computers maintain constant on st. john river water quality

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FREDERICTON — Canadians are living in a technological world where electronic gadgets command increasing importance, as they assume roles within society. This phenomena has been recently introduced into the St. John River to keep tabs on the quality of the river water for resource purposes.

The increasing use of computers has evoked alarm in certain circles, in protest, as these electronic brains continue to regulate more of human life. However, the computerized monitoring system for water quality control installed at seven locations along the St. John River will serve to protect man's most valuable natural resource, say government officials.

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They say water as a resource is under constant abuse and that the federal government, through the recently proclaimed Canada Water Act, is attempting to prevent further abuse. To this end a system of electronic surveillance devices have been introduced in the river to record the quality of the river water at any given moment or over a period of time.

The automated water quality monitoring system is a joint project of the New Brunswick Water Authority and the federal department of fisheries. The federal minister reponsible for the project is Fisheries Minister Jack Davies, who has been charged with establishing the new department of environment. Many of the officials participating in the project are energy, mines and resources personnel who have been temporarily associated with the fisheries department.

Costing $200,000. in equipment expense alone, this system will provide constant surveillance of the river in case of pollution spills and data for a study of water quality in the St. John River by the river basin authority.

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However, officials stress the latter function of the project as the most important and discourage references to it as a special attempt at pollution control.

This form of electronic monitoring is the first to be conducted in Canada and officials say that the success of this venture will determine the future of automated water quality programs. The State of New York is known to have a similar system in operation, stated one official.

The monitoring system is highly developed technically, but simple in its essential operation. A 10 by 20 foot portable laboratory is situated along the banks of the river in several locations drawing in and releasing a continuous supply of river water for analysis.

Analysis is conducted by a series of sensitive parameters which send data to a head computer in Moncton by telephone line transmission.

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The monitoring stations are located on the Presquile River at the Canada - United States Border, the Meduxnekeag River at Belleville, the Kennebecasis River at Apohaqui near Sussex, and on the St. John River at St. Basile, Four Falls, East Florenceville and McKinley Ferry. All locations are on the river itself or on tributaries of the St. John River.

An eighth location is planned for the river but this unit is presently on the bank of the Albert County Causeway joining Moncton and the county. This unit is being used by the head office for training purposes.

Moncton was established as the head office for the monitoring project because the regional laboratory for water analysis is located there, the logical choice because any future expansion would involve the system there.

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The regional laboratory presently receives water samples taken from all over the Maritime region on a monthly basis and scientists at the laboratory are quite excited about the prospect of expansion of the system for the Atlantic area when and if the decision is made. This decision will rest on the success of the St. John River Monitoring Program, say officials.

Each electronically operated monitoring station on the river is connected on a 24-hour basis with a central head computer located here. River water at these seven locations is pumped into a tray containing six sensitive parameters each recording a separate item of data.

A parameter is an electronic sensor connected with a small computer brain in the trailer laboratory which is programmed for natural conditions. Not only are natural conditions recorded, but this electronic brain is programmed for extreme changes in water content and records whether the water content is above or below natural conditions content.

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Should the water contain unusual levels of a substace monitored by one of the six parameters, then the field lab unit automatically draws a sample of the water off in a container until a field technician can be dispatched from the head office to retrieve the sample for further analysis.

Unusual water content is not only recorded by the computer but the head computer is notified of the condition and an alarm is set off in the Moncton office alerting officials of a change in water content.

"This machine does everything but talk to us on a 24-hour basis," said one scientist.

The machine may not be able to talk but its typing speed is phenomenal. Since the head computer is connected with a typewriter, the actual conditions transmitted by the computer on the riverbank by telephone wire are recorded by the central electronic brain on a continuous strip of paper in numerical code. Simultaneous with the typewritten copy, a computer punch tape is made for eventual programming in a storage bank computer which can be called on for information retrieval at any times.

This third computer in the chain of automated monitoring is the final resting place of the information from the river-bank. It is capable of averaging the figures for any given parameter over any period of time beginning with its first records.

"The only thing this computer memory bank computer can't do is predict floods,' said the scientist.

However, the riverbank computer does sound the alarm if the level of the water should change drastically at any given time. If a human should enter the station for a service call and neglect to shut the door firmly, the computer informs head office as it files it's report that the door was left oepn or that its intake pipe or drainage way has become clogged.

If the intake or output of water is affected the computer will shut itself off until its reset.

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RE: ADMISSION TO FIRST YEAR

With the exceptions of Quebec and Newfoundland all students will have to have Grade 12 to enter into the first year of UNB. Quebec students will continue to be admitted with Grade 11 and students from Newfoundland will be admitted with Grade 11 on an individual basis.

This policy will be implemented in September 1972. The University has committed itself to accepting several Nova Scotia students who are taking Grade 12 and will be admitted to second year next September.

The decision taken by the Senate on Tuesday, January 19 was in face of the fact that if you took Grade 12 in Nova Scotia, universities there would accept you into a three year program instead of the four year one offered here.

The averages needed to enter the University of New Brunswick from New Brunswick will be unaffected. After this year the Grade 13 program offered in Moncton will be discontinued so that all students will enter first year from Grade 12 .

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Tutoring Centre Involves No SRC Funds

SRC President MacFarlane has proposed that the Student's Representative Council set up a Tutoring Centre where students who feel that they require extra help in courses may receive it.

No SRC funds would be involved. Council decided to be only the go-between for those who require help and those who are willing to give it.

If a student wants help he need only notify the SRC who will provide him with a list of tutors. Anyone wishing to become a Straxshould also notify the SRC. Although no set price was established for such services, it was expected that $3.00 per hour would be a reasonable fee.

Council also passed a motion that should Dr. Norman Strac wish to participate in such a programme, he would be welcome.

Last summer Dr. Strax made an application to teach at UNB but it was rejected. Although he has been away from teaching for some time, he has not been away from physics as he is about to have a paper published by the Canadian Journal of Physics. Council was also told that the Philosophy department has made inquiries into the hiring of Dr. Strax but the President was against suc President was against such action.

Council then decided to send a letter to UNB President J O Dineen, stating that Dr. Strax would probably be an asset to the university and therefore should be hired.

STEAMED POTATOES

EDMONTON (CP)—When potatoes are wrapped in foil before being placed in the oven, they are actually steamed, rather than baked, says Aileen Whitmore, food and nutrition specialist with the Alberta agriculture department. If you prefer them light and fluffy, she says, bake them without the foil.