

7317434 Manitoba Ltd. - Crystal Spring Colony Farms Ltd.

Crystal Spring Colony New Development - Wastewater Lagoon - File 6193.00

Public Comments Received:

- Public Comments Received (1)

[REDACTED]

From: [REDACTED]
Sent: November 26, 2023 7:21 PM
To: [REDACTED]
Subject: File 6193.00

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To whom it may concern,

I'm writing to object to 7317434 Manitoba Ltd. - Crystal Spring Colony New Development - Wastewater Lagoon - File 6193.00.

"If we pollute the air, water and soil that keeps us alive and well, and destroy the biodiversity that allows natural systems to function, no amount of money will save us." -David Suzuki

Lake Winnipeg and the surrounding wetlands, including Willow Creek have already reached a crisis level due to phosphorus and human destruction. I am a permanent resident in this community and I've watched the lake and wetlands deteriorate every year. This past year nobody could swim for a large majority of the summer due to algae that results from phosphorus coming from the Winnipeg sewage leakage and runoff of fertilizers from farmer's fields. Dead fish washed up on shore, in addition to millions of zebra mussels, and for the first time this year there were no frogs along the lake. The lake is already in terrible shape, the last thing this community needs is more destruction to the environment, or more nitrogen and phosphorus seeping into the lake and creeks.

The future of the Interlake depends on the lake and surrounding wetlands. "We are the first generation to feel the impact of climate change and the last generation that can do something about it." - Barack Obama. Please do not allow a few people to profit at the environment's and future generation's expense. Please deny or reject this proposal.

Thank you.
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: November 30, 2023 9:19 PM
To: [REDACTED]
Subject: Crystal Spring Colony – EAP – comments and concerns

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Crystal Spring Colony – EAP – comments and concerns

1. The wastewater lagoon proposed placement (SE 28-18-3E) is located on the lowest area of the 4 quarters that make of the whole section owned by the proponent. This area is lower swamp marsh land area and during wet years has standing water and the ground is water logged. Why would you build a wastewater lagoon in this area? There are better locations on the other sections owned by the proponent.
2. The proposed location of the wastewater lagoon is located at the corner of Road 15 E and Road 106 N. I have lived in this area for over 40 years and this drainage system network flows very full and heavy on large rainfall years. Years like this the drain is full and overflowing and backs up into this corner location SE 28-18-3E.
3. Why would the proponent build the wastewater lagoon closer to other local residing residences than their own residences? Could the proponent build the wastewater lagoon on

the NE or NW quarter where there are no current residing residents? It could be built in and around the shelterbelt of existing tree stands to reduce wind blowing the odours from the lagoon.

4. Has the proponent received conditional use approval from the RM of Armstrong?

5. The local residents of the area use Willow Creek for recreation throughout the year. This creek has annual fish spawning. What conditions are going to be in place to ensure the aquatic life is not impacted? The creek also has waterfowl and wildlife that depend on this clean water source.

6. What is going to be done at the source to mitigate the wastewater that is being release to the Creek to ensure there are not severe impacts on the nutrient over loading of Lake Winnipeg? Is there going to be a requirement to meet low phosphorus release? Nutrient levels are already high in Lake Winnipeg. There are many impacts already and we need to ensure nutrients are reduced.

7. Can the proponent enhance the wastewater lagoon treatment and incorporate a constructed wetland? There are others systems like this in the Interlake.

Thanks,



<No Subject>

To: [REDACTED] Louibaly, Housseini

Reply Reply All Forward

Mon 2023-11-27 12:32 PM

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TELUS 12:28 PM 56%
< Sent ^ v

[REDACTED] 10:35 AM
To: housseini.coul.baly@g.....

Lagoon in rm of Armstrong

Sent from my iPhone [REDACTED]

[REDACTED] proposed lagoon sight and am totally against it, that discharge will be emptied into willow creek which runs past my place in [REDACTED] my grand children swim in our channels, we fish in those channels, and we have picnics along the shore lines, stop this waste water treatment plant from ever being set up, you know as well as me that it is not good for us.

[REDACTED]

From: [REDACTED] <[REDACTED]>
Sent: November 28, 2023 2:13 PM
To: [REDACTED]
Subject: Question about Wastewater Lagoon File #6193

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Hello [REDACTED] [REDACTED]
[REDACTED] I am enquiring about the Crystal Springs Colony new development and specifically the wastewater lagoon. At this point I presume there are no concrete plans for hog production at this site because I don't see a plan for a hog manure lagoon. However I note that the proposed wastewater lagoon is supposed to hold both human wastewater and abattoir waste. My specific question is - what are the requirements for handling of waste from an abattoir? Any information you can offer will be greatly appreciated. Thank you. [REDACTED]

[REDACTED]

From: [REDACTED]
Sent: November 27, 2023 3:05 PM
To: [REDACTED]
Subject: RM of Armstrong lagoon

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Hello;
I'm protesting the lagoon project on hwy 106 being built by the Crystal Spring Colony.
I live in [REDACTED] which the Willow Creek flows into our waterways then to Lake Winnipeg .
This area is very beautiful which was Willie Arnason's dream.
In this dream he built a paradise for all of us to use our canals swimming , fishing, boating and skating.
[REDACTED]

Sent from my iPhone

From: [REDACTED]
Sent: November 30, 2023 8:50 PM
To: [REDACTED]
Subject: Crystal springs colony

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The wastewater lagoon proposed placement (SE 28-18-3E) This area is lower swamp land area. In wet years there standing water and the ground is water logged. Why would you build a wastewater lagoon in this area? There are better locations on the other sections owned by the proponent.

location of the wastewater lagoon is located at the corner of Road 15 E and Road 106 N. I have lived in this area for over 70 years and this drainage network has heavy rainfall years. Years like this the drain is full and overflowing and backs up into this corner location SE 28-18-3E

the lagoon is placed in the area closer to local to local residents that the actual colony residents Please consider relocate this lagoon to north east or north west property.

I have concerns for the willow creek watershed I am concerned for the fish spawning in the creek how will this affect the aquatic life? And ensure that there will a low nutrients that are leaving the system to the lake

we want to ensure and make sure the environment is safe and clean for our family future to enjoy

Thanks



Sent from my iPhone

Sagan, Barsha

From: [REDACTED]
Sent: November 27, 2023 9:22 AM
To: [REDACTED]
Subject: Notice 7317434 Manitoba Ltd. File 6193.00

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Good Morning,

I would like to comment on the above mentioned proposal file #6193.00.

Living by Willow Creek and being a 4th generation farmer, I am very concerned about the water quality that will be affected by allowing this lagoon. Along with the effect it will have on the aquatic species that live in Willow Creek, not to mention Lake Winnipeg.

By allowing this proposal, who is to say what will be done with the lagoon in the future. I have seen no policing or inspections once lagoons are installed, and the owners do what they want with no-one being accountable. How often do they plan on doing the discharge? What happens when the population of the colony grows? What happens when there is excess precipitation like in 2022, which caused major overland flooding, where will the sewage wastewater end up then? Why is the lagoon so far way from center the colony? Are they concerned about their water quality ?

Water is one of our greatest assets that we have, and we should be protecting it. I am hoping that there is really hard look at this proposal to ensure that there is no room for errors or omissions on approving this lagoon and its current location.

I want to thank you for reading my concerns, and I am hoping that every possible concern has been addressed and reviewed before approving this lagoon.

Yours truly, [REDACTED]

[REDACTED]

From: [REDACTED]
Sent: November 8, 2023 5:11 AM
To: [REDACTED]
Subject: Crystal Spring Colony Proposal Waste Water Lagoon Proposal File 6193.00

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Good Day

I am inquiring on the subject proposal with concerns of the negative contributions that this project may have on Lake Winnipeg and its tributaries.

We moved to Gimli this past summer so that we may enjoy this beautiful Lake in its entirety, only to be witness to a Green Slime on the Shores and Beaches in and around the Gimli Area. This Slime is apparently due to high phosphates and Nitrates contributed to the vast amounts of Waste Water from the areas surrounding the Lake.

Could you please provide assurances that this project will not be another contributor to the already uncontrolled problem.

Thank You
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: November 30, 2023 11:43 PM
To: [REDACTED]
Subject: Re: 7317434 MANITOBA LTD. CRYSTAL SPRINGS COLONY NEW DEVELOPMENT - WASTE WATER LAGOON -FILE 6193.00

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Re: 7317434 MANITOBA LTD. CRYSTAL SPRINGS COLONY NEW DEVELOPMENT -WASTE WATER LAGOON -FILE 6193.00

LETTER IN OPPOSITION TO THE PROPOSED LAGOON SE-28-18-3 EPM

I am writing this letter to express my strong opposition of: the lagoon placement [REDACTED]
[REDACTED]

Understanding the need for a lagoon or water treatment plant, here are the reasons for my concerns. There are better placement options, greener ways with less impacts.

1. The proposed lagoon is placed directly in front of and east of the ONLY two residents with homes (last house built 1989) within the RM of Armstrong or the RM of Gimli, in a 4 mile perimeter of which the Colony own. The colony development is a first to this capacity and needs for the RM of Armstrong as it's size is equivalent to a small town.

The unknown socioeconomic & environmental impacts and potential dangers it could, would and will have on Rd 106 (bus route) residents when building to the capacity (with room to expand) in such a close proximity. A less populated area is a better, respectable, acceptable option.

The need for an Environmental Impact Assessment should be made mandatory with results publically available. Potential leaching and weeping are our biggest fears. There are better placement options on the 2 North half sections of 28 facing road 107N. Eliminating any human habitat which does not belong or have associations with the colony. Regardless of location adding more tree lines/fencing odor/eyesore buffer needs to be incorporated in the plans. To better help eliminate potential odors as there are often strong winds as we are on a ridge while hiding unsightly views.

A water treatment plant would take a greener approach, have less severe long term impacts on the environment with respect to neighbors and everyone who lives along and utilizes Willow Creek.

2. The lagoon placement is in an area where it frequently floods over land in the spring and or when there is a large amount of rainfall. 106N often floods over the road at the corner of 15E. Water quickly raises up onto 15E around the area where the proposed pipe will be placed into the ditch for release and often runs over south of 106N intersection.

By changing the natural water flow, it could potentially flood worse by adding a "new drain" and new driveway run off water to 106 ditch. The ditch is not cleaned out to operate at its full potential, as it's designed to do. If it's cleaned out there are still high risks of flooding.

As seen in the aerial photo page No. 1-3 in Site Photos.

The entire area is under water.

Local land owners or community members were never consulted with as the corner, is a known the area prone to flooding.

Potentially putting land owners/homes at a higher risk to flood, adding financial stress and uncertainty resulting is loss or damage.

What are the cause and affects of changing the natural water flow? What potential impacts will it have on neighboring land?

How would unexpected overland flooding impact the ground water? Taking extra precautions is vital as weather is becoming increasingly unpredictable.

Would there be more mosquitoes present because of high levels and how would they be managed?

3. Without consultation land owners across and near can be potentially negatively impacted, resulting in stress from financial loss. Property assessment will increase as well as taxes but existing land owners could face a huge loss in the event of a future sale,

not getting fair top dollar at 630m away, no matter how beautiful our homes and yards are when there could be a lingering odor in the air/eyesore to drive by. Compensation or solutions have not been offered by the Colony or the RM of Armstrong in the event. Existing land owners should never be put in the position to potentially be affected negatively. This will undoubtedly lead to decreased quality of life permanently in several ways.

The idea of subdividing in the future to give my children their own piece of land is no longer a desire with a lagoon placed across.

4. Land owners down Rd 106N (south side) have not been consulted with or notified by the RM of Armstrong, the Colony or Burns Mandel Consulting Engineers Ltd. Of any and all drastic life changing potential negative impacts environment changing, health concerning matters and or plans of actions in the event of a flood or catastrophe in which we are expected to live with in the near future.

The first proposal was not properly advertised in the local news paper.

Solution: As this is unprecedented within the RM of Armstrong and the RM of Gimli, an in person public consultation should have be held as public lands are going to be affected and the lively hoods from berry pickers, water sports, ditch fishing suckers and those who swim, as usage of the creek will be limited. Water flow in summer slows right down often stagnant at times not moving much. Public Health and Safety concerns is a priority when one could be exposed to harmful unknowns.

5. As stated in the proposal with expectations of 250 people, to my knowledge no study has been done to be presented to the public on the impact of water consumption, road conditions, increased traffic, dust in the air lingering which can be hazardous to ones health or odors. Understanding odor emissions can be attempted to be controlled to a certain extent, never eliminating completely. What measures are in place to assure the safety of all users is enforced?

6. With the installation of the natural gas line (across from proposed lagoon placement), damage was done to the ground and bush line along [REDACTED]. The bushline has always been

important. Land owners utilize it as means of dust control, noise buffers, and for safety as it's all fenced.

[REDACTED]

The only culvert on the south side was also damaged. If the water level in the ditch rises, 106 facing residents (my) land takes on the extra water. The culvert needs to be changed with a one way flow valve, as a new drain is also included in the proposal across from my yard to better eliminate if any future potential environmental contamination caused by flooding.

7. The importance of Willow Creek water shed located adjacent to Lake Winnipeg lacks detail and down plays the fish habitat. Walleye, Norther Pike, Sucker fish spawn every spring. Carp, turtles, Norther Red Belly and Red Sides Garter snakes are often observed different times of year. The ditch is often used as a water source for many rodents and large animals.

Was there a study done with fisheries? If so what study was provided? Will fisheries supervise, monitor health and protect fish spawning? Was a species assessment ever conducted?

Has there been a study done showing what long term impacts releasing effluent into this creek will have?

With potential elevated levels of bacteria, E. Coli, excess nutrients and possible diseases carried how is anyone expected to enjoy the beauty the creek has to offer or adding to Lake Winnipeg's declining health?

What studies in the area were done operating at full occupancy and operations; to see cause and effects wet year vs dry years?

In conclusion, Burns Mandel Consulting Engineers Ltd.

Has been hired to represent the best interest of the Colony.

Once the Colony is built it will remain there, not only for our life times, but for future generations as well. Please take my concerns seriously as this decision has the power to impact my family's quality of life permanently.

[REDACTED]

From: [REDACTED]
Sent: November 20, 2023 7:43 PM
To: [REDACTED]
Subject: Re: 7317434 MANITOBA LTD. – CRYSTAL SPRING COLONY NEW DEVELOPMENT – WASTEWATER LAGOON – FILE: 6193.00

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To whom it may concern,

As a private citizen living in the Lake Winnipeg watershed, and a lifelong Interlake, Manitoba resident I have serious concerns about the continued excessive nutrient loading of Lake Winnipeg and associated drains, streams and rivers.

I do not have concerns about developments as long we observe all present regulatory processes to ensure NEW developments do not add to the already obvious problems we have in Lake Winnipeg.

The Crystal Spring Colony Development is akin to dropping a village onto virgin agricultural land next to Willow Creek which has been classified by the EIWD (East Interlake Water District) as the second cleanest in their district. Biggest reason for this is the lack of human development on its watershed. This development will change this and a basic lagoon treatment may not be enough to mitigate the added nutrient levels that will be discharged.

It is expected that the lagoon discharge meet the 1mg total phosphorus limits set out in all municipal sewage treatment plants, however conditions should be set for government monitoring of the effluent before discharge and public notification to those downstream when this is happening.

Willow Creek drains through the Miklavik and Siglavik cottage and home developments, and are a unique sheltered harbour. This fall we had seen particularly odorous and dangerous algae infestations in Gimli and Silver Harbour locations exasperated by the sheltered nature on these harbours. Siglavik and Miklavik are man made inland harbours and as such are even more isolated by the wind and wave action which dissipates algae along most of the Lake Winnipeg shorelines. This new Crystal Springs Development WILL add nutrients N and P to the Willow Creek watershed and my fear is that the Miklavik and Siglavik developments will become a nutrient sink or trap and feed excess algae growth in those and nearby locations. So far we haven't seen that problem there if this years algae blooms and fish kill offs at Gimli, Silver harbour and Hnaua beaches are any indication.

Those areas are way more open to wind and waves yet had a major algae problem this fall.

If I were in those development I would have grave concerns. These questions need to be answered:

Who will be monitoring the lagoon to ensure compliance? (See Section 5.2 “Reporting” in the proposal, on p. 29 of the PDF) In particular, who is checking re: compliance with MECP licence requirements of no more than 1.0 mg/L total phosphorus? How often will TP be measured? How many litres will be discharged? What will be the total tonnage of N and P added to the watershed? Will compliance results be made public?

What happens if this lagoon is non-compliant with 1.0 mg/L limit?

What if any contingencies will be put in place to protect against/mitigate impacts of extreme weather (e.g. flooding) or equipment failure?

What is the current phosphorus load to Lake Winnipeg from this sub-watershed? Can this area handle additional phosphorus loads?

This lagoon will handle waste from approximately 200 people as well as “livestock production.” (See executive summary of proposal, on p. 5 of the PDF, and also p. 9-10) What extent/scale of livestock production is planned and how will the manure from this be managed?

How will the addition of the abattoir to the human waste affect the efficiency of the lagoon and discharges. Abattoirs have a very large water usage and while they may claim it is not for commercial use, it is a matter of semantics, as it is essentially an abattoir for a village sized community, not a small butcher shop. How will they handle the solids, fats, possible pathogens and antibiotic contaminants. Most literature I have research recommend that all solid matter be removed and go to compost or buried.

Present site plans do not indicate an area to compost the poultry waste (manure) which over time will be substantial with 15,000 birds. How will manure be distributed and where? How do they prevent leaching into the watershed as this area has considerable low lying and overland flooded circumstances.

This question is outside the scope of the lagoon’s environmental approval process, but is worth raising because abattoir waste is not the same thing as manure produced from animals. So, the lagoon may be able to meet the 1.0 mg/L phosphorus limit, but what about the potential for an increase in phosphorus-rich manure on fields and then leaching into the watershed. Has this factor been considered and how will it be addressed?

It sounds like the barns will initially used for 15,000 poultry broilers (meat), however the plans do show additional barns. Once they have approval for the lagoon, can we be assured that hog, cattle or others will not be added without another licence review?

While the present regulations stipulate a 1mg/litre total P maximum, a better measure would be the total amount of P in tonnage that will be discharged into the aquatic system. One way to make a pollution problem go away is to dilute it until it meets standards. This however skews the intent and the goal should be to keep the N and P out of the waterways and onto the fields as fertilizer.

In closing I know that Crystal Spring Colony Development will try be a good neighbour, and steward of the land and water, they have indicated that this is their goal and only through frank dialogue can we move forward and address concerns. New developments should incorporate the latest and greatest technology, and not the bare legislated minimum. We have enough problems with existing municipal waste disposal standards not being met, so we don’t need to add to the problem.

Regards



November 20, 2023

Sent from my iPhone

Sagan, Barsha

From: [REDACTED]
Sent: November 27, 2023 1:51 PM
To: Coulibaly, Housseini
Subject: Concerns Regarding the Proposed Sewage Lagoon

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Dear Mr.Coulibaly,

It has come to my attention that Crystal Spring Colony New Developments is planning to construct a wastewater lagoon in the wetlands of Lake Winnipeg, neighboring Gimli.

My concerns are about the endangerment of the ecosystem and wildlife of said wetlands, as well as the further pollution of Lake Winnipeg.

The creeks are already saturated in phosphorus and nitrogen, any additional nutrient load coming from the sewage lagoon would make the waters inhabitable for many species and therefore destroying an ecosystem that is necessary to the health of Lake Winnipeg waters. In addition, the lagoon will ultimately discharge in to Lake Winnipeg.

Furthermore, human and animal waste can be composted and/or used to fertilize the thousands of hectares of neighboring farming land. As for slaughter waste, it can be recycled.

Thank you for taking my concerns into consideration and I hope that this project will be reconsidered.

Sincerely,

[REDACTED]

Sagan, Barsha

From: [REDACTED]
Sent: November 20, 2023 8:10 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Colony Lagoon application

Importance: High

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Hello

I own a lot I plan to build on in rails end. I am renting in gimli until I do.

I am firmly opposed ot the approval of the colony application and for the lagoon required to deal with waste from their development.

This is exactly the opposite direction we should be going in regarding development.
We need environmentally friendly businesses and industry in our RM and surrounding RM's
not MORE environmentally damaging businesses and industry.

Please record this communication as AGAIST the application.

Please confirm receipt of this email.

[REDACTED]
[REDACTED]
Owner / Principal, [REDACTED]
[REDACTED]
[REDACTED]

located on Treaty One Land , Homeland of the Metis Nation
water sourced From Shoal Lake First Nation

Dear Mr [REDACTED]

Nov 27/2023.

I'm writing about the Crystal Spring Colony lagoon.
I'm against this lagoon, mainly because it
may contaminate Willow Creek which drains
into Lk Winnipeg. This lake is polluted by
city of Wpg and runoff from farms and U.S.

Seepage from the lagoon are a possibility
and may damage the aquifer, which is a
source of water for many people in area.

I'm a sportfisher, I fish in summer
and ice fish in winter.

Lk Wpg is a great Lk and provides commercial
fishermen with work and wages.

Let's keep this Lk from any more pollution
so please do not allow this lagoon to pass.

Yours truly
[REDACTED]
[REDACTED]

[REDACTED]

From: [REDACTED]
Sent: November 30, 2023 9:41 AM
To: [REDACTED]
Subject: Re: Crystal Spring colony lagoon proposal

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The email sent by [REDACTED] was actually sent by me. [REDACTED]. I live with my partner in [REDACTED] Manitoba ... Gimli.
Sent from my iPhone

On Nov 30, 2023, at 9:21 AM, [REDACTED] wrote:

I am very concerned about the health of Lake Winnipeg... instead of allowing the below to be allowed .. the government should be trying harder to save our lakes. This may start out as a small development but it will certainly continue to grow larger and more and more pollution will occur. Anyone with any brains in their head realizes this. If it's to be allowed for "around 250" people and 15,000 chickens ..in ten years this will be vastly more and it will affect Lake Winnipeg negatively.. Cap the amount of 250 people? Impossible.. cap the amount of chickens and livestock? Impossible... get your head out of the sand and stop this.



Notice of Environment Act Prop

Manitoba Environment and Climate Change invites
proposal:

7317434 MANITOBA LTD. – CRYSTAL SPRING (
WASTEWATER LAGOON – FILE: 6193.00

Sent from my iPhone

November 24, 2023

Dear [REDACTED]

I am writing to you regarding 7317434 Manitoba Ltd. – Crystal Springs Colony New Development – Wastewater Lagoon – File: 6193.00.

I cannot believe that this proposal is even being considered given the proximity to Willow Creek and ultimately Lake Winnipeg, which we all know is dying a slow death. There is no doubt in my mind that allowing this lagoon will cause great harm to Willow Creek and Lake Winnipeg, as well as the aquatic ecosystems in the Creek and Lake, not only because of human waste from 250 people but also because of the waste from 6000 chickens, 2000 ducks, 500 hogs and 25 beef cattle. The lake and remaining wetlands (either coastal or inland) are already not capable of filtering all the phosphorous and nitrogen that flow into them. This proposed lagoon will add to the stress already placed on these waterways. It is a fact that just chicken manure, which increases algae blooms in fresh water, contains 4 times the phosphorous and nitrogen that of hog manure and conventional water treatment does not remove either of these elements.

As well, a sewage lagoon is basically the least effective form of waste treatment, and the one proposed will likely have high output of nitrogen and phosphorus. Additionally, the waste can also contain dangerous pathogens like E. coli, growth hormones, antibiotics, chemical additives that can leak into the waterways.

One of the best ways to protect these waterways is to keep wastewater lagoons far away from them.

It will be a very sad day if this project is allowed to proceed.

Sincerely,

[REDACTED]
[REDACTED]
[REDACTED]
Gimli, MB

ROC 1B0

[REDACTED]

From: [REDACTED]
Sent: November 16, 2023 3:27 PM
To: Minister of Environment and Climate Change; [REDACTED]; Minister of Economic Development, Investment and Trade and Natural Resources; Minister of Municipal and Northern Relations
Subject: colony proposed lagoon in RM Armstrong

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Dear [REDACTED]

I am writing this email to ask for you to reject the lagoon proposal of the Crystal Springs Colony in the RM of Armstrong.

My family and I are residents of the RM of Gimli, neighbouring the RM of Armstrong and this Colony. Our family home is located at [REDACTED]. We are on the west shoreline of Lake Winnipeg [REDACTED]

This lagoon will have devastating and irreversible consequences to our Lake, economy, residents and community. The discharge of the proposed lagoon will mean our backyard of fishing and swimming and wildlife will quickly become a toilet that we cannot use. This is the tip of the iceberg in terms of the continued pollution damage to our Lake and the irreversible impacts on the ecosystem, commercial fishing industry and tourism economy of Gimli and neighbouring towns and the quality of life for lakeside residents.

[REDACTED] I am acutely aware of the issues and realities threatening the health of Lake Winnipeg and have been advocating for the NDP government to protect the lake and take measures to preserve its ecosystem and sustainability.

I would greatly appreciate the opportunity to meet with you as part of a delegation to help you further understand and gather information. Please visit today's local paper for an article published about the proposal. Page 8 & 9

<https://www.expressweeklynews.ca/#page=8>

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Your support is of utmost importance.

Thank-you

Interlake-Gimli

Sagan, Barsha

From: [REDACTED]
Sent: November 27, 2023 4:05 PM
To: Coulibaly, Housseini
Subject: Wastewater Lagoon - Crystal Spring Hutterite Colony

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What a pretty name - 'Crystal Spring'. Sounds so light and clear, refreshing and beautiful. And that community with the pretty name will dump tons of blood and gore, sewage and pestilence into our lake.

Lake Winnipeg is dying.

As the Provincial body with authority, please stop the proposed development from going forward.

Lake Winnipeg needs protection now.

Please don't allow new sources of corruption when the lake is struggling now to remain viable with existing pollution.

The proposed development threatens the aquifer and thus threatens all life in and around the lake.

The plans of a closed community of 250 people should not trump the health and well being of one of Manitoba's greatest assets. There are alternatives, though they might be costly and difficult, the Colony bears the responsibility of pursuing them.

This is only one of many things the province should be doing to help Lake Winnipeg, but this one thing is critical and needs immediate action.

Again, I can't stress enough how vital your decision is at this time. Please do whatever is in your power to stop the current proposed development of Crystal Spring Colony.

Sincerely,

[REDACTED]

Sagan, Barsha

From: [REDACTED]
Sent: November 26, 2023 8:43 PM
To: Coulibaly, Housseini
Cc: Gimli, R.M.; [REDACTED]; Premier of Manitoba [REDACTED]
Subject: Environmental Act Proposal

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I am today writing regarding the proposed new development under 7317434 Manitoba Ltd - File: [6193.00.by](#) Crystal Spring Colony.

I am a resident of Gimli R.M. for 23 years and have concerns about the rather large proposed development including 250 people, with industrial manufacturing, chickens, slaughterhouse and lagoon with plans of future expansion in the RM of Armstrong.

As Lake Winnipeg is in such poor health condition with algae blooms and dead fish littering the shores periodically I question the ability of the ecosystem to handle any development that may jeopardize the Lake further. Lake Winnipeg is already considered the "sickest Lake in Canada" in my opinion this should raise red flags: <https://macleans.ca/society/life/canadas-sickest-lake/#:~:text=Lake%20Winnipeg%20is%20%E2%80%9Cjust%20the,%E2%80%9D%E2%80%94is%20the%20%E2%80%9CNo.>

I also have concerns for the long term effect on the quality of my drinking water due to aquifer contamination from seepage, overflows and Spring thaws.

Many say that regulations will protect the Lake but if regulating worked it would not be in the terrible shape it is in now. Please protect the Lake, fish, wildlife and residents of our area.

[REDACTED]

From: [REDACTED]
To: [Coulibaly, Housseini](#)
Subject: 7317434 MANITOBA LTD - CRYSTAL SPRING COLONY NEW DEVELOPMENT-WASTEWATER LAGOON - FILE:6193.00
Date: November 23, 2023 10:24:08 AM

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Dear Mr Housseini Coulibaly,

The proposed sewage lagoon project raises significant concerns about its potential impact on our environment and enjoyment of the creek for kayakers like myself. Wetlands play a crucial role in maintaining the health of our lake, serving as nature's filtration system. However, these wetlands have their limits, and any additional phosphorus and nitrogen introduced to the creek through this project brings us dangerously close to that tipping point where the delicate balance of our ecosystem could be irreparably disrupted.

Kayaking on this creek is not just a recreational activity; it's a connection to nature and a chance to appreciate the beauty of our surroundings. The proposed sewage lagoon threatens to compromise this experience by potentially contaminating the water and harming the flora and fauna that call this area home. We've already witnessed the devastating consequences of environmental neglect in other parts of the world, and we must act responsibly to prevent a similar fate here.

Preserving the integrity of our wetlands and the creek is not just a matter of recreational enjoyment, it's a matter of safeguarding our environment for future generations. We must explore alternative solutions that prioritize the protection of our natural resources while meeting the needs of our community. It's our responsibility to ensure that the proposed sewage lagoon project doesn't push us over the edge, tipping the delicate balance of our ecosystem and compromising the enjoyment of this beautiful creek and the health of our beautiful Winnipeg Lake for generations to come.

Sincerely,

[REDACTED]

From: [REDACTED]
To: [Coulibaly, Housseini](#)
Subject: RE: Comments on Crystal Springs
Date: November 30, 2023 11:04:23 AM
Attachments: [comments on crystal springs project - rob tkach.pdf](#)

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Good Morning Mr. Coulibaly,

Please find attached a copy of my comments pertaining to the Crystal Springs lagoon project. I will apologize in advance in that some of my language is fairly strong. You will often see statements like "this is completely inappropriate". Perhaps I should have worded it to say "I feel this is completely inappropriate", so please keep that in mind when reading. [REDACTED]
[REDACTED]. As such please understand that this is very emotional for me.

[REDACTED] I have tried to provide as much constructive commentary as possible. I have also included some technical references at the end of my comments. Please let me know if these references do not come through, and I can send them separately in an email. I'm not sure if my hyperlinks in the document will all work for you.

Feel free to contact me any time if you would like to discuss this project.

Thank-you

[REDACTED]

Sent from [Mail](#) for Windows

From: [Coulibaly, Housseini](#)
Sent: Wednesday, November 29, 2023 1:41 PM
To: [REDACTED]
Subject: RE: Comments on Crystal Springs

Good afternoon [REDACTED],

The deadline for comments is 11:59 PM on November 30.

Thank you,

Hussein

Housseini D. Coulibaly, PhD
Environmental Approvals Branch
Department of Environment and Climate Change
Government of Manitoba
Box 35, 14 Fultz Blvd
Winnipeg, Manitoba R3Y 0L6
Email: housseini.coulibaly@gov.mb.ca
Mobile: [REDACTED]

From: [REDACTED] >
Sent: Tuesday, November 28, 2023 1:25 PM
To: Coulibaly, Housseini <Housseini.Coulibaly@gov.mb.ca>
Subject: Comments on Crystal Springs

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Good Afternoon MR. Coulibaly,

I am interested in making comment on the Crystal Springs project and I understand the deadline is November 30. Could you please tell me what time on November 30 is the deadline? I'm having trouble finding enough time to review the documents

Thank you

[REDACTED]

Sent from my iPad



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COMMENTS

- To start with I'd like to note that I'm a land owner in the area for many years, and am extremely familiar with the project area. [REDACTED] proposed lagoon. FYI I have spent the past decade grooming this property with the plans to build my retirement home on it. Needless to say I find it very distressing to know that I won't be able to breathe the air out there safely, and will suffer from burning eyes due to the proposed development, according to the environmental submission.
- While I have undertaken numerous activities on my property, they have not been to the detriment of my neighboring properties. The proponent's proposed plan for an intensive industrial livestock operation, abattoir and sewage lagoon will definitely be a detriment to all nearby properties.
- I'd also like to note, that since the purchase of the land in our area by the Hutterite colony, my property has been severely adversely affected. [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Secondly, the colony had a new three-phase hydro line installed across the west side of my property to support the proposed project. Widespread damage was done to my property for this project component. Now a sewage lagoon is being proposed to be placed as close as possible to the neighboring properties. There is no understandable reason for the proponent to locate the lagoon in the proposed location. Situating the lagoon at the proposed location suggests that the proponent could be deliberately creating an inhospitable environment near adjacent properties. When you add up all these different activities, I feel the proponent may be trying to "convince" other landowners in the area to sell their farms to the Colony. To be clear, I'm not accusing anyone of anything, but that's how it feels. It feels like there is little regard for neighboring property owners. How would you feel if all of this happened to you?
- As a landowner in the area I find it appalling that I was not notified of this project, and the only way I became aware of it was through social media (i.e., Facebook). [REDACTED]
[REDACTED] I wasn't notified. I've spoken to some of my neighbors and they were not aware of the proposed development either. This shows the ineffectiveness of the advertising of this environmental process. As such I recommend that a proper advertisement process for this project be conducted in order to solicit input. Every property owner within a certain distance of this development (say 5 miles) should have received formal written notification.
- I would also like to note that I am educated as a Water Resources Engineer and have practiced in the [REDACTED]
[REDACTED]
[REDACTED] I
[REDACTED] and was responsible for environmental review of projects of this nature, and many other project types across Manitoba and Canada. I have conducted environmental

review of thousands of projects in my career, and have contributed to the development of numerous environmental policies and guidelines. Though I am not currently practicing as a professional engineer, I offer my comments on the basis of my past educational and professional experience that I have previously outlined, as well as being a local landowner with knowledge of the project area.

- In the realm of environmental approvals, the manner with which this environmental review is being conducted is inappropriate. Why is there an environmental assessment process for just the lagoon portion of the project? The project itself is very large and has many components such as the community itself, the abattoir, a new hydro line, gas line, and operations on many acres of land. I see on the submitted plans through this EA process that there is intention for installing additional future barns, thus expanding the operation and increasing the environmental impacts. In the realm of environmental assessments, this is what's referred to as "project splitting". Often a proponent will split a project up into many small pieces in order to minimize the overall impact of the entire project. This is completely inappropriate. All components of this project need to be considered in their entirety including the construction of a new community, clearing of all land purchased by the colony, a new hydro line, a new gas line, construction of intense agricultural processes, the abattoir, the lagoon and so forth. What will be the impact to the local water supply given the magnitude of the community? The impact of all these activities needs to be considered in their entirety, from construction to full operation. For example, the construction of the colony has been ongoing for some time now, causing a significant increase in large truck traffic to the detriment of nearby landowners. This is just an example of one of the many impacts of this project that are being ignored by the regulatory processes. Another example is the acres of timber that were cleared on private land in order to accommodate construction of the new hydro line for the community, including the lagoon. There was a very substantial environmental impact to this part of the project, and extensive damage was caused to private land without permission. Why are all these impacts being ignored?
- If there isn't a piece of environmental legislation that encompasses this entire project (i.e., development of the entire community including the lagoon), from construction to operation, then there needs to be one. The project may in fact highlight a "gap" in coverage by existing environmental legislation.
- In my tenure [REDACTED] I saw projects of this nature, with much smaller potential environmental impacts, rejected on the basis of their environmental risk and damage to Lake Winnipeg. Consequently I would expect current regulatory agencies to reject this project as proposed, and I have highlighted numerous reasons for this herein. The damage done to our community up to this point by construction activities has already made the community uninhabitable. The project threatens to destroy the local ecosystem in our community (and already has done so to a certain extent), which was fairly pristine up to this point and poses a threat to a much greater ecosystem in Lake Winnipeg.
- With the utmost empathy and sincerity, I can understand the Colony's desire to put forth a development plan of this nature. They needed to purchase a lot of land to continue their

business. Land in this area is available and affordable. However I can't think of many worse places to situate a project of this nature. The section of land is bounded on the north by an environmentally sensitive and important tributary to Lake Winnipeg (i.e., Willow Creek). The South and East sides of the property are bounded by two drains that flow into Willow Creek. The property is bisected by yet another drain that flows into the others on the boundaries. The geotechnical conditions in the area show great inconsistency with soil types, which is very common in the Interlake. The soil will change from clay, to gravel, to cobble/boulder all in a very short space. This makes the area very vulnerable and unpredictable when trying to contain environmental impacts. A spill in one location can travel great distances because of these inconsistencies. For example, when the drainage ditch was constructed on the south side of 106N in the RM of Gimli, water "gushed" out from the banks of the new excavation causing drainage of local dugouts and marsh areas. When you add up all these different variables it emphasizes that this is simply a very poor location for a project of this nature.

- There aren't many good productive (i.e., fisheries) tributaries on the west side of Lake Winnipeg that haven't been harmed environmentally. For this reason it is very important to offer the highest level of environmental protection for those tributaries like Willow Creek.
- I have included a few references at the end of this document to support some of my statements. I can provide additional references at your request.
- Some of my questions and comments are repetitive in nature, as similar themes arise on the basis of different specific project components. I apologize for the repetition, but I want to be constructive, helpful and thorough as I'm one of the closest landowners directly affected by this project.
- Environmental impacts do not follow geopolitical boundaries. If this project was proposed to be put 100 yards to the east, on the east side of Road 15E in the RM of Gimli I believe it would be disallowed. So instead the project is being built in the RM of Armstrong, but the environmental impacts are being transferred to the RM of Gimli. This is completely inappropriate. The reason that the RM of Gimli does not allow developments (i.e., the industrial livestock operation, the lagoon, etc.) of this nature is to protect Lake Winnipeg. This project entailing the lagoon and intense livestock operation should not be permitted in watershed areas directly contributing to Lake Winnipeg, in this close proximity to the lake.

GENERIC QUESTIONS PERTAINING TO PROPOSED PROJECT

1. Why aren't the impacts of the community itself being considered? This includes from construction to operation. There will be many vehicles used for the new community and livestock operation, including domestic vehicles and large scale industrial vehicles. These vehicles will have fuel and oil leak into the ground and groundwater, thus causing contamination. What is the expected environmental impact of this? What are the plans to mitigate the impact?
2. Climate change is a significant concern globally and the production of greenhouse gases (GHG) is looked at closely with regards to environmental impacts. What is the expected increase in GHG resulting from the lagoon? The new community? The livestock operation? The abattoir? The

construction of everything including the new hydro line? Large quantities of mature forest were destroyed for creation of the new hydro line, thus removing vegetation that could have filtered greenhouse gases. How much of the GHG filter potential was lost due to vegetation clearing? What is the carbon “footprint”? What is the plan to mitigate the increase in GHG emissions arising from this project?

3. Were any approvals or authorizations under the Fisheries Act obtained through the Department of Fisheries and Oceans? There has been a culvert replacement on the road leading into the community and also works being done on the waterway going through the new proposed community. Was a Section 36 approval provided for the deposition of a deleterious substance into waterways obtained from DFO or Environment Canada(i.e., for the deposit of the lagoon effluent into the drain leading into Willow Creek)?
4. Are there SARA species (Species at Risk) in Willow Creek?
5. Was a navigable waters assessment conducted by Transport Canada for the new stream crossing leading into the community?
6. The proposed lagoon is being built in a corner of the property, adjacent to two drains on the east and south side. The TREK report indicates that these drains are undersized in relative comparison to provincial standards, and that this is an area prone to flooding. It is very common for the water in the drain along road 15E to overtop the road causing flooding from PR229 north all the way to the project site, making it partially impassible. There was actually a bad breach on road 15E in Spring 2022 at the intersection of 106N, just south of the intersection, resulting in water flowing into the ditch on the south side of 106N. Development activities for the new colony such as clearing of trees and other vegetation as well as construction of buildings, roads and parking lots will alter the local hydrology such that an increase in local runoff will be expected. The drains are already undersized, and the flows are going to increase, which increases backwater effects in the drains along 15E and 106N, increasing the risk of flooding along these roads. Is there an estimate on the change to local hydrology from the overall project? The net result of this change is that we can expect increased flooding and breaches of Road 15E within the backwater effects from 106N. How will this adverse effect be mitigated? All of these changes resulting from the project in RM of Armstrong show a potential increase in flooding in the RM of Gimli over Road 15E within the backwater effects from the corner of 106N and 15E. It will likely be necessary to construct a new ditch along the east side of 15E to collect water flowing over the road and to prevent flooding of properties in the RM of Gimli.
7. The lagoon is being proposed in the SE corner of the property, adjacent to two drains that often carry a lot of water, and are undersized. In the development of any plan, one often considers and evaluates different alternatives. In terms of the location of the lagoon, what alternative locations on the property were considered? Why were they ruled out? I’m very familiar with the area and quite frankly I can’t think of a more risky location for potential environmental disaster than the SE corner.
8. The development plan for this new community and agricultural plan calls for a lagoon to treat the waste from the community itself, plus a truck wash station, school, church, gym, abattoir and so forth. A lagoon is the least effective option for waste treatment in terms of risks and damages to the environment. What different treatment alternatives were considered?

9. The proposed lagoon will receive waste from the truck wash facility. This waste will include contaminants and hazardous materials such as oil, gas and other chemicals from the trucks, along with animal waste. Lagoons are ineffective in treating hazardous material wastes such as oil and gas, and as such these materials will ultimately be released into the drain system leading to Lake Winnipeg. What is the plan to mitigate this environmental impact?
10. Lagoons are known to be attractants for migratory birds, who will land in the sewage. This sewage will be highly prone to bacteria, viruses, and pathogens due to waste from the abattoir (Frank-Whittle and Insam, 2013). The lagoon will also contain animal waste from the livestock, including ducks and chickens. This combination of cross contamination between domestic and “wild” feces (as well as other waste matter) presents a high risk potential for the development of malaise such as the avian flu, which Canada gets outbreaks in periodically. What measures will be taken to prevent outbreaks of malaise arising such as avian flu, or other similar illnesses? Given that other local landowners have livestock of their own to protect, what measures will be taken to prevent such illnesses from harming other local livestock and wildlife? Given the proximity of this site to Oak Hammock Marsh, there is potential these types of illnesses to this well-established bird sanctuary. This could likewise cause a similar problem for waterfowl on and around Lake Winnipeg. It is recommended that Duck’s Unlimited Canada should be notified about this project to determine if it is a potential threat/impact to the waterfowl migrating to and from Oak Hammock Marsh. All of these impacts combined may be a trigger for a review under the Federal Impact Assessment Act (formerly CEAA). It is recommended the appropriate federal government departments be contacted to determine if this federal review is required.
11. Hog operations in particular are known to be susceptible to the different variations of the corona virus, keeping in mind it is understood that there are numerous variations of the coronavirus. In recent years we saw a global pandemic with the COVID-19 variation of the coronavirus, which had drastic impacts on everyone globally. Hogs are particularly susceptible to the variant of coronavirus that caused COVID-19 in humans. See reference below (Thakor et al 2022). Given that the proposed sewage lagoon will have animal waste from multiple different domestic species, plus abattoir waste, plus human waste, plus hazardous waste from the truck wash, plus a high likelihood of wild animal and bird waste, this all presents a higher than normal likelihood for the generation and transmission of viruses such as variants of coronavirus or the Avian flu. While I’m not suggesting that this has the potential to cause another global pandemic, it increases the health risk for nearby humans and their livestock. This could result in an outbreak of a local virus/pathogen that could require the destruction of nearby livestock, or cause human illness. What measures will be taken to prevent this?
12. The Golden-winged Warbler and Red-headed woodpecker are two federally protected bird Species at Risk (SARA) found in the area of this project. (see Reference Manitoba Habitat Heritage Species at Risk Guide) Why were impacts to these SARA species not considered? Will there be habitat compensation for these species? These species were impacted for example by the construction of the new hydro line for the colony.
13. Slaughterhouse wastes are a potential source of bacterial, viral and parasitic pathogens, affecting both animals and humans. (Frank-Whittle and Insam, 2013). What measures will be taken to prevent this contamination for both neighboring people and animals? The area is very

full of wildlife, including an abundance of bears and other predators that will be attracted to the waste in the sewage lagoon. What will prevent animals from coming in contact with the sewage and spreading bacteria, viruses and parasitic pathogens in the area?

14. It is noted that the lagoon will outflow for a certain number of months of the year (summer – fall). This is a time of year where the flows in the local drains and Willow Creek are quite low. What percentage of the flow in the drains adjacent to the lagoon property and Willow Creek will the lagoon outflow be during this time?
15. When small creeks receive these high nutrient concentration flows during their low flow period, it causes the nutrients to accumulate in the creek/drain and for the dissolved oxygen (DO) to become very low. Then a heavy rainfall event happens and flushes all this pollution (e.g., nitrogen and phosphorus) and low DO water into downstream into areas with more water. The end result of this is typically a large fish kill like we observed earlier this summer 2023 on Lake Winnipeg near the community of Gimli. I have seen this phenomenon happen on numerous occasions for various waterways across southern Manitoba [REDACTED]
[REDACTED] If this project proceeds as planned I would expect to see regular fish kills on Willow Creek downstream of this project, such as in the communities of Siglavik and Miklavik as well as large algal blooms. What will be done to mitigate this? What will be the impact on Lake Winnipeg? What will be the impact on the sport and commercial fishery of Lake Winnipeg?
16. There is a hog operation a few miles west of the proposed lagoon on road 106N. The impact of the smell of this operation is noticeable at my property. For the purposes of relative comparison, how big is that hog operation in comparison to that which is proposed by Crystal Springs? Is there an abattoir at that location too? How do they handle the waste from that operation? As a general comment, this many intense livestock operations in such close proximity to each other are too many. What are the cumulative effects on the environment from having these livestock facilities in such close proximity to each other?
17. Anyone who has driven past the Maple Leaf slaughterhouse on Lagimodiere in Winnipeg is presented with a very distasteful smell. A similar experience can be found when driving past the slaughterhouse in Neepawa. How will the smell from the slaughterhouse and lagoon be mitigated?
18. There are many sources contributing to the proposed lagoon including a truck wash, abattoir, livestock operation, school, church and residences. What is the source of water for all of these contributions to the lagoon? Will surface water from nearby creeks be used for any of these components? If so, how will this affect the flows in local waterways? Is the source of water for all of this being taken from groundwater? If so, what impact will it have on the groundwater aquifer? Many people living in the area rely on this groundwater aquifer for their own consumption. Will this water consumption affect nearby wells? What is the risk of contaminating the groundwater that we depend on? What is the anticipated impact to groundwater quality and quantity? Was any groundwater quantity/quality modelling done to determine the impacts of this project?
19. Construction activities related to the lagoon and their socio-environmental impacts have largely been ignored up to this point. Construction has been ongoing for a year already and has adversely affected the local environment. Countless trips are made by heavy vehicles daily,

causing noise and air pollution, turning a once pristine environment into an unsafe and inhospitable environment. What are the construction impacts associated with the lagoon including GHG emissions and the proposed mitigation strategies?

20. Construction of the sewage lagoon, livestock operation and abattoir will decrease property values of neighboring properties and make them less attractive for resale. How will this impact be mitigated and/or compensated?
21. It is understood that the proposed lagoon will have a liner. Sometimes these liners tear and leak. Will there be any monitoring in proximity of the lagoon to detect leaks? If it did leak, what would the zone of pollution look like and what would the impact be?
22. As a society, our tendency is to focus on physical impacts of things. The obvious impacts for a project of this nature are the various sorts of pollution. But what are the emotional and psychological impacts of this proposed development? Please see reference below (Vantarakis et al., 2016). How will the emotional and psychological impacts associated with this project be mitigated? While this area is considered “agricultural”, it is a fairly pristine wilderness environment that this proposed project will drastically alter.

COMMENTS FROM EAP REPORT

1. On page 1 under 1.1.2 a volume of wastewater is specified. What is the source of the water for the colony? Will any surface water be used? Or all well water? If well water, what will the impact be to the local well-water users? Is there enough water to satisfy the entire colony without compromising neighbors who likewise use this water? What is the risk of contamination to ground water?
2. On page 2 under 1.1.3 a volume of water is being planned for the truck wash. Same questions as listed in question 1.
3. On page 2 under 1.1.4 a volume of water is reported for the abattoir. Same questions as in question 1.
4. On page 3 under 1.1.5 it mentions plans for a future water treatment plant. What are the plans for this treatment plant? What will the impacts of this plant be? Please see my comments at the beginning where is talk about project splitting. We need a proper assessment of the entire project, and not this “piece by piece” approach.
5. On page 3 table 2 there are quantities of livestock listed. Are these numbers of livestock per year? Per month? I keep seeing these numbers change at various locations they are reported.
6. On page 4 table 3 there are volumes of water for hydraulic loading. Same questions as in question 1.
7. On page 5 under 1.3.3 groundwater it notes minimal seepage during drilling and groundwater testing. As a long term landowner in the area I’d like to highlight that notwithstanding high spring runoff in 2022, we are still in a significant drought in the area. I have swamps on my property that normally contain a few feet of water that are still completely bone dry. They aren’t even muddy in the bottoms. So the testing that was done in that particular instance is not necessarily reflective of what things really are like in the long term. Testing was only done in

a single instance. Perhaps long term testing over a period of years would give a more accurate picture of groundwater in the area.

8. On page 5 under 1.3.4 there is recommendation for a liner for the lagoon. Is it possible to set up a monitoring system to ensure the liner is not leaking and causing contamination in the area?
9. On page 6 under 2.3.1 land use planning, it states that “it was found that 28-18-3 EPM is not considered a groundwater pollution hazard area”. What is the basis for this statement and determination? I would like to review any documentation supporting this. Also see previous comments pertaining to groundwater. Based on my local experience I don’t feel the groundwater in this area has been sufficiently inspected given current conditions. Also please direct me to the Willow Creek Integrated Watershed Management Plan as I would like to review it please.
10. On page 7 under flood protection there is mention of raising permanent structures 1.5 m above high water levels. There is similar discussion in the TREK report, and I’ll be providing comment there too. The TREK report and local knowledge show that the local drains are under capacity presently, which causes overtopping of Road 15E from PTH 229 north to the project site. There are a great deal of activities on the project site that are altering the local hydrology (e.g., elimination of vegetation, construction of roads, etc.), which will further increase runoff. Raising permanent structures above the flood level will also force more water into the drains, as this water would normally go into hydrologic storage on that property. In short, all of these activities combined are going to increase flows in drains that are already under capacity, and likely cause a backwater effect in the drain along 15E, south from 106N. What are the plans to mitigate this increase in flooding?
11. On page 7 under 2.3.3 siting and location it states that the “lagoon location should be as far as practical from habitation or any area which may be built up within a reasonable time period.” The proposed location for this lagoon appears to be as close as possible to nearby homes. If the lagoon was located on the basis of the Manitoba Information Bulletin it would actually most likely be somewhere in the NW corner of the property. Given the prevailing wind direction, the smell of the lagoon will be directed towards nearby dwellings, on the corner of 106N and 15E, my property, as well as the dwelling immediately east of the proposed location. I’d also like to note that I was planning on building my retirement home on my property and the NW corner was definitely one of my possible building sites. I’ve been meeting with home builders in order to select plans and their details and I had a new approach and culvert installed in the NW corner of my property. This proposed lagoon will definitely force me to revisit my plans. There is absolutely no redeeming characteristic of putting the lagoon at the proposed location. It’s possibly the most impactful location that it could be placed. This is also a flood prone area as noted in the TREK report, and there was a large breach of the road at the corner of 106N and 15E in Spring 2022. Putting any “dam” embankment (even a low head one) near flowing water generally poses greater risks than areas without waterways. In my former career I certainly saw a number of dam failures arising from flowing water near the base of a dam.
12. On page 8 under 2.4.1 it states that the lagoon wastewater effluent will be discharged between June 15 and November 1 each year. At this time of year there is little of no base flow in the creek that the effluent is being discharged into. These drains will tend to flow mainly after

significant rainfall periods. As such the pollutants from the lagoon effluent will accumulate within the storage capacity of the creek until the next rainfall event. At that time a large pulse of water will travel down the creek flushing a large volume of pollutants into Willow Creek and thus Lake Winnipeg. In my tenure as an environmental regulator at DFO I saw this result in fish kills in downstream waterbodies many times. As such I expect that we will see fish kills and algal blooms in Willow Creek in the communities of Siglavik and Miklavik down into Lake Winnipeg.

13. On page 8 under 2.4.1 and Table 4 I see information pertaining to organic loading within the lagoon. There is need to note that there will be other hazardous chemicals in the lagoon that are not being reported. As the lagoon receives waste from the truck wash there will be hydrocarbons such as oil and gas, and any other chemicals found from industrial vehicles. These hydrocarbons are not properly filtered out by primary treatment techniques and will thus be washed out of the lagoon, into Willow Creek and thus Lake Winnipeg. How will these hazardous wastes be prevented from entering Willow Creek and Lake Winnipeg?
14. On page 8 under 2.4.1 there is information pertaining to organic loading from domestic waste. Given that the lagoon will be receiving waste from an abattoir of mixed livestock varieties, there is the potential for viruses, bacteria and pathogens to be within the lagoon. What is the proposed mitigation strategy for this?
15. On page 9/10 under 2.5 lagoon liner there is mention of the installation of collection pipes under the lagoon for collection of groundwater. As previously mentioned I feel that the groundwater quantities are underestimated based on the current drought cycle. Where will the water from this collection system be discharged? Will it be monitored for water quality in order to determine if there is a leak in the lagoon liner?
16. On page 10 figure 1 there are various homes that are displayed on the map. I believe there is at least one that is missing directly east of the proposed lagoon in 27-18-3E.
17. On page 11 under 2.6 effluent discharge it states “no effect is anticipated to downstream users”. Please see question 11, as I suspect there will be a noticeable effect based on past experiences.
18. On page 11 under 2.7 it states there will be a wastewater collections system, for which an application will be made at a later date. What are the plans for this system? As per previous comments, this is “project splitting” which is minimizing the overall project impacts (i.e., the colony as a whole). If you take any large project and split it up into tiny components like this, each component is much easier to prove to have a minimal effect. But when you take all of the project components and put them together, the overall impact is significant. Again, there needs to be a complete evaluation of the entire colony project in its entirety, as opposed to just one little piece at a time. Evaluating little pieces at a time has significant potential to underestimate overall impacts.
19. On page 11 under 2.8 facility operation, there is mention of a sewer network. Are there any environmental approvals or designs available for this? Is there any monitoring to ensure that there is no leakage from the network prior to entering the lagoon? As previously mentioned, and reported in the TREK geotechnical report, the soil conditions in this area are very inconsistent. As spill from the sewer network could travel a great distance, such as directly to Willow Creek, thus preventing any form of sewage treatment. How will this risk be mitigated?

20. On page 12 under 2.9 seasonal maintenance, it mentions that there will be inspections for wildlife. As the landowner right across the road is can assure you there are a great many bears, wolves and coyotes in the area, which I believe will be attracted to the sewage from the abattoir along with other predators. I also anticipate migratory birds such as ducks and geese to use the lagoon, which is very common, along with other birds. As this abattoir sewage has significant potential for viruses, pathogens and bacteria, how will the spread of these by wildlife be prevented? Please keep in mind we have a number of federally protected Species at Risk wildlife in the area.
21. On page 12 under item 3.1 land use it states that there are “isolated areas of deciduous forest”. This area is very heavily forested by mature and diverse vegetation, which is why it is ideal habitat for wildlife, including federally protected Species at Risk.
22. On page 13 under 3.5 groundwater, it mentions that there was a groundwater study conducted. As this lagoon will receive water from a truck wash, abattoir, residences and so forth, what is the source of water for all these facilities draining into the lagoon? Is a copy of this groundwater study available for review? I’m concerned about the impact of this project to the availability of groundwater supply and the risk to groundwater contamination. What will be the impact of any potential water withdrawals to the neighboring properties that use the groundwater aquifer for water supply?
23. On page 13 under 3.7.2 existing terrestrial environment, I feel that this section really underestimates the quality of the local habitat and the abundance of wildlife. My property [REDACTED] is 160 acres of heavily forested area.
24. On page 14 under rare, threatened, protected or endangered species, there are a number of other species in this area that haven’t been mentioned including the redheaded woodpecker and golden winged warbler. I’ve included a reference below from Manitoba Habitat Heritage. The habitat of these species has already been destroyed by construction of the new hydro line which provides power to this project. Again, because of project splitting the overall impacts of this project are being neglected by this process. This needs to be addressed properly. Though not officially an endangered species, we do have moose in the area which the Province of Manitoba is trying to improve populations. Poor air quality from the lagoon will be to the detriment of all wildlife as documented in papers such as Sanderfoot and Holloway cited below.
25. On page 14 under socioeconomic environment, it states that “the socioeconomic environment is not a large factor in the development of this wastewater lagoon”. Well now, it is a very very large factor [REDACTED]. I spent ten years looking to find this property, and spent the last ten years owning this property and grooming it for hopes of building a retirement home out there. That’s 20 years of effort from my life that are being undone by this project, and in speaking to my neighbors we all have similar feelings. This project along with the other components of the development, are causing a decline of the mental (i.e., anxiety and depression) and physical health of nearby landowners. People move out to areas like this to seek fresh air and nature to live and recreate. As we saw during the recent COVID-19 pandemic the demand for rural property has sky-rocketed. The plans and development that I’ve done on my property have not harmfully altered anything for my neighbors. This project will harmfully alter everything for all of the neighboring properties. The

harm has already begun, but it is being ignored by environmental approval agencies. The constant truck traffic during construction of the project has resulted in noise and air pollution, and made travel very unsafe on local roads. My property was absolutely destroyed by construction of the new hydro line for this project. We can expect our property values to decrease because of this lagoon project. How is this not considered a socio-economic impact? How will this impact be mitigated? Again, because of project splitting, we are not examining the true impact of this whole project in its entirety. There needs to be a proper environmental process for this entire project, including all of its components, spanning from the timeframe of construction to full operation of the community. In a metaphorical example, what's being done is like taking a mining project, and only examining the shoveling of one shovel of dirt at a time. One shovel of dirt taken from the ground poses no real impact does it? Of course not, but when you take enough of them, and they are really big shovels, then they pose an impact. I could similarly take construction of a new hydro dam and break it up into tiny portions of a project making all effects look small and insignificant. My neighbor [REDACTED] [REDACTED] who will now be living next to an abattoir killing thousands of animals and smelling their decaying waste. Do you really think a project of this nature has no socioeconomic impact? Please tell me you can see the irony of that situation. I could really ramble on forever here, but in short I will say that the socioeconomic impacts are very significant to those of us in the area of the project. For your reference I've listed one journal paper below discussing impacts of being close to waste treatment facilities (Vantarakis et al 2016).

26. On page 14 under 3.8 socioeconomic environment it states that there is no expected impacts to downstream communities such as algal blooms or otherwise. I have already questioned and contested this in my earlier questions based on my past experiences. What would you propose to do "after the fact" if the proposed project did lead to widespread fish kills and algal blooms? What can you do to fix the situation at that point?
27. Under socioeconomic impacts I'd like to highlight that there is an RV park and campground downwind of this project, as well as the community of Husavik that will be impacted.
28. On page 15 3.9 heritage resources, it is noted that the area has potential for heritage resources. For reference I have found a number on my property [REDACTED]. Again we need to keep in mind the scope of this environmental review is too narrow in that it doesn't fully encompass the area that needs to be looked at. Construction of the hydro line for this project caused widespread damage and many cultural/heritage resources could have been lost through this part of the project.
29. I'd also like to highlight that there is an important cultural heritage site very close to the project site, namely St. Michael's Ukrainian Orthodox Church and Cemetery (see reference below). This heritage site is downwind from the proposed project, and the wastewater will discharge past it in close proximity. I feel this is both religiously and culturally disrespectful to Ukrainian settlers, at a time in our society where Ukrainians are facing great persecution. Our heritage and historic sites need to be protected and preserved.
30. On page 15 under section 4, possible effects and planned mitigation, it mentions construction of the lagoon. Construction of the project is already ongoing and there are significant impacts

including noise and public safety issues, specifically relating to large truck traffic. What are the overall noise and public safety impacts anticipated from the overall project?

31. On page 15 under 4.1 air quality it mentions the prevailing wind direction. While I have a good understanding of this it would be helpful to include a wind rose to show this. The odour will be going directly towards my property, thus preventing me from carrying out the plans I had for my property. Certainly all the homes in the area will be adversely affected by poor air quality. The document states that the odour will “only” be for spring and fall, making that 50% of the year. What distance will the stench travel to? Is there a means to measure the intensity of the smell and air quality? I’ve included a reference below showing some of the impacts this will have on people (Vantarakis et al 2016). The odour from the project will make the area unliveable, driving down property values of existing home owners in the area. How will this be mitigated/compensated? So all of us in the area of the project now have to sell our properties at a reduced rate and move elsewhere. This is completely inappropriate. The document further states “if excessive odour is noticeable the cause will be identified and dealt with accordingly”. What is deemed excessive? How will this be quantitatively or qualitatively be measured? By who? In terms of identifying the cause, we know what the cause will be. The cause of the smell will be the waste deposited in the lagoon. How can these problems be dealt with after the lagoon is already constructed and operating?
32. On page 15 under 4.1 air quality, the document focuses entirely on the lagoon portion of the project. Please keep in mind this is incredibly narrowly scoped and that the true impact to air quality will also include the industrial agriculture operation, the abattoir, the lagoon and other project components. The impacts to air quality by the overall project including all of its many components will be very significant.
33. On page 15 under 4.1 air quality it mentions that the air quality will be impacted by noxious gases, but does not talk about the effects of impact in any way. Will long term exposure to these noxious gases result in various illnesses in people or animals? If so, what illnesses? Will we see birth defects in children resulting from exposure to these poisonous gases? Will we see wildlife leave the area completely? My property presently contains an abundance of a wide variety of birds and animals. Will all of these birds and animals leave because of the poisonous gases? I use my property for hunting amongst other purposes. Will I no longer have animals to hunt on my property? If so, this renders my property useless for any possible purpose. I certainly won’t want to be hunting on my property if I cannot breathe the air. I won’t be able to cut firewood on my property if I can’t breathe the air. What are the predicted impacts of the damaged air quality on humans and local wildlife? I have provided multiple references in this regard (Vantarakis et al 2016, Sanderfoot and Holloway 2017). As this is an area that contains federally protected Species at Risk birds, the reference provided shows that the habitat will no longer be suitable for bird species. How will the loss of this habitat be compensated under the federal Species at Risk Act?
34. On page 15 under 4.1 air quality, there is no mention of the cumulative effect impacts on air quality. There is already an industrial hog barn on 106N a few miles west of the proposed project. There will be impacts to air quality from the proposed volume of animals on this property too. There is mention of 10,000-15,000 animals will be providing waste to this lagoon.

Will there be 10,000-15,000 animals on the property at any one instance in time? There will be an impact to air quality from slaughterhouse activities and even the truck wash station. What will be the overall cumulative impact to air quality in the project area resulting from existing contributions such as other nearby local agricultural activities, plus that which is proposed for this entire project which will include the lagoon, 10,000-15,000 animals and an abattoir?

35. On page 16 under 4.2 soils it mentions there will be ongoing monitoring for liner failures and so forth. What is the proposed monitoring plan? As construction of this project is already ongoing, there is already an impact to soil quality from operating construction equipment. As this project involves the development of an entire new community, there will be many personal and industrial vehicles parked on the property permanently. Invariably these vehicles will have leaks and spills, and there will most assuredly be fuel storage on the property by members of the community. I feel the overall impact of the entire project to soils is significantly under-reported.
36. On page 16 under 4.3 under groundwater there are limited impacts mentioned during construction of the lagoon. However during operation of the lagoon when there is a new community full of people there will be ongoing impacts to groundwater. As mentioned previously, the lagoon will receive water/waste from numerous sources including a truck wash, abattoir and community of people. What are the water sources for all of this? Is this entirely groundwater consumption? If so, what will be the impact to groundwater from all this consumption? Will adjacent properties be impacted by groundwater consumption?
37. On page 16 under forestry and vegetation it states that cutting will be minimized. Again we need to look at the entire impacts for this entire project, and not just a little portion of the impacts. The section of land purchased for this entire project has largely been cleared of vegetation. Construction of the hydro line for this project entailed the destruction of a tremendous amount of timber. Remember that this hydro line is part of the lagoon project as it will power the lift station for the sewage. The report states that cutting will be minimized and responsibly grub. I lost hundreds of cords of mature timber on my property for construction of the hydro line. It was quite evident that the persons doing the timber clearing did not know where the property line was, as they went very far onto my property. I lost thousands of mature oak, birch, poplar and spruce trees, having diameter up to two feet. Because they decided to mulch all the timber, it's a complete loss to me, as I can't even use the remains as firewood. Please keep in mind that this forestry impacts happened in an area known to contain federally protected species at risk birds. How is this "responsibly grub or recycle usable timber"? How will the loss of SARA bird habitat be compensated?
38. On page 16/17 under item 4.5 surface water fish and fish habitat it states there will be minimal impacts during construction. I still need to go through the TREK water engineering report, but I will say that there was a culvert replacement already on one of the drains that is evident and it appears that there may be some reconstruction activities on the drain that runs through the property. Was a Section 35 Authorization under the Fisheries Act obtained for the culvert replacement?
39. On page 17 under item 4.5 it states the impact to surface water will be minimal. Was a Section 36 Approval under the Fisheries Act obtained through DFO or Environment Canada for the deposition of a deleterious substance in fish bearing waters? As I have stated previously I

expect the discharge of lagoon effluent into the drain and ultimately Willow Creek will cause fish kills and algal blooms in downstream communities, [REDACTED]

What are the plans for monitoring and mitigation in this regard as mentioned in this section?

40. As the lagoon will contain hazardous chemicals from the truck wash, which are not removed by sewage lagoon treatment, how will these chemical be prevented from entering the local waterways when they will be part of the lagoon effluent?
41. On page 17 under 4.6 wildlife it mentions forest clearing and minimal impacts to animal shelter. Again when you look at this entire project and its impact, a great deal of forest was already cleared resulting in loss of wildlife habitat. As described in the Sanderfoot and Holloway reference there will be long term impacts expected to wildlife in the area due to damaged air quality resulting from lagoon (and other project components) impacts during operation.
42. As previously mentioned, sewage from abattoir waste has a high likelihood of containing pathogens, bacteria and viruses that can both be transferred to humans and wildlife. There is need to preventing mixture of waste from domestic animals and wildlife, as this can result in viruses such as Avian Flu or different variations of Coronavirus. The waste in the lagoon will contain a toxic mixture of human waste, livestock waste, hazardous waste from the truck wash and abattoir waste. The proposed barbed wire fence around the lagoon will not prevent wildlife or birds from accessing the waste. This combination of factors presents a significant risk of viruses, pathogens and bacteria to be transferred from the lagoon to neighboring properties and waterways. This could drastically impact the health of nearby people and their livestock. What measures will be taken to mitigate this risk and impact?
43. On page 17 under item 4.7 rare/threatened species I have already highlighted a number of federally protected SARA species that have been missed. A reference describing these species is found below from the Manitoba Habitat Heritage Species at Risk Guide. Impacts to these species have been ignored.
44. On page 18 under climate change it states there is no significant impacts to climate change. The lagoon will release numerous noxious gases, which are greenhouse gases affecting climate change. The addition of 10,000-15,000 livestock in the area will increase release of gases including methane and carbon dioxide, which are greenhouse gases affecting climate change. FYI livestock farming roughly contributes 11-17% of global greenhouse gas emissions (Breakthrough Institute 2023). As such the impacts to climate change are being under reported. The vehicles used for construction of the overall project consume fossil fuels, which affects climate change. What will the GHG emissions be from this project and their impact to climate change?
45. On page 18 under human health it is reporting that the lagoon will emit toxic gases in the spring and summer, whereas previously it was reported during spring and fall. On this basis it appears that the lagoon will emit toxic gases for the majority of the year. I've previously discussed and asked questions pertaining to human health under the air quality section of this report.
46. On page 18 under human health there is no mention of any emotional and psychological health impacts associated with dealing with air that is toxic to breathe and causes your eyes to burn. The effects on human health are completely under predicted. See Vantarakis et al 2016 below.

47. On page 18 under human health it states that respiratory problems are considered a minor health effect. This statement is incorrect, as respiratory problems are a major health effect.
48. The waste in the lagoon will contain a toxic mixture of human waste, livestock waste, hazardous waste from the truck wash and abattoir waste. Sewage from abattoir waste has a high likelihood of containing pathogens, bacteria and viruses that can both be transferred to humans and wildlife. As viruses are airborne, physically restricting people from entering the lagoon will not prevent their spread. How will potential spread of airborne viruses to nearby people, livestock and wildlife from the lagoon be mitigated?
49. On page 19 under socioeconomic the report mentions the number of houses within a 2.5 km radius. What is the significance of the 2.5 km distance? Is that the expected distance for the stench to travel? There are actually a fair number of homes in the area, typically every half mile. I suspect very few of these homeowners are even aware of this proposed project because of the very limited advertising that was done.
50. On page 19 under 4.10 socioeconomic it states that the roads are not major thoroughfares. These roads are well travelled and are bus routes, which are being affected adversely by construction traffic at the present moment.
51. On page 19 under 4.10 socioeconomic it states that the lagoon is not expected to impact the socioeconomic structure of the area. This statement is completely false, as we are already being adversely impacted and construction of the lagoon isn't complete yet. We expect that housing and land prices in the area will plummet due to construction of the lagoon (and other project components). This will force local home and landowners to sell their properties at a loss. The obvious health impacts of this project will force people to sell their properties that they have invested many years of time, effort and money into. This is completely inappropriate.
52. For socio economic impacts there will also be a high likelihood of flooding of local properties on the east side of Road 15E, given changes to local hydrology resulting from the project, as well as hydraulics if diking measures are implemented to flood proof the property.
53. If/when the project causes fish kills and algal blooms in Willow Creek this will be a socioeconomic impact to the communities of Siglavik and Miklavik. These types of impacts would likely result in property value loss for homes in these communities, and those adjacent to the lagoon on Willow Island. Members of these communities should be directly informed of this project. These impacts could also cause damage to Lake Winnipeg and thus impact a very valuable sport and commercial fishery for Manitoba.
54. The potential spread of viruses, pathogens and bacteria from the project to nearby humans, livestock and wildlife is a socioeconomic impact to all nearby people, and domestic/wild animals.
55. On page 19 under heritage resources it mentions accidentally finding heritage resources. Given the manner of construction of the hydro line, there was no care in observing anything. In addition to destroying the trees on my property they even smashed the boulder I had placed at the corner of my gate to put my name and address on. If you can't see a boulder that's 4-5 feet in diameter, I don't expect any reasonable attention to detail in finding cultural/heritage resources.

56. On page 19 under monitoring it states that there will be monitoring of the lagoon. What are the plans for monitoring? It also states that if the odour is excessive it will be dealt with accordingly. How is the quantity of "excessive" being measured and by whom? What are lists of possible mitigation measures that are possible "after the fact"?
57. What can be done for monitoring of lagoon effluent for the presence of hazardous chemicals? Is there any monitoring of waste that can be done for viruses, pathogens and harmful bacteria?
58. On page 20 under reporting there is mention of a golf course. Is there a golf course as part of this project too?
59. On page 20 under reporting, there is mention of a variety of monitoring being conducted and reported. Will all of these reports be made publically available?
60. Under appendix D, just to let you know I have found some items of cultural/heritage value on my property.

COMMENTS ON TREK HYDROLOGIC AND HYDRAULIC ASSESSMENT

1. On page 6 under item 2.4 fish passage hydrology, was the Department of Fisheries and Oceans consulted with in regards to the classification of South Malonton Drain or the Unnamed drain in order to determine fish passage needs and fish species present?
2. On page 8 Table 6 there are a variety of calculations shown for South Malonton drain. The terminology on the table could use a bit of clarification to help the reader. So for "clearance to soffit" I'm guessing you mean distance to the top of the culvert? Also the last column states "opening velocities" and I'm assuming these are the inlet/outlet velocities? Please clarify. This applies to all the tables in this report documenting similar calculations.
3. On page 11 under 3.1 potential overflow, there is discussion regarding the construction of a dyke around the property for the purpose of flood protection. While I understand the need and desire to do this, a measure of this nature will only force more water into local drains that are already undersized. The water that would normally go into this property that floods on a regular basis would threaten to flood adjacent properties and roads. Measures should be taken to prevent flooding of adjacent property and infrastructure.
4. On page 12 under 4.2 flood protection level recommendation there is discussion pertaining to increasing flood protection of all buildings and infrastructure to a certain level. My comment is similar to the previous one in that if this property is flood protected by use of dykes, and water that normally goes into storage is forced into adjacent drains, we will see increased flooding in the drains and adjacent properties. The drain on the west side of road 15E frequently overtops at various locations from PTH229 to the corner of 106N and 15E. There was a substantial breach of Road 15E in Spring 2022 making it impassible, as the flow from Armstrong went over the road into Gimli into the ditch on the south side of 106N. I can send you photos of this if you like. Increased water volumes into these drains by the proposed project will only exacerbate flooding all along 15E due to backwater effects from 106N upstream, thus causing further flooding from Armstrong into Gimli. Properties along the east side of Road 15E can expect to experience increased flooding as a result of the measures proposed for this project. Unfortunately there is no ditch on the east side of Road 15E to deal with these floodwaters. If the flood protection

measures such as dykes are going to be built around the proposed project, it will likely necessitate the need to build a ditch on the east side of 15E in order to protect those properties from flooding.

5. On page 13 under 4.3.1 South Malonton drain crossing upgrades, it states that the existing culvert crossing is to be removed and replaced. Were appropriate regulatory approvals obtained for this, such as those from the Department of Fisheries and Oceans? If so, what were the details? I have noted that the culverts are already replaced.
6. On page 14 there is discussion regarding replacing additional culverts on this drain along Road 15E. Were appropriate environmental approvals obtained for this such as those required by the Department of Fisheries and Oceans? If so, what were the details?
7. On page 16 there is further discussion pertaining to surrounding the project property with additional dykes. My comments are similar to the previously made. Construction of more dykes will potentially increase the likelihood of flooding neighboring properties.
8. On page 17 under 4.3.2 there is discussion of constructing a new culvert crossing of the unnamed drain. Were appropriate environmental approvals for this obtained? If so, what were the details?
9. Site Photos 1-5 really do a good job of showing the volume of water that will be displaced by this project and forced into drains that are already under capacity. This demonstrates the significant potential for flooding this project could cause on adjacent properties, and those within the backwater effects of these drains from the intersection of 106N and 15E.
10. You have highlighted numerous potential problems associated with the location of the proposed lagoon on the basis of hydrology, hydraulics and provincial/municipal bylaws/requirements. Given your understanding of local hydrology, hydraulics and flooding issues, what are recommended potential alternative locations for the lagoon such that it will be less prone to dangers from flowing flood waters, posing less environmental risk than the current posed location?

COMMENTS ON GEOTECHNICAL REPORT

1. On page 3 under item 4.3 Groundwater Conditions it states that the groundwater observations are short term and not necessarily reflective of groundwater levels at the site. It also recommends that long term monitoring be done in order to get a better understanding of groundwater conditions. The groundwater testing was done in May 2021, and as a landowner in the area I can offer that the past few years have been a drought cycle in the area with regards to groundwater. Yes there has been substantial spring runoff in the past few years when the ground is still frozen, but unfortunately very little of this water infiltrates into the soil. My property [REDACTED] still has swamps that are bone dry, that normally contain a few feet of water. I raise this point as I feel that any environmental impact predication on the basis of such short term monitoring of groundwater will not give a proper understanding of groundwater impacts in the area.

REFERENCES:

Note, I have only included a limited number of references in order to minimize review time for everyone. If any of these articles are “contested” I can provide additional references as per your request. If the hyperlinks don’t work properly please let me know and I can email you the documents.

Sanderfoot and Holloway, Air pollution impacts on avian species via inhalation exposure and associated outcomes, 2017.

<https://iopscience.iop.org/article/10.1088/1748-9326/aa8051#:~:text=Avian%20responses%20to%20air%20pollution%20include%20respiratory%20disease%20and%20illness,changes%2C%20and%20impaired%20reproductive%20success.>

Manitoba Habitat Heritage Species at Risk Guide.

https://www.mbhabitat.ca/wp-content/uploads/2019/04/SAR_Booklet_LandownersGuide.pdf?_gl=1*1i5rvm2*_ga*MTcxOTI2OTU0Ny4xNzAwNjA1NTk3*_ga_D7EMQHLHEQ*MTcwMDYwNTU5Ny4xLjAuMTcwMDYwNTU5Ny4wLjAuMA..

Frank-Whittle and Insam. Treatment alternatives of slaughterhouse wastes, and their effect on the inactivation of different pathogens: A review. 2013

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3622235/>

Thakor et al. Swine coronaviruses (SCoVs) and their emerging threats to swine population, inter-species transmission, exploring the susceptibility of pigs for SARS-CoV-2 and zoonotic concerns. 2022

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9225692/>

Bolan et al. Uses and management of poultry litter, 2010.

https://www.researchgate.net/profile/Periyasamy-Panneerselvam/publication/231872388_Uses_and_management_of_poultry_litter/links/568f75eb08ae78cc0516d747/Uses-and-management-of-poultry-litter.pdf

Vantarakis et al, 2016

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4914737/>

The Breakthrough Institute 2023

<https://thebreakthrough.org/issues/food-agriculture-environment/livestock-dont-contribute-14-5-of-global-greenhouse-gas-emissions>

St. Michael’s Ukrainian Orthodox Church and Cemetery historic site

<http://www.mhs.mb.ca/docs/sites/stmichaelsukrainiancatholic.shtml>