- Average Cleanup Cost: Approx \$560,000 per site



# Bankruptcy Funds

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- \$14,890,784 recovered under Inactive Hazardous Sites Program to date
- 14 bankruptcy cases /multiple sites
- Funds held in state and private trust funds
- Funds can only be used for specific sites

# Other State Funding Mechanisms

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- ◉ Solid and Hazardous Waste Disposal Fees/Tax
- ◉ Targeted Waste Disposal Taxes (e.g. batteries, dry cleaning)
- ◉ Penalty Receipts
- ◉ Appropriations
- ◉ Registration/Permit/License fees