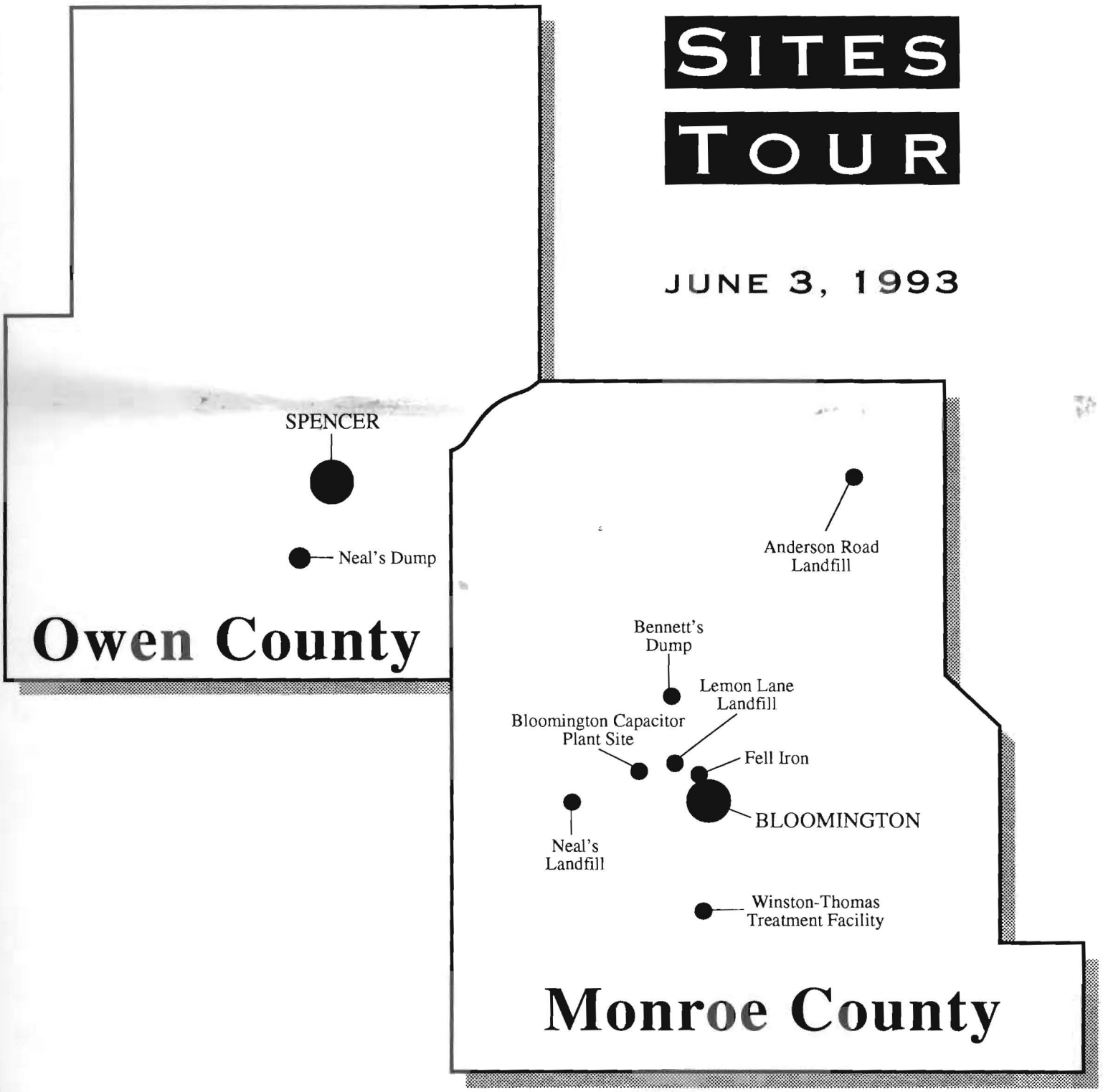
STATE OF THE SITES TOUR

JUNE 3, 1993



Westinghouse Electric Corporation
Bloomington Project

P. O. Box 997
Bloomington, Indiana 47402-0997

July 1, 1993

George Hegeman
2219 Rock Creek
Bloomington, IN 47401

Dear George:

As you know, on June 22 & 23, Westinghouse continued its series of small group meetings to discuss Bloomington's PCB issues. We are very sorry that you were unable to attend.

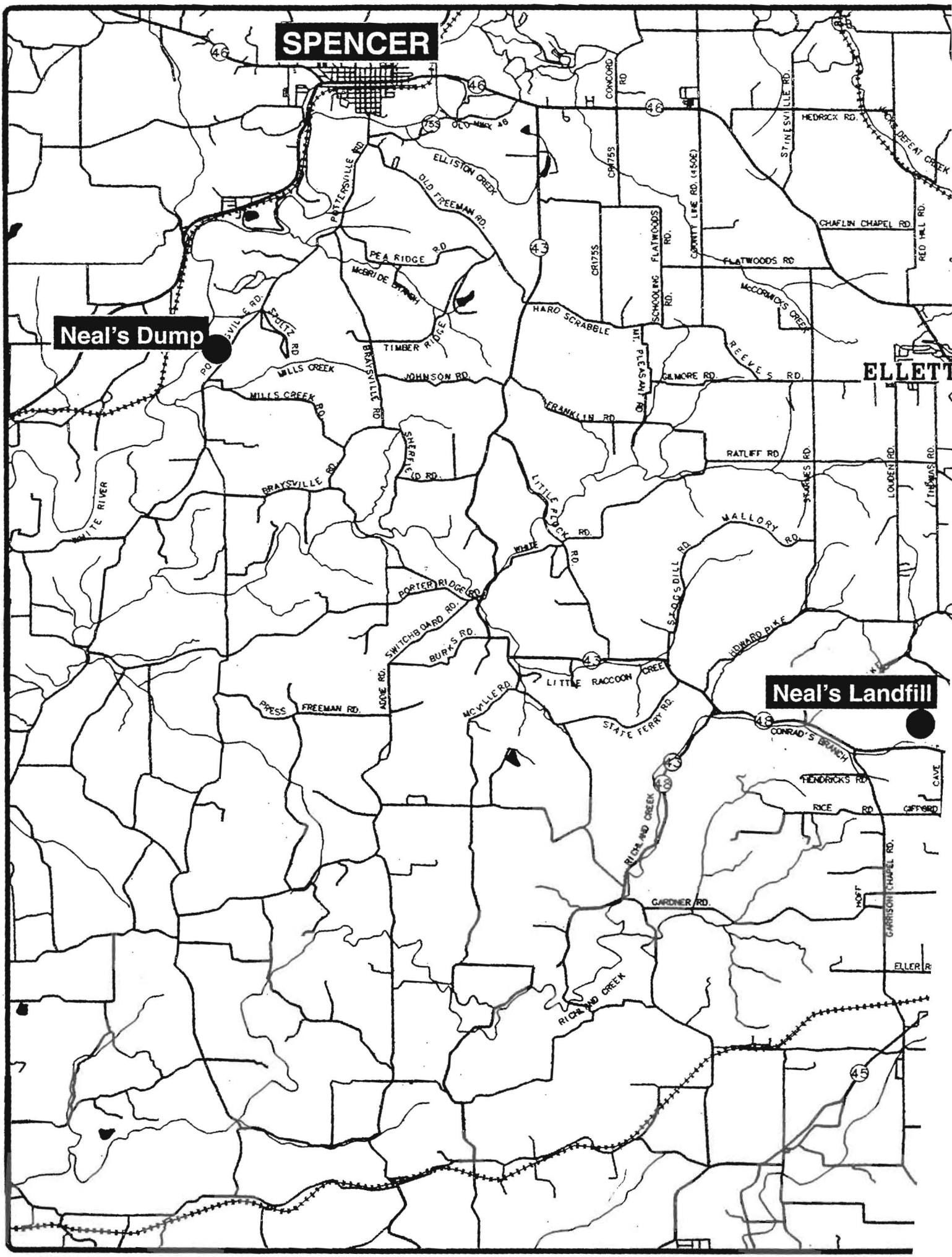
The presentations covered Westinghouse activities and accomplishments over the past eight years to stabilize the sites here in Bloomington. Topics discussed included: the landfill sites, Karst geology, Westinghouse responsibilities for the sites, stream cleanup and site cleanup activities, access control, placement of caps on the sites and groundwater studies and monitoring. I've enclosed a copy of our State-of-the-Sites booklet which discusses these subjects and, more importantly, the protection of public health and the environment.

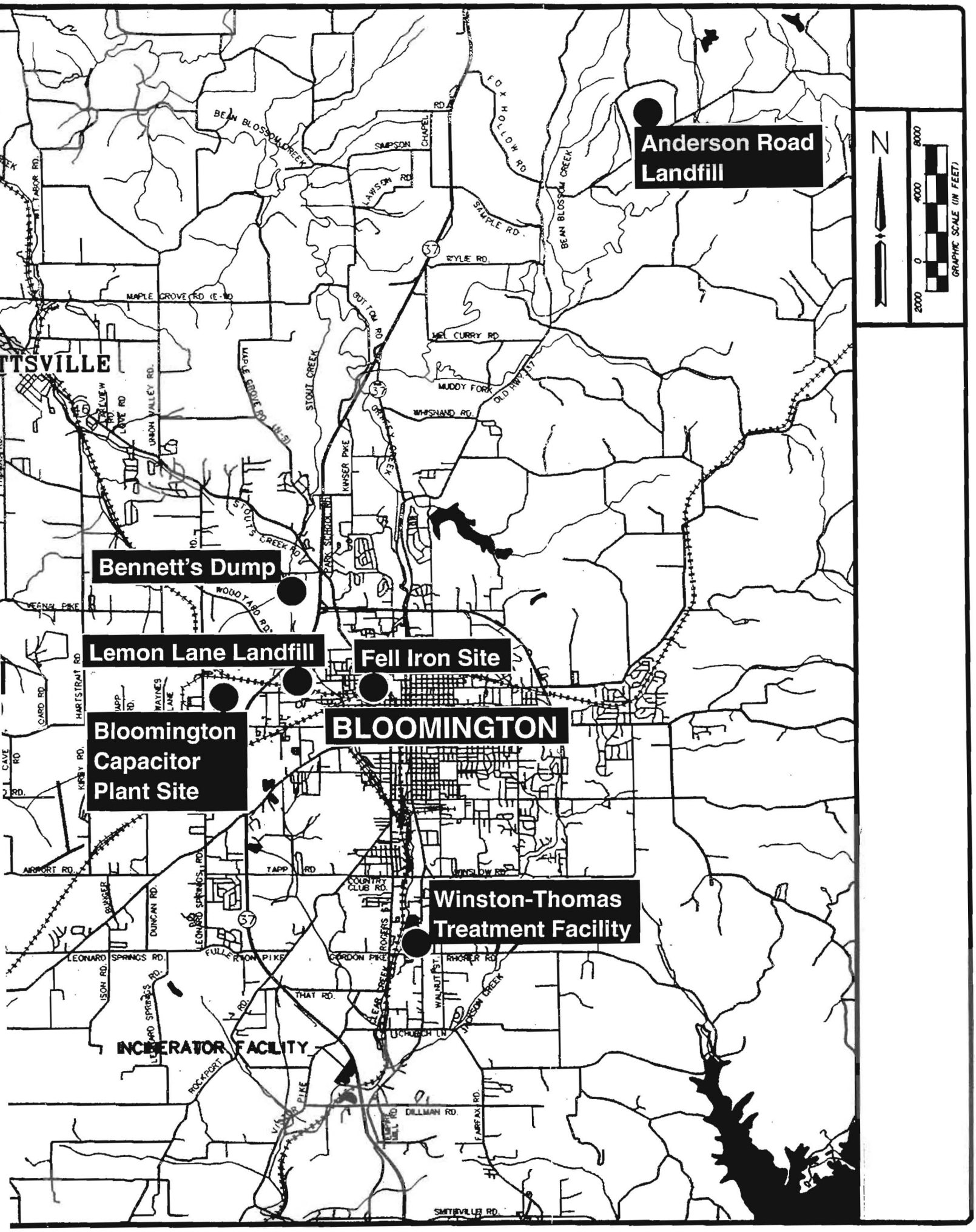
If you would like additional information or would like to tour the sites, please notify me at 334-0030.

Sincerely

James B. Patrick
Westinghouse Electric Corp

Map of Sites


SPENCER
Neal's Dump
Neal's Landfill
ELLETT
46
43
45
CONCORD RD
HEDRICK RD.
STINESVILLE RD.
DEFEAT CREEK
OLD MINK 46
ELLISTON CREEK
POTTERSVILLE RD
OLD FREEMAN RD.
CR175S
COUNTY LINE RD. (450E)
CHAFLIN CHAPEL RD.
RED HILL RD.
PEA RIDGE RD
McBRIDE BRANCH
FLATWOODS RD.
SCHOOLING FLATWOODS RD.
McCORMICKS CREEK
HARD SCRABBLE
SPOLTZ RD
TIMBER RIDGE
BRAYSVILLE RD.
MILLS CREEK
JOHNSON RD.
MILLS CREEK RD.
MT. PLEASANT RD.
GILMORE RD.
REEVES RD.
FRANKLIN RD
SHERIFF'S LD RD.
RATLIFF RD
SKAGGS RD.
LOUDEN RD.
THOMAS RD.
WHITE RIVER
LITTLE FLOCK RD.
WALLORY RD.
SCOGGSDILL RD.
PORTER RIDGE RD.
SWITCHBOARD RD.
BURKS RD.
HOWARD PIKE
ADDIE RD.
LITTLE RACCOON CREEK
PRESS FREEMAN RD.
McVILLE RD.
STATE FERRY RD.
CONRAD'S BRANCH
HENDRICKS RD.
CAVE
RICE RD
GIFFORD
RICHLAND CREEK
GARDNER RD.
HOFF
GARRISON CHAPEL RD.
ELLER R
RICHLAND CREEK


Anderson Road Landfill
Bennett's Dump
Lemon Lane Landfill
Fell Iron Site
Bloomington Capacitor Plant Site
BLOOMINGTON
Winston-Thomas Treatment Facility
INCINERATOR FACILITY
N
GRAPHIC SCALE (IN FEET)
8000
4000
0
2000
BEAN BLOSSOM CREEK
FOX HOLLOW RD
SAMPLE RD
KYLE RD
MAPLE GROVE RD (E-W)
MAPLE GROVE RD (N-S)
STOUT CREEK
CURRY RD
MUDDY FORK
OLD HWY 37
WHISNAND RD
KINSER PIKE
STOUTS CREEK RD
WOODYARD RD
VERNAL PIKE
HARTSTRAIT RD
WAYNES LANE
TAPP RD
AIRPORT RD
COUNTRY CLUB RD
WINSLOW RD
LEONARD SPRINGS RD
FULLERTON PIKE
GORDON PIKE
ROGERS ST
RHORER RD
WALNUT ST
JACKSON CREEK
CLEAR CREEK
THAT RD
ROCKPORT
DILLMAN RD
FAIRFAX RD
SMITHVILLE RD
37

Westinghouse Electric Corporation **Bloomington Project**

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June 3, 1993

This state of the sites booklet provides current "snapshots" of the six sites included in the 1985 consent decree governing the PCB cleanup in Monroe and Owen Counties. It also summarizes the condition of two sites the federal Environmental Protection Agency (EPA) added to Westinghouse's cleanup obligations after the consent decree was reached.

The consent decree sites are Lemon Lane Landfill, Neal's Landfill, Neal's Dump, Bennett's Dump, the Winston-Thomas Treatment Facility and Anderson Road Landfill. The remaining two sites are the Fell Iron Site and the former Westinghouse Bloomington capacitor plant, now owned and operated by Asea Brown-Boveri.

The consent decree outlines specific steps required to remove potential public and environmental risks from PCB-bearing materials at the sites. The agreement also details a number of site remediation activities. Westinghouse completed these protective measures in the late 1980s, with full approval and cooperation from the government consent decree parties.

On the following pages, you'll find an outline of what Westinghouse has done to meet its commitments at each of the sites. Westinghouse, in conjunction and cooperation with the government consent decree parties, continues to monitor and study the sites. Over the years, Westinghouse, the federal EPA and other government consent decree parties have performed a number of site investigations including:

Geophysical surveys
Surface water monitoring
Sediment sampling
Precipitation monitoring
Air sampling
Hydraulic conductivity testing
Aerial photo analysis
Springs monitoring
Soil Sampling
Seismic refraction surveys
Fish sampling
Groundwater elevation monitoring
Groundwater monitoring
Bedrock sampling
Sludge sampling
Gravity surveys
Groundwater dye tracer tests

These studies examine potential environmental pathways to human exposure. We are pleased to report that analyses to date show that potential PCB exposure from these sites is small to negligible. This finding is consistent with a study conducted last year by the Indiana Board of Public Health. The study concluded that Monroe County residents do not have higher PCB blood serum levels than residents in other areas of the country.

We have made our site study findings available to the Agency for Toxic Substances and Disease Registry (ATSDR), a sister agency of EPA, and the State Department of Public Health. They are working together on still another evaluation of potential local PCB exposure.

As always, we welcome and encourage your views.

Sincerely,

Louise Goeser

Louise Goeser
Director
Westinghouse Bloomington Project


LEMON LANE LANDFILL

Lemon Lane Landfill

Lemon Lane Landfill

The Site

This 10-acre landfill, on the northwest side of Bloomington, is bounded on the east by Lemon Lane, on the south by L&N Railroad, on the north by residential property and on the west by undeveloped land.

Bloomington used the landfill from 1933 to 1964 as a repository for various types of waste. From 1958 to 1964, Westinghouse contractors used the landfill to deposit electrical capacitors from the corporation's Bloomington capacitor manufacturing plant in accordance with local ordinances and regulations.

Environmental Protection Measures

- Westinghouse and EPA completed interim environmental protection measures in 1987.
    - EPA installed a locked chain-link security fence around site perimeter.
    - Cleared the site of all trees and vegetation.
    - Removed exposed capacitors and stained soils, which went to the Interim Storage Facility Westinghouse built in 1986 adjacent to the former Winston-Thomas sewage treatment plant.
    - Destroyed 403 capacitors removed from site in a licensed commercial incinerator.
    - Stabilized eroded southern slope of landfill.
    - Covered entire site with TYPAR, a synthetic membrane.
    - Installed gas collection and filter systems.
    - Placed 30,000 tons of clean fill and 36-mill thick HYPALON cover over synthetic membrane.
    - Westinghouse installed 18 groundwater monitoring wells. EPA installed 4.
    - Monitored groundwater wells, residential wells and springs.

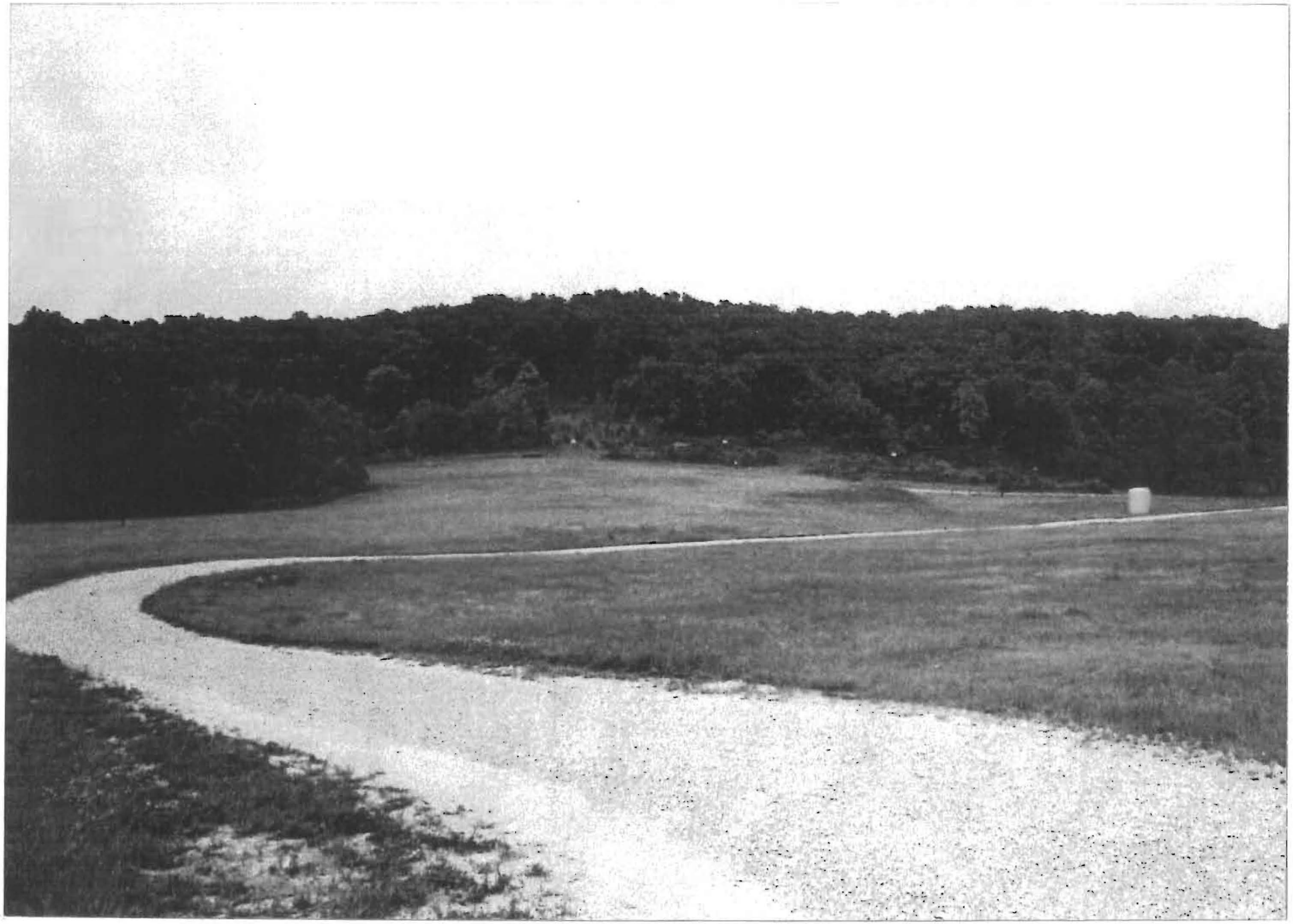
Pathway Analyses

- Synthetic membrane, security fencing and cover effectively eliminate potential human exposure from site soils, airborne materials or evaporation.
- Negligible potential for exposure via drinking water. All residents adjacent to the site obtain their water from the municipal water system. All residents within two miles of the site were monitored during tracer tests. Four wells showed trace amounts of dye. The wells were subsequently tested for PCBs, and none were found.
- Potential locations for groundwater resurgence were identified through dye tracing; all relevant springs tested for PCBs. Illinois Central Spring, Quarry Spring, Detmer and Robertson Spring had PCBs in very low concentrations (parts-per-billion).

- EPA has determined negligible potential for human exposure to PCBs from Illinois Central Spring and Quarry Spring. Springs are isolated; Illinois Central Spring is fenced. These springs are not used as potable water and do not discharge into surface waters used as potable supply.
- Sediment PCB levels in areas downstream of Illinois Central and Quarry Springs are less than 1 part-per-million, posing negligible potential for human exposure.

NEAL'S LANDFILL

Neal's Landfill



Neal's Landfill

The Site

Neal's Landfill occupies nearly 18 acres approximately three miles west of Bloomington. The landfill is surrounded primarily by undeveloped land and woods, with only a few residences within a half mile of the site.

The landfill was a municipal and industrial waste site from 1949 until 1972. As early as 1962 and as late as 1970, Westinghouse contractors deposited electrical capacitors at the landfill in accordance with local ordinances and regulations.

Environmental Protection Measures

- Westinghouse completed interim environmental protection measures in 1987.
    - Installed a locked chain-link security fence around site perimeter.
    - Removed visible capacitors and stained soils and disposed of them at a permitted facility.
    - Removed sediments and creek bank soils from the entire 4,500 feet of Conard's Branch to Richland Creek.
    - Sent 1,877 tons of excavated creek bank material and 2,748 tons of stream bed sediments to Interim Storage Facility.
    - Installed a two-foot thick clay cap over primary landfill areas.
    - Installed silt fences and sediment collection traps to enhance drainage and control sediment runoff and erosion.
    - Installed 23 groundwater monitoring wells.
    - Monitor groundwater wells and tested private wells for PCBs.
    - Installed spring collection and water treatment system. The system treats base groundwater flow collected from North Spring, South Spring and Southwest Seep, handling flows up to one cubic foot per second (450 gallons per minute) to a PCB discharge level of less than 1 part per billion.

Pathway Analyses

- Clay cap, security fencing, erosion and drainage controls and vegetative cover effectively eliminate potential for direct human exposure to site soils, airborne materials or evaporated compounds.
- Spring treatment facility effectively eliminates exposure to PCBs from springs and surface water.

- No PCBs were detected in Richland Creek water or sediments by recent sampling by Westinghouse, the EPA and the Indiana Department of Environmental Management. PCB levels found in Richland Creek fish are below Food and Drug Administration standard.
- There is no municipal water supply in the vicinity of the landfill, thus all private residences rely on private water wells. The 1985 private well survey indicated there were 48 private wells within a 5,000-foot radius of the site. Sampling of 35 selected private wells was conducted in 1986. Thirty of the wells sampled were non-detect for PCBs. The other five wells detected PCBs at concentrations less than 0.01 parts-per-billion, which is well below the drinking water standard of 0.5 parts per billion.

Neal's Dump

Neal's Dump

Neal's Dump

The Site

Neal's Dump occupies a half acre four miles southwest of Spencer, in Owen County, and about 15 miles northwest of Bloomington. The site is bounded to the north by a steep embankment and is surrounded by residential property to the south, east and west.

From 1968 until 1971, Neal's Dump was a disposal site for industrial wastes. Contract waste haulers deposited capacitors containing PCBs, capacitor parts, filter and sawdust from the Westinghouse Bloomington capacitor plant during those years.

Environmental Protection Measures

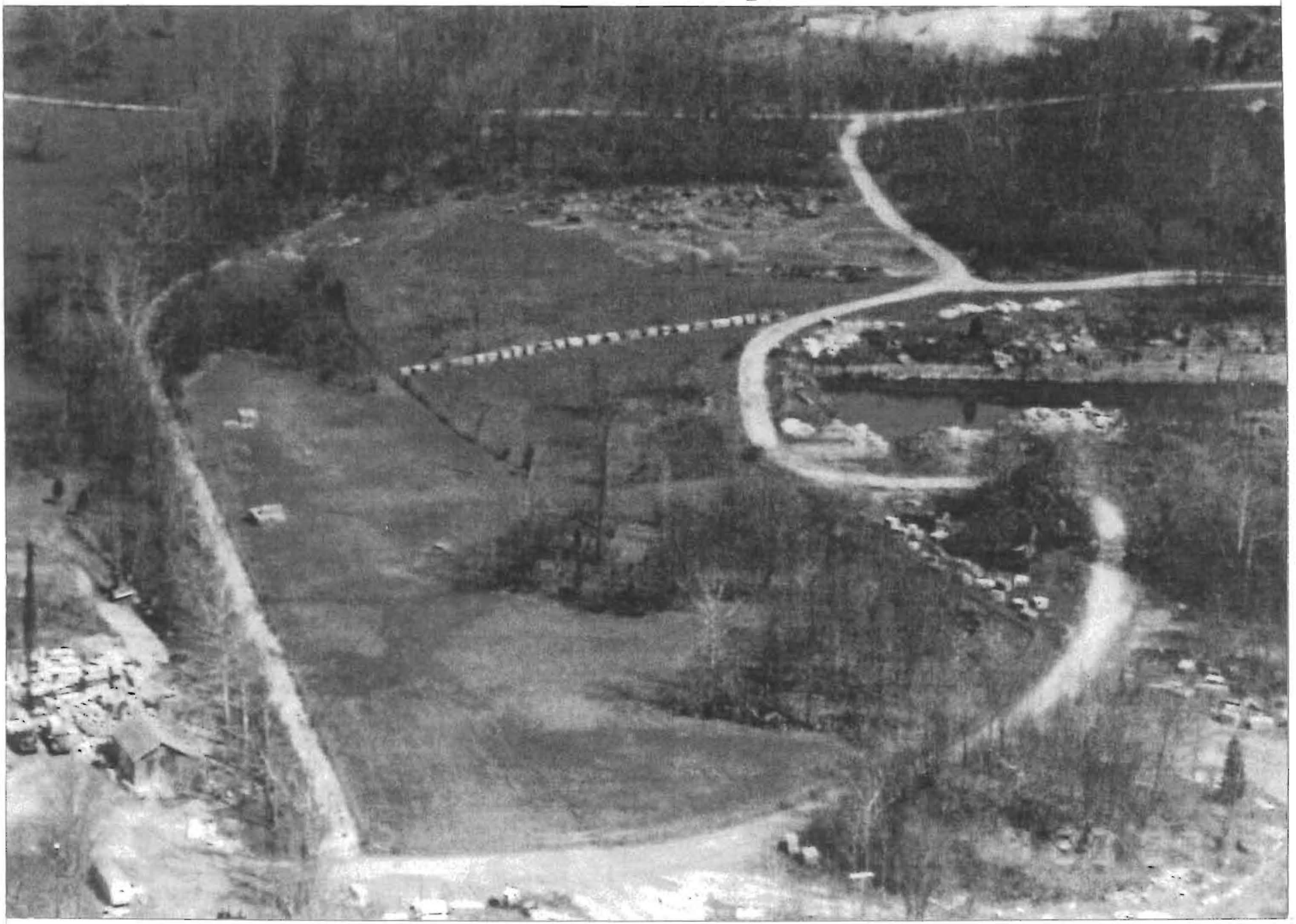
- Interim environmental protection measures completed in 1983.
    - Installed a locked chain-link security fence around the site perimeter.
    - Surface and subsurface capacitors and stained soil were removed and disposed of at a permitted facility.
    - Installed 18- to 24-inch clay cap over site.
    - Installed silt fences along the north, east and west fence lines to control sediment runoff and prevent erosion.
    - Installed 20 groundwater monitoring wells.
    - Tested nearby residential wells and monitor site groundwater wells.

Pathway Analyses

- Clay cap, security fence, erosion and drainage controls and vegetative cover eliminate potential for direct human exposure from site soils, airborne materials or evaporated compounds.
- EPA site soil data did not find detectable levels of PCBs.
- Negligible potential for exposure to PCBs from potable groundwater. No PCBs have been found in residential wells near the site or in the groundwater zone from which residents draw their potable groundwater.
- Insignificant potential for exposure to soils and sediments from site drainage. Soil and sediment sampling prior to the environmental protection measures found no PCBs.

Bennett's Dump

Bennett's Dump



Bennett's Dump

The Site

Bennett's Dump is in a rural setting about 2.5 miles northwest of Bloomington. It sits within the Bennett's Quarry, a former limestone quarry.

In the 1960s, a portion of Bennett's Quarry was a landfill for industrial wastes, including electrical capacitors from Westinghouse's Bloomington capacitor plant.

The site has three fill areas. The main fill area occupies 3.5 acres of the site to the east of Stout's Creek. This area is bounded to the south and east by quarry access roads. The second fill area, comprising about one-half acre, is adjacent to the main fill area. The third fill area, only 30 feet by 60 feet, is 750 feet north of the main fill area.

Environmental Protection Measures

- The EPA and Westinghouse completed environmental protection measures in 1988.
    - Installed a locked chain-link fence around site perimeter.
    - Visible capacitors and stained soils were removed and disposed of at a permitted facility.
    - Installed 14- to 16-inch clay cap over site and covered with 6 inches of soil.
    - Posted warning signs along Stout's Creek.
    - Removed 1,600 feet of sediments in the Stout's Creek drainage channel and transported them to the Interim Storage Facility.
    - Installed 7 groundwater monitoring wells.
    - Monitored groundwater wells.

Pathway Analyses

- Clay cap, security fencing and vegetative cover effectively eliminate potential for direct human exposure from site soils, airborne materials or evaporated compounds.
- Site-influenced groundwater flow direction is toward Stout's Creek, making exposure from potable wells negligible. A 1985 private well survey identified about 75 private wells within a 5,000-foot radius of the site. However, since 1985, most of these wells have been replaced by connections to the Bloomington water system.
- Clay cap and sediment removal have mitigated PCB exposure from Stout's Creek.

- Although Stout's Creek is of sufficient size to contain fish populations, water quality from surrounding quarry operations limit the quality of habitat.
- EPA sampling of fill area adjacent to the main fill area in 1992 did not detect PCBs.

WINSTON-THOMAS
TREATMENT FACILITY

Winston-Thomas Treatment Facility

Winston-Thomas Treatment Facility

The Site

This former sewage treatment plant is about 2.5 miles south of Bloomington. The site is bounded by State Route 37 to the east, Gordon Pike to the south, Clear Creek to the west and a business district to the north.

The 26-acre site features a 17-acre tertiary water treatment lagoon with an 18-inch-deep water level, two abandoned sludge lagoons, three sludge drying beds, four digesters, a trickling filter and several buildings.

The City of Bloomington operated the treatment plant from 1933 until 1982, when it retired the outmoded facility. In the period between 1958 and 1977, the plant received PCB discharges from Westinghouse's Bloomington capacitor plant via the sewer system.

Environmental Protection Measures

- Westinghouse completed interim environmental protection measures in 1987.
    - Built Interim Storage Facility at the site to store excavated PCB-bearing materials from other sites.
    - Removed sediment along 1,100 feet of Clear Creek and moved the material to the Interim Storage Facility.
    - Site is enclosed with a locked security fence.
    - Installed 11 groundwater monitoring wells.
    - Monitored groundwater wells.

Pathway Analyses

- Restricted site access and maintained water cover in the lagoon limit the potential for direct exposure to sludge.
- Negligible potential for exposure via surface or potable water. All nearby residents are served by the municipal water system.
- Sediment removal eliminated potential for exposure via fish consumption from Clear Creek.

Anderson Road Landfill

Anderson Road Landfill

Anderson Road Landfill

The Site

The Anderson Road Landfill, now the Monroe County Landfill, is 11 miles northeast of Bloomington. About three-quarters of an acre of the landfill once contained PCB-contaminated capacitors and materials from the Westinghouse Bloomington capacitor plant.

Environmental Protection Measures

- Westinghouse completed environmental protection and cleanup measures in 1987.
    - Excavated and transported 4,847 tons of capacitors and soil to the Interim Storage Facility.
    - Destroyed capacitors removed from the site in a licensed commercial incinerator.
    - Removed all water and silt from a landfill pond.
    - Water sent to the Winston-Thomas tertiary lagoon.
    - Silt sent to the Interim Storage Facility.
    - Regraded and backfilled all excavated areas.
    - Monroe County placed a clay cap and soil cover capable of supporting vegetation over the affected area.

The landfill requires no further action.

Fell Iron Site

Fell Iron Site

Fell Iron Site

The Site

This 5.4-acre site, on the west side of Bloomington, is bounded by Rogers Street to the east, Fairview Street to the west, Ninth Street to the south and a railroad to the north.

Quarry stone mill operations took place at the site from the late-1890s until 1948. A Salem limestone block quarry occupied the southern portion of the site.

In 1948, Fell Iron and Metal, Inc. began a scrap metal salvaging business at the site. From 1958 until 1968, Fell Iron and Metal salvaged electrical capacitors from the Westinghouse Bloomington capacitor plant at the Fell Iron Site.

Environmental Protection Measures

Westinghouse and EPA completed environmental protection measures in 1989.

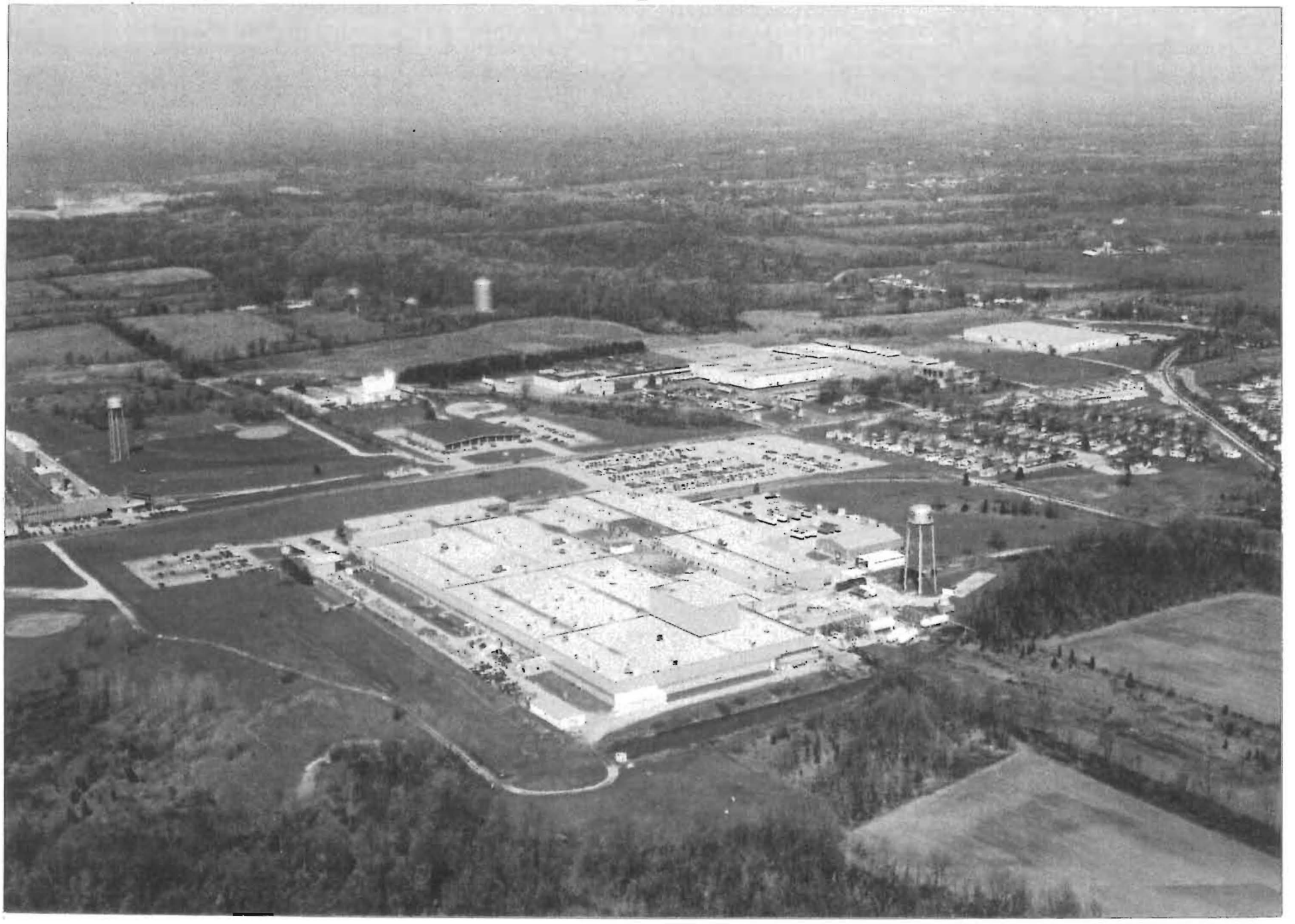
- Removed all surface and subsurface capacitors.
- Westinghouse disposed of 151 of the capacitors in a licensed incinerator. EPA disposed of the remaining 375 capacitors in another licensed commercial facility.
- Excavated and stockpiled 16,000 cubic yards of PCB-bearing soil at the site.
- Installed chlorinated polyethylene liner system over excavated material. The liner is 45 mills thick.
- Installed a locked chain-link security fence around the stockpiled material.
- Installed and perform quarterly sampling of 6 groundwater monitoring wells.

Pathway Analyses

- Liner and security fence eliminate potential human exposure from site soils, airborne materials or evaporated compounds. In April 1993, EPA acknowledged that the Fell Iron Site soils and materials "could remain at the site for a substantial period providing there is adequate inspection, monitoring, maintenance and upgrading of the liner system."
- All residents in the vicinity of the site are connected to the Bloomington water system, eliminating the potential for human exposure to PCBs from drinking water.
- No one uses groundwater wells near the site, eliminating the potential for exposure from potable groundwater negligible.
- This site has been remediated to EPA's requirements.

BLOOMINGTON CAPACITOR
PLANT SITE

Bloomington Capacitor Plant Site



Bloomington Capacitor Plant Site

The Site

This facility is at 300 North Curry Pike in Bloomington. Westinghouse manufactured capacitors at the plant from 1958 until 1989, when it sold the plant to Asea Brown-Boveri. Before the late 1970s, capacitor insulating fluid contained PCBs. The corporation completed a phaseout of PCBs in 1977.

Over the years, seven areas adjacent to the plant and two drainage ditches outside the plant site boundary became contaminated with PCBs.

Environmental Protection Measures

Westinghouse began interim environmental protection measures in 1992.

- Began excavating soil from the plant property and two drainage ditches. To date, the corporation has excavated and stockpiled more than 11,000 cubic yards of material.
- Destroyed 1,240 tons of soil containing tetrachloroethylene and trichloroethene, both organic solvents, in a licensed incinerator.
- Initiated grading and revegetation work in affected areas.
- Installed and operate air monitoring system at nearby trailer park.
- Redirected surface runoff water from drainage ditches to collection and sampling point.
- Collecting and treating any water that could come into contact with PCBs during excavation work through a multi-media water treatment system. Only water that meets city standards goes to the local sewer system. Water treatment is through a multi-media filter system.
- Built temporary storage facility to contain excavated soils. The facility sits on a compacted clay foundation and includes two 60-mills-thick synthetic liners and a leak detection system. Once the facility is filled, Westinghouse will cover it with a durable polyethylene cap and two feet of soil and vegetation to keep out storm water.