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This comment pertains to the amendment of WAC 173-201A-240, Toxic substances (aquatic life toxins criteria found in Table 240 and footnotes). Based on my professional experience, I advise that Chlorine disinfectant by-products such as Trihalomethanes or Haloacetic acids should also be listed on the proposed revised list of toxic substances. Concentrations of Chlorine disinfectants resulting from water treatment processes threaten both aquatic plants and wildlife in two separate ways. First, Chlorine can harm living organisms by damaging or destroying their cell walls. Next, the chemicals that are present in these disinfectant products (Chlorine, Calcium Hypochlorite) can bond with other materials in water forming more harmful compounds. Disinfection by-products such as Trihalomethanes or Haloacetic acids are known to be toxic to aquatic organisms and are active in surface waters with high dissolved organic matter. Additionally, water disinfectants can also combine with Nitrogen forming Chloramine or N-nitrosodimethylamine compounds which are carcinogenic in nature. As a result of this, drinking water treatment processes must be closely monitored and other water treatment technologies such as UV treatment must be considered as an alternative.

Reference:

Zhang, H., Tang, W., Chen, Y. & Yin, W. (2020). Disinfection threatens aquatic ecosystems. *Science*. 368(6487), 146-147. <https://www.science.org/doi/10.1126/science.abb8905#:~:text=In surface water, dissolved organic matter is extremel>