

Sewage plant "open house" this Saturday

Recently expanded to serve a population of 11,000, Milton's Fulton St. Sewage treatment plant will be "in the spotlight" this Saturday afternoon when Council and the works department host an open house at the newly-enlarged plant.

Keeping pace with (and one step ahead of) Milton's growth, the sewage plant has just received \$280,656 worth of renovations and additions. While the entire plant can serve a population of 11,000, portions of it have been expanded to handle the equivalent of 14,000 people.

Milton's sewage treatment plant today represents an investment of over half a million dollars, and council is anxious for the citizens of Milton to come out on Saturday and see what the expenditure has provided.

The original plant was constructed in 1947 at a cost of \$99,000, when the town's population was just over 2,000 and growing

slowly. The original plant was designed to serve a population of 3,000.

In 1958, following rapid development in the town, an addition was necessary and the plant was enlarged at a cost of \$186,000 to serve a future population of 7,000.

Over the past year the second addition has been installed to bring the plant's potential service to 11,000. As well, a million gallon primary treatment tank (also used as a holding tank for periods of peak flow) and chlorination equipment to serve an eventual population of 14,000 have been installed.

Saturday everyone's invited to the open house, from 2 to 5 p.m., to tour the expanded facilities and learn how this vital cog in the town's service department operates. Councillors and works department employees will be on hand to explain things and show you around.

At the same time, several pieces of town equipment will be parked nearby so taxpayers can get a look at some of the specialized equipment that is needed to provide municipal services in a town of Milton's size.

A caterer will provide refreshments for guests at the open house. Films will be shown to children in the garage on the property. Officials urge parents taking children to the open house to keep an eye on them, as several of the tanks on the property have open tops with just guard rails for protection.

Councillor Brian Best, chairman of the council's sewers and sanitation committee, is making arrangements for the open house with the assistance of his committee members, Reeve Austan Ledwith and Councillor Tony Cousins, and the town works staff.

The plant itself is a complicated structure, a maze of pipes and motors, tanks and valves

that would stagger most visitors. But it is a well-designed and cleverly laid out structure or series of structures, doing the job it is intended to do.

Seven days a week, 52 weeks of the year the motors hum and the sewage flows through the tanks and pipes. An average of 850,000 to 950,000 gallons of sewage each day are treated and purified in the plant, and the effluent which is discharged into nearby 16 Mile Creek is a good 95 per cent pure.

Milton's treatment facilities have been held up as a model for other municipalities to follow. Frequent tests of effluent by Ontario Water Resources Commission inspectors have given the town an excellent rating. The plant is often visited by water pollution control officers from other towns.

What does the plant do? Let's begin at the town wells at Kelso and on Walker's Line in North Burlington, where Milton's two sources of water are located. From these two sources Miltonians demand an average of 140 gallons of water each day, for every man, woman and child in Milton. . . . The 1963 average figure was 814,000 gallons of water used daily in town.

Some of this does not enter the sewage system, but the majority of it does. It comes from sinks and toilets and laundry rooms, and it pours down the sewage lines either directly to the sewage plant, or to pumping stations where it is boosted along the route to the treatment plant on Fulton St. Four booster stations are situated in Milton.

The plant, through aeration, compression and chlorination, purifies the liquid sewage until it is almost completely free of germs and particles. The "effluent" as it is called after processing, is released into the nearby stream and there it mixes with the water in the stream and is further purified.

Visitors may wonder why, when the plant was already capable of serving a population of 7,000, it was necessary to expand it at this time. There are three good reasons.

First, Miltonians are renowned as water-wasters. Nationally, water consumption averages about 100 gallons for every man, woman and child. Milton's average at last count was 141 gallons, or 40 per cent above average. The fact that Miltonians do

not pay for water through meters but simply on a flat annual rate accounts for part of the wastage. Summer lawn watering (without restrictions) also accounts for the high consumption. And the town has several industries which use large galonages of water in their daily operations.

Secondly, the town sells water to outside residents at a profit, because there is no shortage of water and it might as well be making a profit for the municipality as sitting in the wells, unused. Right now Milton District Hospital, Canadian Meter Company, several industries on Nipissing Road, the Halton County Administration Building and the Ontario School for the Deaf are major buyers of town water and sewer services. Several homeowners on the town's

boundaries have also contracted to purchase the town water service, and dozens of central Halton farms purchase water from tank truck operators who draw from the Milton wells.

The third reason is that the town council anticipates rapid growth for Milton and district and applied to the Ontario Municipal Board to enlarge the sewage plant to handle a future population before the big boom arrived. The sewage plant addition was contemplated a few years ago when the council was pressing for annexation of a large area in north Oakville and southern Esqueving Township. The O.M.B. approved the extension to the sewage plant, but withheld a decision on the annexation, until the Plunket needs study report was filed.

How our treatment plant operates

The complicated process of turning raw sewage into purified water goes on 24 hours a day, seven days a week, and 52 weeks of the year at Milton's large sewage treatment plant on the south end of Fulton St.

Visitors are not expected to master the secret of the purification process in one visit to the plant, as it's an involved system requiring trained operators and rigid controls.

Milton's sewage treatment centre, recently expanded to serve 11,000 population, is doing an excellent job by Ontario Water Resources Commission standards. It may be hard to imagine, but following a recent inspection by the O.W.R.C. they reported the finished product, effluent, was "crystal clear and sparkling" and had a zero coliform (bacteria) count.

Not many pollution control plants in Ontario can boast such a good record, and Miltonians should be proud of this town facility. Indeed, the O.W.R.C. holds the Milton plant as a fine example of efficiency in operation, and frequently visitors from other municipalities drop in to see it working. . . . Oakville, Dundas and Ancaster municipal officials and treatment plant operators among them.

Wilf Penson, operator of the Milton plant, explained for

Champion readers the system that turns the raw sewage (influent) into the purified product.

An average of 850,000 to 950,000 gallons of influent enter the plant daily, and this figure often exceeds a million gallons if there is a heavy storm.

Some Milton sewer lines are up to 17 years old and subject to heavy infiltration of ground run-off water. Some houses have cisterns that empty into the sewer lines. And the town's storm sewers all add extra run-off water to be purified at the Fulton St. plant.

The influent enters the plant at a barminutor" machine that cuts up any paper or solid objects in the raw sewage. It then travels through an airtight grider which removes sand, gravel and heavy objects which will not float.

The plant has three primary treatment tanks where the sewage is given its first treatment. The top of these tanks drain off over weirs to the aeration tanks, where pressurized air is forced into the water.

Sewage next enters the final tanks where the heavy matter settles to the bottom and is raked off and taken to the digester tanks. The clear water on the top of the final tanks flows out over weirs to the chlorine contact chamber, where one per

cent chlorine is added to give the final purification.

The finished product flows out the nearby 16 Mile Creek, and the waters of the creek further dilute the effluent.

The heavy matter (or sludge) which earlier was pumped to the digester is heated to 90 to 95 degrees. This forms a gas and the gas is burned off in the treatment plant furnaces. Enough gas is recovered in this matter to burn and heat the control room and office of the plant. The digester is topped with a heavy "floating" lid which traps the gas which is burned off. When the digester is nearly full the liquid sludge is pumped off and taken in a tank truck to a farm on Milton's eastern boundary, where it is spread on fields. This way the town gets rid of the unwanted sludge and the farmer gains a perfect fertilizer for his crops.

Approximately 5,000 gallons of sludge builds up daily. The operators remove sludge whenever weather conditions are suitable, and can empty up to 15,000 gallons of it in a working day.

The addition to the plant has provided a million gallon storm or holding tank which is a great asset to the plant. On a heavy day, the influent can be directed to the holding tank where it receives primary treatment and

can be held until the night or quieter flow period. In a prolonged heavy flow period, this influent could be chlorinated and discharged into the creek without serious repercussions, but this is only an emergency measure.

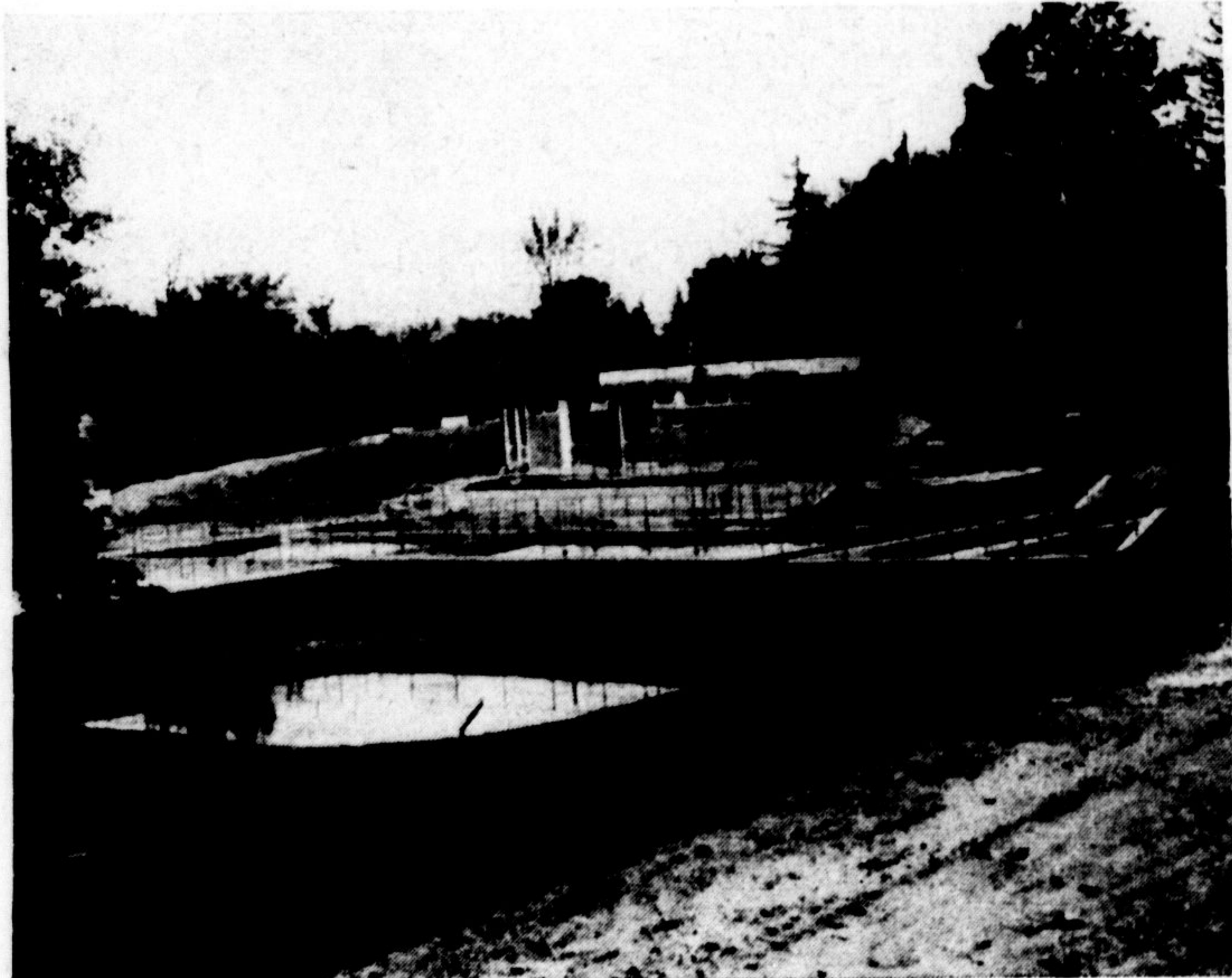
Mr. Penson and his assistant George Prior take tests once a day, seven days a week to ensure the effluent is a quality product.

Thank you

This special "feature report" on the sewage treatment plant is the result of a co-operative effort by The Champion's news and advertising departments. We hope readers will enjoy this insight into the operation of the town's modern pollution control plant.

Our appreciation is expressed for the co-operation received from those who placed advertisements in this section, and to Paul Ranch of James P. Morgan Limited, town works superintendent Bruce McKerr, sewers and sanitation committee chairman Brian Best, sewage plant operators Wilf Penson and George Prior, other town staff members and all others whose contributions and assistance made this special section possible.

Your Invitation



The Mayor and Members

of the

Council of the Town of Milton

cordially invite the citizens

of Milton and District

to the

Open House

AT THE RECENTLY EXPANDED

Sewage Treatment Plant

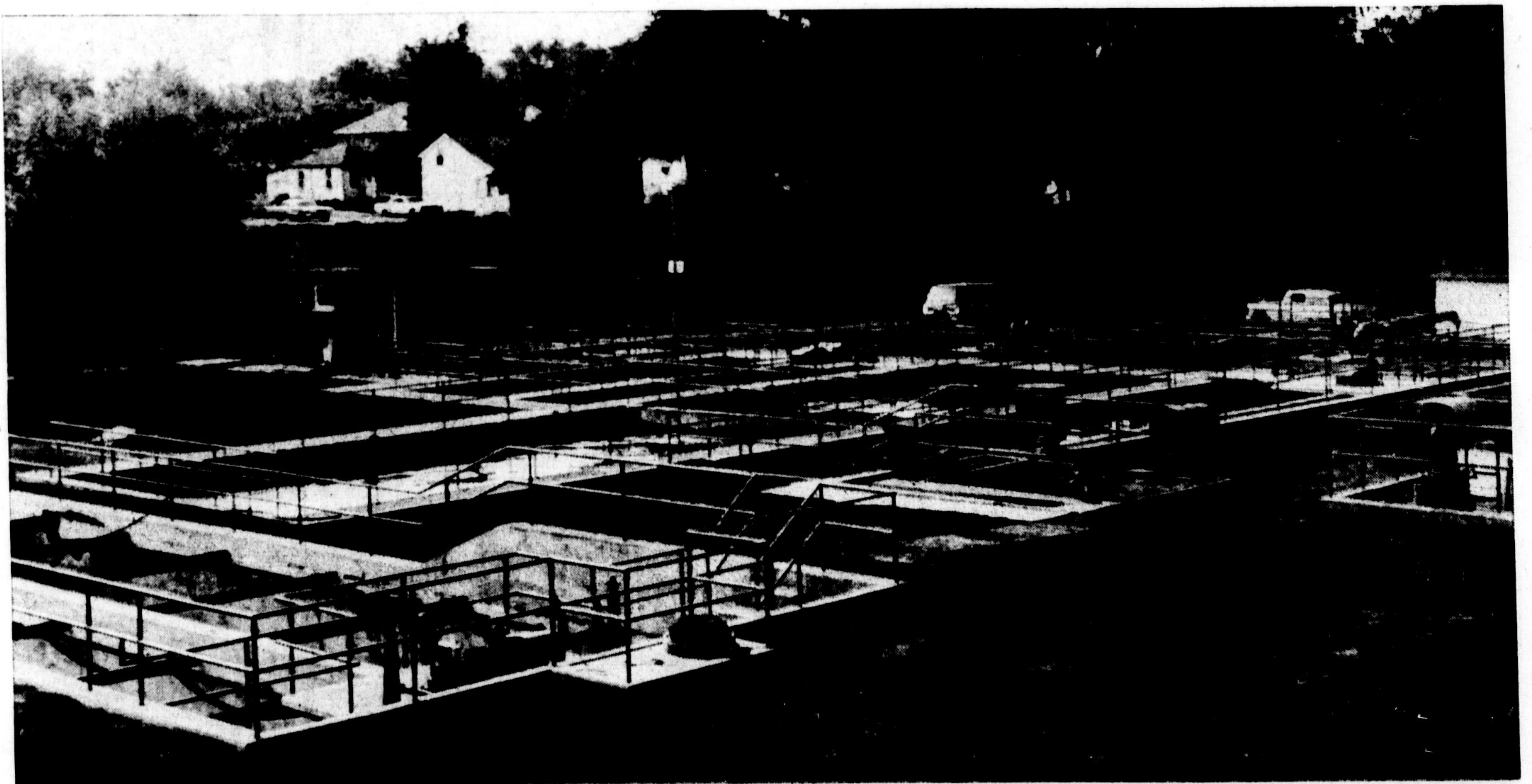
on Fulton St., Milton

Saturday, Oct. 22 from 2 to 5 p.m.

Films for the Children — Refreshments will be Served

Town Equipment will be on Display

AS THE GENERAL CONTRACTORS FOR
Milton's New Expanded Sewage Treatment
Plant We Hope You Will Visit Your New
Facilities on Saturday October 22 from 2
to 5 p.m.



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