

Information Request Form Crystal Springs Lagoon Project

**Information Request
Number:**

REPLY Second Round – Information Requests No. 1 (Gimli)

Submitted by:

The Proponent

Date Submitted:

March 20, 2026

Subject Matter:

Surface Water Management (Quantity)

Reference document:

Supplemental Report of TREK Geotechnical Inc. re: Crystal Springs Colony – New Colony Development 200-Year Flood Level Assessment (**Appendix A to Reply Second Round - Information Request No. 1**)

Request: The proposed development requires changes to their external hydraulic setting (i.e., to the drainage network outside the development site in question). These proposed works are beyond their property and/or control. The individuals who would make changes to the drainage within the area are the municipalities – this would fall under their purview, and their budgets. As a consequence, the proponent's ability to implement these proposed changes is outside their control.

Proponent Comment: This statement is incorrect. The proposed development includes the construction of a shallow ditch from the SE corner of the lagoon to the west roadside ditch of Road 15E. The west roadside ditch is part of the South Malonton Drain, a Provincial Drain that falls under the jurisdiction of Manitoba Transportation & Infrastructure (MTI). As such, Burns Maendel Consulting Engineers (BMCE), on behalf of the Proponent, submitted an application to MTI

for the modifications required to connect the proposed ditch to the Malonton Drain. The required permit was granted on December 20, 2024, and is attached hereto as **Appendix “A”**.

It should be noted that MTI is the only authority that can authorize construction within the South Malonton Drain and as such the Proponent has indeed obtained authority to modify the drain. This work is not within the control of the RM of Armstrong; however the work will be coordinated with the RM’s knowledge and consent. The works and budget to execute the works will be born by the Proponent. As a consequence, the proponent's ability to implement these proposed changes is within their control.

Request (Resumed): Additionally, the municipalities are constrained in what they can do regarding changes to drainage based on the regional watershed management plan. The project resides in Zone 2 of the Willow Creek Integrated Watershed Management Plan. This Plan has identified several future targeted initiatives focussed on improved drainage performance.

Notably, the proponent's proposed drainage changes intended to improve the hydraulic setting for the project are in direct contrast with the Willow Creek Integrated Watershed Management Plan.

The Plan states *“Drainage projects should receive priority in downstream portions of the watershed (Zone 3 and 4), **while water retention projects should receive priority in upstream portions of the watershed (Zone 1 and 2).** These retention areas can be drawn down when downstream conditions are suitable. **Water managers must consider downstream impacts of drainage projects.**”*.

Proponent Comment: The EAP is for the construction of a domestic wastewater lagoon and associated discharge to the South Malonton Drain. The proposal is not for regional drainage improvements and the associated drainage impacts that it would have on the Watershed. The Proponent would like to ensure that the review remains focused on the lagoon and discharge of effluent during summer months and low flow periods, it will not be discharged during spring runoff or wet weather times.

For transparency the Proponent can advise that MTI required the removal of the existing driveway approach and culverts off the west side of Road 15E. The removal was a condition of the permit for the installation of the main access to the colony off Road 106N. With the removal of the driveway approach and associated culverts there is a portion of ditch that requires clean out to remove silt and ensure that it has positive drainage. The length of ditch that is proposed to be cleaned out is 125m downstream and 80m upstream of the access that is to be removed. While these works are not part of the lagoon EAP it is provided for transparency.

Additionally, the work in the Malonton Drain is in accordance with the Willow Creek Integrated Watershed Management Plan. Zone 2 – Plan in Action identifies “the Province is to investigate possible upgrades along a 4-mile section of the South Malonton Drain to ensure it meets the design standard.”¹ The removal of this approach achieves this goal and will be completed by a private entity without public funds.

Request (Resumed): The proponent's proposed drainage changes increase drainage within Zone 2. This is inconsistent with the plan's stated goal of increasing retention. Given the foregoing, the Rural Municipality of Gimli seeks the following information:

Request 1: Can the proponent provide an opinion on the likely degree of impact that the proposed development and supporting drainage improvements would have on the local and downstream drainage network?

Proponent Reply 1: The proposed drainage improvements indicated above, which have received the required permit from MTI, are limited to a ditch that will facilitate the discharge from the lagoon to the South Malonton Drain. The lagoon will be discharged during low flow times and therefore the Proponent can advise the impacts to downstream drainage network during discharge will be extremely limited.

Follow-Up Information Request 1: The Proponent has indicated that impacts to the downstream drainage network during discharge are expected to be extremely limited. Can the Proponent provide:

a) The anticipated peak and average discharge rate associated with lagoon release;

Reply to Follow-Up Request 1(a): Trickle discharge is to be utilized for the discharge of the lagoon, using a partial opening of a valve the lagoon will be discharged over a period of 2-weeks, with an average discharge rate of 14L/s (0.014m³/s). As the release is controlled by a gate valve partial opening, discharge rates can be adjusted and controlled to be close to uniform.

b) The estimated duration and total volume of a typical discharge event;

Reply to Follow-Up Request 1(b): The estimated duration of a typical discharge event is 2 weeks. The maximum volume that would be released in the spring would be ±17,075m³ and in the fall would be ±8,300m³, with a total annual discharge of ±25,375m³.

¹ Willow Creek Integrated Watershed Management Plan, page 22

c) Identification and copies of any hydrologic or hydraulic analyses relied upon to support the conclusion that downstream impacts will be limited.

Reply to Follow-Up Request 1(c): *Crystal Spring Colony – New Colony Development Hydrologic and Hydraulic Assessment (Trek Geotechnical, 2022) – which has previously been provided and is reattached.*

As per the attached Hydrologic and Hydraulic Assessment report the modeling determined that Willowcreek has capacity to handle the Q5% (20-year) event. The flow in a Q5% event at Willowcreek and road 15N crossing was modeled to be 17.8 m³/s. The proposed discharge of 14 L/s (0.014 m³/s) equates to 0.078% of the flow during a Q5% event. Assuming that the discharge will not be occurring during a Q5% event, logic would dictate that Willowcreek has adequate capacity to accommodate the discharge.

Request 2: Can the proponent demonstrate any commitment from the relevant municipal bodies in relation to the level of operation and maintenance required in order to implement the proponent's proposed drainage changes?

Proponent Reply 2: As indicated above, the Proponent has obtained the required permit from MTI and will be responsible for the construction of the drainage swale that facilitates the connection of the lagoon to the South Malonton Drain. As the RM of Armstrong is not the government entity responsible for the operation and maintenance of the Malonton Drain, there is no commitment from the RM required for the implementation, operation or maintenance.

Follow-up Information Request 2: The Project also proposes setback distances that extend beyond the boundaries of the Rural Municipality of Armstrong and into lands within the jurisdiction of the Rural Municipality of Gimli.

(a) Please describe how the proposed setback distances were determined in circumstances where the setback area extends into a neighbouring municipal jurisdiction.

Reply to Follow-Up Request 2(a): The Proponent has not proposed any setback distances as part of the project. Setback distances are a requirement of the Rural Municipality of Armstrong's Zoning By-Law (400m), Rural Municipality of Gimli's Zoning By-law (305m), and the Manitoba Design Objectives for Wastewater Treatment Lagoons (300m). The proposed placement of the lagoon meets and exceeds all setback distances required within the above-mentioned documents as it is proposed at 526m from the nearest existing residence.

(b) Please identify whether the Proponent undertook consultation with the Rural Municipality of Gimli regarding the potential land use implications of the proposed setbacks. If so, please provide details of such consultation.

Reply to Follow-Up Request 2(b): The Proponent did not undertake direct consultation with the Rural Municipality of Gimli regarding the potential land use implications of the lagoon placement.

The Proponent did review the RM of Gimli's Zoning By-Law No. 11-0013, which states that:

"Unless varied by Council pursuant to The Planning Act a mutual separation distance of one thousand (1,000) feet shall be maintained between a dwelling or a mobile home and a sewage treatment lagoon..."

The proposed lagoon placement meets and exceeds this separation distance for all existing dwellings within the area.

The Proponent did review the EIPD Development Plan which was adopted in 2022 with By-law No. 01-2022. The RM of Gimli is a member of the EIPD and therefore contributing member of the current Development Plan. The lands adjacent to the proposed development are currently designated as *Agriculture Rural – General Area*. The Agricultural Rural designation limits many developments from occurring as the general objective is to preserve the land for Agricultural activities. As the EIPD Development Plan adopted in 2022 shows that the designation remained *Agricultural Rural – General Area* and therefore indicates that no development has been planned for this area.

(c) Please comment on how the Proponent considered the potential impact of the setback distances on future land use or development within the Rural Municipality of Gimli.

Reply to Follow-Up Request 2(c): The proposed lagoon location meets all current setback requirements between itself and existing dwellings in the area. The Proponent is not aware of any planned developments within the area, nor has the RM of Gimli informed the Proponent, at any point during this process, of any future planned developments within the area.

As per the RM of Gimli Zoning By-Law, the only required separation distance from a sewage treatment lagoon is between a lagoon and a dwelling. The two properties located within 27-18-3E still have adequate room to construct a dwelling within the property and are not restricted from constructing other permitted items within the land parcel. Additionally, if required the RM of Gimli could approve a Variance Permit for these lots. For these reasons the Proponent considers the impact negligible.

The Proponent can only design within the current framework of Municipal and Provincial legislation. It is not possible to design for a theoretical future development that has yet to be contemplated.

Request 3: Can the proponent confirm that the proposed drainage amendments are permissible under the current draft Willow Creek Integrated Watershed Management Plan and advise what steps they took to investigate this issue?

Proponent Reply 3: The Willow Creek Integrated Watershed Management Plan is not a document that in isolation permits or prohibits developments such as the Proponent's; it is a document that contains objectives, policies and recommendations.² Nonetheless, the Proponent has reviewed the plan and believes it complies with the objectives, policies and recommendations therein. The appropriate license has been obtained from MTI for the lagoon discharge swale that connects the lagoon to the South Malonton Drain.

Follow-Up Information Request 3: The Proponent has indicated that it believes the project complies with the objectives of the Willow Creek Integrated Watershed Management Plan. For clarity, please provide:

a) Identification of the specific provisions of the Plan relied upon in reaching this conclusion;

Reply to Follow-Up Request 3(a): The proposed lagoon system will utilize a trickle discharge to release effluent into the South Malonton Drain. Trickle discharge is an approved method of nutrient management as per the Willow Creek Integrated Watershed Management Plan – Page 33.

Additionally, the proposed upgrades to the 1.0 km section of the South Malonton Drain aligns with objectives in the Plan to improve the South Malonton Drain to alleviate periodic flooding - Page 22.

b) A brief description of how the proposed discharge is considered consistent with the Plan's direction that water retention projects receive priority in Zone 2;

Reply to Follow-Up Request 3(b): The proposed lagoon is not a drainage project; it is a wastewater treatment project. The amount of water being discharged (0.014m³/s) is a fraction of what the South Malonton and Willow Creek convey during a 50% exceedance flow (1.2 and 3.5m³/s respectively) As such the Plan's priority for water retention projects is not relevant to this project.

c) Confirmation of whether any consultation occurred with the watershed authority or MTI specifically regarding consistency with the Plan.

² *The Water Protection Act*, section 16(1).

Reply to Follow-Up Request 3(c): The Proponent did not directly engage the watershed authority or MTI. However, consultation with stakeholder government departments is inherent to the EAP process. During the approvals process for wastewater lagoons, the proposed project is circulated to multiple departments as part of the Technical Advisory Committee (TAC). MTI is one such department who reviews proposed lagoon projects as part of the TAC. We have received no comments or concerns from MTI regarding this plan or its consistency with the Plan.

Request 4: Can the proponent provide commentary on whether the project location would be 'habitually inundated' without the above drainage improvements which are reliant upon third party participation?

Proponent Reply 4: As stated previously, there is no required reliance on third party participation. The required permit has been issued to the Proponent for the lagoon discharge works. The lagoon discharge swale is not related to the location being potentially inundated.

Request 5: Can the proponent confirm if they are (or are not) in alignment with Section 2. (c) of the Design Objectives for Wastewater Treatment Lagoons (MCC, 2022)? Further to the above question: can the proponent provide rationale as to why they are (or why they are not) in alignment with Section 2. (c) of the Design Objectives for Wastewater Treatment Lagoons?

Proponent Reply 5: Proponent was guided in its development of the lagoon by the Design Objectives for Wastewater Treatment Lagoons (MCC, 2022). Section 2(c) reads as follows: *“Surface Runoff: Location of lagoons in areas receiving significant amounts of runoff water is discouraged unless adequate provisions are made to divert storm water around the cells and otherwise protect embankments of the lagoon. Areas which are habitually inundated shall be avoided.”*

During the design and placement of the lagoon the location was reviewed. A Hydrologic and Hydraulic Assessment was commissioned to review water elevations and to determine the appropriate top of berm elevation. The 200-yr flood protection level was determined to be at 248.06m. The design top of berm elevation has been set at 248.50m which is 0.44m above the 200-year flood level and 0.70 m above the 100-year flood level.

The land upon which the lagoon is proposed to be located was reviewed and determined that it could be inundated during a 50-yr event. While the lands could be inundated it is important to note that the top of berm is 0.44m above the 200-year flood elevation.

Based on the above information it is the Proponent’s opinion that the design is in alignment with Section 2(c) of the Design Objectives for Wastewater Treatment Lagoons (MCC, 2022) as robust measures are in place to “divert storm water around the cells and otherwise protect embankments of the lagoon.”

Follow-Up Information Request 5: With respect to the Hydrologic and Hydraulic Assessment referenced in Reply 5, please provide confirmation that the full assessment has been filed on the public registry, and if not, provide a copy.

Reply to Follow-Up Request 3(c): The Hydrologic and Hydraulic Assessment report was submitted at part of the EAP as Appendix E and is available on the public registry. As part of the round 1 questions MTI requested that a 200-yr flood analysis be completed. As such, TREK completed additional modeling of the 200-yr event and appended the original report. It has come to the Proponents attention this appended report is not on the Public Registry and as such has been attached hereto (**Appendix A - Supplemental Report of TREK Geotechnical Inc. re: Crystal Springs Colony – New Colony Development 200-Year Flood Level Assessment**)

Request 6: Any changes to drainage in that affect water elevations would trigger an Environmental Impact Assessment under the Canadian Environmental Assessment Act. Can the proponent confirm whether there would be any the impact on Dennis Lake if the above amendments to drainage are made and advise as to what steps they took to investigate this issue?

Proponent Reply 6: The Proponent has investigated the issues. The land in the vicinity of Dennis Lake is at an approximate elevation of 268m, while the land in the vicinity of the lagoon is 247.5m. As the development is approximately 20.5m lower than Dennis Lake and over 15km away it is virtually impossible for the lagoon to affect water elevations at Dennis Lake.

Request 7: Downstream flooding from the project site along Willow Creek has been documented. Can the proponent comment on the impact on downstream residents along Willow Creek during peak runoff periods if the above amendments to drainage are made?

Proponent Reply 7: As previously stated, the lagoon would only be discharged during dry weather conditions and therefore would not impact downstream residents during high water events.