

*Water Resources*

bill. However, may I make one brief reference. I have been reading a book by Dr. Paul Ehrlich, called "The Population Bomb". This is a challenging publication put out for the American public, and is in some respects rather frightening. By the author's own admission, it perhaps portrays the very worst situation which one might expect on this planet in the not-too-distant future. While the general subject matter is not for this debate, I should like to make one brief reference to this book. On page 66, Professor Ehrlich says:

I have just scratched the surface of the problem of environmental deterioration, but I hope that I have at least convinced you that subtle ecological effects may be much more important than the obvious features of the problem. The casual chain of the deterioration is easily followed to its source. Too many cars, too many factories, too much detergent, too much pesticide, multiplying contrails, inadequate sewage treatment plants, too little water, too much carbon dioxide—all can be traced easily to too many people.

While this statement, in relation to Canada as a whole, certainly can be questioned, he is perhaps right in one respect. Our present, very serious water pollution problem, which I believe can be generally pinpointed to the Great Lakes basin for the most part, has no doubt been brought about by the presence of too many people in one place. There are, of course, secondary factors which I would like to mention later.

The deteriorating situation in regard to the Great Lakes is of course shared equally with the United States of America. We must halt this degradation. Thirty-five million people live close to the Great Lakes. This is more than half as much again as the total population of this vast country. Over 3.5 million people in the United States, and something like 150,000 in Canada, take their domestic water supply from Lake Erie which is presently the most polluted of the whole Great Lakes system.

I mentioned the population factor because, of course, the recognized primary cause of water pollution is improperly treated domestic sewage or raw sewage, which can only be found where people are. An indication of sewage pollution is expressed by coliform count and biochemical oxygen demand, called BOD; the latter expressing the resulting decrease in the normal dissolved oxygen content of the water by the decomposition of organic matter. A related pollution problem—and possibly the most difficult one to deal with in the Great Lakes—is the one of eutrophication. This is the chemical enrichment of fertilization of the water, providing a

[Mr. Hymmen.]

highly undesirable medium for the promotion of algae growth. In Lake Erie it has been estimated that 72 per cent of these plant nutrients have come from municipal sewage, especially detergents. Detergents have contributed about two-thirds of the phosphates in sewage and nearly one-half of the lake's total input. Another 17 per cent comes from agricultural run-off, 7 per cent from city streets and urban property and only 4 per cent from industrial waste.

The second major source of water pollution has been from industrial operations—industrial chemicals, mine drainage, pulp and paper mill effluent, plating waste, etc. While our steel mills, pulp and paper mills, packing plants and many other industrial operations have been most important to the economy of our nation and to the well-being of our workers, no industrial firm has had a God-given right to pollute our waters; neither has any municipality or any other level of government. Steps must be taken by whatever means at our disposal to bring this action to a halt. This must be done, and can be done if we have the will to do it.

I was interested to learn recently that one of our important Canadian paper mill operations—the Ontario Paper Company in Thorold, Ontario, a firm that I happened to be connected with some years ago—recently announced a \$5,000,000 program to remove suspended and dissolved solids from their effluent. I should also like to mention that a new, \$500,000 waste treatment plant was recently opened at the J. M. Schneider packing plant in Kitchener, one of my valued constituent firms.

These are only two examples, and I am sure there are many more, where industrial initiative and co-operation has indicated acceptance of responsibility for the proper disposal of waste. The public has allowed us to become a little careless over the years. The waste factor and the provision for disposal of waste must be of equal importance to the providing of employment and the marketing of primary and manufactured products. It must not be subservient to the profit factor which is, of course, the essential feature of our industrial economy.

The initiative must be encouraged by provincial legislation for situations beyond the purview of this bill. It no doubt has been assisted by the federal tax regulations providing for accelerated two-year depreciation on industrial waste installations. Consideration can no doubt be given to other methods.