

*Criminal Code*

the problems facing us. As a matter of fact, I believe a treatment plant of this type was set up on the campus of McGill University and was actually in operation for some two months with no ill effects upon any of the citizens of Montreal; in fact they did not know it was even in operation.

I know I might be wandering a bit into the field of conservation, but it seems to me that conservation and pollution are tied so closely together that it is almost impossible to separate them.

As has been mentioned by the hon. member for Port Arthur (Mr. Fisher), the Ontario water resources commission was set up some time ago with the idea of developing more sources of water and dealing with the matters of conservation and pollution. I believe this problem is one of the most important which will be facing us in the future, particularly with respect to where we are going to get enough pure water to supply our industries in addition to supplying the increasing population of the various provinces.

I was speaking to the chairman of the commission some time ago. The work of the commission will be confined to western Ontario and they do not expect to get beyond a point east of Toronto in their work in the next five years. The chairman suggested we will have to discover ways and means of getting water other than from streams and lakes. I was advised that due to international regulations the level of lakes can be lowered to only a certain degree, this supply will be far short of meeting the needs of our fast growing cities. Many conservation dams have been constructed in the past few years. Due to irrigation practices water that has been released to supply cities has gone directly on to the land before it reaches the city and therefore is completely lost water because it does not flow back into the streams.

I am informed that there is three times as much water under the soil as there is surrounding it but no engineering methods have been practised or undertaken to locate and utilize that source of water. The resources commission has an important job to do and its report and findings will, I am convinced, be of great benefit to the province of Ontario.

With regard to water conservation in southern Ontario it may interest hon. members to know that in this area within the last 100 years between 80 and 85 per cent of once permanently flowing streams have become either totally or temporarily dry during part of the summer. This means a loss of many thousands of miles of once permanent streams. Every spring we waste the water of which we are in dire need during the

summer and there are many examples that we all know that could prove this. A few years ago a check was made in the Humber valley. There was a rainfall of one and one half inches on March 16 and 17 and by noon on the 17th the water was running down the Humber river at a rate of 4,000 cubic feet a second. At that rate about one half of all the water that had fallen on the river basin had run into lake Ontario within 12 hours. At the end of September of the same year, instead of 4,000 cubic feet there was less than one cubic foot passing at the same point. The quick run-off in the spring may cause a lowering of the water table. This will result in an acute shortage of water from the wells upon which our farmers depend as do many of the cities and towns of southern Ontario. Lack of well water may soon become a limiting factor in the expansions and development of many of our industrial centres. It may soon be necessary to supply these centres with water pumped from our lakes at a terrific cost.

It is surprising the amount of water that plants require. One ton of corn requires about 300 tons of water for its production. One apple tree on a single summer day lifts about 800 pounds of water out of the ground. An acre of lush grass will lift six tons of water on a June day. One pound of beef requires directly or indirectly for its production about 20 tons of water. In urban centres 700 gallons a day are needed to supply the demands of each person for food and other necessities. Water needed in these quantities and for these vital requirements should be jealously conserved. What action can we as a federal government take to improve conditions in our streams today not only with respect to the problem of pollution but that of supply? As was mentioned by the hon. member for Norfolk (Mr. Knowles), many conservation dams have been built but I am wondering if the federal government should not take more action in supplying assistance to municipalities for the construction of such projects which will assist not only in conserving water but in resolving pollution.

The former government brought in an act designed to assist in the construction of conservation dams but I am advised that no application has been made under it and no assistance has been forthcoming. In my own area with which I am familiar we wished to construct a conservation dam to increase our water supply and assist in eliminating water pollution but we were not able to proceed with the project until the provincial government increased its grant to 50 per cent in 1956. I know of one municipality which is paying 80 per cent of the cost of the project of building a conservation dam but very few municipalities are