



**City of Bloomington
Environmental Commission**

The mission of the Environmental Commission is to advise the City of Bloomington on how its actions and policies may preserve and enhance the quality of Bloomington's environment, including the life-supporting processes that natural ecological systems provide to humans and other organisms.

MINUTES

19 April 2018

City Hall—McCloskey Room, 401 North Morton Street

1. Introductions (7:00-7:05 p.m.)

Present: Linda Thompson, Zoe Need, Chris Negggers, Erin Hatch, Mike Litwin, David Parkhurst, Riley Zipper, Ramsay Harik, Matt Caldie, Nick Kappas, Erica Walker

Absent: Andy Marrs, Morgan Taylor

Guests: One guest

2. Approval of minutes (7:05-7:10 p.m.)

- A proposal was made to move PCB discussion to new business and to move the Tree Commission discussion to A Cycle discussion, after BCOS
- David makes a motion to amend the minutes, which passes unanimously. Amendments are approved.
- Nick made a change to the minutes in commissioner announcements. It's reflected in the new copy Riley sent out
- Motion to approve the minutes was made, it was approved with one abstention from David

3. Public comment (7:10-7:30 p.m.)

A. ~~Amina Salamova: Potential PCB monitoring in Bloomington (moved to New Business)~~

4. Discussion from Environmental Commission working groups (A cycle) (7:30 - 7:50 p.m.)

A Cycle

A. ECPC/Planning Commission
ECPC:

UJ80 Corporation:

- The building is a fraternity on Jordan that got kicked out; already, it's been receiving violations from the city when people were living there when it *wasn't* a fraternity.
- To bring it into compliance, the proposal is to make it a single-family residence
- The map indicates that it was the TKE house
- Could be a sort of a stopgap, because the owner has a lease with the fraternity that was kicked off campus
- Planning Dept. will be recommending denial
- Nothing environmental involved here
- Only a use variance, probably during the time TKE works it out with IU

Fountain Drive (what used to be Vernal Pike) across from JB's Salvage

- Developers have an interest in building a recycling collection facility
- Would involve re-zoning because it's currently residential
- Would make it industrial
- No plan details, just a request to change zoning
- The Dept. will be recommending denial, because it doesn't seem like an appropriate use for the site
- What will they be recycling?
 - Single-stream, household recyclables
 - It's possible they weren't using the term in a way that Linda understood it

Really big case – corner of Tapp and Weimer, used to be the PIC property

- One of the nicest woodland areas in Bloomington, but was turned into a PUD in 1987
- The first plan for a development came in the early 2000s, but a more recent plan was provided about 6 months ago or so, which ECPC glanced at
- Right before the Plan Commission meeting last night, the company decided they would come forward with a changed plan
- Therefore, there was no time for Linda to review it, much less to work with ECPC on formulating an opinion, so they didn't weigh in
- It was indicated in the staff report that ECPC didn't have time to review it
- The company will be coming forward again at next PC meeting for a plat
- Plan will cross conservancy easements, because the administration has decided it wants to move Weimer Rd. to the west, and continue it through more conservancy easements
- The existing Weimer Rd. would be converted to a side path
- Could be a good idea, but it's going through some of our most pristine woodland areas
- Lots of sinkholes and steep slopes, all over the place
- This is inside the connectivity plan area, but this area has been recognized as environmentally sensitive long before that
- ECPC will meet early next week after Linda has had the chance to go over the details
- There was a meeting with the developer today at 4
- Packet for the development can be found on PC website
- City doesn't own the conservation easement, just controls it
- Currently, they're required by the UDO to maintain 60% of tree canopy, and they're at 63% right now

Chee Group and Grant Properties

Bloomington Co-Op

- Will be on the agenda again, but they haven't committed to any green practices
- The developer said that the amount of green development depends on the external costs of some City requests, like allowing the pedestrian walkway to remain
- They want to put 27 homes on two acres, and need a PUD for that

~~B. Waste/Hazards~~

C. Water

- Had a water group meeting last month
- First item discussed was goals for projects to accomplish for the rest of the year:
 - i. UDO input
 1. Review of UDO stormwater issues
 2. Modifications to stream buffer ordinance
 3. Subdivisions and new developments that have streams is a concern, because sometimes these are conservancy easements and they aren't always maintained well

- 4. Wetlands and lake watershed
 - ii. Lake Monroe
 - 1. Would like to collaborate with Friends of Lake Monroe
 - iii. Problems with City's water infrastructure
 - 1. Sanitary waste infrastructure in particular is a concern
- Linda asked if the water committee had set dates for discussing UDO input, which Mike said they will discuss at the next meeting

D. BCOS

- Lots of discussions about the UDO changes
- Scott Robinson from Planning came in to address some questions
- Understanding actual usage of the green development incentives, which there isn't any tracking of
- BCOS wants this to be regularly tracked, and this could be a change to make to the UDO
- How to deal with HOA covenants in the new UDO?
 - i. Covenant requirements can potentially be more stringent, so how will these be incorporated into UDO changes?
 - ii. CONA is very put-together, and have a lot of influence over what the city does when it comes to neighborhoods
 - iii. Some covenants prevent various environmentally responsible practices, like vegetable gardens in the front lawn, clothesline, beds of particular native plants—some are quite environmentally restrictive
 - iv. One of the things that was brought up was w/r/t understanding whether these regulations are evaluated when new subdivisions are being planned, if there's a legal basis for that
 - v. State law often carves out space for covenants and HOAs and what they're allowed to do beyond local regulations, and they have a lot of power, so it would be hard to restrict them legally

E. Tree Commission

- Chris went to TC meeting yesterday
- They discussed the city's Arbor Day celebration, which won't be on or near Arbor Day, instead it'll be on June 2 at Bryan Park, where there will be a summer concert, booths, and a showing of The Lorax, as well as a planting ceremony for one of the city's yellow poplars
- 190 bicentennial trees were sold to the public
- There's talk of the city doing something like this again next spring
- They also discussed the fall tree sale: Lee Huss doesn't really want the city to be selling trees, rather he would prefer to highlight which local businesses sell them
- Lee's reasoning is that he has street trees to take care of and doesn't want to run a nursery
- Also, there are 200 bicentennial tulip trees that the city has and will be planting, and a private donation came in so that all MCCSC schools could have at least one planted on their property
- There will be a ceremony on April 29 at the street fair
- As well as another planting demo at the street fair on Kirkwood
- The IU Arbor Day celebration is coming up and will actually be on Arbor Day
- Lots of trees are being planted and removed around town, but there's no breakdown by species
- Linda assumes they're still concentrating on ash trees, and the city entered into another year contract to do injection treatments
- Nick asks, can a commission get one of the trees and plant it with their own plaque?
- Linda will look into it

- Chris said that Culver's came up during the meeting, w/r/t tree mitigation; the idea was suggested but wasn't received well
 - i. Lee will come up with an idea or process to mitigate loss of trees in the city by paying the tree fund
 - ii. Erin said that lots of cities do this, in-lieu fees or donations to the tree fund to mitigate tree loss
 - iii. Erin will send some research she's done on the topic to Zoe, who will be going to TC meetings from now on
- The EC hasn't *all* been in favor of it in the past, because of the fear that the developer will just give money to the fund and not plant *any* trees on their property
- We would have to take this into consideration, and make sure it's worded carefully in the UDO
- In some of Erin's examples, the developer must show that there's no place the developer can plant on the property, and if they can't, they get fined; the proceeds of which go into the tree fund
- It could be a good thing to go the tree fund, because sometimes developers aren't good at planting trees
- Street trees have to be 2" caliper, and if it's on the property, it has to stay alive "forever" or they have to replace it
- What tree loss are they mitigating?
- Nick says, below the 60% amount
- In Erin's examples, they accounted for the quality of the tree when calculating in-lieu fees, like they would have to have a certified arborist come in and certify the value of the tree
- Maybe the EC and TC could formulate this kind of UDO language and present it to Clarion and the City
- It would be an interesting study to compare Bloomington to other cities of comparable size, and see how this policy is implemented there
- There are ways to prevent poor planting, by providing specifications and at least an initial overview of what they did, esp. depending on the spacing
- Dave makes a motion to empower Zoe to go to the TC meetings and present our discussion

B Cycle

~~A. Outreach~~

~~B. ECPC/Planning Commission~~

~~C. Biodiversity~~

5. Old business (7:50 - 8:55 p.m.)

A. Eco Heroes update

- Matt, Erica, and Zoe have volunteered
- We were a little behind in getting it started, but we still had a lot of entries (over 70)
- It would behoove us to get started a little earlier next year

B. Working Group restructuring for 2018 discussion

- At last meeting, all of the working groups were discussed: Biodiversity, Outreach, Water, Waste/Hazards, ECPC
 - Bio: Ramsay, Andy, Dave, Chris, Riley, Erin
 - Outreach: Matt
 - Water: Dave, Mike, Nick, Erica
 - Waste/Hazards: Dormant
 - ECPC: Mike, Linda, Dave, Nick
- The questions:
 - Do you still want to be on these working groups?

- Which working groups are most important for achieving our 2018 goals, and which ones should be dormant for the year?
- All the working groups will be important as the UDO changes come up, but we really need to devote more to outreach; BCOS is doing a pretty good job of this
 - Nick says he'll commit to one weekend a month at the farmers market
 - Linda's suggestion that we have working groups formed just for UDO work
 - Soil, tree cover and landscaping, wetlands, riparians buffers, streams, green building, and urban farming are all important topics to consider in the UDO
 - When something like this has been tried in the past, we got burned out pretty fast
 - What if we were to collaborate with BCOS and divide up the topics among the two commissions?
 - David asks to what extent is the sustainability plan connected to the UDO?
 - Not at all, really, even though things we're talking about here are discussed at SAP working groups
 - The CMP is planned to be updated every five years, so five years down the line, we may be able to connect the SAP or BEAP to it this time around
 - The ideas are valuable, but we have to convince lawmakers into making them rules
 - Erica had the idea to freeze our current working groups, and collaborate with BCOS on UDO-based working groups
 - Could we have a combined meeting in May?
 - We could also just go with our steering committee and their steering committee
 - Do we agree on freezing our current working groups to collaborate with BCOS to make special UDO working groups between the both of us? Yes!
 - Outreach efforts coming up could be the street fair on the 29th, Bugfest, and the Arbor Day celebration
 - We could talk to people about what they want to see in the new UDO coming up

C. Representatives for various other commissions

- Zoe has taken on the role of TC liaison, and Dave is going to ERAC meetings
- We have the MCSWMD Board (Monroe County Solid Waste Management District), the MPO (Metropolitan Planning Organization), and the Monroe County EC
- Dave says that MCEC meetings aren't really worth going to
 1. We could send them our agenda each month as a gesture of goodwill

D. Mayor's Monarch Pledge update

- Nothing new as of right now, as it's been pushed to the backburner a bit
- But we will get it done this year!

E. Sustainability Action Plan update

- Mike was on the working group for environmental quality and natural systems: three topics
 - Deer mgmt.
 - Biodiveristy
 - Invasive species
- Actions were solicited from each topic, and will be considered and put together
- The City is planning a managed hunt at Lake Griffy
- At the next meeting, stormwater will be discussed
- Linda went to the earlier environmental quality and natural systems meeting, where they mostly talked about the same three areas that Mike mentioned
 - People got lost in the minutiae, lots of rabbit holes and asking for definitions of different terms

- David was on the food working group
 - Been spending a lot of time coming up with definitions
 - Lots of good people there, like Marsha Veldman, head of farmers market, farmers, and other knowledgeable community members
 - John Delusca, an urban farmer, has been bringing up the Peak Oil work that Dave Rollo worked on a few years ago, which has been useful
 - The BEAP (Bloomington Environmental Action Plan) and BEQI (Bloomington Environmental Quality Indicators) reports are being utilized

F. Clarion stakeholders meeting

- Holding a stakeholders meeting Monday April 30, and Nick won't be able to make it so he wants somebody to fill in for him
- Dave said he would be willing to go

6. New Business

A. PCB Presentation from Dave:

- Dave was recently contacted by Amina Salamova, who is interested in evaluating PCB and its effects in Bloomington. Would like the EC's help if possible, Dave would like to have the EC support her efforts.
- Dave presented a history of PCBs in Bloomington, the presentation slides are included at end of minutes.
- Amina may come present to EC at a later date, to be determined.

7. Commissioner announcements (8:55-9:00 p.m.)

Matt: No announcements

Ramsay: no announcements

Riley: Tonight is his last meeting as the Service Corps Fellow for the EC, and he wishes to thank everyone for the good times and the work they've done together.

Morgan: No announcements

Dave: Back in the 70s, there was somebody in geography who gave a talk, and one of the things he said was it was common for small towns to not have any traffic problems for years and years, then all of a sudden, traffic gets really bad. And it looks like this has happened in Bloomington in the past couple years

Mike: No announcements

Erin: Erin will be working at IDEM in Land Quality over the summer. Congratulations, Erin!

Zoe: Recognized for her GPA over the past three years, 3.8 and above! Congratulations, Zoe!

Chris: Tonight is his final meeting as a commissioner. He feels proud of what we've accomplished here and has enjoyed getting to know everyone. Also, May 15th-18th at the convention center is the Central Hardwoods Forest Conference, (\$250 a ticket) and he encourages us to check it out

Linda: No announcements

Nick: Sincerest thanks to Riley and Chris for all their work. Also, looking forward to having life back after Little 500 and to get presenters in over the summer, including El Camino (July) and Friends of Lake Monroe (June)

7. Adjournment

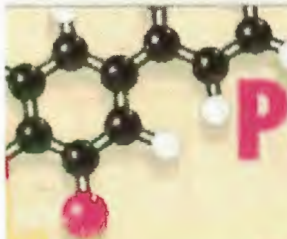
Meeting was adjourned at 9:10 PM.

Meeting times

- A. Environmental Commission: 17 May, 7:00 p.m., McCloskey Room, City Hall
- B. EC Planning Committee: 2 May, 9 May, 4:00 p.m., Lemon Room, City Hall
- C. Tree Commission: 16 May, 9:30 a.m., Rose Hill office
- D. BCOS meeting: 1 May, 6:00 p.m., McCloskey Room
- E. MCEC Com.: 9 May, 5:30 p.m., Nat U Hill Room, Courthouse

- F. ERAC: 13 June, 4:30 p.m., TBD
- G. MPO CAC: 25 April 6:30 p.m., McCloskey
- H. MCSWMD Board: 10 May, 4:00 p.m., Nat Hill III Room, Courthouse

Anderson Road Landfill



Monroe County PCB SITES

More than 4,847 tons of PCB-contaminated material removed in 1987.

Bennett's Dump

More than 36,000 tons of PCB-contaminated material and 2,000 capacitors removed, 1987-99. Passive drain installed. Plans for collection trench and water treatment plant in works.

Lemon Lane Landfill

More than 80,000 tons of PCB-contaminated material and 4,400 capacitors removed, 1987-2000. Cap installed over remaining polluted ground. Plant still treats runoff in nearby springs.

Former Westinghouse plant

Contaminated soil and materials removed, plant demolished. Cleanup completed in 2011.

Fell Iron and Metal

Contaminated soil and capacitors removed in 1989.

Neal's Landfill

41,750 tons of PCB-contaminated material and 4,120 capacitors removed in 1999. Cap installed over remaining polluted ground. Plant still treating runoff.

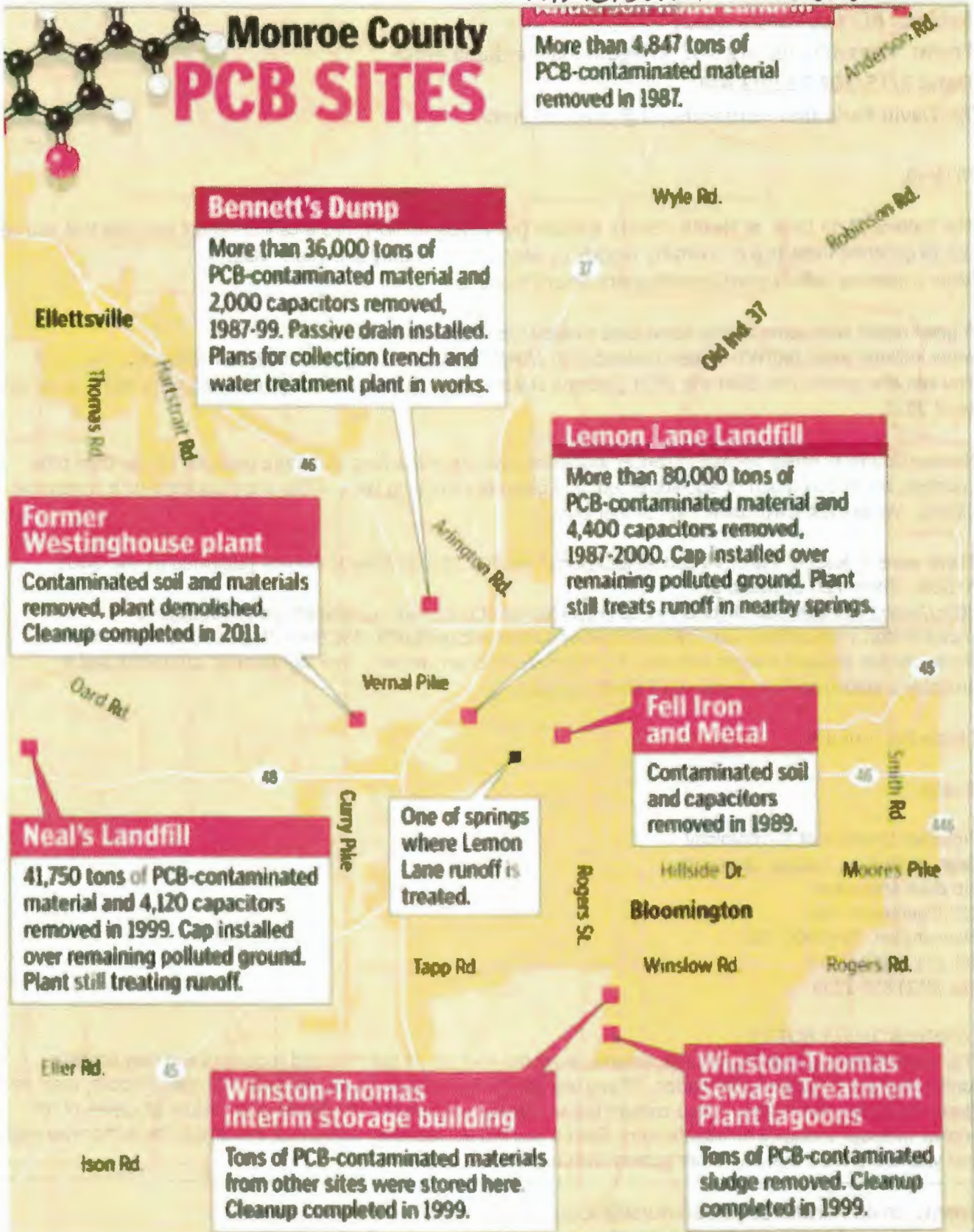
One of springs where Lemon Lane runoff is treated.

Winston-Thomas interim storage building

Tons of PCB-contaminated materials from other sites were stored here. Cleanup completed in 1999.

Winston-Thomas Sewage Treatment Plant lagoons

Tons of PCB-contaminated sludge removed. Cleanup completed in 1999.



2015 WARNING

BLOOMINGTON is one of America's MOST TOXIC

Home to 3 of America's most toxic EPA Superfund sites & up to 2000+ other contaminated hazardous sites

Millions of pounds of MONSANTO CHEMICAL PCB's were dumped in Bloomington by Westinghouse PCB's were further spread thru this city/county when Bloomington government gave it away as a fertilizer.

You may be exposed if you eat local fish, drink the water or garden in a contaminated area. Any & All direct contact is harmful.

PCB

PCB's are among the most deadly chemicals known & they are still here in undisclosed amounts and confidential locations throughout Bloomington even residential properties!

Be Aware

PCB's are bio-accumulative & insoluble They do not break down easily in the environment and they are not released from the human body - adding up in your fat/cells until it does irreversible harm to your being - like liver disease & death

Bloomington government, Westinghouse (CBS/VIACOM), IDEM & EPA may be acting illegally in order to conceal the seriousness of this toxic tragedy.
TO LEARN MORE: see the 'PCB PRIMER' in the Indiana Room of our public library.
TO GET INVOLVED, in justice, change, help & education EMAIL: ToxicBloomington@gmail.com

BIO HAZARD!!!

Date?

Angling Indiana - FISH CONSUMPTION

Location	Species	Fish Size	Contaminant
Beanblossom Creek Monroe County	Channel Catfish	13+	PCB
Clear Creek (East Fork White River Basin) Monroe County	All Fish	ALL	PCB
Griffy Lake Monroe County	Bluegill	up to 6	
	Largemouth Bass	13+	Hg
Lake Lemon Monroe County	Black Crappie	up to 7	
	Bluegill	up to 6	
	Flathead Catfish	20+	PCB
	Redear Sunfish	up to 9	
	White Crappie	up to 9	
Lake Wapehani Monroe County	Bluegill	up to 6	
Monroe Reservoir Monroe County	Bluegill	up to 7	
	Common Carp	ALL	Hg
	Walleye	21+	Hg
Richland Creek Consumption of any fish from Richland Creek in Greene, Monroe, and Owen counties to near Solsberry should be limited to 1 month (Group 3) by the general population and NO CONSUMPTION by the sensitive population. Exceptions for Greene/Monroe/Owen County to Newark Road near Solsberry in Greene County	Longear Sunfish	up to 5	PCB
	Rock Bass	up to 6	PCB
	Spotted Bass	up to 11	PCB
Salt Creek The listing below is based on limited data. It should be noted that fish migrate. Fish not sampled from these waters are from Monroe County tailwater of Monroe Reservoir Dam to Clear Creek	Freshwater Drum	up to 16	PCB
		16+	PCB
	Striped Bass	12+	PCB
	Walleye	15-21 21+	PCB
Stouts Creek Monroe County	All Fish	ALL	PCB

EPA – re: Health Effects of PCBs

<http://www.epa.gov/wastes/hazard/tsd/pcbs/pubs/effects.htm>

PCBs have been demonstrated to cause a variety of adverse health effects: including effects on the immune system, reproductive system, nervous system, endocrine system and other health effects.

Studies in humans provide supportive evidence for potential carcinogenic and non-carcinogenic effects of PCBs.

The different health effects of PCBs may be interrelated, as alterations in one system may have significant implications for the other systems of the body.

EPA's cancer reassessment reflected the Agency's commitment to the use of the best science in evaluating health effects of PCBs. EPA's cancer reassessment was peer reviewed by 15 experts on PCBs, including scientists from government, academia and industry. The peer reviewers agreed with EPA's conclusion that PCBs are probable human carcinogens.

Cancer Reassessment

<http://www.epa.gov/wastes/hazard/tsd/pcbs/pubs/pcb.pdf>

The cancer reassessment determined that PCBs are probable human carcinogens.

The literature presents overwhelming evidence that PCBs cause cancer in animals.

An industry-sponsored peer-reviewed study demonstrated that every commercial PCB mixture tested caused cancer.

The reassessment concluded that the types of PCBs likely to be bioaccumulated in fish and bound to sediments are the most carcinogenic PCB mixtures.

A number of epidemiological studies of workers exposed to PCBs have been performed.

Results of human studies raise concerns for the potential carcinogenicity of PCBs.

Studies of PCB workers found increases in rare liver cancers and malignant melanoma.

The presence of cancer in the same target organ (liver) following exposures to PCBs both in animals and in humans and the finding of liver cancers and malignant melanomas across multiple human studies adds weight to the conclusion that PCBs are probable human carcinogens.

It is very important to note that the composition of PCB mixtures changes following their release into the environment. The types of PCBs that tend to bioaccumulate in fish and other animals and bind to sediments happen to be the most carcinogenic components of PCB mixtures. As a result, people who ingest PCB-contaminated fish or other animal products and contact PCB-contaminated sediment may be exposed to PCB mixtures that are even more toxic than the PCB mixtures contacted by workers and released into the environment.

EPA's peer reviewed cancer reassessment concluded that PCBs are probable human carcinogens. EPA is not alone in its conclusions regarding PCBs. The International Agency for Research on Cancer has declared PCBs to be probably carcinogenic to humans. The National Toxicology Program has stated that it is reasonable to conclude that PCBs are carcinogenic in humans. The National Institute for Occupational Safety and Health has determined that PCBs are a potential occupational carcinogen.

IMMUNE SYSTEM

Significant decrease in size of the thymus gland (which is critical to the immune system), reductions in the response of the immune system and decreased resistance to Epstein-Barr virus and other infections.

Non-Hodgkin's lymphoma.

Taken together, the studies in animals and humans suggest that PCBs may have serious potential effects on the immune systems of exposed individuals.

REPRODUCTIVE SYSTEM

Reduce the birth weight, conception rates, live birth rates, and reduced sperm counts.

Effects were long-lasting and were observed long after the dosing with PCBs occurred.

NEUROLOGICAL EFFECTS

Persistent and significant deficits in neurological development, including visual recognition, short-term memory and learning. Some of these studies were conducted using the types of PCBs most commonly found in human breast milk.

ENDOCRINE SYSTEM

PCBs decrease thyroid hormone levels. These decreases result in developmental deficits, including deficits in hearing.

Thyroid hormone levels are critical for normal growth and development, and alterations in thyroid hormone levels may have significant implications

Other Non-cancer Effects

A variety of other non-cancer effects of PCBs have been reported in animals and humans, including dermal and ocular effects in monkeys and humans, and liver toxicity in rodents. Elevations in blood pressure, serum triglyceride, and serum cholesterol have also been reported with increasing serum levels of PCBs in humans.

Tests show high PCB levels found in residents' blood

By Steven Higgs
Daily Student Staff Writer

Recently released test results show that Bloomington residents exposed to PCBs have higher than expected levels of the chemicals in their blood.

The high levels of PCBs were found in people who live near PCB contaminated sites and one-time workers at the Westinghouse Electric Corp., 300 N. Curry Pike.

Health officials were unable to determine how persons not working at Westinghouse were exposed to the hazardous chemical, said Paul Stehr, a researcher with the Center for Disease Control in Atlanta.

Stehr and Greg Steele, an epidemiologist with the Indiana State Board of Health, presented the findings of the 1984 study in Bloomington Tuesday. It was conducted jointly by the board and the CDC.

Polychlorinated biphenyls are liquid coolants banned by the federal government in 1976 because they are suspected of causing health disorders.

A positive thing about the study, Steele said, is that they found no correlation between the high PCB levels and acute, adverse health effects.

The study evaluated blood samples, medical histories and a battery of liver-function tests of 114 area residents, Stehr said.

Residents living within a one-half mile radius of

Bennett's Stone Quarry and Neal's Landfill — were surveyed, Steele said.

"The people who worked around PCBs definitely had higher levels of PCBs (in their blood) than any of the other groups," Stehr said.

Seven of 10 participants in the study exposed at Westinghouse had PCB levels of 20 parts per billion or greater, Stehr said.

Individuals exposed to the chemical by eating contaminated fish, scavenging capacitors or living near the sites also had high levels, though not as high as those exposed at work, Stehr said.

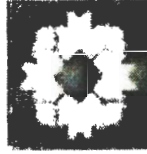
Persons with no apparent exposure had PCBs in blood serum at levels virtually identical to those in the general population of other studies, Stehr said.

The CDC recommends follow-up studies on:

- The entire Bloomington population to determine how widespread excess exposures are in the community.
- The routes of exposure for those not exposed at work.
- The health effects of PCBs on Bloomington residents.

"It seems as though people with high levels of PCBs in their blood may be at higher risk for developing high blood pressure," Stehr said.

But there is a lack of definitive information about the health effects of PCBs on humans, he said.



**City of Bloomington
Environmental Commission**

July 13, 2015

Dr. Chris Portier, Director
Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention
4770 Buford Hwy NE
Atlanta, GA 30341

Dear Dr. Portier:

We, the Bloomington Indiana Environmental Commission, write from a city with one Superfund site within its borders, and two others nearby. These sites were contaminated with large quantities of polychlorinated biphenyls (PCBs) resulting from Westinghouse Electric Corporation's manufacture of electrical components from the 1950s through the early 1970s, and some area residents were exposed by a variety of potential routes.

Recently, we came across an article from the *Indiana Daily Student* newspaper, dated May 17, 1985, that described a study conducted by the Indiana State Board of Health and the Centers for Disease Control in which PCB concentrations in the blood of 114 Bloomington area citizens had been measured. That article (copy is attached) went on to state, "The CDC recommends follow-up studies on:

- The entire Bloomington population to determine how widespread excess exposures are in the community.
- The routes of exposure for those not exposed at work.
- The health effects of PCBs on Bloomington residents."

While it would clearly be unrealistic to measure blood levels of all Bloomington residents, we ask the CDC now to conduct a study to measure the levels in several hundred to a few thousand volunteer subjects from the Bloomington area. We believe such a study could have at least three useful outcomes:

1. If, as we hope and expect, the majority of volunteers have blood levels of PCBs that fall within the general distribution for Americans as a whole, this would serve to calm fears that have recently been raised by a small group of residents.
2. If anyone is found to have an unusually high blood concentration, the reason for that should be investigated, and steps taken to lower any ongoing exposure to the extent possible.
3. Blood levels of PCBs could be useful information for women contemplating or already breastfeeding a baby, as we understand that PCB levels in a mother's milk are likely to be higher than the levels in their blood.

We in the Environmental Commission would be pleased to help you in any way we can, if you are able to undertake this suggested study. Thank you for your consideration.

Sincerely,

Dedaimia Whitney, Chair
City of Bloomington Environmental Commission

CC: Dave Rollo, President, City of Bloomington Common Council
City of Bloomington Mayor Mark Kruzan
Ms. Penny Caudill, Administrator, Monroe County Indiana Board of Health
Mohammad R. Torabi, Dean, Indiana University School of Public Health



Centers for Disease Control
and Prevention (CDC)
Atlanta, GA 30333
August 22, 2016

Dedaimia Whitney
City of Bloomington Environmental Commission
401 N. Morton Street
Bloomington, IN 47404

Dear Ms. Whitney:

Thank you for your July 17, 2016 letter regarding the public health implications of potential exposures to polychlorinated biphenyls (PCBs) in the Bloomington, Indiana area. I appreciate your interest in this issue and would like to make sure you are aware of several relevant activities that have occurred since the 1984 pilot study referenced in your letter.

Due to the potential for widespread PCB contamination in the area and the findings of the 1984 pilot study, the Indiana State Board of Public Health (ISBH) decided that additional investigation of community exposures and potential associated adverse health outcomes was warranted. Therefore, a number of PCB-specific epidemiologic studies have been conducted in the Bloomington community by the ISBH, the Centers for Disease Control and Prevention (CDC) including the National Institute for Occupational Safety and Health (NIOSH), and the Agency for Toxic Substances and Disease Registry (ATSDR). Since 1984, ATSDR has provided technical assistance to state and local officials and participated in the following efforts to understand the potential public health implications of PCB contamination in the Bloomington area:

- **June 1992 Final Report on Community Exposure to Polychlorinated Biphenyls – Bloomington, Indiana:** ISBH and ATSDR led a community-wide epidemiologic investigation in 1987 with 1,014 participants. Blood pressure, serum PCB levels, total cholesterol, high-density lipoprotein (HDL) cholesterol, and triglycerides were evaluated. This study found that while there was potential for exposure to PCB-contaminated media, serum PCB results indicated that individuals living in the community were generally not at risk of exposure. The only variable associated with increased concentrations of serum PCBs (though not statistically significant) was eating homegrown vegetables. The report recommended washing all homegrown vegetables thoroughly to avoid ingestion of PCB-contaminated soil. A copy of this report is enclosed.
- **November 1996 Public Health Assessment on Bloomington PCB Sites:** This final report provides a comprehensive evaluation of all past, present, and future human exposure pathways, available health outcome data, all previous health studies, and community health concerns associated with the six Consent Decree sites (i.e., Anderson Road Landfill, Bennett Stone Quarry, Lemon Lane Landfill, Neal's Dump, Neal's

Landfill, and the Winston-Thomas Sewage Treatment Plant). The final report is accessible on our website at <http://www.atsdr.cdc.gov/HAC/pha/PHA.asp?docid=876&pg=0>.

- **October 2008 Bloomington Hospital Grand Rounds presentation:** To ensure the new generation of health care providers in the community were aware of past PCB exposure concerns, NIOSH and ATSDR staff presented on PCB toxicological issues and both public and occupational exposures, including past health studies, to health care professionals at Bloomington Hospital.

As described above, findings from the 1987 biomonitoring follow-up study (ATSDR 1992) -- conducted when the Westinghouse Electric Corporation facility was still operating and little environmental clean-up had been completed -- did not indicate significant PCB exposure or related health outcome concerns in the Bloomington community. It is even more unlikely that this issue would have public health implications for the Bloomington community today. Since biological monitoring to measure PCB levels in the community is not expected to result in actionable findings, ATSDR does not recommend conducting this type of study at this time.

If you have further questions for ATSDR regarding PCBs and biomonitoring, please contact Dr. Michelle Watters at 312-353-2979 or aax6@cdc.gov.

Sincerely,



Patrick Breysse, PhD, CIH
Director, National Center for Environmental Health
and Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention

Means of PCB exposure to Bloomington residents:

Working in the Westinghouse plant

Scavenging rejected capacitors and transformers from landfills, for copper

Using sludge from the Winston-Thomas STP on vegetable gardens (before PCB contamination known)

Eating fish from contaminated streams

Growing vegetables in otherwise contaminated soils (e.g., near landfills, or from scavenged capacitors)