

April 16, 2026

Hi Peter

Please find the department's responses below.

**Background:** The commission held a hearing for a domestic sewage lagoon servicing Teulon in 1993-94. One of the recommendations in the report was a sampling program in Netley Creek upstream and downstream of the discharge point of the lagoon. Environment Act License 1795 R for the facility was issued and clauses 25, 26 and 27 require the implementation and reporting of such a sampling program.

**Question: Can you please provide a copy of the results of this monitoring program and any review done? I have confirmed with the regional office that they do have these records.**

We would like to clarify that the Environment Act Licence number referenced previously was incorrect. The correct Environment Act Licence for the Village of Teulon wastewater treatment lagoon is Licence No. 1759R.

The monitoring program referenced in your question was established through recommendations of the Clean Environment Commission (CEC) and incorporated directly into the Environment Act licensing requirements for the facility. These requirements are set out in Environment Act Licence No. 1795R, specifically Clauses 25, 26, and 27, which require the implementation of the monitoring program and the submission of related reports. This licence is publicly available through the Environment Act Public Registry.

While the licence and its conditions are publicly accessible, detailed information generated through compliance, monitoring, and enforcement activities is not publicly available. This information is managed in accordance with provincial access to information and privacy legislation.

In addition, Bill 37, introduced on March 12, 2026, improves public access to environmental information by expanding the Public Registry under The Environment Act. For the first time, the Public Registry will include information on appeals of licensing decisions and minor alteration decisions, giving Manitobans a clearer understanding of how environmental decisions are reviewed and concerns are addressed. The Bill also extends transparency beyond the licensing stage by allowing the Director to post additional information after approvals are issued, such as monitoring, inspections, compliance, and enforcement activities, while continuing to protect confidential and proprietary information.

**Background:** In the same report, the commission urged that the province study the performance of wastewater stabilization ponds (sewage lagoons) in Manitoba's climate. We recognize that this recommendation was made over 30 years ago and records may not exist.

**Question: Were any such studies conducted, and if so, what were the results?**

**Question: Notwithstanding the response to the previous question, does the province have any concerns regarding the performance of sewage lagoons?**

Manitoba's Water Quality Standards, Objectives and Guidelines Regulation, registered in 2011, set consistent requirements for wastewater effluent, including from lagoons. These requirements are applied to individual wastewater lagoon developments through the Environment Act Licensing process. Rather than adopt site-by-site or development-by-development approaches, Manitoba provides consistent, technology based-standards for wastewater treatment plants and lagoons to provide predictability and consistency. For smaller communities (less than 10,000 persons) lagoons are commonly used, and provide effluent management within the requirements of the Water Quality Standards, Objectives and Guidelines Regulation.

Thank you

Agnes

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The CEC asked another follow up question related to the April 16, 2026 response on April 17, 2026.

“To confirm, the Commissions intent with the question was to get information for the record of demonstrated impacts that treated lagoon discharges have on receiving watercourses in Manitoba. If the Department has more appropriate information or data in this regard, please provide it.”

On April 21, 2026 the Department provided the following response and an excel file with literature review.

“Good afternoon Peter,

Further to the question sent Friday, April 17, please find our responses below:

**Q:** “To confirm, the Commissions intent with the question was to get information for the record of demonstrated impacts that treated lagoon discharges have on receiving watercourses in Manitoba. If the Department has more appropriate information or data in this regard, please provide it.”

**Responses:**

To respond effectively, it is important to view the regulation of wastewater lagoons in the context not only of the Environment Act Licensing process, but of Manitoba's broader approach to water quality protection and improvement, and at the level of policies, plans, and programs to address provincial scale environmental and aquatic ecosystem concerns.

Manitoba's effluent standards for wastewater lagoons and other point sources are established in the Water Quality Standards, Objectives and Guidelines, which were incorporated as a regulation under The Water Protection Act in 2011. In this context, and similar to many other jurisdictions, two general water quality management strategies are simultaneously used with respect to discharges to waterbodies. First, all activities and waste discharges are controlled to the extent that is reasonably practical and economically achievable using a consistent technology-based approach for each development sector. This is consistent with pollution prevention principles that have been historically applied in Manitoba on a routine basis and described in the January 29, 1998, Canadian Council of Ministers of the Environment's (CCME) Canada-Wide Accord on Environmental Harmonization. More recently, the 2009 Canada-wide Strategy for the Management of Municipal Wastewater Effluent developed under the [CCME](#), established National Performance Standards for effluent quality, including Carbonaceous Biochemical Oxygen Demand (CBOD) of 25 mg/L, Total Suspended Sediments (TSS) of 25 mg/L, and Total Residual Chlorine (TRC) of 0.02 mg/L. These National Performance Standards are also included in the Wastewater Systems Effluent Regulations (WSER) under the federal Fisheries Act, which came into force in 2012. Therefore, at a minimum, these National Performance Standards are included in all Environment Act Licenses for wastewater lagoons. The WSER applies to wastewater systems that collect an average daily volume of 100 m<sup>3</sup> or more of influent and deposit effluent into surface waters frequented by fish. The WSER establish enforceable national effluent quality limits and prohibit the discharge of effluent that is acutely lethal to fish. Second, when more stringent environmental controls are required to protect important water uses, a water quality-based approach is then used. Additional environmental limits are derived using the water quality-based approach to ensure that applicable ambient water quality standards, objectives, or guidelines are not exceeded.

To the more targeted question about the effect of periodic releases of wastewater from lagoons, where this has been treated to the required standards, we are aware of a variety of studies in recent years that touch on this subject. While it is not possible in the timeframe available to provide a comprehensive literature review for the Commission's benefit, a quick and partial scan of some recent studies has been completed and will be sent immediately after this email. Please note that some of this refers to non-published theses, and that appearance of any of these materials in the record of the hearing would require that the Commission conduct due diligence regarding copyright. We would also ask that the review itself be treated as a draft or internal document. As a general comment on the literature,

however, the impact of wastewater lagoon discharges on watercourses in Manitoba “appears to be short in duration, our results suggest that the impact of lagoon effluent on receiving reaches is confined to the release period,” (Chesworth). It should also be noted that there are variety of site-specific (wastewater characteristics) and condition-specific (e.g. flow, temperature) factors that would affect the degree of specific impact for any given discharge, but not the overall statement, which is consistent with the intent of the regulatory frameworks described above.

With regard to non-ephemeral impacts, which generally focus on nutrient loading in larger-scale watersheds or waterbodies, the Manitoba Water Quality Standards, Objectives, and Guidelines Regulation established effluent standards of 1 mg/L for total phosphorus and 15 mg/L for total nitrogen. These limits were based on industry-standards and prevalent treatment technologies, alignment with other jurisdictions, as well as evidence of increasing concentrations of both nutrients in Manitoba waterbodies. Through numerous hearings and reviews (e.g., Clean Environment Commission in 2003, 2009 and 2011), the ratio of 15 total nitrogen to 1 total phosphorus (i.e., molar mass ratio of 33) was identified to protect surface waters in Manitoba to reduce the potential to favour undesirable species of cyanobacteria capable of producing algal toxins and that can fix nitrogen from the atmosphere. Smaller communities in Manitoba are often served by wastewater treatment lagoons which generally provide nitrogen removal to between 15 and 20 mg/L nitrogen, close to the ratio-based guideline, and for this reason these facilities are not subject to a total nitrogen requirement as additional nitrogen removal would not be feasible given the size of the communities and the costs required to upgrade. Manitoba’s total ammonia standards for continuously discharging facilities are based on site-specific water quality objectives of the receiving water body, while lagoons typically receive WSER 1.25 mg/L un-ionized ammonia limit with a limited discharge window between June 15 and Nov 1. Ultimately, the goal is to apply the Standards, Objectives, and Guidelines regulation in a fair and equitable manner while improving water quality.

With respect to environmental impacts beyond the scope of specific projects, whether as a result of multiple developments or, in this context, as a result of overall landuse patterns, Manitoba’s legislative and regulatory framework assesses and addresses environmental effects on aquatic ecosystems at a higher strategic level through policies, plans, and programs. In this context, the Water Quality, Standards, Objectives and Guidelines Regulation, which establishes effluent requirements represents one component of a broader framework that also includes province-wide regulatory and programmatic approaches to the management and reduction of nutrients in aquatic ecosystems. With respect to nutrients, which are a general focus with respect to non-ephemeral or persistent effects of wastewater and other nutrient sources on aquatic ecosystems, Manitoba’s approach to nutrient management and reductions is not contained by The Environment Act, but rather by a variety of legislative, regulatory, policy, planning, and program measures which aim to address nutrient pollution in aquatic ecosystems comprehensively. The most

recent five-year report under the Nutrient Targets Regulation of The Water Protection Act (<https://web2.gov.mb.ca/laws/regs/current/077-2024.php?lang=en>) was completed in December 2024, provides a précis of these approaches as well as up-to-date information on performance against the overall nutrient targets for Lake Winnipeg and its watersheds. The report is available here: <https://www.gov.mb.ca/sd/pubs/water/lakes-beaches-rivers/report-on-nutrient-targets-and-action-underway-dec-2024.pdf>

Taken as a whole, this is a comprehensive nutrient-reduction approach that aligns actions to impact and effectiveness, and avoids placing responsibility or blame on any single category of development for environmental changes that are, in reality, complex and influenced by land-use and development decisions across entire basins.

Kind regards,

Elliott

**Elliott J. Brown**

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