

Chemicals in Westford's wetlands believed to be coming from landfill

By VIRGINIA KIMBALL
Sun Correspondent

WESTFORD - Several "volatile organic compounds" have been detected in a sample of wetlands surface water near the town landfill, according to a letter from an environmental engineering firm.

The letter, submitted to selectmen earlier this month by Newton-based Goldberg, Zoino & Associates (GZA), also reported the presence of road salt and concentrations of dissolved solids from the landfill in the wetlands area off Forge Village Road.

Selectmen last night, however, requested a more detailed study of the wetlands area. The GZA tests are a followup to 1983 wetland tests that offered inconclusive results.

"I would like a fuller report

explaining what those chemicals are they found and what kind of impact they will have on the well field," said Selectman Ronald Johnson.

In order to fully test the extent of the contamination in the wetlands, GZA officials Gary Williams and Lawrence Feldman have recommended a 30-day pumping test to reach water at lower levels in the Forge Village Wells, according to Executive Secretary Robert Halpin. However, Halpin reports the pumping test has been opposed by Water Commissioner Harold Fletcher, who feels the firm could test water in the storage tanks to gain the same information.

"They want me to run the wells for 24 hours a day for 30 days," said Fletcher, "I don't think GZA understands ... this is not done under normal condi-

tions."

The recent GZA tests were, in part, prompted by a group of Westford residents concerned over wetlands contamination. The group was formed following the announcement of a proposal last fall to locate a waste transfer station on landfill site.

According to the GZA letter, the following "volatile organic compounds" were detected in the sample from a wetlands area adjacent to the landfill: acetone, 2-butanone, 1,1,1-trichloroethane and toluene.

Acetone and 2-butanone are possible byproducts of either landfill refuse or naturally occurring organic matter in the wetlands, while the presence of 1,1,1-trichloroethane and toluene most commonly originates from solvents disposed in the landfill.

VIRGINIA KIMBALL Sun
7/24/85

Town wells okay, but monitor closely: report

By VIRGINIA KIMBALL
Sub Correspondent

WESTFORD — Selectmen learned last night that town wells near the sanitary landfill are still safe for use. Continued pumping at the wellfield would cause contaminants to reach the wells, however, and frequent monitoring was recommended in a report from Goldberg, Zoino and Associates (GZA).

In its study, the Newton-based

Westford

GZA demonstrated that continued pumping of the wellfield causes leachates — contaminants in the ground water — to move toward the water source.

Samples taken from locations around the landfill, in the surface area of the wellfield, showed low concentrations of at least 35 volatile organic matter, including acetone, 1,1,1-trichloroethane, 2-Butanone and toluene.

Most of these compounds are waste products from commercial or industrial developments and in higher concentrations have been linked to cancer.

The GZA report suggested that with proper management and pumping techniques, the levels of these compounds would not reach dangerous

levels.

These compounds were not detected in samples taken from observation wells after 34 days of pumping.

GZA engineer Gary Williams told the board that continued pumping of the wells would cause the contaminants from the landfill to move toward the wells.

Williams said his firm recommended monitoring the water quality at the well sites near the landfill with a "frequency of testing." A GZA report delivered to selectmen also suggested new monitoring wells be installed between the landfill and the wellfield, to be frequently sampled for "volatile organic priority pollutants."

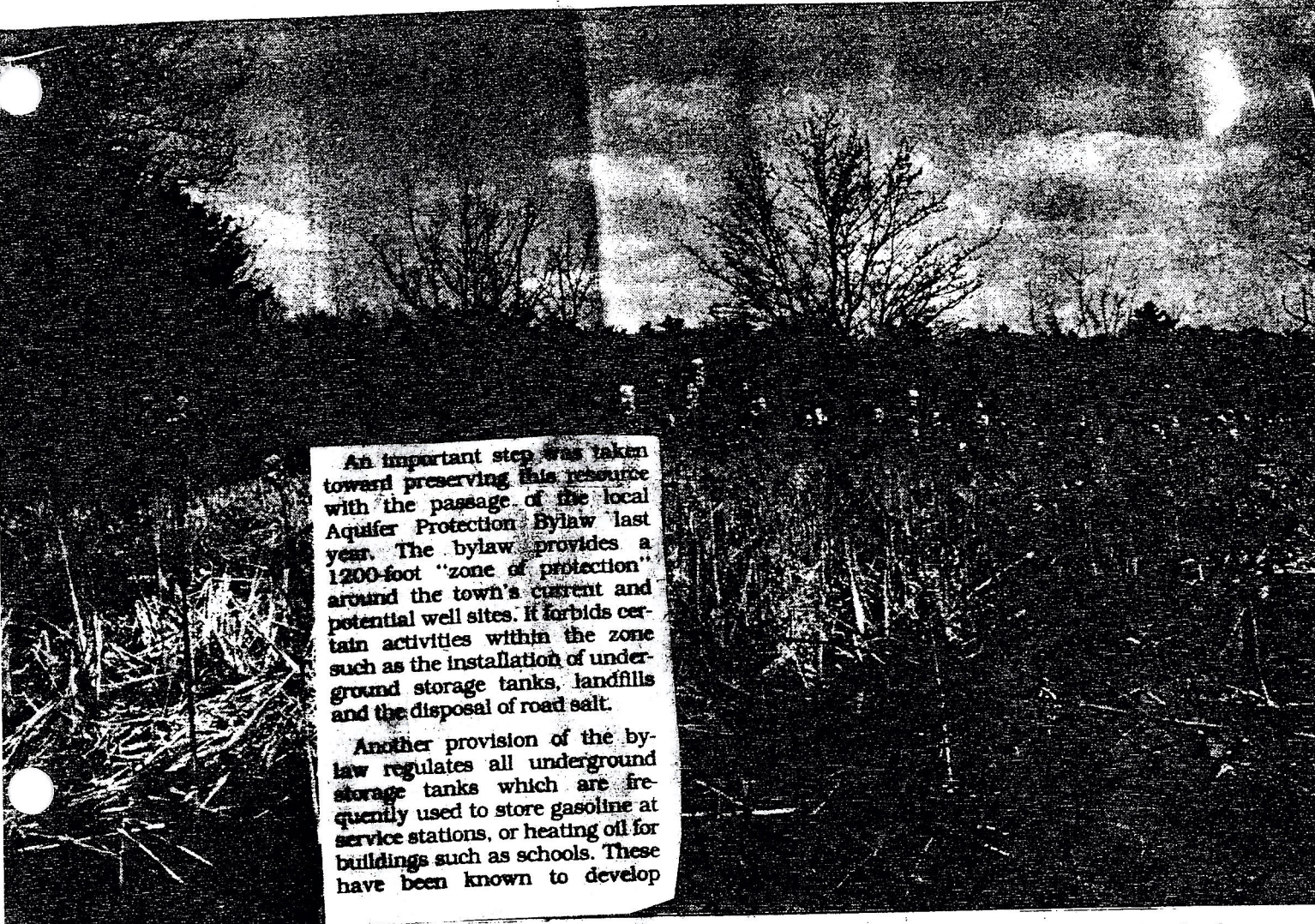
According to Williams the capping of the landfill, a project to begin soon, will help contain contaminated ground water.

Water Commissioner Harold Fletcher told selectmen the wells currently are pumped only 4 to 6 hours per day, in order to "top off other town water sources."

Fletcher told selectmen he felt proper monitoring and pumping of the wells would allow their continued use. "Those wells are 75 years old and I see no reason why they can't go another 75," said Fletcher.

es toward mapping and protection of

4/5/85



An important step was taken toward preserving this resource with the passage of the local Aquifer Protection Bylaw last year. The bylaw provides a 1200-foot "zone of protection" around the town's current and potential well sites. It forbids certain activities within the zone such as the installation of underground storage tanks, landfills and the disposal of road salt.

Another provision of the bylaw regulates all underground storage tanks which are frequently used to store gasoline at service stations, or heating oil for buildings such as schools. These have been known to develop

This wetland, characterized by standing water and cattails, is typical of many water recharge areas in Westford. (Photo by Garo Lachi)

Protecting Westford's precious commodity: its aquifer

by Deborah Orpin DeLargy

Unlike many towns which draw from reservoirs, Westford depends entirely upon wells for drinking water. This makes the groundwater supply one of the most important resources and its protection should be among the town's highest priorities, according to Board of Health member Charles Menzie.

"Groundwater protection really has to be pursued aggressively at a local level," says Menzie. "It would be a shame to see Westford lose the use of its wells as some surrounding towns have." Parts of Acton, Tyngsboro and Bedford have had to close their wells due to contamination.

leaks which can contaminate groundwater supplies. The bylaw requires that owners of these tanks notify the town of their location and run checks for leakage on all tanks over 15 years old.

Menzie says that there has been about 50 percent compliance on this regulation so far and the town is working on obtaining information and safety checks on the remaining 50 percent.

The bylaw also requires all industries in the town to register any hazardous materials they may be using with the Board of Health, according to Menzie. Compliance with this section of the bylaw has been good.

Although the Aquifer Protection Bylaw is definitely a positive

that no one really knows where Westford's aquifers are located. An aquifer is an underground formation which contains sufficient water to be developed as a water source. They are usually located in low-lying areas where there is a thick layer of soil deposits.

Many towns have done formal mapping of their aquifers and the Board of Health is requesting \$21,000 at the upcoming town meeting for this purpose. Article 25 on the May 11 Town Meeting warrant seeks an appropriation "to obtain consultant services for hydrogeological study of portions of the Town to study and map the aquifers that support the Town's drinking water resources as a first step in protecting our ground water supply as part of the Master Plan."

ning. "Once we know where aquifers are, we can start mapping at their recharge areas. We also need to be protected from contamination," he says.

"The current 1200-foot zone of protection around wells does nothing to protect recharge areas. It ignores the hydrogeology of how and where water moves," according to Menzie.

Another inadequacy in the town's current water protection policy is the lack of an ongoing program of testing for contaminants. The last time such testing was done was two years ago, according to Menzie. "Regular water testing programs are long overdue," he says.

Menzie adds, "There is no money in the budget for this now."

Auditor's landfill ruling is based on local mandates law in Prop. 2½

By Andrew J. Dabills
Globe Staff

The ruling by Auditor John J. Finnegan that the state must foot the bill for improvements it orders to municipal landfills isn't the first time the state has been held fiscally liable under a statute known as the local mandates law.

Under the tax-cutting Proposition 2½ that went into effect in 1981, the state is expressly prohibited from "imposing any direct service or cost obligation" on communities without also paying for them — unless the community agrees to assume the cost itself.

The law also permits any 10 citizens of a community to sue the state unless state funds are provided for programs required by new state laws, rules or regulations.

The idea of establishing a Division of Local Mandates — and putting it under the state auditor — came from Rep. Andrew Natsios

(R-Holliston), the state GOP chairman. His suggestion was adopted by Citizens for Limited Taxation, the sponsors of Proposition 2½, whose director, Barbara Anderson, yesterday described the 14-person Division of Local Mandates as "aggressive and independent."

Under the local mandates law, the auditor's decisions can be appealed to a state Superior Court, an avenue Gov. Michael S. Dukakis yesterday said was being considered after the landfill ruling.

Natsios said that if Dukakis attempts to have the landfill question or health issues exempted, "there will be a floor fight to end all floor fights" in the House where Proposition 2½ has been sacrosanct.

Finnegan's decisions on local mandates have cost the state more than \$7.1 million for programs that before Proposition 2½ would have been financed locally.

He has forced the state to pay

for new ambulance regulations, extension of voting hours, vocational educational programs and other state-mandated programs. In January, the state's Supreme Judicial Court upheld one of his decisions that said the state also could not force communities to provide busing for private school students unless it paid the cost.

Natsios said when he drafted his bill, he almost decided to put the Division of Local Mandates in the state Office of Administration and Finance, an agency under the governor's control. But he said Administration and Finance would not have been independent of the governor.

"The auditor is normally at odds with the executive branch because they audit what the executive branch does, so there is a little friction there," he said. "I thought that would protect the cities and towns more than anything else."

Landfills: A cure that brought new ills

By Jerry Ackerman
Globe Staff

The local dump used to be a favored place for politicians to campaign. But today politicians tend to avoid dumps — now called sanitary landfills — as they have become an expensive environmental headache.

Landfills, in fact, have joined industrial disposal sites and leaky underground tanks as a major long-term pollution concern. In Massachusetts, with 266 operating landfills, water pollution problems have been documented at 20 locations and 59 others are likely to cause pollution, according to environmental officials. All but nine of these are municipal landfills.

The problem can be dated to 1971, when landfills were designated by Massachusetts law as the way to end the problems that open burning and rats caused at town and city dumps.

But burying the trash didn't cure another problem — then unseen. It turns out that, without protection in the form of clay or

mulate in landfills — oils and chemicals from homes and businesses — leak out, their transit speeded up by rainfall soaking into the ground.

Called leachates, these liquids drain into underground water aquifers, rivers and reservoirs, often making water undrinkable.

Landfill leachate already has closed drinking-water wells in Amherst, Auburn, Berkley, Lowell, Middleborough, Pittsfield, Plymouth, Tewksbury and Tyngsborough, according to a tally by the Department of Environmental Quality Engineering (DEQE).

Near the Wachusett Reservoir, part of metropolitan Boston's water supply, the Holden municipal landfill caused contamination in the Quinapauket river.

Nationally, according to a recent congressional report, solid-waste landfills (one-third of them municipal) account for 20 percent of the sites on the "Superfund" list. As many as

federal cleanup help.

Liners for landfills typically cost up to \$250,000 for a 10-acre site. They have been required by Massachusetts since 1979.

Typically a liner is accompanied by a leachate collection system that pumps and treats the liquids for disposal in sewer systems or cycles them back through the landfill. Around the landfill, wells are drilled where water samples can be taken and tested for signs that contamination is escaping.

Liners and collection systems aren't specifically required by the 1971 rules that regulate landfills, according to DEQE general counsel Willard Pope, because until the 1970s "no one really understood leachates and the problems they could cause."

As a result, according to department statistics assembled by the private Conservation Law Foundation of New England, only three of the Bay State's 225 municipal landfills have leachate systems certified by authorities as being "state of