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Re: Scientific Criteria Document for Canadian Water Quality Guidelines for the Protection of Aquatic Life – Nitrate

CWWA has reviewed the proposed Scientific Criteria Document for *Canadian Water Quality Guidelines for the Protection of Aquatic Life - Nitrate*. We have some concerns regarding the proposed Guideline for nitrate which are detailed below.

Wastewater utilities can be a major point source of nitrate into aquatic ecosystems. Our sector is committed to continuous environmental improvements while balancing our role in public health protection.

Firstly, we are concerned that, while the proposed Guideline is a general one for the protection of aquatic life, it could be interpreted by the public and even the regulatory community as an objective for discharge. It should be made implicit that this objective should be met at the boundary of an appropriate mixing zone. The jurisdiction (province) would then determine the associated site and facility specific Environmental Discharge Objective (EDO) using an Environmental Risk Analysis approach as per the CCME Wastewater Strategy.

We are also concerned about the proposed limit of 16 mg NO₃/L for nitrates. The units normally reported for nitrates are mg/L NO₃ – N which is 4.43 time lower or 3.6 mg/L NO₃ – N.

Lastly, there is a significant safety factor built into the proposed limit. The science of nitrate toxicity is well known, with a great deal of data on both long and short term toxicity, and such a large safety factor seems unnecessary. Applying a safety factor of 2 would still ensure the safety of water for aquatic life, while ensuring that the majority of wastewater treatment facilities would be meeting the criteria without denitrification. We also note that some surface waters in developed areas have an ambient level above the proposed limit, including the Thames River in the City of London, Ontario.

Yours truly,



Jennifer Jackson
Executive Director