

Gillies Bay Improvement District

2022 AGM

Water Treatment Operator's Report

During the 2022 year the water operators Ken Taylor and George Kapetanakis treated 70,749 m³ of water with Hypochlorite 12. This is a form of chlorine that is used in the treatment of water. The Annual Baseline Sample of water that was submitted for testing was returned showing the quality of water well within acceptable limits. The Annual Water System report that was sent to Vancouver Coastal Health was accepted as well. The Waterworks Emergency Plan has been reviewed and updated.

The water that is distributed throughout Gillies Bay is surface water that originates from Cranby Lake. As such it is subject to influences by animal, human activity and weather conditions. These influences change the Turbidity in the water. Turbidity is caused by fine particles of silt, organic and inorganic particles that are suspended in the water and it is an important water quality indicator. Contaminants such as bacteria and parasites can attach themselves to suspended particles in the water. Typically, this risk is controlled through the use of various filtration systems and disinfection through Ultraviolet light. Since the water from Cranby Lake enters the chlorinator unfiltered the amount of Hypochlorite that we inject depends on turbidity and temperature of the water. Although Hypochlorite is very effective with treating water containing coliforms and E. Coli it is ineffective with treating Giardia and Cryptosporidium. In order to monitor the quality of water the water operator collects and submits samples biweekly. Once the results are received from the lab the operator makes small adjustments to the amount of hypochlorite that is injected into the water main. A second approach that has been applied during the last few years is frequent flushing of the main waterpipes in the Fall and Spring through the fire hydrants. This has proven to be an effective way of eliminating silt, clay and algae from accumulating.

A second role that the GBID water operator fulfills is the annual maintenance of the fire hydrants as is the maintenance of pumps, valves and the infrastructure of the water distribution system. During the latter part of 2022 I had the opportunity to attend courses in Small Water Treatment as well as lectures on water movement and valve repair and maintenance.

In closing I would like to share with you that I frequently visit the Vananda filtration, water softening and Ultraviolet light treatment of water. Austin Rycroft Water Operator has been very forthcoming with sharing information and helping with maintaining the Gillies Bay system whenever the need arises. I would like to thank Ken Taylor for the invaluable information that he has shared with me over the last few months. We are very fortunate to have access to a source of water that through stewardship it will continue serving the Gillies Bay community as its needs change in the future.

George Kapetanakis

Water Treatment Operator