

# PCB Pollution in Anniston, Alabama

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Urbs/Geog 515: Race, Poverty and the Environment

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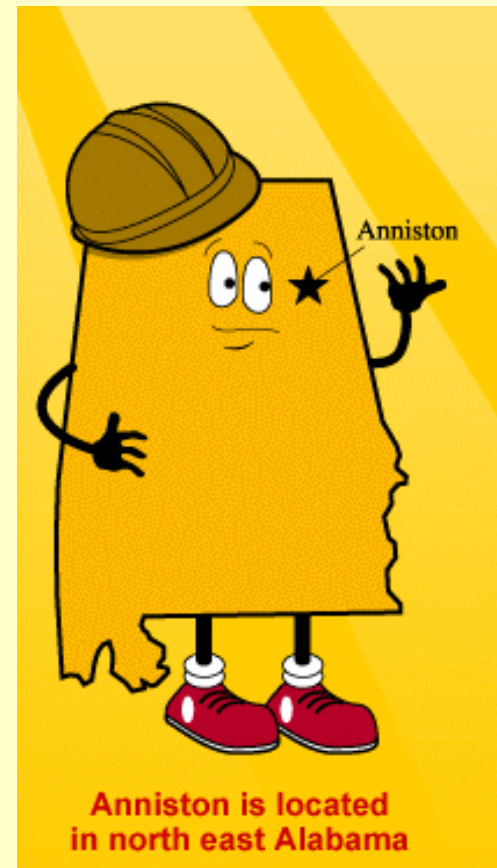
- This presentation focuses on Anniston, Alabama and the pollution of the town's water and soil with PCBs. It is designed to describe the town of Anniston, why PCBs are a problem, who is responsible for the current state of the environment in Anniston, how residents have been affected by PCB pollution and what is now being done to improve the situation. The presentation starts by giving the history of Anniston and the Monsanto Co., then focuses on the definition of PCBs, how they are toxic and is followed by a description of the legal and social consequences of PCB pollution in this particular setting.

# PCB Pollution in Anniston, Alabama



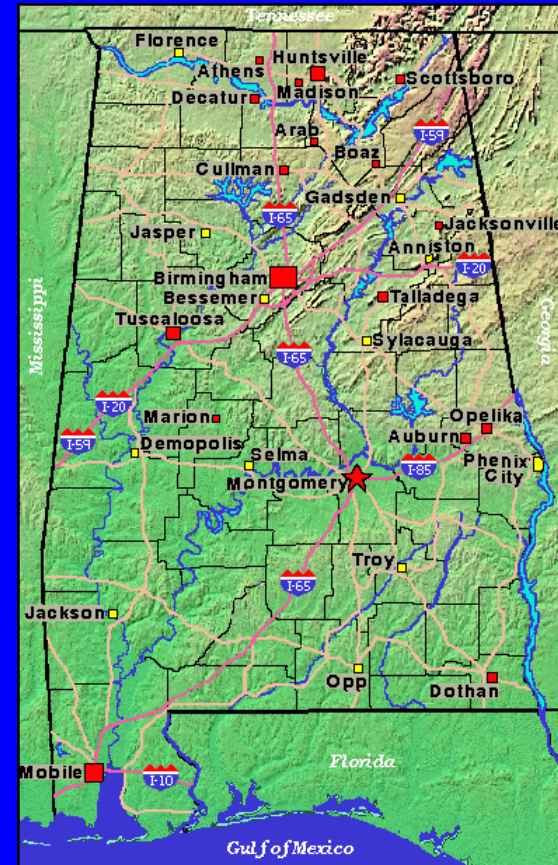
# Where is Anniston?

- Anniston is a town of about twenty-four thousand people located in a valley of the Appalachian foothills in Calhoun County, Alabama. It lies about half way between Birmingham and Atlanta on Interstate Highway 20.



# History of Anniston

- Anniston was founded in 1872 as a private business venture of Samuel Noble and Gen. Daniel Tyler. Their business was called Woodstock Iron Company and the town was originally called Woodstock. The town was actually a “company town”, meaning that everyone who lived there had a connection with the company. The first public lots were sold in 1883 and the town was renamed “Annie’s Town”, after Gen. Tyler’s daughter-in-law.



# Growth of Early Anniston



This was still a critical time in the South, when rebuilding after the Civil War was an ongoing process. Tyler and Noble intended to make Anniston a model for industrial development in the new south. The Georgia Pacific railroad came to Anniston in 1883 and opened the town up to increasing outside industries and people. Railroad and textiles were part of the emerging businesses as was military training during the Spanish-American war. (Gates, 1996).

# How PCBs Found Anniston



- By 1935, electrical appliances were becoming increasingly popular which led to increased demand for electrical insulator materials like PCBs. It was this year that the Monsanto Company purchased the Theodore Swann chemical company and began manufacturing PCBs in the United States. (Kaley II, 2000). Monsanto continued to produce PCBs at its Anniston plant until 1971, eight years before the federal government banned PCBs as a possible carcinogen. (Firestone, 2002).

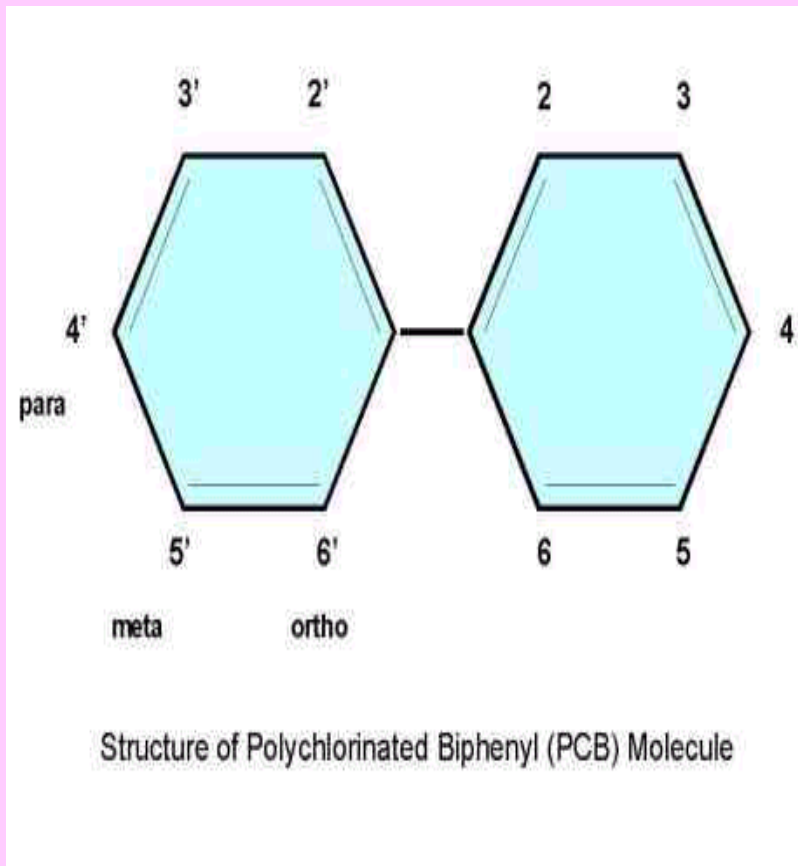
- PCB is an abbreviation for polychlorinated biphenyls. They are mixtures of up to 209 individual chlorinated compounds known as congeners. These compounds have no odor and range from colorless to light yellow. Some PCBs can exist as a vapor in air. PCBs can enter the air, water and soil during their manufacture, use and disposal as well as from accidental leaks and spills during their transport.

# What are PCBs?



# PCBs

- From the 1930s through the 1970s, PCBs were produced in large quantities in the United States and throughout the world. PCBs were manufactured for the purpose of insulating electrical wiring. PCBs did this job quiet well due to the fact that the material conducted heat without conducting electricity. Safety codes once mandated the use of PCBs as insulation in transformers and other electrical equipment. They were also used in paints, newsprint adhesives, deep-fat fryers and bread wrapping. (Grunwald, 2002).

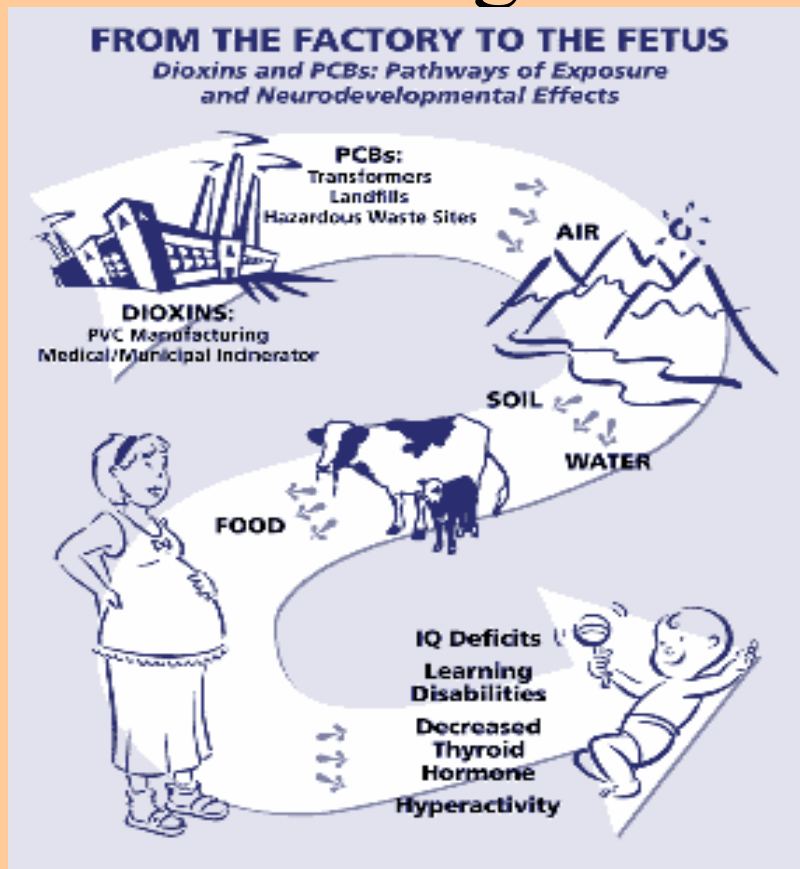


# PCBs As A Probable Carcinogen

- In 1979, the U.S. government banned the manufacture and use of PCBs because studies had proven that PCBs were a probable carcinogen in animals.
- Studies conducted since 1979 have provided conclusive evidence that PCBs cause cancer in animals . Studies done on humans strongly suggest that PCBs are a probable carcinogen in humans as well. (EPA.gov, 2002)



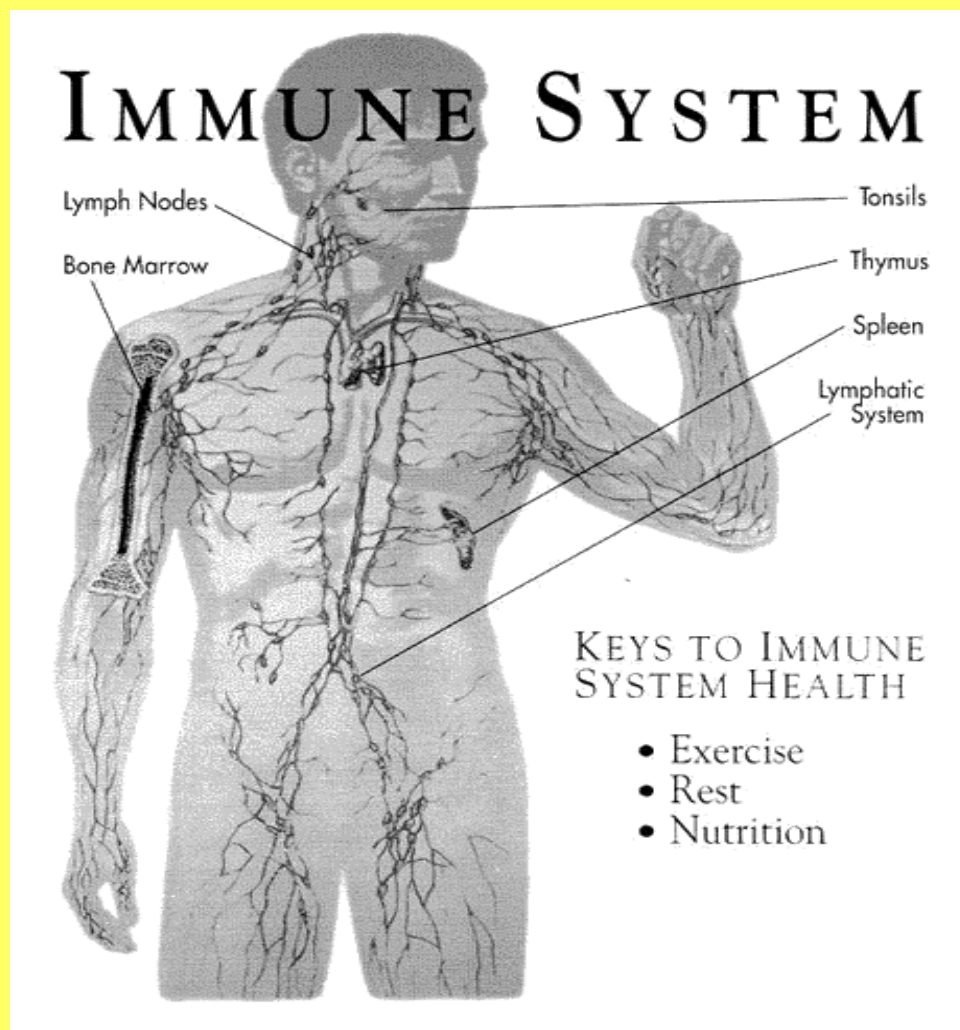
# Why PCBs Are Considered Carcinogens



- The conclusion that PCBs were a human carcinogen is based on the following:
  1. There is clear evidence that PCBs cause cancer in animals.
  2. PCB composition changes after its release into the environment. The types of PCB compounds that are most carcinogenic are the compounds that bioaccumulate in sediment, fish and other animals. As a result, people who ingest these PCB contaminated animals and contact contaminated sediment are exposed to more toxic PCB compounds than PCB workers.
  3. Epidemiological studies of PCB workers found increases in rare liver cancers and malignant melanomas.

# Non-Cancer Effects of PCBs On Animals and Humans

- *Immune Effects:*
- Human studies have revealed suppressed immune systems in those exposed to PCBs. (EPA,2002).



# Non- Cancer Effects of PCBs on Animals and Humans



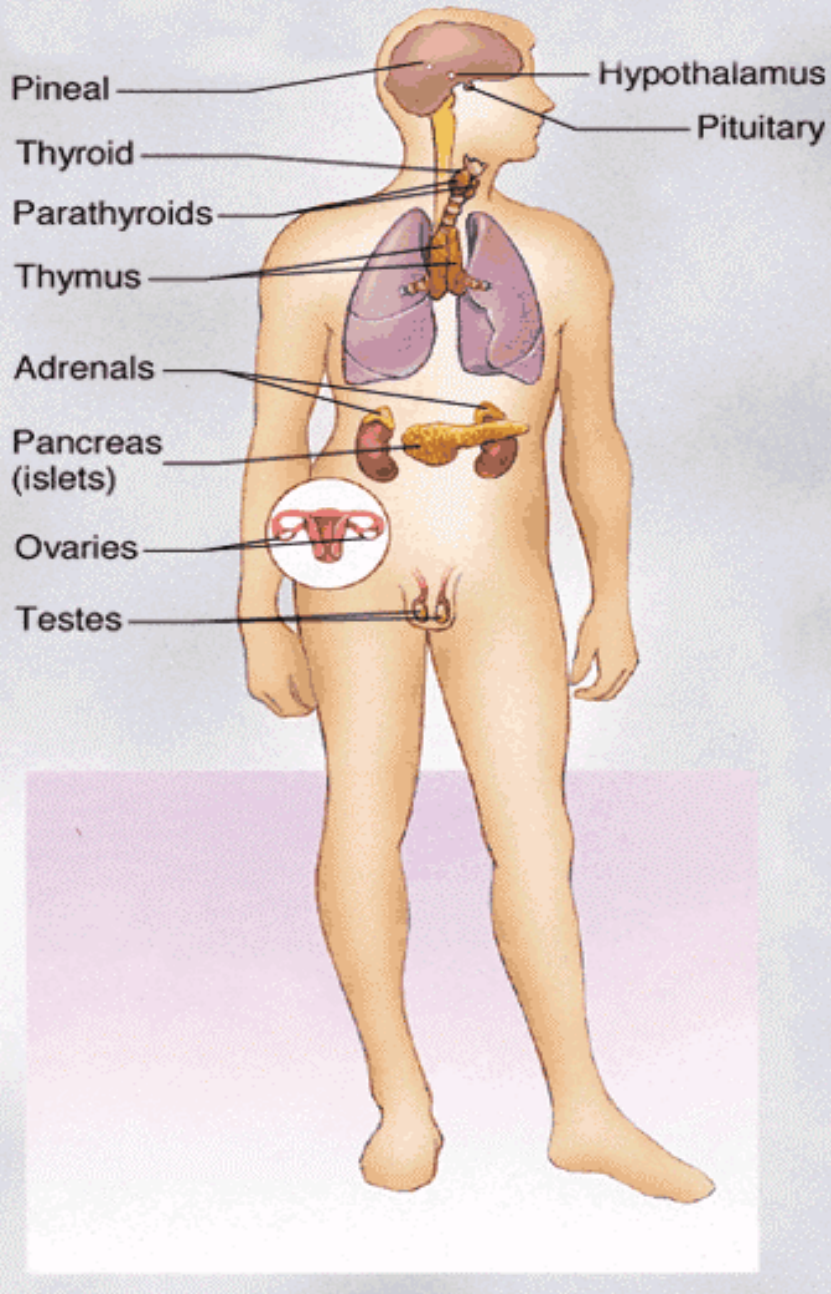
- *Reproductive Effects:*
- Children born to women who worked in PCB factories have shown decreased birth weight and a significant decrease in gestational age at birth. Studies done on women in fishing villages where there has been exposure to PCBs have produced the same results. (EPA, 2002)

# Non-Cancer Effects of PCBs on Animals and Humans

- *Neurological Effects:*
- Studies done on animals and humans that have been exposed to PCBs have shown significant neurological deficits, especially in developing children, including visual recognition, short term memory and learning deficits. (EPA,2002)



# Non Cancer Effects of PCBs on Animals and Humans



- *Endocrine Effects:*
- Exposure in humans to PCBs have shown decreased thyroid hormone levels, which are critical for normal growth and development.
- (EPA,2002)

# The Public Had No Idea of the Dangers Posed By PCBs, Did Monsanto?

- During its forty years of manufacturing PCBs as an electrical insulator, the Monsanto Company (now called *Solutia*) flushed tens of thousands of pounds of PCBs into nearby creeks and buried millions more pounds in a hillside landfill. (Firestone, 2002).



# Residents File Suit



- The Monsanto Company is now being sued by thousands of current and former residents of Anniston, who claim that company documents prove that as early as the 1960s, the company was well aware of the dangers posed by PCBs and actively schemed to hide this information from the nearby public. (Firestone, 2002).

# What Monsanto Knew

- As early as 1966, Monsanto managers discovered that fish submerged into the same creeks in which the company dumped waste water turned belly up within ten seconds, spurting blood and shedding skin. They told no one. In 1969, they found fish in another creek with 7500 times the legal PCB levels. Company memos reveal the company's conclusion that "there was no reason to go to expensive extremes in limiting discharge form the plant". (Grunwald, 2002).



# Increased Morbidity Rates Plague Anniston



- During the years that followed the cessation of PCB production at Monsanto, the cancer, learning disabilities, increased asthma rates and reproductive deformities experienced by those living closest to the Monsanto plant were not considered linked to environmental contamination. (Jones, 2000).

# Residents of Anniston Become Increasingly Suspicious

- People in West Anniston, which was closest to the Monsanto plant had cancer, kidney and liver problems but it wasn't until local fishermen began pulling deformed fish out of local creeks that anyone blamed Monsanto. (Jones, 2000).

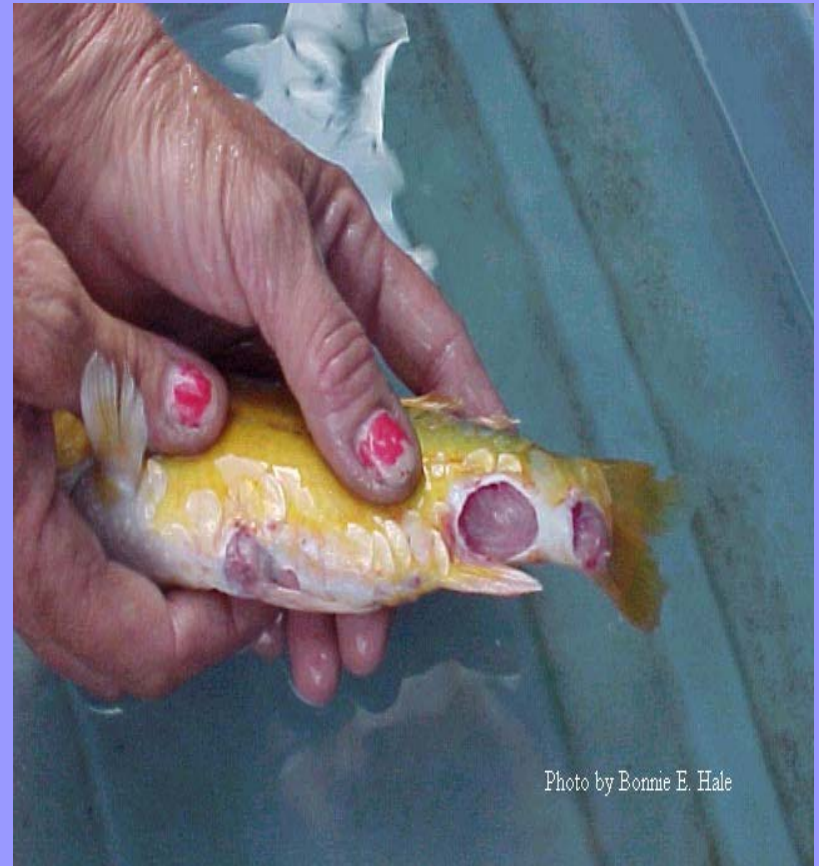


Photo by Bonnie E. Hale

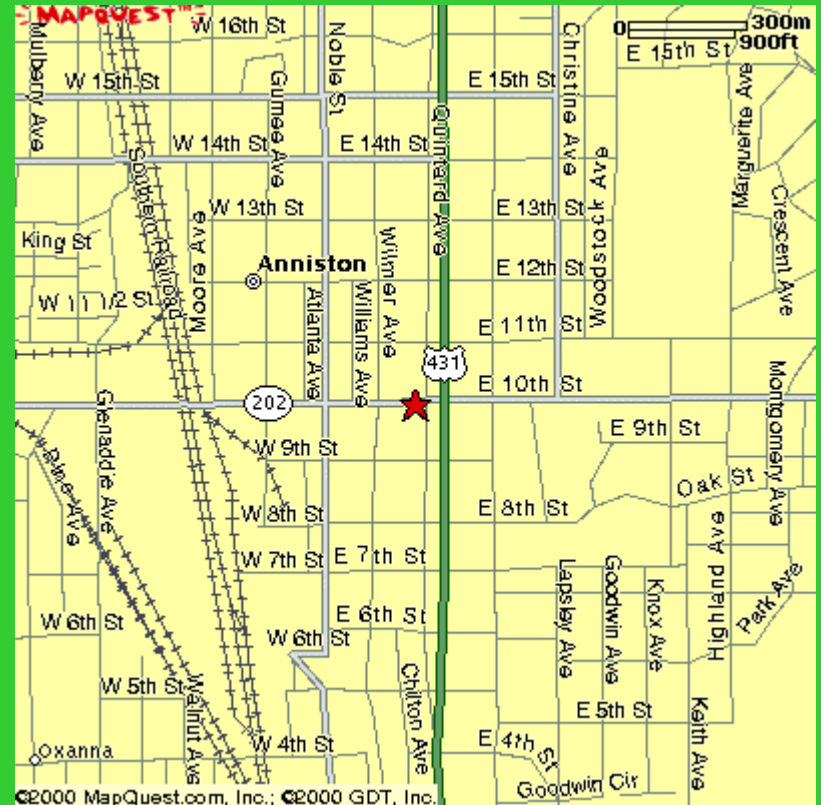
# Evidence Begins to Confirm Contamination



- People in Anniston didn't want to accept it but in 1995 soil test showed PCB levels higher than they had ever been recorded. Pediatricians at the local clinic reported babies with extremely rare birth defects that could not be explained. "We lead the state in birth defects", reports Dr. Angela Martin. (Hulen, 2003).

# How Much Were Nearby Residents Exposed?

- In 2000, the U.S. Department of Health and Human services conducted a study on the people that lived closest to the Monsanto plant. Participants included 37 children and 43 adults. In the adults, the PCB level ranged from non-detected to 210 parts per billion. In the children the PCB levels ranged from non-detected to 4.6 parts per billion. The usual PCB load for an adult is 2 parts per billion.( U.S. Department of Health &Human Services, 2000)



# Affected Residents



- Johnny Hanvey and his mother Jura Hanvey live across the road from the Monsanto plant. From their clapboard house it's easy to read the “danger” sign on the plant's gate. When interviewed in 2002, Jura Hanvey was just re-growing her hair from her last round of chemotherapy. She has lost one breast to cancer and suffers from other ailments such as asthma. (Walker, 2002).

# Residents Affected

- Sally Franklin is in limbo. She can't sell her home and her grandkids can't visit her because she is located within a half mile of the Monsanto plant, which is a heavily polluted area. (Hulen, 2003)



**Sallie Bowie Franklin**



**Shirley McCord**



# Residents Remember



McCord's list is seventeen pages long. Most of the names have "cancer" written beside them.

- Shirley McCord has owned a grocery store in West Anniston for forty two years. She has kept a list of customers that have died over the years that's more than seventeen pages long; most of the names have "cancer" written beside them. (Hulen, 2003).

# Illegal Landfills Discovered

- In 1993, the Alabama Power Company was breaking ground on land obtained from Monsanto. During this time, a landfill was discovered where Monsanto had illegally dumped PCB contamination. This turned out to be one of two unlined PCB dumps that Monsanto had not reported. It was shortly after this discovery that residents began to attribute their increased health problems to environmental pollutants. (Beiles, 2000).



# Offer Arouses Suspicion Among Congregation



- In 1995, the congregation of a local west Anniston church was approached by Monsanto management and offered a large sum of money for their property. It was discovered that Monsanto knew that the area in which the church was located was heavily contaminated and needed to be destroyed so that cleanup could take place. (Beiles, 2000).

# Church Settles Suit

- In 1996, this church, along with 3000 other Anniston residents filed suit against Monsanto. In 1998, Monsanto settled with the church for 2.5 million and a new church van. (Beiles, 2000).



# Monsanto Found Liable



- Individual claims took a step forward in February, 2002 when a jury ruled that Monsanto was in fact responsible for polluting the town of Anniston with tons of toxic PCBs. The ruling was a major victory for residents of the town, who have sued the company over damages to their property, their health and to their emotional well being. The company was found liable on six counts: negligence, nuisance, suppression of the truth, trespass, wantonness and outrage. (Lazaroff, 2002)

- In March 2003, an Alabama jury awarded the first individual plaintiff in the suit against Monsanto \$200,000 in damages. (\$100,000 for mental anguish and \$99,925 to clean up their properties.) Monsanto stated that it was disappointed with the award based on the fact that it had already spent \$53 million in cleanup cost and has agreed to a global settlement involving current and future litigation in Alabama. According to Monsanto news releases, “this global settlement is in the best interest of Monsanto and its shareholders, removing an area of uncertainty related to our contingent liabilities. ( Monsanto, 2003).

## First (and modest) Monetary Award

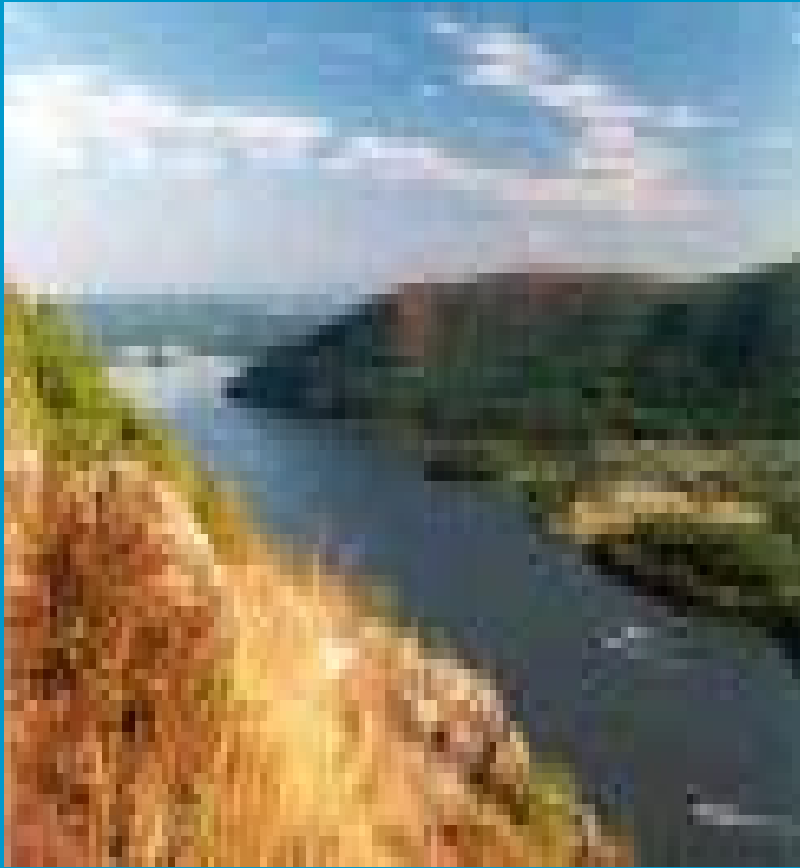


# Another PCB Contaminated Community

- To put the Monsanto/Anniston Alabama settlement into some comparative perspective, let's look briefly at the Hudson River area (a prosperous, upscale area north of New York City) that was also found to have been contaminated with PCBs deposited there by the General Electric company.



# General Electric Ordered to Dredge River



- The EPA ordered the General Electric Company to pay 460 million dollars to dredge PCBs it had dumped into the Hudson River in the past. The decision was contested by the company but hailed by national conservation groups and many prominent, prosperous residents of the picturesque Hudson river valley.(Grumwald, 2002).

- In Anniston, Alabama, the Monsanto/Solutia company has generally avoided regulatory crackdown and has spent about 80 million dollars so far. (Grunwald, 2002). To confound this reality, experts estimate the residents around the Monsanto factory have about ten times the PCB levels in their bodies compared to residents of the Hudson River area. (Grunwald, 2002)

## Relatively Disproportionate Cleanup Spending





## Demographics of Anniston

- Compared to the Hudson river area, Anniston is a relatively low income area where the majority of residents have only a high school diploma or equivalent. It's make up is about 70% Caucasian and 30% black, with the majority of minority residents located very close to the Monsanto plant in West Anniston. (Jones, 2000).

- Some of the very neighborhoods that were most affected by this PCB disaster are disappearing. Sixty-six year old Sallie Franklin is one of 3600 plaintiffs who sued Monsanto, its spin-off Solutia and their parent company Pharmacia. Today, Franklin is surrounded by nothing. Her neighbors are gone and so are their houses. Most of the more than 1600 people in the area closest to the plant moved after the company offered them money for their property. Monsanto razed about 100 homes, removed some topsoil and capped the area with dirt. (Hulen, 2003).

## Neighbors and Friends Gone

◀ SNAPSHOTS FROM  
ANNISTON



**Sallie Bowie Franklin**

## One Resident Sums Up the Situation



- Sixty-five year old Opal Scruggs is in a similar situation . She lives in the same virtual ghost town as Ms. Franklin and believes that she is a walking time bomb because of the elevated levels of PCBs in her blood. She sums up the story well by commenting “Monsanto did a job on this city. They thought we were a stupid and illiterate people, so nobody would notice what happened to us” (Hulen, 2003).

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