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Toxics on Long Island

Industry dumping—and government negligence—have led to drinking water contamination

by Larry Jaffee



Hooker Chemical is something of a household word across the country, including on Long Island. But what many Long Islanders don't know is that the same kind of irresponsible chemical dumping practices that forced 700 families to evacuate from around the Love Canal also happened right in their own backyards.

For example, over four thousand people live in the suburban homes located within a 1.25 mile radius of the abandoned Syosset municipal landfill, where Hooker's Hicksville plant buried approximately 800,000 pounds of toxic solid and liquid waste each year at maximum estimated output between 1946 and 1968. Within 100 feet of the eastern border of the landfill there are two school buildings. Beneath it, at a depth of 70 feet, lies the groundwater table. Five thousand feet away are drinking water supply wells for the adjacent town of Syosset, with over 40,000 residents.

And the Syosset dump is only a fraction of the problem. At a congressional subcommittee's hearing on toxic waste disposal last year, it was revealed through Hooker internal documents that:

- The company also disposed of up to 800 tons of chemical and other waste products at the Old Bethpage municipal dump since 1968;

- Hooker disposed of 200 cubic yards of scrapings from its Hicksville lagoons at the Brentwood landfill between 1973 and 1974;

- Thirty to forty workers at the Hicksville plant used the cancer-causing substance methylene (bis) chloroaniline in plastic production from 1972 to 1974, and company officials believed that as late as August 1978 the outside of at least one tank at the plant was still contaminated with the chemical;

- As of August 1978, Hooker had several hundred drums of toxic chemicals stored on its Hicksville plant site; some defective drums had leaked and their contents had soaked into the ground;

- Between 1956 and 1975, Hooker dumped hundreds of thousands of pounds of vinyl chloride residue—which can cause liver cancer—on company property.

But Hooker isn't the only culprit; it is just one of the hundreds of industrial toxic chemical polluters on Long Island.

Left: Recharge basin at the Grumman Aerospace Corporation plant in Bethpage. Photos: Larry Jaffee

An estimated 100,000 gallons of toxic chemical wastes are illegally dumped on Long Island each day, according to the state's Department of Environmental Conservation.

What effect does all of this have on the environment? So far, more than 20 public drinking water supplies have been closed in the Hicksville/Bethpage area, attributed to the dumping practices of Hooker and other industries in the vicinity. As industrial plants discharge their chemical waste, it eventually seeps through the sandy soil, polluting the underground reservoirs called aquifers, the sole source of drinking water for over three million people on Long Island.

Furthermore, wells have been closed for many other reasons as well—including gasoline and oil spillages, the use of pesticides by farmers on Long Island's East End, poisonous cesspool cleaners leaking from underground tanks, and recharge basins and dumps that allow a variety of contaminants to leach into the groundwater.

Hardest hit by the toxic waste problem are those people with shallow private wells in their backyards. Over 1,100 private wells were closed on the East End this spring because of the pesticide Temik. Suffolk County health officials advised families not to drink, bathe or wash with the water, and told them to hook up as soon as possible to public water supplies. That is easier said than done, since hookups to public mains are very costly.

In a report released this summer, *Toxics on Tap: Chemical Contamination of Long Island Drinking Water Supplies*, NYPIRG places the blame not only on the industries who have been the polluters, but also on the public health authorities who have failed to adequately monitor and regulate the wide variety of toxic chemicals discharged into Long Island's groundwater.

"Clearly the failure of the federal, state and local agencies to regulate the problem is the reason we are in this situation," said Walter Hang, NYPIRG staff scientist and co-author of *Toxics on Tap*. "They are the ones who are not promulgating the regulations according to the letter of the law."

The heart of the nationwide effort to restore and maintain the quality of America's waters is the National Pollutant Discharge Elimination System (NPDES), a system of monitoring and controlling pollution discharges through permits. Nationally, the Environmental Protection Agency (EPA) is primarily responsible for implementing the pro-

gram. But in New York, EPA's authority is shared with state and local health and environmental agencies. The state version of the NPDES permit program is the State Pollutant Discharge Elimination System (SPDES).

NYPIRG reviewed 1,453 pollutant discharge permits issued to Long Island industries and municipalities, finding that a majority of the toxics likely to be found in discharges of industrial waste water are generally not covered by the permits. Unregulated pollutants include spent oils, solvents and greases, as well



Above: Old Bethpage municipal landfill, where Hooker has dumped over 800 tons of chemical and other wastes.

as exotic chemical substances such as carbon tetrachloride and trichloroethylene, two industrial solvents; vinyl chloride, used to make the plastic polyvinyl chloride (PVC); and pesticides such as DDT and chlorodane, which do not dissolve readily in water. In addition, the study charged that most of the permits make no specific attempt to control toxic organic chemical compounds. Instead, they regulate more traditional pollution concerns such as sewage and heavy metals—cadmium, lead, mercury, iron, and others.

For the most part, health officials tended to agree with the study's assertion that the existing permit system is not adequately addressing the problem.

"We are now paying for our past dumping practices," said Donald Middleton, head of the regional office

of the State Department of Environmental Conservation (DEC).

According to Middleton, the permit program is being revised and new standards will be established.

The EPA Chief of Program and Toxic Integration, Kevin Bricke, also recognized his agency's failure to combat the problem. "We realize that the SPEDES program must be expanded to include a greater number of organic chemicals," he conceded.

However, on the local level, Nassau County's Health Department and the County Executive, Francis Purcell, are reluctant to admit that any immediate problem exists.

Purcell's contention is that water in Nassau County meets every established standard or criterion for safe water quality, and therefore is "perfectly safe." In a sense of meeting criteria, Purcell is correct. According to current EPA and state standards, a well must have a concentration of toxic pollutant of at least 50 parts per billion (ppb) before it is considered dangerous. What if a well has a concentration of 48 ppb's? "As long as it falls within the standard, there is no danger," maintained Frank Padar, Nassau County Health Department (NCHD) Deputy Commissioner for Environmental Health.

"We are not denying that there is a problem," said Purcell's press secretary Greg Wynne. "When we find a well to be of a dangerous level, we close it down."

The problem with concentrating simply on meeting numerical criteria, of course, is that even if the county's water falls within the current safe drinking water quality standards—which, incidentally, both the DEC and EPA say is outdated—it will *not* meet even that standard for long unless steps are taken immediately to prevent further toxic pollution.

Oddly enough, in light of the Nassau County Health Department's objection to the NYPIRG report, the report was based in large part on the NCHD's own information. By denying the NYPIRG findings, the department is essentially denying its own information, according to state Assemblyman Lewis Yevoli, whose district straddles both Nassau and Suffolk Counties and is smack in the middle of some of the hardest hit areas of toxic contamination on Long Island.

Yevoli has been carrying on a fight of his own against the drinking water problem since 1971, when the Town of Oyster Bay attempted to put a garbage dump directly above one of Long Island's main sources of fresh water. After many "foolish debates," Yevoli

won and the project was abandoned. And in 1975, with the revelations that Hooker dumped millions of tons of toxic wastes at its Hicksville plant and several municipal landfills, Yevoli was once again on the rampage and uncovered a potential cover-up of the facts by local authorities.

"It was like pulling teeth," reminisced Yevoli about trying to get the facts from the NCHD about where, what and how much Hooker dumped. "It's a perfect example of a bungling bureaucracy at its best," commented Yevoli on the lack of coordination between the federal, state and county agencies. "You can't even get the three agencies to sit down and discuss the problems together." Yevoli hit the nail right on the head: the lack of coordination among the bureaucracies involved appears to be a key to why the problem of toxic waste dumping is not getting any better, just worse.

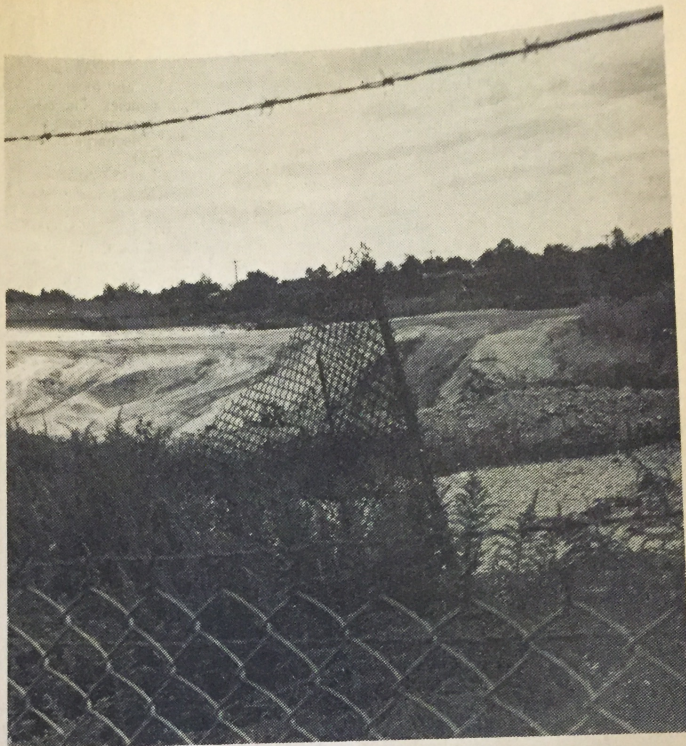
Two years ago, the much-lauded "208" study, a \$5.2 million water management study conducted by both Nassau and Suffolk Counties, came up with some of the same conclusions and recommendations that NYPIRG has reached in undertaking its *Toxics on Tap* study. The plan recommended the following measures as a means to control the spread of chemicals:

- Upgrade existing landfills to reduce the amount of leachate, and locate new landfills away from areas especially vulnerable to pollutants;
- Expand regulations and enforcement to control industrial wastes;
- Require permits and controls for the transportation and storage of chemicals that are trucked daily throughout the two counties; and
- Ban household chemicals that might find their way into the groundwater in significant quantities.

Needless to say, only the last recommendation has been carried out—the banning of cesspool cleaners. And meanwhile, two more years' worth of toxic chemicals have infiltrated the fragile groundwater supply.

It is quite obvious to many of the residents living adjacent to landfill sites that the authorities have done next to nothing about alleviating the problem. They are fed up with the bureaucracy and many of them are taking the problem into their own hands.

Residents in Hauppauge formed 'Dump The Dump' after learning that toxic wastes were buried in the Town of



Above: The abandoned Syosset municipal landfill.

Islip landfill, adjacent to an elementary school. As their monicker proclaims, Dump The Dump's goal is to shut down the landfill. So far they haven't been able to dump the dump, but the 200 member, community-funded organization did manage to close the elementary school, when considerable amounts of vinyl chloride were detected on the school's premises.

"There was always a terrible odor coming from the dump," said Eric Oster, executive director of Dump The Dump. "I couldn't believe that they attempted to teach children there." But not until irate parents boycotted the school did the Town of Islip close it in May 1979.

In neighboring Babylon, NYPIRG's Citizens Alliance has been working with local residents whose private wells were closed because of toxic contamination.

"I can't even wash a white shirt. It comes out yellow," said Donald Baptiste, who lives in Farmingdale and is a member of the North Amityville chapter of Citizens Alliance. Baptiste's family found out in March that their private well had been contaminated. "My family has been drinking that contaminated water for the last

three years and I had no idea."

Baptiste learned about the danger of his water when his son's science teacher conducted an experiment in his home and thought there was something wrong with the water. Baptiste then had his water tested by the health department and was informed that "under no circumstances should the water be used for human consumption." The test had shown 75 ppb of tetrachloroethylene in Baptiste's well and "up in the hundreds" in some of his neighbors'.

"So now they tell me I have to spend \$600 to \$700 to get hooked up to the East Farmingdale Water District. I don't have that kind of money," said Baptiste. Since March, Baptiste's family has been getting their drinking water from their church and from a friend in Amityville. "All we are asking for is a plan to make public water available and affordable to anyone who has a contaminated well," said Joe Martin, a Citizens Alliance organizer. After plenty of pressure, the Babylon chapter of Citizens Alliance was able to get a commitment from a town official for

such a plan.

Some of the most disturbing factors of the entire toxic chemical mess are the costs involved to clean up, to monitor wells and landfill sites, and to install filtration systems. All of the agencies agreed that there just isn't enough money to combat the problem the right way. It will cost about \$35 million to close the 17 major municipal landfills in Nassau and Suffolk to prevent future groundwater pollution from the sites, according to DEC commissioner Robert Flacke. "The state has no money to help pay for such closings," Flacke said. But it will cost several times more than \$35 million for Nassau and Suffolk to deal with the pollution the landfills will cause if they are not closed.

"What is ridiculous is that you could dump a load of nitroglycerine at a municipal landfill and no one would ever know," exclaimed Assemblyman Yevoli. "All that it takes is to station one man at each landfill to check what's being dumped. But they can't find the money for that either."

Another big money problem is the cost of testing for the full spectrum of the EPA's list of 129 priority pollutant chemicals. Authorities contend that they test for the major ones—about 30 in Nassau and 50 in Suffolk. Nassau has recently allocated funds to conduct tests for all 129, but it will only be done on a limited basis, sampling around 30 wells.

One effective—but costly—way to head off the problem would be the installation of granular activated carbon filtration systems, capable of removing the wide spectrum of organic chemical pollutants, on municipal supply systems.

GAC water treatment is of maximum benefit and cost efficiency when it is installed in large multi-community supply systems, according to NYPIRG's scientist Walter Hang. Admittedly, the capital investment of the filtration system, GAC regeneration furnaces and retrofitting of an existing water plant are expensive. "But when the costs are spread out over the largest possible number of people, the financial burden to each individual, family or community becomes increasingly manageable," Hang added. Due to the economies of scale, the greater volume of GAC-treated water produced per day, the lower the cost per gallon.

Hang feels that it shouldn't be the people who have to pay for such a project. "Homes didn't produce that pollution. Industries like Hooker, Grumman, and scores of others caused the shutdown of several hundred wells on Long Island," he said.

Perhaps what upset health authorities and the public most about NYPIRG's report was that evidence has indicated that Long Island's polluted environment may have already taken its toll of victims. Nassau County's overall age-adjusted cancer mortality rates for white males and females are ranked in the top 10 percent of the nation, according to a National Cancer Institute Study. "These high cancer death rates may be directly linked to the toxic pollutants consumed in drinking water or absorbed via other routes of exposure, for 60 to 90 percent of all human tumors are believed to be environmentally induced," the report concluded.

"It's similar to getting cancer from

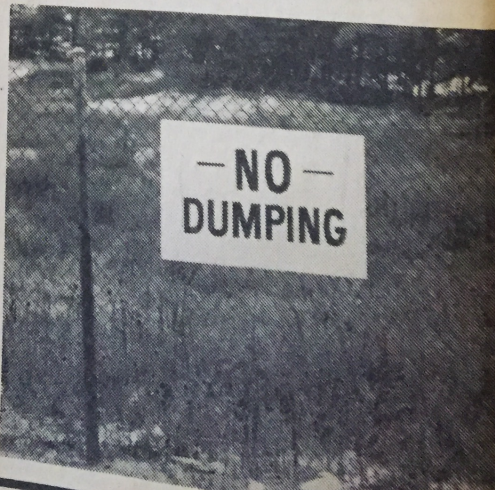
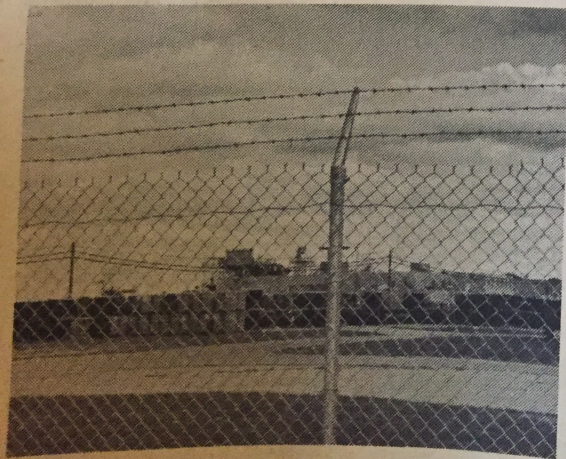
smoking cigarettes," pointed out Hang. "No one says that you will get cancer from cigarettes, but they do say that they are hazardous to your health. The more studies we do the clearer it becomes scientifically that there is a very distinct link between toxic chemical exposures and cancer," he said. ■

● NYPIRG is organizing to fight further contamination of Long Island's precious groundwaters and to demand that steps be taken to ensure drinking water safety. To help individuals take action, NYPIRG has assembled a Toxics Action Packet, which includes instructions on how to get information about the quality of local drinking water supplies and chemical dumping through the Freedom of Information Law, lists of public officials and elected representatives, and sample letters to use in lobbying officials. To receive a packet, write to NYPIRG, 5 Beekman St., New York, NY 10038. Include a self-addressed, stamped envelope.

● For more information about the grassroots organizing campaign on Long Island, contact Citizens Alliance, 1003 Park Blvd., Massapequa Park, NY 11762.

● For free testing of private wells in Suffolk County, call 516-360-3000.

● Copies of Toxics on Tap are available from NYPIRG for \$10.00 for individuals, \$25.00 for government agencies, and \$50.00 for industries. Include \$2.00 to cover postage.



Below, left: Steel drums at Grumman plant.

Some of Long Island's Worst Polluters

Below are descriptions of some of the industries which are probably most responsible for groundwater pollution on Long Island. Some of these industries have blatantly violated provisions in their discharge permits; others are known to use or are suspected of using extremely toxic chemicals which are inadequately regulated.

Most of these industries are located in environmentally sensitive areas—and all of them require much closer monitoring by health and environmental agencies.

● Astro Electroplating, Farmingdale

This plant has failed in the past to comply with its limited permit requirements. On-site inspections have discovered a number of pollution problems, including an illegal discharge to a storm drain, extensive contamination of the factory site due to long term spillages, and inadequate storage facilities for spent chemical wastes and sludges.

● Automatic Connector, Commack

In the past this company has exceeded the allowable discharge levels of certain wastes by up to 100-fold. In addition, from August 1976 to November 1978 the company was consistently behind schedule in constructing a treatment facility and afterwards failed to operate the treatment system properly. In December 1979, on-site inspectors found an overflowing cesspool.

● Cerro Wire and Cable Co., Syosset

In the past Cerro has been known to discharge tons of hazardous waste in the Syosset Municipal Landfill. In addition, even though the levels of discharges of pollutants allowed under the company's SPDES permit are too high to control the pollutants effectively, the company has been known to exceed them.

● Fairchild Republic Co., Farmingdale

Fairchild engages in research, development and manufacturing of aircraft and similar products. It is one of the largest private employers—and one of the single largest polluters—in Suffolk County. Over the years, hundreds of millions of gallons of contaminated cooling water have been dumped on-site, and inspectors have found on-site landfills of heavy metal sludges and improperly stored industrial wastes. A storage tank of sulphuric acid is known to have leaked into groundwaters. Although legal action has been taken against the company, as of this summer the site had not been cleaned up and improperly regulated discharging continued.

● Grinnell Lithographic Co., Islip

This industry also has a long history of on-site spills and releases, including printing press wash solvents, sloop sink wastes, alcohol wastes, concentrated photographic wastes and photographic plate-making wastes. The spills have defoliated a 10 x 40 foot on-site area of grass

and shrubs, and have caused a groundwater pollution spill whose extent hasn't been determined.

● Grumman Aerospace Corporation, Bethpage

One of Long Island's largest industries, Grumman engages in aircraft manufacturing—involving industrial processes typically using a wide variety of toxic chemicals and generating highly toxic wastes. In addition, the plant is known to have disposed of hazardous waste on its site, and has been known to use and discharge Polymate 900, an anti-corrosive chemical which causes the bone disorder Paget's disease.

● Hooker Chemical Co., RUCO Division, Hicksville

Hooker's facility is one of the largest known sources of toxic organic chemical groundwater contamination on Long Island. The Hooker plant site is contaminated with tons of some of the most toxic chemicals known to exist, many of which are capable of migrating through the groundwater system and causing widespread contamination. In addition, Hooker is known to have dumped hundreds of thousands of pounds of hazardous wastes each year at the Syosset and Old Bethpage municipal dumps.

● Li Tungsten Corp., Glen Cove

Li Tungsten engages in industrial processes known to generate a variety of toxic pollutants, including toxic heavy metal sludges and spent organic chemical solvents. The company has a long history of SPDES permit violations, and on-site investigations have identified spilled oil and gasoline seeping into manholes—resulting in an oil slick in the Glen Cove Creek.

● Douglas J. Marques, Inc., Babylon

This company engages in metal anodizing—a process which typically involves the use of organic chemical degreasing solvents. Although the company's SPDES permit requires that concentrated chemical solutions be stored and hauled, Suffolk County officials have seen the company's personnel carrying wastes from the building and dumping them into the ground nearby. In January 1980 a puddle of liquid wastes that had been dumped in nearby woods was analyzed and found to contain chemicals exceeding the allowable levels under the company's permit. The concentration of chrome-hexavalent exceeded the permitted level by 7,000-fold.

● Tronic Plating Co., Farmingdale

Until a few years ago this company discharged wastewater on-site into groundwaters, but in 1976 it was required to store wastes and hold them for later hauling and dumping. In September 1979, however, inspections found that the company had continued on-site dumping. Inspectors found two active industrial waste cesspools, illegal cooling water pool discharge and stormwater drains and sanitary cesspools containing chemical wastes. ■