

## CHARACTER AND VOLUME OF THE EXISTING WATER SUPPLY

The water supply of the City of Quebec is derived from a watershed upon which are resident some twenty persons per square mile. The character and area of the watershed above the intake at Lorette are such as to ensure a volume of water sufficient for the needs of the City of Quebec for many generations. The water is soft, and therefore well suited for all industrial uses, but, owing to the character of the catchment area, possesses an undesirable color, coming from decaying vegetation, and sometimes, particularly after heavy rains in the warmer months of the year, considerable turbidity in the form of mud, silt and clay. The population resident on the watershed contribute to the water a notorial amount of pollution, as would be expected, and as is amply confirmed by the results of analysis on file in your Laboratory and in the offices of the Provincial Board of Health.

## POTENTIAL DANGERS TO THE PUBLIC HEALTH IN UNPURIFIED SURFACE SUPPLIES

It can be stated without reservation that public water supplies derived from surface sources, as in the case of the Quebec supply, cannot be considered safe unless they are subjected to purification before delivery to the consumers. The acquirement by purchase of all the land draining into River St. Charles above the intake at Lorette, obviously is precluded to the City of Quebec on costly grounds. Even if it were so acquired, the strictest kind of sanitary patrol would not eliminate entirely the danger from casual or accidental pollution by chance travellers, or even by the members of the patrol themselves, while crossing the watershed or traversing the streams draining it. Where a city does not own and control the watershed from which its water supply is derived, as in the case of Quebec, sanitary patrol will not do more than minimize the amount of sewage matters entering the supply,