



Water Treatment Plant operators fine-tuning chlorine levels

Plant nearing first year of successful operations.

Summary

After nearly ten months of operation, the City of Nanaimo is pleased to report that the new water treatment plant is exceeding expectations in water quality filtration. Since the plant became operational in December of 2015, six boil water advisories - previously needed under the new Health Authority requirements - have been successfully averted.

Plant operators are currently taking steps to fine-tune any noticeable presence of chlorine in the City's water system. Prior to the water treatment plant going online, chlorine would react differently with the higher volume of particulate matter in the City's water. Now that the treatment plant is filtering this material out, some residents may notice chlorine on its own.

Additionally, chlorine - a critical disinfection agent used in municipal water systems across North America – may become more apparent in odour and taste as the temperature of the source water rises. Through the month of August an annual temperature increase in the City's reservoir at Jump Lake caused water leaving the plant to carry a more noticeable presence of chlorine. As water temperatures drop through the fall and winter, the presence of chlorine will become less apparent.

Strategic Link: Taking responsibility to be an excellent municipal government.

Key Points

- Regulations require chlorine level in drinking water to be within the range from 0.2 parts per million (ppm) to 4 parts per million. The maximum amount that has entered Nanaimo's system is 1.75 ppm, with the average being 1.3 ppm.
- Chlorine levels are down over 25 per cent when compared to the previous disinfection system; with the clearer water, the residual is extending further into the system.
- With the new plant, there has been a fine-tuning period to match disinfection levels with seasonally variable water conditions.

Quotes

"We are very pleased with the performance and purity of water leaving the new water treatment plant. While we're happy with using less chlorine than in the past, we are working hard to dial the disinfection system in so that it's less noticeable aesthetically. At this time of year, with higher water temperature, chlorine levels are less stable and therefore more noticeable."

Bill Sims Manager, Water Resources City of Nanaimo

Quick Facts

- Nanaimo has been disinfecting its water since World War II. Chlorine disinfection has been called one of the greatest health achievements of the twentieth century. Chlorine is used across the developed world to ensure viruses and bacteria that may be present do not infect those drinking the water.
- Several homeowners, businesses, and Nanaimo Parks have noticed the very high level of clarity in the water especially when filling hot tubs or pools.

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