

Pollution of Surface Waters

Now, in most cases, it will be found that the capitalized annual cost of the difference in the amounts of chlorine required will more than pay for the installation of the plant required for the preliminary or standard processes for the removal of the nuisance qualities.

For example, suppose a city of 20,000 population, produces 2,500,000 gallons of sewage per day. To disinfect the liquid sewage after the solids have been partly removed, at ten parts of chlorine per 1,000,000 parts of sewage, with chloride of lime at one and one-half cents per pound, would cost annually for the lime \$4,000. To disinfect this sewage after it has been thoroughly oxidized in filters and the remaining solids removed, at two parts of chlorine per 1,000,000, would mean an annual cost of \$800 per annum. The difference in annual cost capitalized at five per cent. would represent a capital sum of \$64,000. Filters for oxidizing sewage can generally be built at about \$30,000 an acre, at six feet four inches in depth of crushed stone, and will handle two and five-tenths million gallons an acre of sewage a day. There is thus a capital saving of \$34,000 by adopting disinfection as a final, rather than a preliminary process.

In writing this treatise the object has been to shed, if possible, further light upon the whole question of the original purity of surface waters in Canada. The question of prospective legislation has been casually touched upon. The necessity of immediate action, as illustrated by the loss of life by typhoid, has been put forward in a plain manner and fully illustrated by concrete cases. The practicability of adopting methods and measures for meeting the necessity has also been delineated.

The public are, however, the masters of the situation. They must find the money or suffer the effect of neglect. Legislation on public health matters, unless understood and conceded by citizens to meet a public want, is of little or no avail. Are we as Canadian citizens content to allow the