

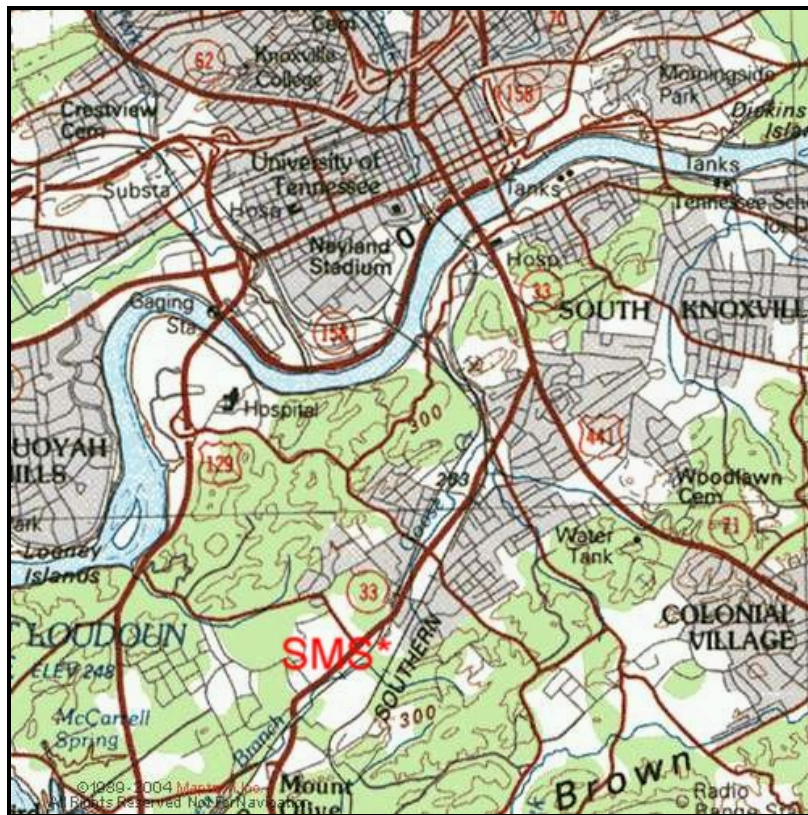
## INTRODUCTION

Tennessee Clean Water Network (TCWN) and Tennessee Public Employees for Environmental Responsibility (PEER) are conducting case studies in the three main regions of Tennessee – East, Middle, and West – to examine and expose examples of surface water pollution not being adequately addressed by regulatory programs under the Clean Water Act and related laws.

The first case study, based in East Tennessee, involves the pollution of a tributary of the Tennessee River in South Knoxville. The source of this pollution is an abandoned hazardous waste facility, Smokey Mountain Smelters, which has been discharging pollutants into surface waters for many years without a permit or any form of treatment or containment. As the site history will describe, the State of Tennessee has been dealing with the facility for at least twenty years with little success. Smokey Mountain Smelters is representative of other waste sites in Tennessee that are causing or are likely to contribute to water pollution problems.

## SETTING

The Smokey Mountain Smelters (SMS) site is located in Knox County, Tennessee, on Maryville Pike (State Secondary Route #33), slightly beyond the city limits of Knoxville.



**Map 1: Smokey Mountain Smelters location – South Knoxville**

The smelter is no longer in operation, and the site is currently abandoned and unused. Large piles of waste are found on the surface of the ground, consisting of what is believed to be a mixture of waste by-products from secondary aluminum smelting and casting. This material is open to the elements and uncontrolled. A large industrial process building and several smaller outlying buildings are located on the site. The buildings appear to house furnaces and other equipment and are partially

collapsing. An unlined waste lagoon is located adjacent to a large waste pile. Numerous abandoned cars, buses, tires, and pieces of rusted metal are scattered about the site, as well as a large pile of empty rusted drums. The outer edge of the site is partially fenced with large openings. The property totals approximately 29 acres.



**Photo 1: Abandoned Industrial Building and Waste Piles**



**Photo 2: Lagoon and Adjacent Waste Pile**

The site is located amidst residential and commercial properties in a low-income area of South Knoxville. Montgomery Village, a public housing complex, is located adjacent to the property. Numerous homes, wells, schools, churches, and cemeteries are located within one mile of the site.



**Photo 3: Housing Complex Adjacent to Site**

The primary point of entry to surface water is seepage and surface drainage to the nearby unnamed tributary of Flenniken Branch. The stream is classified for Fish and Aquatic Life, Recreation, Irrigation, and Livestock Watering and Wildlife. Surface runoff from the site flows generally southwestward to the unnamed tributary of Flenniken Branch, to the Knob Creek embayment of the Fort Loudon Reservoir, and then to the Tennessee River. Upon reaching the Knob Creek embayment, the surface water is additionally classified for Domestic Water Supply, Industrial Water Supply, and Navigation.



**Photo 4: Unnamed tributary of Flenniken Branch**



**Photo 5: Knob Creek Embayment, I.C. King Park**

According to a 1996 assessment by the Tennessee Department of Environment and Conservation (TDEC), Division of Natural Heritage, several sensitive environments surround the site, including wetlands, streams, and very specific or rare habitats for threatened and/or endangered species within a one-mile radius of the site. Records also indicate additional species within an approximate four-mile radius of the site.

## **SITE HISTORY**

The Smokey Mountain Smelters site has a long history of complaints, violations, and failed attempts by the State to initiate remedial action. The following timeline of activities was developed based on information gathered from Tennessee Department of Environment and Conservation (TDEC) files.

According to TDEC records, David A. Witherspoon, Jr. and Daniel E. Johnson purchased the property in 1979 and established Smokey Mountain Smelters, a.k.a. Rotary Furnace, Inc. Prior to their purchase, American Agricultural Company owned a portion of the property, and it is believed that the site operated as an agricultural chemical manufacturing facility. SMS conducted secondary aluminum smelting and casting at the site, a process through which scrap aluminum is melted and impurities are removed until the aluminum reaches the desired purity. SMS accepted aluminum-bearing by-products from several industries, including Alcoa, Inc. TDEC records indicate that other unapproved materials were also burned in the rotary furnaces. Waste by-products from these processes were approved by the Division of Solid Waste Management as “special wastes” to be disposed of at a permitted off-site solid waste disposal facility. It is unknown if any of this waste was every taken to such a facility. Much of the waste was dumped on-site, and some may have been buried. According to reports from the 1980s, the dump had an ammonia odor, was not fenced on all sides, and often was burning.

In the early 1980s, the Knox County Department for Air Pollution Control (KCDAPC) received numerous citizen complaints regarding excessive air emissions from the site. In response to these complaints, the Department performed inspections and cited SMS for many air quality violations between 1983 and 1989.

Reports of inspections by KCDAPC led the Tennessee Department of Health and Environment (TDHE – predecessor to TDEC) to investigate activities at the site and issue a notice of violation to Mr. Witherspoon for operating an industrial landfill without a permit. According to a 1983 geologic evaluation of the site conducted by TDHE:

*This site does not have sufficient geologic potential for the disposal of either putrescible or leachable wastes. There appears to be insufficient soil development here to allow for an effectual sorptive buffer above bedrock and/or groundwater. Any leachate occurring here is likely to percolate more or less directly to bedrock, and while some contamination of groundwater would be almost a certainty, there is the eminent probability of lateral seepage and the eventual pollution of surface waters.*

The Division of Solid Waste Management concluded that the site would be unsuitable for use as an industrial landfill. Further, the Division stated that if SMS intended to continue to use the site to store aluminum waste from the smelting operation, either (1) plans should be made to provide a method of protecting the materials from the weather, or (2) storage of industrial materials at the location should be ceased and the material on-site should be relocated to an area where leaching would not potentially contaminate the surface or groundwater.

Little can be determined about the activities of SMS between the mid-1980s and the close of operations sometime after May 1994. In a 1990 letter to SMS from TDHE, the Department gave Mr. Daniel Johnson instructions on the disposal of “special waste” in area landfills. Additionally, the Department stated that they were under the assumption that SMS was continuing to dispose of waste on-site without a permit. SMS was instructed to begin removing the waste immediately and hauling it to one of the designated landfills. It is unclear as to whether any of the waste was ever taken to an approved solid waste disposal facility.

During its years of operation, SMS was inspected several times by TDEC or its predecessor – TDHE. As noted above, the Division of Solid Waste Management was aware that unpermitted dumping at the site was occurring. The site became inactive for a full year before the appropriate TDEC personnel with a sister agency, Tennessee Division of Superfund (DSF), became aware of the problem in 1995. It appears that DSF became aware of the problem site by accident – highlighting the absence of a mechanism within TDEC to notify the appropriate division of environmental problems such as this. No formal action was taken until 1997 when DSF conducted a “potential hazardous waste site identification” (also known as “discovery”). Through the discovery process, DSF identified SMS as containing an unpermitted industrial landfill with unknown wastes and containment.

In January 1998, a Preliminary Assessment Report was completed by DSF for the U.S. Environmental Protection Agency (EPA), based on concern for the potential release of hazardous substances at the site due to the nature of the former manufacturing operations and past environmental violations. The site was recommended for further investigation through the CERCLA – or “Superfund” – process (Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986). In August 1998, DSF conducted a Site Investigation to collect information on the presence of any contaminants at the site and to assist in developing a site-specific preliminary Hazardous Ranking System (HRS) score to determine if the site should be included on the National Priorities List (NPL) for cleanup under the Superfund program. Documentation from November 1998 indicates that EPA Region IV ranked the site as a “higher” priority and requested further assessment.

According to a fact sheet developed by the Division of Superfund:

*Preliminary investigation of the site has identified potential threats to human health and the environment due to the uncontrolled nature of waste disposal and migration of hazardous substances. Laboratory analysis of environmental samples detected elevated concentrations of hazardous substances, primarily heavy metals, ammonia, and pesticides, in waste, soil, sediment, and waters. Significant concerns include evidence of unauthorized entry to waste disposal areas by nearby residents, including children; the proximity of residential areas to the site; the erosion of waste into surface water drainage ways; and the detection of ammonia*

*vapors emanating from the waste. In addition, there are several unknowns that have not been addressed. These include the potential for contaminant migration via groundwater; the potential for radioactive contamination onsite; and the nature and extent of buried waste. Further investigation is required to adequately define the magnitude of the hazard represented by the Smoky Mountain Smelters site.*

In February 2001, the Division of Superfund held a public hearing regarding a proposed rulemaking amendment to Tennessee Rules and Regulations, Chapter 1200-1-13, to add Smokey Mountain Smelters to Tennessee's list of inactive hazardous substance sites. During the public comment period, several individuals submitted comments to the State demanding the immediate clean up of the contaminated site. These citizens expressed concern about dangerous chemicals, health problems, and harm to future generations and indicated that they had been expressing these concerns to the State for many years. The rulemaking process resulted in the addition of SMS to Tennessee's list of inactive hazardous substance sites in 2001.

### **STREAM IMPACTS – SAMPLING EVENTS**

The Division of Superfund collected samples from the site in 1997, 1998, and 2001. As described below, each of these sampling events indicated the presence of contaminants harmful to human health and the environment.

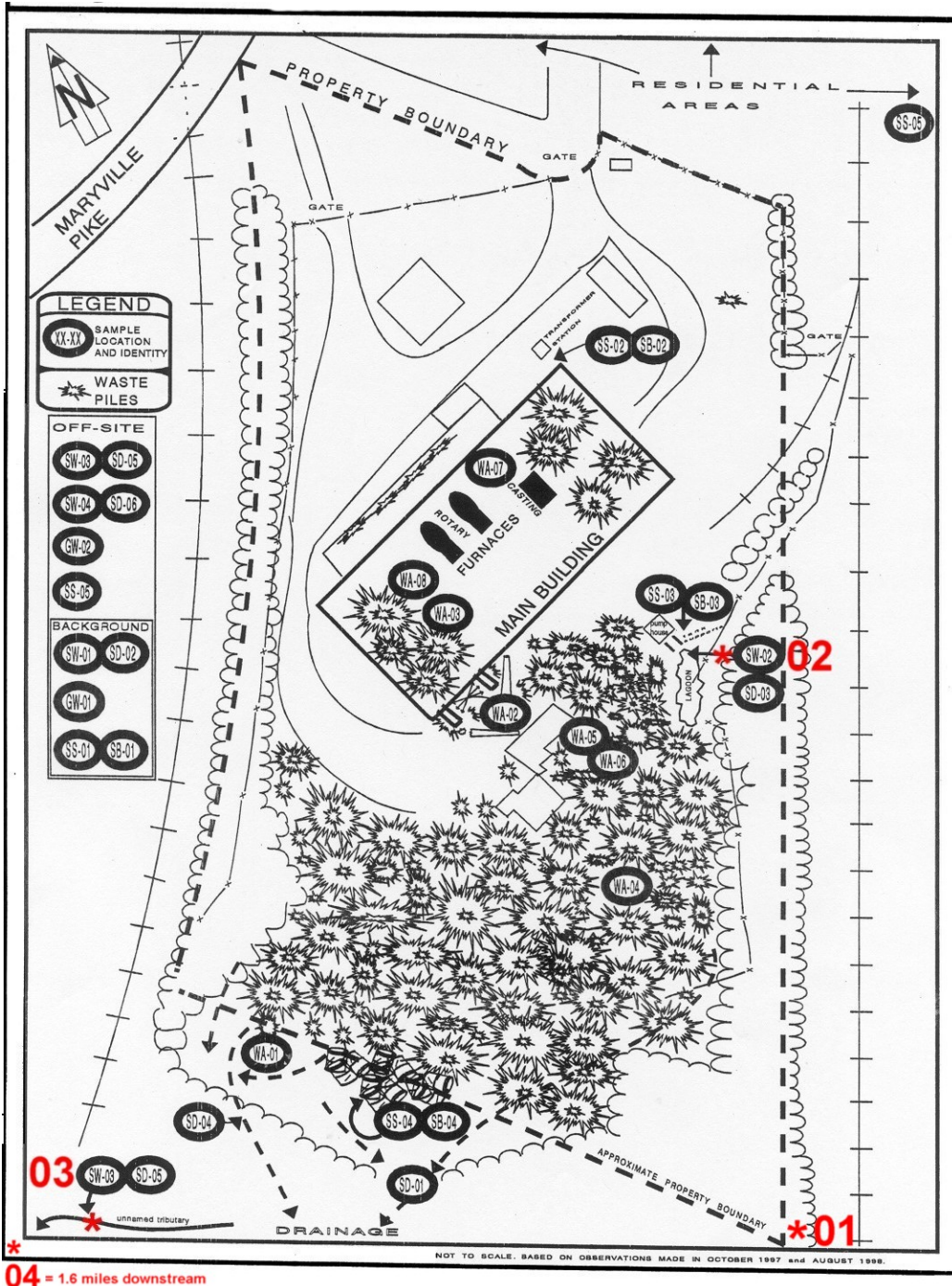
#### **1997 Sampling**

In preparing the Preliminary Assessment Report for the EPA, DSF collected sediment samples in October 1997. One sample was collected from a well-defined drainway near the southwest property boundary. The analytical results of the sediment sample indicated the presence of several pollutants and/or hazardous substances, including ammonia, arsenic, cyanide, lead, and radiological substances. A release of these substances to surface water was suspected. The pollutants found in the wastes and in the sediment included contaminants harmful to fisheries and sensitive environments, some of which were bioaccumulative. DSF recommended further investigation.

#### **1998 Sampling**

Additional samples were collected in August 1998 during the Site Investigation. Samples were collected from the following locations (identified in Figure 1),

- 01: Unnamed tributary of Flenniken Branch – approximately 1/3 mile upstream of the point of entry (background sample)
- 02: On-site lagoon
- 03: At first occurrence of water in the unnamed tributary of Flenniken Branch – downstream of the point of entry (on the adjacent property approximately 100 feet from the site)
- 04: At first occurrence of fishery in Flenniken Branch (at the beginning of the Flenniken Branch embayment – approximately 1.6 miles downstream of the site)



**Figure 1: TDEC Site Diagram – August 1998 Site Investigation (numbers in red added for emphasis)**

Results from the sampling event, listed in Table 1, revealed the presence of significant levels of pollutants. Underlined numbers indicate “observed releases.” An observed release, as defined by the Superfund program, occurs whenever samples show the presence of contamination significantly above background levels, some part of which is attributable to the site.

**TABLE 1**  
**Surface Water Analytical Results**  
**Smokey Mountain Smelters**  
**August 1998**

	<b>PARAMETER (detected in at least one sample)</b>	<b>Sample 01 Background</b>	<b>Sample 02 On-site lagoon</b>	<b>Sample 03 Tributary</b>	<b>Sample 04 Flenniken Branch</b>
<b>I N O R G A N I C S</b>	aluminum, Al	U	<u>2.160</u>	<u>0.365</u>	U
	ammonia, NH <sub>3</sub>	U	<u>28.1</u>	<u>192</u>	N/A
	antimony, Sb	U	U	<u>0.016</u>	U
	arsenic, As	U	<u>0.005</u>	U	U
	cadmium, Cd	U	<u>0.001</u>	U	U
	chromium, Cr	U	U	<u>0.001</u>	U
	copper, Cu	U	<u>0.082</u>	<u>0.120</u>	<u>0.001</u>
	fluoride	U	<u>105</u>	<u>30.7</u>	<u>0.4</u>
	iron, Fe	U	<u>352</u>	<u>0.206</u>	<u>0.194</u>
	lead, Pb	U	<u>0.004</u>	U	<u>0.001</u>
	manganese, Mn	U	<u>0.406</u>	<u>0.364</u>	<u>0.138</u>
	nitrate nitrogen	U	<u>15.28</u>	<u>2.22</u>	U
	NO <sub>3</sub> & NO <sub>2</sub> nitrogen	1.14	<u>13.6</u>	0.91	1.90
	potassium, K	0.43	<u>99.9</u>	<u>505</u>	<u>1.78</u>
	sodium, Na	1.92	<u>416</u>	<u>10400</u>	<u>81.4</u>
	sulfate, SO <sub>4</sub> <sup>-</sup>	4	<u>52</u>	<u>120</u>	<u>17</u>
	vanadium, V	U	<u>0.003</u>	U	U
	zinc, Zn	U	<u>0.063</u>	<u>0.017</u>	<u>0.008</u>
<b>O R G A N I C S</b>	bis(2-ethylhexy)phthalate	0.48	<u>1.90</u>	<u>9.50</u>	U
	Tetrachloroethene	U	U	U	<u>1.2</u>
	Trichloroethene	0.4	U	<u>1.8</u>	<u>0.5</u>
<b>R A D I O L O G I C A L</b>	Gross Beta		<u>296</u>	<u>323</u>	
	Gamma Radionuclide, K-40		<u>741</u>	<u>574</u>	

U = not detected

**Underlined** numbers indicate "observed release"

**Units**

Inorganics: mg/L

Organics: µg/L

Radiological: pC/L

Based on the data, DSF concluded that on-site disposal of commercial agricultural and aluminum smelting wastes in an uncontained manner had occurred. Approximately 100,000 cubic yards of uncontained waste were located in an area where rain exposure was sometimes heavy. Hazardous substances found in the wastes, in on-site soils, and in the sediment and surface water included contaminants harmful to humans and the environment, and some of the detected hazardous substances were bioaccumulative. The site was recommended for further investigation through the Superfund process.



## 2001 Sampling

The Division of Superfund collected samples again in March 2001 from three locations (identified in Figure 2),

01: Leachate, spring

02: On-site receiving stream

03: Downstream, tributary of Flenniken Branch

The on-site receiving stream contained drainage from off-site areas east of the SMS site and leachate from the eastern portions of the site, including discharge from the lagoon. The downstream tributary was near the southernmost portion of the site.

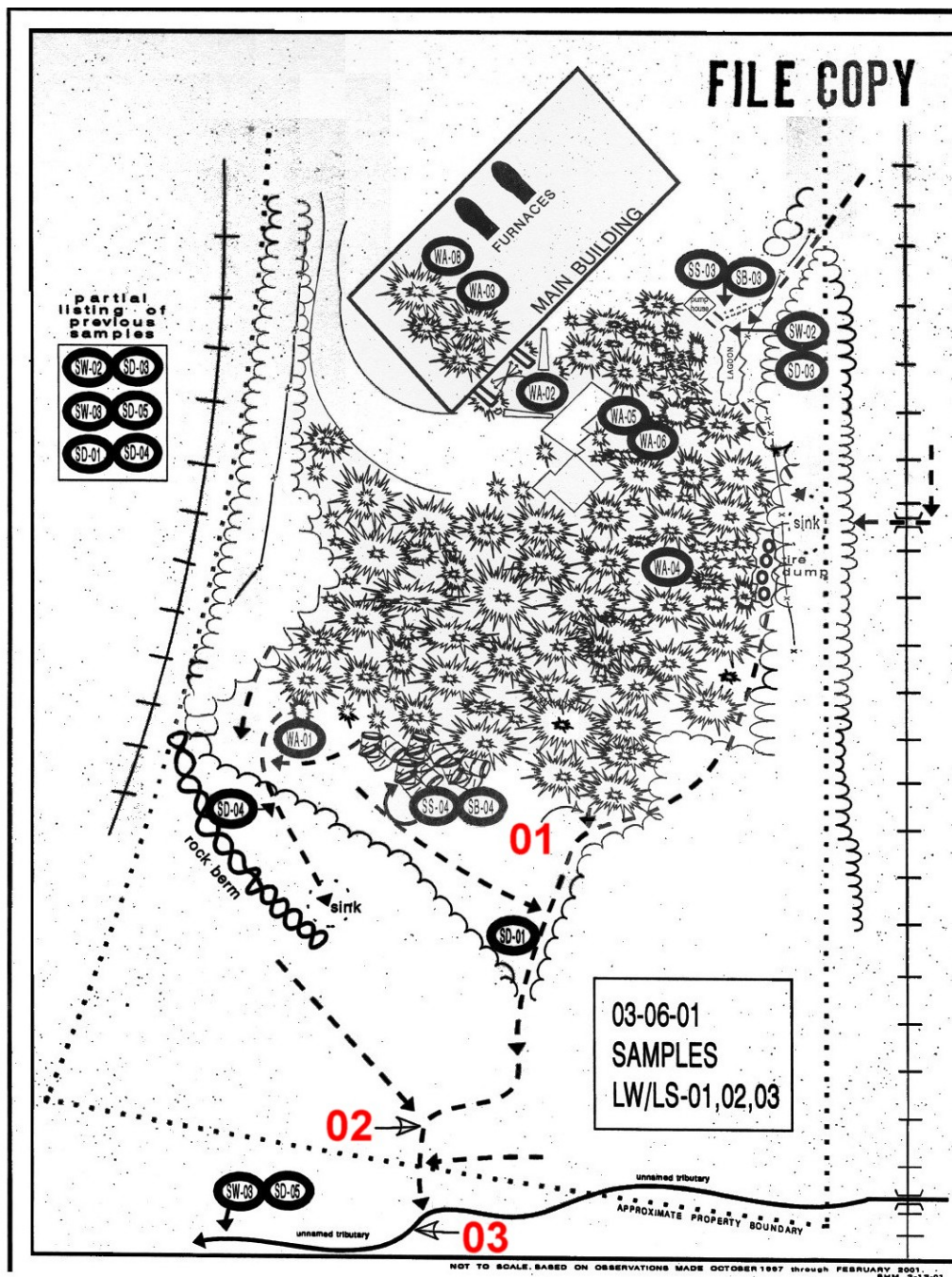


Figure 2: TDEC Site Diagram – March 2001 Leachate Investigation (numbers in red added for emphasis)

Results from the sampling event, listed in Table 2, again indicated the presence of several pollutants and/or hazardous substances harmful to human health and the environment. Underlined numbers indicate exceedances of acceptable levels (e.g., exceedances of water quality criteria for the protection of fish and aquatic life, recreation, or drinking water).

**TABLE 2**  
**Surface Water Analytical Results**  
**Smokey Mountain Smelters**  
**Samples collected 3/6/01**

PARAMETER	01- Leachate, spring	02 – On site receiving stream	03 – Downstream tributary of Flenniken Branch
ammonia, NH <sub>3</sub>	<u>730</u>	<u>700</u>	<u>440</u>
arsenic, As	<u>.012</u>	U	U
chloride, Cl <sup>-</sup>	<u>39,350</u>	<u>35,750</u>	<u>18,100</u>
copper, Cu	<u>2.79</u>	<u>2.75</u>	1.22
dissolved residue	<u>55,040</u>	<u>49,028</u>	<u>24,053</u>
fluoride, F <sup>-</sup>	<u>244</u>	<u>206.3</u>	<u>103.1</u>
iron, Fe	<u>0.927</u>	<u>1.1</u>	<u>0.645</u>
lead, Pb	<u>.016</u>	<u>.013</u>	U
manganese, Mn	<u>0.317</u>	<u>0.582</u>	<u>0.483</u>
nickel, Ni	<u>0.688</u>	<u>0.792</u>	<u>0.643</u>
nitrate nitrogen	<u>18.2</u>	<u>20.3</u>	8.69
nitrite nitrogen	<u>15.77</u>	<u>15.67</u>	<u>7.31</u>
pH, SU	<u>9.4</u>	<u>9.4</u>	<u>9.2</u>
thallium, Tl	<u>0.030</u>	<u>0.026</u>	U
zinc, Zn	<u>0.802</u>	<u>1.38</u>	<u>0.338</u>

U = not detected

Units: mg/L (unless otherwise noted)

**Underlined** numbers indicate exceedances of acceptable levels

### **2003 Sampling**

While conducting research for this report, TCWN and PEER collected water samples at the site in September 2003. Samples were collected from two locations,

01: on-site lagoon

02: downstream of the site near the leachate seep.

The samples were collected during a dry season when there was no stormwater runoff from the site.

Results from the sampling event, listed in Table 3, indicated the presence of several hazardous substances and/or pollutants harmful to human health and the environment.

**TABLE 3**  
**Surface Water Analytical Results**  
**Smokey Mountain Smelters**  
**September 2003**

<b>Parameter</b>	<b>Sample 01 On-site lagoon</b>	<b>Sample 02 Downstream near leachate seep</b>
Ammonia	<u>200</u>	BDL
Arsenic	<u>0.030</u>	BDL
Barium	0.041	0.031
Chloride	<u>14,000</u>	<u>550</u>
Copper	<u>0.49</u>	<u>0.073</u>
Lead	0.011	0.012
Mercury	<u>0.00049</u>	BDL
Nitrate	<u>10</u>	BDL
Nitrite	<u>12</u>	BDL
PH, SU	<u>9.4</u>	<u>9.3</u>
Selenium	0.022	BDL

BDL = Below detection limit

Units = mg/L (unless otherwise noted)

Underlined numbers indicate exceedances of acceptable levels



**Photo 6: Leachate Discharge from Site – September 2003**

### **Summary of Sampling Events**

The sampling results provide evidence of the ongoing discharge of numerous contaminants harmful to human health and aquatic life. Each event indicated the presence of ammonia at alarmingly high levels – ranging from 192 mg/L to 730 mg/L. In comparison, untreated sewage commonly has an ammonia level of about 25 mg/L. Therefore, these samples indicated a waste strength approximately thirty times higher than raw sewage. Such high levels of ammonia are toxic to fish and aquatic life. The same is true for the high levels of chloride found in the samples. Metals, such as mercury and lead, bioaccumulate in fish and may lead to human health impacts in those who regularly consume the contaminated organisms.

The contaminants contained in runoff from the site flow through an area of residential and commercial use. Leachate from the site discharges to an unnamed tributary of Flenniken Branch, then to Flenniken Branch, which flows through neighborhoods, past homes, through yards, and eventually into the Knob Creek embayment of the Fort Loudon Reservoir. The embayment is home to a popular park and fishing pier. Signs posted by the State indicate that the water is contaminated and that certain fish should not be eaten because they may increase the risk of cancer or other serious illnesses in humans. This contamination may be due to discharge from sites other than SMS.



**Photo 7: Fishing Pier on Knob Creek Embayment – I.C. King Park**



**Photo 8: TDEC Warning Sign at Knob Creek Embayment**

## **CURRENT STATUS**

Although TDEC and EPA are aware of the problems associated with this site, no action has been taken to control, treat, or contain the unpermitted discharge of pollution into surface waters of the state. Untangling the steps leading toward remediation of this site is a slow and convoluted process. Overlap between state and federal programs and a lack of interaction between responsible divisions of state government have perpetuated a threat to human and environmental health.

### **Cleanup:**

The Division of Superfund is empowered through the Commissioner of the Department of Environment and Conservation to carry out the requirements of the Hazardous Waste Management Act of 1983. The Division serves as the Department's primary agent in coordinating the identification, investigation, listing, and remediation of contaminated sites. Some of the sites may be added to the National Priorities List (NPL), which is a federal list of sites subject to cleanup directed by the Environmental Protection Agency (EPA) and which may be funded by the national Superfund.

The National Priorities List acts as an information and management tool, providing guidance to the EPA in:

- determining which sites warrant further investigation to assess the nature and extent of the human health and environmental risks associated with a site;
- identifying what CERCLA-financed remedial actions may be appropriate;
- notifying the public of sites EPA believes warrant further investigation; and
- serving notice to potentially responsible parties that EPA may initiate CERCLA-financed remedial action.

The NPL serves primarily informational purposes, identifying for the States and the public those sites that appear to warrant remedial actions. The EPA has been evaluating the addition of the SMS site to the NPL for some time.

Currently, SMS is classified by the State of Tennessee as an "inactive hazardous substance site."

This listing indicates that the site poses or may reasonably be anticipated to pose a danger to public health, safety, or the environment and that the site is eligible for investigation, identification, containment, and clean up, including monitoring and maintenance (T.C.A. 68-212-206). Once a site has been added to the list, Tennessee regulations outline the steps of the remediation process pursuant to federal CERCLA requirements.

Given the existing laws, regulations, and funding mechanisms, it is unclear why DSF has not taken appropriate action to contain and begin remediation of pollution at the site. Although there may be uncertainty about who the liable party is for the SMS site, this does not prevent the state from taking needed action. The Hazardous Waste Remedial Action Fund was created by the Tennessee Hazardous Waste Management Act of 1983 (T.C.A. Section 68-212-2) to address those situations for which there is no one willing or able to cleanup a site. Under these circumstances, DSF uses the Fund to perform the cleanup. The fund is maintained by appropriation of the Legislature, collection of remedial action fees, and by cost recovery from responsible parties. Despite these funds, nothing has been done to control the pollutants originating from the abandoned site.

### **Water Pollution Permitting:**

The Tennessee Water Quality Control Act requires that municipal, industrial, and other discharges of wastewater obtain a permit from the Division of Water Pollution Control. These permits, also a requirement of the federal Clean Water Act, are issued by the state under the federally delegated National Pollutant Discharge Elimination System (NPDES) and establish pollution control and monitoring requirements based on protection of designated uses through implementation of water quality standards and other applicable state and federal rules.

Under state and federal requirements, all waste sites – including inactive dumps – that are causing or are likely to contribute to water pollution problems must obtain NPDES stormwater discharge permits and, in some cases, wastewater permits if non-stormwater discharges are occurring. Based on our research, SMS does not have (and has never had) the required permits for stormwater and wastewater discharges, including the leachate and on-site lagoon.

Federal regulations that address the required stormwater permits are found in 40 CFR 122.26 and specifically include:

- Hazardous waste treatment, storage, or disposal facilities...
- Landfills, land application sites, and open dumps that receive or have received any industrial wastes...
- Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yard, and automobile junkyards...

In implementing the stormwater permit program at the state and federal level, EPA published guidance addressed to regional and state stormwater coordinators that further clarified this matter (see “Industrial Permit Application Question and Answer Document,” EPA, Washington DC, May 1992):

**Q:** Do closed or inactive landfills need to apply for a permit?

**A:** Yes. Any landfill, active, inactive, or closed, must apply for a permit if it receives, or has received, wastes from the industrial facilities under 122.26(b)(14)(i)-(ix).

(From page 7, question 12)

**Q:** Are Superfund sites regulated under this rule?

**A:** Yes, if the site is assigned a SIC [standard industrial classification] code or fits the description of one of the categories listed in the definition of stormwater associated with industrial activity. Under the Superfund Amendment and Reauthorization Act (SARA) section 121(e), Superfund sites are required to “substantively comply” with all environmental regulations.

(From page 20, question 70)

**Note:** Smokey Mountain Smelters’ SIC code is 3341 – the standard industrial classification for secondary smelting and refining of nonferrous metals.

**Q:** Do inactive industrial facilities need to apply?

**A:** Yes, if the facility is included in the definition of storm water discharge associated with industrial activity and significant materials remain on site and are exposed to storm water runoff (p.48009 of 11/16/91 Federal Register). The regulation defines significant materials at 122.26 (b)(13) as including, but not limited to, raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under section 101 (14) of the Comprehensive Environmental Response, Compensation, and Liability Act; any chemical the facility is required to report pursuant to section 313 of title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag and sludge that have the potential to be released with storm water discharges.

(From page 20, question 72)

In addition to the contaminated stormwater, leachate from the site discharges directly to the unnamed tributary of Flenniken Branch. According to federal regulations, 40 CFR 258.2, leachate is defined as “a liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from such waste.” According to the EPA, leachate is regarded to be industrial process wastewater and should not be treated as stormwater.

Based on these laws and regulations, the Division of Water Pollution Control should identify the responsible party or parties and require that the owner or operator obtain a NPDES permit for the discharge of pollution from the SMS site. This permit should cover all sources of pollution from the site – stormwater, leachate, and wastewater lagoon – and should set water quality based effluent limits. By issuing a permit, the State can monitor the effluent and evaluate the adequacy of pollution controls. The process also provides a much-needed avenue for enforcement by both the government and the public.

### **NEEDED ACTION**

The chronology of events at this site highlights several inadequacies in the Superfund process. When TDEC first became aware of the site in the 1980s, required permits, including NPDES permits, should have been issued at that time. Upon first inspecting the site in the 1990s, DSF should have been aware of the immediate need for temporary pollution controls. It appears, however, that DSF typically does not take such immediate action prior to promulgation, except in emergency situations. The cumbersome and slow promulgation process, which involves liability notification, prevents immediate DSF actions needed for the protection of human health and the environment. These problems demonstrate the need for:

- 1) greater ability for DSF to expend the necessary resources in a timely manner to protect human health and the environment; and
- 2) increased coordination with personnel that can provide expertise in all types of environmental problems, including water quality.

Smokey Mountain Smelters is one of several waste sites in the State that is discharging pollution to Tennessee's surface waters without the required permits. Part of the problem is that the State did not issue the appropriate permits when it first became aware of the discharge of pollution from the site and when the responsible party could be clearly identified. Allowing the discharge of pollutants to the waters of the state without a permit is a clear violation of state and federal laws. Under the Clean Water Act, all point source discharges of pollution require a permit. This basic principle is the foundation of water pollution prevention and control in the United States. The EPA has delegated primary NPDES program implementation to the State of Tennessee, giving the Department of Environment and Conservation the responsibility of issuing and enforcing water pollution permits statewide. The Tennessee Water Quality Control Act outlines the roles and responsibilities of TDEC, the Commissioner, and the Water Quality Control Board to ensure that all prudent steps are taken to secure, protect, and preserve the public's right to unpolluted waters. By failing to take the necessary steps to control or treat the discharge of pollution from the SMS site, and letting things get to this point, the State of Tennessee has failed at this obligation.

### **TCWN and TN PEER request that the State of Tennessee take immediate action to:**

- 1) Issue the appropriate NPDES permit to the responsible site owner – addressing the discharge of contaminated pollution from stormwater, leachate, and the wastewater lagoon. The permit should include water quality based effluent limits and comprehensive monitoring requirements. Until the appropriate permittee is identified, TDEC should at least be monitoring discharge from the property.
- 2) Begin the cleanup and removal of waste. Given the hazardous nature of the waste and the threats to human health and the environment, the State should immediately begin the remediation process. At a minimum, the State should cover the exposed materials to prevent wash-off of pollutants from the site and, through the monitoring mentioned above, measure the effectiveness of the controls. Uncertainty regarding liable parties does not prevent the State from taking needed action. The Hazardous Waste Management Act and Remedial Action Fund allow for this process to move forward and for costs to be recovered at a later time.



**Photo 9: Fishing Pier at I.C. King Park**

**For additional information regarding this report, please contact:**

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