PCBs still plague Housatonic River

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There are three letters that always come up whenever the Housatonic River is discussed. The letters are PCB, which stands for polychlorinated biphenyls — a group of about 200 related compounds that have come to define the Housatonic and its future for decades to come.

The PCB molecule, with its pair of carbon ring structures, looks remarkably similar to that of the sugar you sprinkle on your cereal. Yet it ranks as one of the most dreaded pollutants ever produced, both for its toxicity and its resistance to breakdown.

From 1932 to 1977, the General Electric plant in Pittsfield, Mass. — along the upper reaches of the 149-mile river — dumped tons of the clear, yellowish fluid into the Housatonic. GE admits to 20 tons; river advocates say that number is probably closer to 700 tons.

The company also gave away thousands of cubic yards of PCB-contaminated fill that wound up in parking lots, people's yards and even the playground of Pittsfield's Allendale Elementary School. Because of the porous nature of the soil in Pittsfield, the compounds continue to leach into the Housatonic to this day.

PCBs are found in thousands of products, from "carbonless" copy paper to surgical implants. The ones produced at the Pittsfield plant were used in industrial transformers.

PCBs have caused a legacy of contamination that has tainted the entire length of the Housatonic, and will endure for decades — even centuries. According to a study by the National Oceanic and Atmospheric Administration, eels caught as far south as Derby have PCB concentrations many times greater than considered safe for human consumption.

Tim Gray, of the Housatonic River Alliance, said that he found PCBs in the Housatonic while a student at the University of Massachusetts in 1976. "At first, the EPA denied it," he said. "Then, they found high PCB levels in milk from cows that graze along the river."

Since then, the two most polluted miles of the Housatonic — where it flows through Pittsfield — have been cleaned up by removing tons of riverbank soil and river bottom silt.

According to Massachusetts DEP Commissioner Laurie Burt, efforts to conduct similar cleanups farther downstream have been met with resistance — even though GE will be picking up the tab.

"South of Pittsfield, the river is absolutely beautiful — a meandering stream — and it does not present a human health risk," she said. "It's still swimmable — a gorgeous area," she said.

This is why many are resistant to GE's dredging plan. Not only would it change the appearance of the river for decades to come, but it would also generate countless dump truck runs to dispose of contaminated soil and silt. Burt said that other, less invasive alternatives should be explored first, such as the possibility of using bacteria that naturally break down PCBs, and/or cleaning up the "hot spots" and leaving the rest of the river more or less intact. There's also the fear, she said, of the cure being worse than the disease. "Do you kill this resource in order to save it?"

She also said that in contrast to the 1989 Exxon Valdez oil spill — in which the Mobil Oil Co. has been roundly criticized for stalling and obfuscating the compensation process — GE seems willing to correct its wrongs on the Housatonic.

"Although we may not agree on how the cleanup should proceed, they are willing to work with us on this," she said, adding that the court-ordered consent decree regarding the PCB cleanup sets up "a pathway to get things done." Still, river advocates note that the Housatonic, in many places, remains a catch-and-release river, particularly for bass and trout, because PCBs accumulate in animals that are farther up on the food chain.

For example, it's not unusual for ducks, which are river-bottom feeders, to accumulate PCB levels many hundreds of times greater than that considered safe for human consumption. According to the publication "American's Most Endangered Rivers," some Housatonic River ducks have PCB levels that are high enough to be considered hazardous waste after they die.

Other pollution problems

Gray also said that in a Housatonic tributary from Danbury, mercury is another feared pollutant, the result of that city's hat industry. Until the 1940s, mercury nitrate was used to turn animal pelts into felt — the stuff of most hats. It its peak in the early 20th century, Danbury factories churned out millions of them every year.

"It's a long process," said Gray of making the Housatonic cleaner. "I'm still riding the tortoise."

Then there's human waste. Although the cities along the river with sanitary sewers all treat their sewage, these treatment plants are strained by homeowners who illegally connect their basement sump pumps and roof downspouts to the sanitary system.

"We're set up to accept about 200 gallons per day per family," said Tom Sym, the sewer administrator for the city of Shelton. "But, after a rainy day, we'll get 1,000 gallons a day per family."

For years, Shelton illegally discharged waste from the sewage treatment plant into the Housatonic River, which recently led to a \$142,000 fine imposed by the state and federal governments.

City officials say that the problem with the sewage treatment system is rectified by the recently completed \$28 million upgrade project that expanded its

capacity and fixed spots where runoff leaked into the system, contributing to the discharge overages.

Residents approved the improvements in two separate referendums, the first in 2000 for \$19 million and the second in 2005 for an additional \$9 million. The scope of the project was dictated by federal Environmental Protection Agency mandates.

The expansion, which was completed earlier this year, increased the system's treatment capacity from 2.7 million gallons a day to 4 million.

Rebirth of the Naugatuck

The Naugatuck River, by contrast, hasn't had such enduring human-caused problems, and wildlife is making a comeback, according to Bob Gregorski, president of the Naugatuck River Watershed Association.

"There are no health warnings now for the entire 39-mile length of the Naugatuck River watershed," he said. "The beavers have come back — in fact, most types of wildlife are back."

This was not always the case. Until the 1970s, the Naugatuck was something of an open sewer for the towns and cities along its banks. Even in the 1890s — an era not known for concern about the environment — the state Sewage Commission said that the river "had reached the limit of permissible pollution due to the discharge of industrial waste and municipal sewage."

For more than a century, industrial waste from Waterbury's sprawling brass mills, Naugatuck's chemical and rubber companies and metal-working factories in the lower Valley was dumped into the river.

It was so bad in the 1960s that the river often changed color; excess dye used in the coloring of sneakers, manufactured by U.S. Rubber (later Uniroyal) in Naugatuck, was piped directly into the river. Today, nearly all of those mills are closed, many sites converted to shopping malls or housing. Others remain empty; crumbling industrial relics to the Valley's once dominant industries. Government-mandated pollution controls on municipal and industrial discharges and decline of the mills slowly led to the river's recovery. Gregorski said that the Naugatuck is a comparatively fast-flowing river, dropping, on average, 13 feet per mile. (The Mississippi River, by comparison, drops about 6 inches per mile.)

Today, Gregorski said, the river continues to be threatened by too many visual reminders of humans — everything from trash to unsightly condominiums and housing developments along its banks. "There are too many buildings too close to the river," he said. "There should at least be a 100- or a 200-foot setback."

Still, river advocates say they're pleased with the improvement in water quality that's occurred since the early 1970s.

"There's no question the Housatonic and Naugatuck are vastly improved," said Leon Sylvester Jr., chairman of the Friends of the Housatonic River, who said that fish and other wildlife are plentiful, particularly in the tidal portion downstream from Derby.

"Bottom line — both the Housatonic and Naugatuck rivers are making a great comeback," he said.

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