

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Manitoba Environment, Climate and Parks, Parks Branch (at time of proposal)
Manitoba Natural Resources and Northern Development, Parks Branch (at time of licensing)

PROPOSAL NAME: Paint Lake Provincial Park Wastewater Treatment Lagoon Expansion

CLASS OF DEVELOPMENT: 2

TYPE OF DEVELOPMENT: Waste Treatment and Disposal – Wastewater Treatment Lagoons

CLIENT FILE NO.: 844.40

OVERVIEW

The Proposal was received on October 28, 2022. It was dated October 24, 2022. The advertisement of the Proposal was as follows:

“Manitoba Environment, Climate and Parks proposes to expand the wastewater treatment lagoon at Paint Lake Provincial Park. The expansion would provide improved treatment and capacity for the next 20 years of park operation. The lagoon’s primary cell would expand to the northwest, and the smaller of the two existing secondary cells would be decommissioned. Treated effluent would continue to be discharged to a natural wetland about one kilometre north of the lagoon. Construction of the expansion is planned for 2023.”

The Proposal was advertised in the Thompson Citizen and Nickel Belt News on Friday, November 25, 2022. It was placed in the online Public Registry as follows:
www.gov.mb.ca/sd/eal/registries/844.4/index.html

The Proposal was distributed to Technical Advisory Committee (TAC) members on November 18, 2022.

The closing date for comments from members of the public and the TAC was December 28, 2022. The public comment closing date was extended on request to January 4, 2023.

COMMENTS FROM THE PUBLIC

Warren Luky

I am disappointed that there was no direct contact efforts to myself as the President of the Paint Lake Cottage Association regarding this matter. We expect clear and open communication on all matters regarding the cottagers and the park as it affects the residents we represent.

Secondly the manner in presenting the consultation process through the Thompson Citizen in a November 25th publication falls short of the level of effort we expect both as residence of Paint Lake Provincial Park and the PLCOA.

Respectfully we request the consultation process be extended to be meaningful given the time at the end of the year is severely hampered by the Christmas holiday.

I wish to understand the escalation process so we can effectively be heard as residence of the park and representatives in our roles with PLCOA.

I do have a specific concern regarding the proximity of the proposed park in the proposal submitted by JR Cousins Consultants where as:

Table A, the guidelines are that there be a minimum of 300 meters from the cottage to the proposal that states it would be 240 meters. There is contravening information that begs to question the result of the proposal appropriately servicing the requirements under the guidelines stated.

Subsequently there have been numerous complaints by cottagers regarding the foul odour from the lagoon that prevents the "peaceful enjoyment" of the park.

I believe there has historically been many complaints regarding the odour to your department and trust that there have been taken seriously.

We do applaud the initiative to enhance the lagoon at the park to service the requirements defined in the report and hope that there can be appropriate measures taken to avoid any interruption of service as we experienced in the past.

We do conflict with the report as to the close proximity to cottages and request that there be an option considered where the lagoon be far enough away from cottages so they are not affected by the foul emissions currently experienced.

Disposition:

The comment period for the proposal was extended beyond the Christmas – New Year period as suggested.

Concerning the setback distance to residences, the primary reason for the 300 m guideline distance is odour. The existing distance is less than 240 m. The current organic loading on the existing primary cell is approximately four times the design requirement, so it may be expected that odour will be a large problem with the existing facility. The expansion is designed to bring organic loading to less than the design requirement, so odour will be very substantially reduced. While the setback distance of 300 m would not be achieved with the proposal, this guideline distance may be waived for existing facilities, particularly when the expansion occurs in the opposite direction from nearby residences.

Sandra Crawford

You will likely be receiving emails and letters on the subject of the Paint Lake Wastewater Expansion proposal. Strap in.

The expansion of the lagoon is welcomed by all; however, the location of the lagoon - next to its existing location - is not. The mitigation of the smell from the lagoon, it seems, cannot be guaranteed?

Understandably, starting from scratch in a location much further from the existing one would increase the cost dramatically. Possible locations would have to be studied for overland runoff impact. A road would likely have to be built or extended to allow sewage trucks to reach it. These costs would, I assume, have to be passed on to provincial taxpayers and local users. While no one likes to pay more for anything in a time of inflation, it is a reality that cottage owners, seasonal campers, and local business owners might have to accept to ensure long term air quality and environmental standards in our beautiful park location. And given that nothing ever does go down in cost, paying more now would be financially sensible for Parks, and positively impact the property values for cottage owners and businesses most affected. I am not on the Paint Lake Cottage Owner's Association executive, but I am a member. I am hoping that you will seriously review this decision and hear concerns of our executive, members, and others impacted by the existing proposal.

Disposition:

The odour issue associated with the existing facility is discussed above. The comments accurately identify that relocation costs would be substantial.

Andrea Hatley

I am writing to express my concerns and offer alternatives to the Paint Lake Provincial Park Wastewater Treatment Lagoon Expansion. Eighteen years ago, we purchased our home only to shortly thereafter find out that we were one of many year-round residents living within 125 metres of the existing sewage lagoon. During these years, we have been exposed to varying levels of noxious gases at all times of the year while the trucks are discharging and at other times based on the prevailing winds. I am sure I speak for all residents affected, that the proximity of the lagoon to our permanent residences puts a damper on many activities; whether it is having to close all the windows in the summer, curtail outdoor activities, deal with uncertainty in planning social events, and even the prospect of selling our homes. In fact, I have been told that residents of Thompson seeking either to relocate to the lake or purchase seasonal properties are told specifically which ones to avoid due to the proximity of the lagoon. Not ideal circumstances in any world, but especially not warranted in one of the most beautiful provincial parks in Manitoba.

Whatever the regulations were in the 1970s, the lagoon should never have been situated in such close proximity to human habitation. Today, fifty years later, the location of a sewage lagoon within 200 metres of permanent residences is just as unacceptable. The need to expand the capacity of the existing lagoon from what was constructed in the 1970s and 80s to handle the current and anticipated volume of approximately 123 or more permanent residences is understandable and is not in dispute. However, the need for a larger lagoon is an opportunity to correct the error made 50 years ago. In this letter, I make the case that it makes more sense to relocate the sewage lagoon—away from human habitation to a location that meets the provincial guidelines—than to expand and perpetuate a blunder made decades ago.

Though there are issues with much of this project, I have highlighted and commented on the following:

2.5.1 Project Schedule (page 2-2)

That this project can be considered expected ready for tender by March 2023 and construction is scheduled to start in the spring/summer of 2023, makes me doubt that concerns of residents are going to be taken seriously. A better tactic would have been to receive community input BEFORE devising a project schedule, or at the very least, include community input and feedback at the early stages of project development, rather than as a perceived last-minute consideration?

It is also concerning that no alternative sites, no feasibility studies for alternative solutions are mentioned. There are no cost figures attached to any components of this project, though a refrain heard is that it would be cost prohibitive to consider alternatives. Where are the hard figures to show this?

2.5.2 Lagoon Site and Setbacks and Characteristics (page 2-2)

Provincial guidelines found in the Manitoba Sustainable Development Information Bulletin – Design Objectives for Wastewater Treatment Lagoons (June 2017) are not being followed—specifically Section 2, (sections in italics are quoted directly from the bulletin):

*a) Location: A lagoon site should be as far as practicable from habitation or any area which may be built up within a reasonable future period. Lagoons should not be located any closer than 460 metres from any centre of population; **individual residences should not be any closer than 300 metres**. The above distances are to be measured from the outer toe of the **nearest dyke**.*

This is a pressing concern. There are 21 residences located **within 300 metres** of the lagoon. In fact, two permanent and one seasonal residence are situated within **100 metres**; 13 permanent and two seasonal residences are within **150 to 200 metres**; while three permanent residences are located within the 300 metre limits (see Diagram #1, Proximity to Residences). All of these residences are affected by the noxious gases emitted during discharge and when the wind is unfavourable (far too frequently).

The information in the second row of Table A (page 2-2) states that the distance from the lagoon to the nearest residence is 240 metres; clearly this is a typo.

*b) Winds: Preference should be given to sites which will permit an unobstructed wind sweep across the cells of the lagoon. Consideration should be given to lagoon location such that prevailing winds will be in the direction of **uninhabited areas**.*

The prevailing winds, based on historical data statistics from the Thompson Airport, are typically from the west between July and March, switching to the northeast for the three months between April and June (see Diagram #2, Prevailing Winds). This means that for most of the year the noxious gases blow **toward the residences**. When the lagoon was first built during the late 1970s and 80s, all the cottages were seasonal; the prevailing NE winds would have kept the lagoon gases from being an issue during cottage season. But things have changed over the last 40 years; the majority of residences are now permanent and many are impacted by the location of the lagoon.

The buffer of approximately 100 metres of bush between the existing lagoon and residences on Cottage Bay Road does very little to ameliorate the noxious gases. Increasing the size of the

lagoon does nothing to limit the odours emitted during discharge; the proposed expansion will only increase the number of discharges, exacerbate the existing problem, and continue to negatively impact the lives of residents living in close proximity to the lagoon.

2.6.1 Cottages — Permanent Occupancy (page 2-4)

The projected population increase over 20 years with an additional 50 permanent residences is unrealistic on many fronts. Not only is there very limited land available for new lots*, if the opening of new lots involves the creation or extension of roads, it would place added strain on an already stretched budget. Parks currently struggles to maintain the existing infrastructure (speak to any resident!) never mind the possibly of increasing this workload.

The population at Paint Lake consists to a large part of retirees or people looking for a break from the hustle and bustle of the City of Thompson. Thompson is not a growing centre; though it is trying to diversify, it is struggling to keep residents and businesses in the community. Further, properties for sale at the lake are numerous and can take years for owners to close a sale. Many factors contribute to this: the sometimes-difficult commute to Thompson during the winter months, the increasing cost of gas, the distance to schools, and the (at times) spotty internet service. These all have a direct impact on the demand for properties at the lake.

It is possible that some of the existing seasonal cottages may get converted to permanent residences—ten of these (or an additional 30 people) perhaps—but that there will be a demand for 50 new lots (or an additional 150 people) is completely unrealistic.

2.6.3 Campground — Campsites (page 2-4)

The campground is open for the last eight to nine days of May and all of June at 40% occupancy and the occupancy for the two weeks or so in September is 30%. There are only two months, July and August where occupancy exceeds 70%. Perhaps it is best practices to use the maximum occupancy rate for the entire season. However, as there are historical data for limited campground usage of three of the five months, taking an average to estimate effluent contribution of the campground is more realistic.

2.7.1 Organic Loading (page 2-6)

The report projects a 25% increase in sewage discharges at year 20. Odours from the lagoon are already unacceptable at the current discharge rate (9 per day during the winter months and up to 14 per day during the summer). An increase would not be tolerable.

If more realistic figures are used for the 20-year projection (say 10 seasonal to permanent), the peak day BOD load from holding tanks can be reduced from 57.5 to around 48 kg BOD5/day for the permanent residences and from 28.5 to approximately 23 kg BOD5/day for the seasonal. This can bring the total closer to 94 kg BOD5/day rather than predicted 115.

If an average for the campground sites is used rather than the maximum occupancy rate for the months of May to September, the amount of estimated effluent can be reduced from 22.7 to

* Personal communication with Linda Horner

17.7 kg BOD5/day for current usage and approximately 26 to 21 kg BOD5/day.

These more realistic organic loading figures can reduce the size of the lagoon cell needed and any associated cost.

2.7.2.2 Gravity Sewer Wastewater Collection (page 2-10)

The estimate of 19.5 m³/day for the gravity sewer wastewater collection for the storage period between November and May is 64 % of that estimated for the summer months. This seems high for the period when the campground is closed, the Wildfire Base has limited activity, the Paint Lake Lodge (restaurant and cabins) also function at 40% capacity (note: the restaurant is often closed for much of the winter). A more realistic hydraulic loading for piped-in effluent during the storage period would perhaps be closer to 25% of that encountered during the summer months when most services are operating at 80% capacity.

The report also mentions that the norms for infiltration “can range from 10% up to 100% or more of the water consumption.” The estimated total water consumption during the storage period is 4,484 m³. The estimated total infiltration rate for the storage season is 10,788 m³—or 240% of the norm. Wow! This is acceptable? If there is that much infiltration to the system, wouldn't it make more sense to switch to truck haulage?

3.0 Potential Environmental Impacts and Mitigation Measures (page 3-1)

How will residents living within 200 m of the lagoon be compensated for the decreased standard of living during the construction stage of the lagoon expansion? There will be days or perhaps weeks of increased odours during sludge transfer and deepening of the primary cell. Will activities be limited to days when the wind direction is from the east or the south? If construction is limited to daylight hours only (table page 3-3), does this mean it can commence as early as 4:00 am and continue to 9:20 pm? (Paint Lake receives up to 17 hours of daylight between May to August.)

Calling the odour a *nuisance* (table on 3-5) is significantly downplaying the actual reality of living within 200 m of the lagoon. The odours are much more than a *nuisance*; there are far too many days when merely stepping outside the door triggers a gag reflex, windows have to be shut, and any social activities cancelled. This is not an acceptable quality-of-life by any standards anywhere, never mind in a provincial park.

4.0 Residual and Cumulative Effects (page 4-1)

For all of the reasons stated above, combined with the lengthening of the discharge period and greater volume of effluent mentioned in this section, the net cumulative effects of the expansion are **overwhelmingly negative**.

Considerations for Alternate Solutions and Rationale for Relocation

The overriding reason to relocate the Paint Lake sewage lagoon is to ensure it meets the provincial guidelines for lagoons. The current location is in direct violation of these guidelines. To compound and perpetuate the error of the initial construction site makes no sense when there is an opportunity to correct it.

There are two existing sites managed by the Parks branch that have established road access (see Diagram #3, Alternative Lagoon Sites) that could be considered as viable alternatives. These sites have limited access to the public and could easily be controlled. The transfer station site is only open to the public one day on a weekend. A lagoon built adjacent to that site could be made accessible to private haulers as part of this public access.

If the infiltration rate for the piped system is 240% higher than the recorded water usage, perhaps public funds would be better spent on a second haulage truck rather than maintaining a pipe system that unnecessarily increases the inflow to the lagoon.

If the sewage data is separated into that from truck haulage (mainly cabins) and that piped in, it is reasonable to assume that the existing lagoon can support the effluent from the latter, certainly now and into the future (especially if the 240% infiltration rate can be addressed). Using the existing lagoon for only the piped-in sewage will alleviate complaints by residents from sewage discharge.

A lagoon situated farther from any residential areas and bodies of water used by humans would be better able to handle emergency discharges due to high precipitation in the winter and spring (page 2-17) without adversely affecting residents.

The existing primary cell will have to be deepened and the sludge removed to match the proposed expansion. In effect, an entire new primary cell is being constructed with only a small portion (the existing cell) requiring slightly less earth removal. This is not significantly different from constructing a new, perhaps slightly smaller primary cell at a new location.

In this proposal, the existing spillway will be upgraded. Does this mean that the existing concrete spillway will be repaired or that it will be demolished and an upgraded spillway will be built? The latter is more likely, and if so, there is no difference in this cost if it is constructed at a new site.

The commercial truck haulage vehicle is a dominant presence on the roadway to and from the lagoon. A projected truck volume increase of 25% is a serious concern for not only families living within 200 m of the lagoon but also for all children and adults alike who often ride their bikes or walk on this same roadway. Please note that this is the ONLY roadway with access to the beach and other amenities at the lake and the main access road. So far, to my knowledge, only pet dogs have been hit by the septic truck. Does a serious accident involving a human have to happen before the location of this lagoon in an inhabited area is deemed unacceptable?

To conclude, though there are many issues with the project, that it is being scheduled without proper community input and consultation is shocking. The Paint Lake Cottage Owners Association is a well established entity that was also caught unawares until it was brought to their attention on the community Facebook page. This is not consultation. There are residents who will be affected by not only the construction of the lagoon expansion, but also the continuing use of a lagoon that should not be here. A valid question to the province is how it intends to compensate residents for this and the significantly reduced value of their homes should the expansion proceed.

I strongly believe that viable alternatives to the proposed expansion of the Paint Lake sewage lagoon exist. On 8 August 2022, the province announced \$34.4 million in funding for wastewater and waste

management projects; perhaps some of this funding could be reallocated to correct the errors made decades ago, to the ultimate benefit of current and future residents. I strongly encourage you to meet with us, show us your figures and feasibility studies, and allow us to contribute our ideas and creative alternatives to come up with the best possible solution.

The residents of Block 1 Paint Lake should be able to enjoy standards of living on par with their neighbours, the rest of the province, and the country.

[For referenced attachments, see comments in the Public Registry - Diagram #1, Proximity to Residences, Diagram #2, Prevailing Winds, and Diagram #3, Alternative Lagoon Sites.]

Disposition:

The odour issue and setback distance associated with the existing facility is discussed above. Design loading rates are within normal ranges for communities that have a mixture of seasonal and year round wastewater sources.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE

Technical Advisory Committee (TAC) responses are summarized in Table 1 below. Substantive comments and their dispositions follow the table. TAC comments are provided in full in the public registries.

Table 1 Paint Lake Provincial Park Wastewater Treatment Lagoon Expansion
Technical Advisory Committee Comments

No	Technical Advisory Committee Member	Response Provided
1	Manitoba Environment, Climate and Parks	
	Environmental Approvals Branch:	
	Energy Program	No comments
	Air Quality Management	No response
	Environmental Compliance and Enforcement Branch	No concerns
	Environmental Programs and Remediation	No response
	Office of Drinking Water	No concerns
	Drainage and Water Rights Licensing Branch:	No concerns
	Water Science and Watershed Management Branch:	
	Water Quality Management Section	December 12, 2022
	Groundwater Management Section	No response
	Climate Change and Clean Technology	No response
	Parks and Protected Spaces Branch	No response
2	Manitoba Natural Resources and Northern Development:	
	Wildlife Branch	No concerns
	Fisheries Branch	No response
	Forestry and Peatlands Branch	January 3, 2023

No	Technical Advisory Committee Member	Response Provided
	Regional Land Specialist / Integrated Resource Management Team	No response
	Mines	No concerns
	Petroleum	No concerns
3	Manitoba Sport, Culture, and Heritage – Historic Resources Branch	December 7, 2022
4	Manitoba Municipal Relations - Community Planning Branch	No response
5	Manitoba Transportation and Infrastructure – Environmental Services Branch	December 10, 2022
6	Regional Health Authority	No response

Environment, Climate and Parks, Water Science and Watershed Management Branch, Water Quality Management Section

- The following effluent standards must be applied to the Paint Lake Provincial Park Lagoon wastewater treatment lagoon as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011).
 - BOD5 25 mg/L,
 - TSS 25 mg/L,
 - Fecal Coliforms or *Escherichia coli* 200 organisms / 100mL,
 - <1 mg/L Total Phosphorous standard (applied at the outlet of secondary cell)
- A key water quality issue in Manitoba is excess nutrient loading and one of the strategic objectives of Manitoba’s Water Management Strategy is to protect aquatic life and reduce excess nutrient loading to waterways. In Manitoba, the Water Quality Standards, Objectives and Guidelines are used to protect the quality of water. Where a facility is serving less than <2,000 people and choosing to demonstrate a nutrient reduction strategy, the facility needs to meet the <1mg/L TP standard at the last point of control of the discharge, prior to releasing effluent to the natural environment. To discharge to the environment, a government owned facility is required to meet <1mg/L TP standard as per the Manitoba Water Quality Standards, Objectives and Guidelines Regulation (196/2011).
- The Water Quality Management Section is concerned with any discharges that have the potential to impact the aquatic environment and/or restrict present and future uses of the water. Therefore it is recommended that the license require the proponent to actively participate in any future watershed based management study, plan/or nutrient reduction program, approved by the Director.

Disposition:

These comments generally can be addressed through licence conditions. The phosphorus standard can be applied downstream as proposed and automatically revert to the outlet of the secondary cell if the downstream discharge route is ineffective in removing phosphorus from the effluent.

Manitoba Natural Resources and Northern Development – Forestry and Peatlands Branch

A timber damage appraisal and/or timber permit may be required. Please contact the regional forester out of our Thompson office.

Disposition:

This information was provided to the proponent team.

Manitoba Sport, Culture, and Heritage – Historic Resources Branch

Conditional Approval – implement an HRPP. See the attachments for more details.

Disposition:

These comments and attachments were provided to the proponent team for information. Heritage resources protection can be addressed through licence conditions.

Manitoba Transportation and Infrastructure – Environmental Services Branch

Please see comments from the following MTI branches/sections:

MTI Northern Region:

Overall the Region has no concerns with the proposal as no work falls directly within our Right-of-Way and/or Controlled Area. Storage Cell 2 is approximately 70m from PR 375 centreline making it very close to our ROW & Controlled Area limits.

If the applicant is proposing drainage improvements that would enter/impact the PR highway right-of-way, the Region would like to review.

Roadside Development:

- The Department would not be prepared to approve any direct access to PR 375 at this location;
- A permit will need to be applied for to legalize any existing work and/or structures within the controlled area of PR 375. For permit information, please contact Komal Shukla at 204-583-2433 or by email at Komal.Shukla@gov.mb.ca. Permit information can also be found at <https://forms.gov.mb.ca/highway-permits-application/index.html>; and
- Any proposed drainage improvements that would enter/impact the PR highway right-of-way will have to be submitted to our Technical Service Engineer, Warren Radbourne. Warren can be reached at 204-648-4648 or by email at Warren.Radbourne@gov.mb.ca.

For reference, we note the following statutory requirements affecting PR 375 at this location.

Statutory Requirements:

Under the Transportation Infrastructure Act, a permit is required from Manitoba Transportation and Infrastructure to construct, modify, relocate, remove or intensify the use of an access. A permit is also required from Manitoba Transportation and Infrastructure to construct, modify, remove or relocate a structure or sign, or to change or intensify the use of an existing structure (including the alteration of existing buildings) within the **38.1m** (125 ft) controlled area from the edge of the highway right-of-way.

In addition, a permit is required from Manitoba Transportation and Infrastructure for any planting placed within **15 m** (50 ft) from the edge of the right-of-way of this highway.

Disposition:

These comments were provided to the proponent team for information.

ADDITIONAL INFORMATION

Public comments were discussed in emails to commenters on March 7, 2023.

Additional information was requested concerning the proposed method of sludge disposal from the primary and second storage cells of the existing facility. Comments from the technical advisory committee were also provided for information. A response on the sludge disposal method was received on February 10, 2023. The response indicated that the sludge would be disposed of in a new sludge disposal cell.

PUBLIC HEARING

No requests were received for a public hearing. Concerns primarily involved odour and planning aspects of the project. A public hearing is not recommended for the project.

CROWN-INDIGENOUS CONSULTATION

The Government of Manitoba recognizes it has a duty to consult in a meaningful way with Indigenous communities when any proposed provincial law, regulation, decision or action may infringe upon or adversely affect the exercise of the Indigenous rights of that community.

The proposal involves the construction and operation of an expanded wastewater treatment lagoon at an existing location to alleviate current overloading and provide for future growth. As resource use would not be affected, Crown-Indigenous consultation is not required for the project.

RECOMMENDATION

Comments received have been addressed through the provision of information to the proponent team, the provision of additional information on the project by the proponent team, and licence conditions. It is recommended that the development be licensed under The Environment Act subject to the limits, terms and conditions as described on the attached draft Environment Act Licence. Administration of the licence should be assigned to the Northeastern Region of the Environmental Compliance and Enforcement Branch.

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